Final Environmental Assessment

Issuance of Commercial Aquarium Permits for the Island of Hawai'i

June 7, 2018

Applicant

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Approving Agency

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APPLICANT PUBLICATION FORM

Project Name:	Issuance of Commercial Aquarium Permits for the Island of Hawai'i	
Project Short Name:	FEA Hawai'i Commercial Aquarium Permits	
HRS §343-5 Trigger(s):	Trigger 1 (use of state lands) and Trigger 2 (use of conservation districts)	
Island(s):	Hawai'i	
Judicial District(s):	Puna, South Hilo, North Hilo, Kau, Hamakua, South Kona, North Kona, South Kohala, North Kohala	
TMK(s):	Fishing areas around Hawai'i identified in Figure 1	
Permit(s)/Approval(s):	Commercial Aquarium Fishing Permits issued pursuant to HRS §188-31, Commercial Marine License issued pursuant to HRS 189-2,3, West Hawai'i Aquarium Permit issued pursuant to HAR 13-60.4	
Approving Agency:	Department of Land and Natural Resources	
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Status (select one) DEA-AFNSI	Submittal Requirements Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.	
XX FEA-FONSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.	
FEA-EISPN	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.	
Act 172-12 EISPN ("Direct to EIS")	Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required, and a 30-day comment period follows from the date of publication in the Notice.	
DEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.	
FEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.	

FEIS Acceptance Determination	The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
EIS Statutory Acceptance	The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.
Supplemental EIS Determination	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required, and no comment period ensues upon publication in the Notice.
Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
Other	Contact the OEQC if your action is not one of the above items.

Project Summary

The purpose of the Applicant's action is to ensure that commercial aquarium fish collection allows for the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats. The objective of the proposed action is to create a program under the DLNR which helps to facilitate the permitting process for Aquarium Permits for the island of Hawai'i including the West Hawai'i Regional Fishery Management Area.

The need for the Applicant's action is to continue commercial aquarium fishers' livelihoods in compliance with all applicable laws, rules, and regulations pertaining to the industry.

Project Summary

Project Name: Issuance of Commercial Aquarium Permits for the Island of Hawai'i.

Proposed Action: Issuance of Commercial Aquarium Permits ensuring lawful, responsible, and sustainable commercial collection of various aquarium fish species from nearshore habitats pursuant to Aquarium Fishing Permits issued under HRS §188-31.

Applicant: Pet Industry Joint Advisory Council (PIJAC) on behalf of Hawai'i fishers.

Applicant Contact: Jim Lynch, KL Gates LLP, 206-370-6587

Approving Agency: Department of Land and Natural Resources

Project Location: Throughout the near shore region (to depths of 100 fathoms) of the island of Hawai'i except in those areas already designated as no collection areas such as Fish Replenishment Areas.

Land Use Classification: N/A

Land Area: N/A NON-MLCDs

Tax Map Key: N/A

State Land District: N/A

Land Owner: State of Hawai'i

Permits Required: Commercial Aquarium Fishing Permits issued pursuant to HRS §188-31, Commercial Marine License issued pursuant to HRS 189-2,3, West Hawai'i Aquarium Permit issued pursuant to HAR 13-60.4.

EA Trigger: Trigger 1 (use of state lands) and Trigger 2 (use of conservation districts).

Anticipated Determination: Finding of No Significant Impact

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Executive Summary

In October 2017, the circuit court ruled that, based upon the Supreme Court of Hawai'i's opinion, existing permits for use of fine mesh nets to catch aquatic life for aquarium purposes are illegal and invalid. The circuit court ordered the Department of Land and Natural Resources (DNLR) not to issue any new permits pending environmental review. The DLNR has not issued new or additional permits under HRS §188-31 since September of 2017.

This Final Environmental Assessment (FEA) evaluates the impacts of issuance of Commercial Aquarium Permits on the island of Hawai'i. The Applicant has prepared this FEA on behalf of Hawai'i fishers to inform the public of the proposed action (i.e., issuance of Commercial Aquarium Permits) and the impacts of the proposed action and its alternatives, and to incorporate information gained through public involvement. Implementation of the Preferred Alternative will ensure the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats on the island of Hawai'i.

Aside from the additional conservation measure included in the Preferred Alternative, the issuance of Commercial Aquarium Permits under the Preferred Alternative does not include any activities different from, or in addition to, those that have occurred in the past. There will be no construction of permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, no dredging, and no significant use of hazardous materials that could be released into the environment. The DLNR's issuance of Commercial Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife, and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from their current condition.

The Preferred Alternative does not involve an irrevocable commitment or loss or destruction of any natural or cultural resource. Both the National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Ecosystems Program (CREP; now known as the Ecosystem Science Division) and Hawai'i's DLNR, Division of Aquatic Resources' (DAR) West Hawai'i Aquarium Project (WHAP) collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey, and for analysis of the impact of fish collection under Commercial Aquarium Permits. The WHAP data are collected from 25 transect survey sites located solely within the West Hawai'i Regional Fishery Management Area (WHRFMA) between depths of 30-60 feet. The CREP data are collected from 257 stationary point count locations located around the island of Hawai'i (except for collection zone 107; Figure 4), from depths of 0-98 feet. Both data sets are presented and analyzed in this FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, these data are considered to be a better estimator of island-wide fish population size, and therefore serve as the primary basis for the impact analysis in this FEA.

Analysis of the CREP data indicates that if the average catch from 2000-2017 were to occur over the 12month analysis period considered in this FEA, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. Research suggests collection of between 5%-25% is sustainable for various reef species similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection likely has minimal impacts on populations in general.

Based on WHAP data, the DAR has suggested decreasing population trends for the Achilles Tang in the WHRFMA, and in 2014 a bag limit of 10 Achilles Tang per day was imposed on commercial aquarium collection (recreational and non-aquarium commercial harvest are not subject to the bag limit). Under the Preferred Alternative, the daily bag limit for Achilles Tang would be reduced from 10 per day to 5 per day for all fisheries in the WHRFMA. The average annual commercial aquarium collection of Achilles Tang from 2011 - 2014 represented 2.4% of the overall island of Hawai'i population. Under the Preferred Alternative, catch of Achilles Tang is estimated to be reduced by 50%, resulting in an estimated 1.2% of the island-wide population taken over the 12-month analysis period. This level of take is well below the lower end of what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem. In addition, herbivores taken by the aquarium fishery typically consist of the smaller size classes which are the least effective sizes for cropping algae. One study found there were no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting.

The Preferred Alternative does not substantially affect the economic welfare, social welfare, and cultural practices of the community or State, but plays an important role as a nearshore fishery in the state. For the period 2000 to 2017, the commercial aquarium fishery within the WHRFMA alone added an average of \$1,354,045 annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 to the economy. In 2017, it is estimated that up to 57 individuals were directly employed in the aquarium fishery in the WHRFMA (up to 266 employed in the state of Hawai'i). Loss of the fishery would result in the loss of income, tax revenue, and jobs.

Abbreviations

BIAAF	Big Island Association of Aquarium Fishermen
BLNR	Board of Land and Natural Resources
CML	Commercial Marine License
CREP	Coral Reef Ecosystems Program
DAR	Division of Aquatic Resources
DLNR	Department of Land and Natural Resources
DOCARE	Division of Conservation and Resources Enforcement
DOH	Department of Health
EA	Environmental Assessment
EC	Environmental Council
EIS	Environmental Impact Statement
ENSO	El Niño Southern Oscillation
EQC	Environmental Quality Commission
ESA	Endangered Species Act
FEA	Final Environmental Assessment
FMA	Fisheries Management Area

FONSI	Finding of No Significant Impact	
FRA	Fish Replenishment Area	
HDBEDT	Hawai'i Department of Business, Economic Development & Tourism	
HEPA	Hawai'i Environmental Policy Act	
HAR	Hawai'i Administrative Rule	
HRS	Hawai'i Revised Statute	
IUCN	International Union for the Conservation of Nature	
KMLAC	Ka'ūpūlehu Marine Life Advisory Committee	
MLCD	Marine Life Conservation District	
МНІ	Main Hawaiian Islands	
MPA	Marine Protected Areas	
NEPA	National Environmental Policy Act	
NOAA	National Oceanic and Atmospheric Administration	
NPS	National Park Service	
NWHI	Northwestern Hawaiian Islands	
OEQC	Office of Environmental Quality Control	
ОНА	Office of Hawaiian Affairs	
PIJAC	Pet Industry Joint Advisory Council	

QUEST	Quantitative Underwater Ecological Survey Techniques	
SAWCS	Statewide Aquatic Wildlife Conservation Strategy	
SCUBA	Self-contained Underwater Breathing Apparatus	
SGCN	Species of Greatest Conservation Need	
SWAP	State Wildlife Action Plan	
TL	Total Length	
UH	University of Hawai'i	
USFWS	United States Fish and Wildlife Service	
WHAP	West Hawai'i Aquarium Project	
WHFC	West Hawai'i Fishery Council	
WHRFMA	West Hawai'i Regional Fishery Management Area	
WHRFWG	West Hawai'i Reef Fish Working Group	

1.0 INTRODUCTION

This Final Environmental Assessment (FEA) has been prepared by the Pet Industry Joint Advisory Council (PIJAC; the Applicant) on behalf of Hawai'i fishers pursuant to the Hawai'i Environmental Policy Act (HEPA). This FEA evaluates the impacts of issuance of Commercial Aquarium Permits (Aquarium Permit) on the island of Hawai'i which includes the West Hawai'i Regional Fishery Management Area (WHRFMA; Section 1.2.2), pursuant to Hawai'i Revised Statute (HRS) 188-31 (2013; Title 12 – Conservation and Resources; 188 – Fishing Rights and Regulations; 188-31 – Permits to take aquatic life for aquarium purposes). The Applicant has prepared this FEA to inform the public of the proposed action (i.e., issuance of Aquarium Permits) and the impacts of the proposed action and its alternatives, and to incorporate information gained through public involvement in order to aid decision makers in making an informed decision regarding the proposed action.

Hawai'i Revised Statute 188-31 states that, "Except as prohibited by law, the department (Department of Land and Natural Resources; DLNR), upon receipt of a written application, may issue an Aquarium Permit, not longer than one year in duration, to use fine meshed traps, or fine meshed nets other than throw nets, for the taking of marine or freshwater nongame fish and other aquatic life for aquarium purposes." As set down by the Supreme Court of Hawai'i (SCWC-13-0002125), issuance of an Aquarium Permit constitutes a discretionary State action by the DLNR and is thus subject to the HEPA, which requires that State agencies consider the impact of governmental actions on the environment by preparing an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) to document the potential impacts of the State action. Accordingly, the Applicant has prepared this FEA to evaluate the potential impacts of alternatives associated with issuance of Aquarium Permits on the island of Hawai'i and the WHRFMA, and a No Action Alternative. The consequences of these alternatives on various resources are discussed in this FEA.

1.1 BACKGROUND

In 2014, the Hawai'i commercial aquarium fishery was the most economically valuable commercial inshore fishery in the State with fiscal year reported landings greater than \$2.3 million (DAR 2014a). In 2017, the commercial aquarium fishery on the island of Hawai'i reported landings near \$1.4 million, with more than \$1.29 million in the WHRFMA alone (DAR 2018a). The fishery developed initially on O'ahu in the late 1940's, went through a period of expansion in the 1970's and has subsequently declined on O'ahu both in terms of catch and overall value (DAR 2014a). The West Hawai'i aquarium fishery has undergone substantial and sustained expansion over the past 40 years. As of 2017, approximately 45% of the aquarium fish caught in the State and nearly 67% of value came from the WHRFMA (DAR 2018a).

Commercial aquarium fish collection in Hawai'i, and especially in West Hawai'i has long been a subject of controversy (DAR 2014a). As early as 1973, public concern over collecting activities prompted Hawai'i's DLNR, then Division of Fish and Game, to suspend the issuance of Aquarium Permits for a week while issues were considered and addressed (DAR 2014a). As a result, Aquarium Permit holders were required to submit monthly catch reports. However, no studies were conducted and no 'sanctuary' areas were created at that time. The first sanctuary areas were created through a gentleperson's agreement primarily

between dive/snorkel operators and commercial aquarium fishers in 1987 and four of these sanctuaries were incorporated into the Kona Coast Fisheries Management Area (FMA) in 1991 (DAR 2004). This interindustry collaboration and cooperation laid the groundwork for a more inclusive management approach to the fishery. The WHRFMA was created by Legislative Act 306 (1998) largely in response to longstanding and widespread conflict surrounding commercial aquarium fish collection (Section 1.2.3). The Act required substantive community input in management decisions (DAR 2014a).

In order to accomplish the mandates of Act 306, a community advisory group, the West Hawai'i Fishery Council (WHFC) was convened by the Division of Aquatic Resources (DAR) in 1998 (Section 1.2.3.1). Consisting of 24 voting members and 6 ex-officio agency representatives from DLNR, Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'āinana (i.e., native fishers) and most of the members were previously on the West Hawai'i Reef Fish Working Group (WHRFWG). The first action of the WHFC was the designation of a network of nine Fish Replenishment Areas (FRAs), in which no aquarium fish collection is allowed. The FRA's, along with existing Marine Protected Areas (MPA), comprise 35.2% of the West Hawai'i coastline (DAR 2014a). Although closed to commercial and recreational aquarium fishing, FRAs are still open to other forms of permitted fishing. Concerns over continued expansion of the commercial aquarium fishery and collecting effects in the Open Areas (i.e., areas where aquarium fish collection is allowed) prompted the DLNR in 2013 to establish a 'White List' of 40 species that can be taken by commercial aquarium fishers within the WHRFMA (Section 4.4.1). All other species are off limits within the WHRFMA (DAR 2014a) but can be taken in East Hawai'i.

1.1.1 Status of Aquarium Permits

In October 2012, Earthjustice filed a complaint under the HEPA in the First Circuit Court on behalf of four individuals and three non-governmental organizations. The complaint sought a court order to force the State to comply with the HEPA's requirement to examine commercial aquarium fish collection's effects on the environment before issuing collection permits. The complaint also asked the court to halt collection under existing Aquarium Permits and to stop DLNR from issuing new permits until the environmental review is complete (Earthjustice 2012). On June 24, 2013, the Circuit Court of the First Circuit announced their findings on the case through an 'Order Granting Department of Land and Natural Resources State of Hawai'i's, Motion for Summary Judgment filed February 4, 2013, and Denying Plaintiffs' Motion for Summary Judgment filed February 5, 2013 (Summary Judgment Order), and the Final Judgment in Favor of Defendant and Against Plaintiffs (Judgment), also filed on June 24, 2013. The Hawai'i Intermediate Court of Appeals upheld this decision in August 2016. Permit issuance by DLNR's DAR continued.

Through the appeals process, Earthjustice brought the case before the Supreme Court of Hawai'i. On September 6, 2017, the Supreme Court of Hawai'i ruled that aquarium collection using fine meshed traps or nets is subject to the environmental review procedures provided in the HEPA (SCWC-13-0002125). The issue was remanded to the circuit court for further proceedings. In light of the ruling, DLNR discontinued issuance of new Aquarium Permits and renewal of existing Aquarium Permits (DAR 2017).

On October 27, 2017, the circuit court ruled that, based upon the Supreme Court of Hawai'i's opinion, existing permits for use of fine mesh nets to catch aquatic life for aquarium purposes are illegal and invalid. The circuit court ordered the DLNR not to issue any new permits pending environmental review. The DLNR has not issued new or additional permits under HRS §188-31 since the Supreme Court's opinion was issued in September of 2017 (DAR 2017).

1.2 **REGULATORY BACKGROUND**

1.2.1 Hawai'i Revised Statute (HRS) 188-31

Hawai'i Revised Statute 188-31 (2013; Title 12 – Conservation and Resources; 188 – Fishing Rights and Regulations; 188-31 – Permits to take aquatic life for aquarium purposes) states that:

- 1. Except as prohibited by law, the department, upon receipt of a written application, may issue an aquarium fish permit, not longer than one year in duration, to use fine meshed traps, or fine meshed nets other than throw nets, for the taking of marine or freshwater nongame fish and other aquatic life for aquarium purposes.
- 2. Except as prohibited by law, the permits shall be issued only to persons who can satisfy the department that they possess facilities to and can maintain fish and other aquatic life alive and in reasonable health.
- 3. It shall be illegal to sell or offer for sale any fish and other aquatic life taken under an aquarium fish permit unless those fish and other aquatic life are sold alive for aquarium purposes. The department may adopt rules pursuant to HRS chapter 91 for the purpose of this section.

1.2.2 Hawai'i Environmental Policy Act

The HEPA requires that State agencies consider the impact of governmental actions on the environment because humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and an environmental review process would integrate the review of environmental concerns with existing planning processes of both the State and county governments. The HEPA includes the following statutes and administrative rules: a) HRS Chapter 343, Environmental Impact Statements; b) Hawai'i Administrative Rule (HAR) 11-200, Environmental Impact Statement Rules; c) HAR 11-201, Environmental Council Rules of Practice and Procedure (OEQC 2012).

The authorities governing the HEPA process include:

- 1. The text of the statute (Chapter 343, HRS) and its implementing administrative rules (Chapters 11-200, and 11-201, HAR, Department of Health;
- 2. The State Environmental Policy (Chapter 344, HRS);
- 3. The enumerated and written advisory opinions of the Attorney General of the State of Hawai'i;
- 4. The declaratory rulings of the Environmental Quality Commission (EQC) and the Environmental Council (EC); and,

5. The appellate rulings of the Intermediate Court of Appeals and the Supreme Court of the State of Hawai'i.

The HEPA process also alerts decision makers to significant environmental effects that may result from the implementation of certain actions (HRS 343-1). The specific instances when a proposing agency or an approving agency must prepare an EA (for an action not declared exempt under Section 11-200-8, HAR) derive from Section 343-5(a) HRS and are listed in Table 1.

Table 1. Statutory Triggers for Hawai'i Environmental Policy Act (HEPA).

	Instances	Responsible Agency
1.	Use of State or County lands or use of State or County funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided further that an EA for proposed uses under Section 205-2(d)(11) or 205-4.5(a)(13) shall only be required pursuant to Section 205-5(b).	The agency with title to the land or is using funds.
2.	Use of any land classified as conservation district by the state land use commission under Chapter 205.	Office of Conservation and Coastal Lands of the DLNR.
3.	Use within a shoreline area as defined in Section 205A-41. The shoreline area in question is defined by county ordinance and consists of a predetermined distance going inland from the certified shoreline. In the City and County of Honolulu, this is forty-feet.	The respective county planning department.
4.	Use within any historic site as designated in the National Register or Hawai'i Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or Chapter 6E.	The respective county planning department.
5.	Use within the Waikiki area of O'ahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District".	The Department of Planning and Permitting of the City and County of Honolulu.
6.	Any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county.	The respective county planning department.
7.	Any reclassification of any land classified as a conservation district by the state land use commission under Chapter 205.	The Land Use Commission, except in cases involving less than fifteen-acres (which cases are processed by the respective county planning department).
8.	 Any construction of new or the expansion or modification of existing helicopter facilities within the State, that may affect: A. Any land classified as a conservation district by the state land use commission B. A shoreline area c. Any historic site as designated in the National Register or Hawai'i Register 	The respective county planning department where the project is located processes the clearance of this trigger.
9.	 Propose any: A. Wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single family dwellings or the equivalent B. Waste-to-energy facility C. Landfill D. Oil refinery E. Power-generating facility 	The agencies of the State or County government that issue discretionary approvals for the listed items.

The Supreme Court of Hawai'i ruled (SCWC-13-0002125) that an environmental review of the Aquarium Permit process is warranted based on the first (use of state lands) and second (use of conservation districts) statutory triggers identified in Table 1, above.

Actions that do not fall under one of the triggers are excluded by statute from the HEPA process. Any action that is not excluded by statute must undergo the HEPA environmental review process (OEQC 2012). The analysis within an EA is used to determine whether the impact on the environment would be significant enough to warrant the preparation of a full EIS or would be used to declare a Finding of No Significant Impact (FONSI) thus clearing the HEPA process.

In most cases, an agency determines that an action may have a significant impact on the environment and require an EIS if it meets any of the following criteria:

- Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
- Curtails the range of beneficial uses of the environment;
- Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;
- Substantially affects the economic or social welfare of the community or State;
- Substantially affects public health;
- Involves substantial secondary impacts, such as population changes or effects on public facilities;
- Involves a substantial degradation of environmental quality;
- Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
- Substantially affects a rare, threatened, or endangered species, or its habitat;
- Detrimentally affects air or water quality or ambient noise levels;
- Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
- Substantially affects scenic vistas and view planes identified in county or state plans or studies; or
- Requires substantial energy consumption.

Since its inception, the HEPA process has bifurcated into two separate procedural tracks (OEQC 2012):

1. Agency actions (set forth in Section 343-5(b), HRS); refers to those proposed by a government agency; and

2. Applicant actions (set forth in Section 343-5(c), HRS); refers to those that are initiated by a private party and "triggers" an environmental review.

The need for this FEA is based on the proposed action (i.e., DLNR issuance of Aquarium Permits).

The environmental review process described in the findings and purpose section of Chapter 343, HRS, necessitates integrating citizen concerns into the planning process and forewarning decision makers of potential significant environmental effects should implementation take place. The Hawai'i Office of Environmental Quality Control (OEQC) finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole (OEQC 2012).

1.2.3 Act 306 SLH – West Hawai'i Regional Fishery Management Area

Act 306 (SLH 1998) directed DLNR to establish the WHRFMA along the entire west coast of the Island of Hawai'i; 'bounded by the west coast of Hawai'i Island, from Ka Lae, Ka'ū (South Point) to 'Upolu Point, North Kohala, and extending from the upper reaches of the wash of the waves on shore, seaward to the limit of the State's police power and management authority.'

From Act 306:

The purpose of the WHRFMA shall be to:

- 1. Ensure the sustainability of the state's nearshore ocean resources;
- 2. Identify areas with resource and use conflicts;
- Provide management plans as well as implementing regulations for minimizing user conflicts and resource depletion through the designation of sections of coastal waters in the WHRFMA as FRAs where certain specified fish collecting activities are prohibited and other areas where anchoring and ocean recreation activities are restricted;
- 4. Establish a system of day-use mooring buoys in high-use coral reef areas and limit anchoring in some of these areas to prevent anchor damage to corals;
- 5. Identify areas and resources of statewide significance for protection;
- 6. Carry out scientific research and monitoring of the nearshore resources and environment; and
- 7. Provide for substantive involvement of the community in resource management decisions for this area through facilitated dialogues with community residents and resource users. The DLNR shall identify the specific areas and restrictions after close consultation and facilitated dialogue with working groups of community members and resource users.

The department shall develop a WHRFMA plan that identifies and designates appropriate areas of the management area in accordance with HRS Chapter 91 as follows:

- 1. Designate a minimum of thirty percent (30%) of coastal waters in the WHRFMA a FRA in which aquarium fish collection is prohibited (other fishing still permitted);
- 2. Establish a day-use mooring buoy system along the coastline of the WHRFMA and designate some high-use areas where no anchoring is allowed;
- 3. Establish a portion of the FRAs as fish reserves where no fishing of reef-dwelling fish is allowed; and,
- 4. Designate areas where the use of gill nets as set nets shall be prohibited.

A review of the effectiveness of the WHRFMA plan shall be conducted every five years by the DLNR in cooperation with the University of Hawai'i (UH). The DLNR shall submit a report of its findings and recommendations based on the review to the legislature no later than 20 days before the convening of the regular session following the review. The most recent review was completed in 2014 and submitted to the legislature in December of that year (DAR 2014a).

1.2.3.1 West Hawai'i Fishery Council

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

In order to accomplish the mandates of Act 306 with substantive community input, The West Hawai'i Fishery Council (WHFC) was convened on June 16, 1998 under the aegis of the DLNR and the University of Hawai'i Sea Grant. Consisting of 24 voting members and 6 ex-officio agency representatives from the DLNR, University of Hawai'i Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'āinana (i.e., native fishers) and most of the members were previously on the West Hawai'i Reef Fish Working Group (WHRFWG). The WHRFWG included over 70 members of the West Hawai'i community including aquarium collectors and charter operators and other stakeholders. The group held 9 meetings over a 15-month period. The WHRFWG opened a dialog between user groups and community members and provided a forum for the education of its members on social and biological issues involved in resource management.

The WHFC developed a FRA plan consisting of nine separate areas along the west coast of the Island of Hawai'i (Figure 1) encompassing a total of 35.2% of the West Hawai'i coastline (including already protected areas). The WHFC's FRA plan was subsequently incorporated by the DLNR into administrative rule. The FRA administrative rule became effective on December 31, 1999.

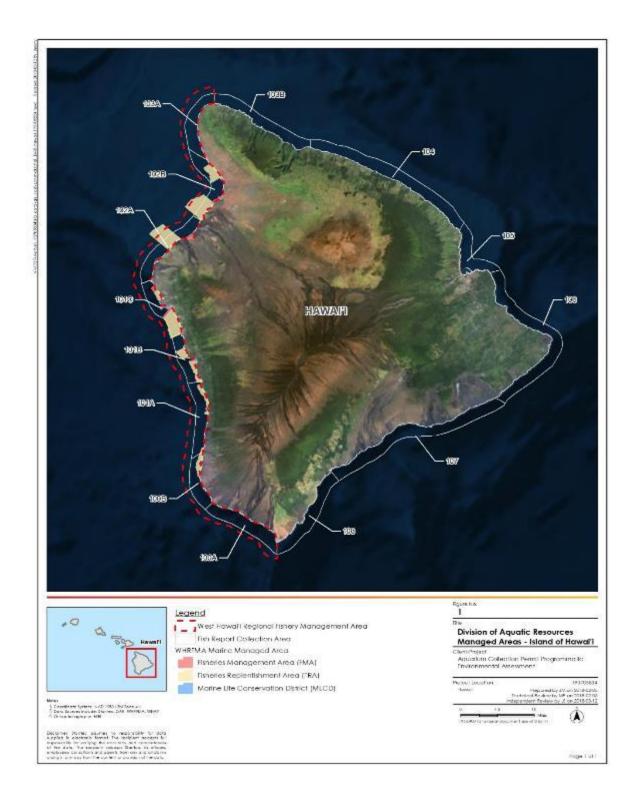


Figure 1. Division of Aquatic Resources Managed Areas - Island of Hawai'i.

The FRAs prohibit all collecting of aquarium animals within their boundaries as well as non-fishing related fish feeding. The seaward boundaries of the FRAs extend to a depth of 600 feet (100 fathoms) and distinctive signs mark the boundaries on shore; although some have fallen into disrepair and are not easily observed (BIAAF pers. comm.).

In addition to the development of the FRA network, the WHFC, in conjunction with the DAR and University of Hawai'i Sea Grant, also implemented the following initiatives:

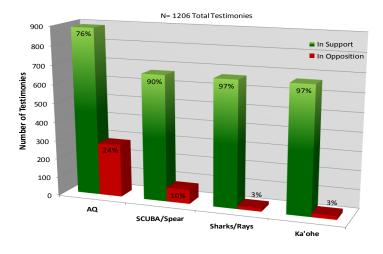
- Sea Urchin Limited Harvest: The WHFC developed a management plan permitting the sustainable harvest of Wana (long-spine/black sea urchin) at Makae'o, the Old Kona Airport Marine Life Conservation District (MLCD). This recommendation was adopted by the DLNR as an administrative rule amendment in 2005.
- 2. Gill Net Rules: The WHFC developed a set of gill net rule recommendations focused on limiting impacts of large-scale commercial netting while providing for subsistence netting. This recommendation was adopted as an administrative rule amendment in 2005 and served as a model for the statewide gill net rule (HAR §13-75-12.4) which was adopted in 2007.
- Day-Use Mooring Buoys: In collaboration with the Malama Kai Foundation, the WHFC is a working partner in the site selection process and educates communities on the value of day use moorings to preserve our coral reefs.
- 4. Ka'ūpūlehu Marine Reserve: DAR worked with the WHFC and the Ka'ūpūlehu Marine Life Advisory Committee (KMLAC) to develop draft rules to re-designate the Ka'ūpūlehu Fish Replenishment Area as a Marine Reserve where the take of nearshore marine life will be prohibited for 10 years, with exceptions to allow for the continued collection of pelagic and deep benthic species using specific fishing gear. The proposal is the initial first step in complying with the statutory mandate of HRS §188F-4(3) to establish a portion of the FRAs where no fishing of reef-dwelling fish is allowed. In October 2014, the Board of Land and Natural Resources (BLNR) approved holding a Public Hearing on this rule amendment. The rule subsequently took effect on July 29, 2016. Several other local communities are actively engaged in developing management recommendations which include some form of a highly protected nearshore area.
- 5. Self-contained underwater breathing apparatus (SCUBA) Spear Fishing Prohibition: The WHFC proposed banning SCUBA (and rebreather) spear fishing in West Hawai'i as is the case in most other Pacific island jurisdictions.
- 6. Pebble Beach User Conflict: The WHFC drafted recommendations addressing a conflict between aquarium collectors and this South Kona community. It recommended creating a new FRA in the Pebble Beach area and opening up to collecting a similarly sized section of another FRA (by a non-residential area). The latter part of the 'swap' was subsequently rejected by aquarium collectors. The Big Island Association of Aquarium Fishermen (BIAAF) agreed to the creation of the Pebble Beach FRA, with nothing in return, as an act of good faith to further mitigate user conflict (BIAAF, pers. comm.). The BIAAF conceded directly with the representatives of the "Friends of Pebble Beach." The meeting was orchestrated DAR.

- 7. Aquarium 'White List' (Section 4.4.1): Working with commercial aquarium collectors the WHFC established a list of 40 fish species permitted for aquarium take. Only those fish found on the White List can be collected live for aquarium use. All other fishes and all invertebrates are off-limits to collecting. Size and bag limits are also established for three of the species on the White List, Yellow Tang, Kole, and Achilles Tang.
- 8. Species of Special Concern: Prohibition on the take or possession of nine species of inshore sharks and rays and two invertebrate crown-of-thorns predators (Table 2).

Common Name	Scientific Name	Hawaiian Name
Spotted Eagleray	Aetobatus narinari	Hīhīmanu
Broad Stingray	Dasyatis lata	Hīhīmanu
Pelagic Stingray	Pteroplatytrygon violacea	Hīhīmanu
Hawaiian Stingray	Dasyatis hawaiiensis	Hīhīmanu
Tiger Shark	Galeocerdo cuvier	Manō/niuhi
Whale Shark	Rhincodon typus	Lele wa'a
Whitetip Reef Shark	Triaenodon obesus	Manō lālākea
Blacktip Reef Shark	Carcharhinus melanopterus	Manō pā'ele
Gray Reef Shark	Carcharhinus amblyrhynchos	Manō
Triton's Trumpet	Charonia tritonis	'Ōlē
Horned Helmet	Cassis cornuta	Pū puhi

Table 2. List of marine species for which all take or possession is prohibited.

Initiatives identified above involving commercial aquarium fish collection received overwhelming support during the Hawai'i Administrative Rule public hearing process (Figure 2) and were adopted as a new administrative rule (HAR 13-60.4) which became effective December 26, 2013.



AQ – Aquarium White List; Ka'ohe – Pebble Beach

Figure 2. Summary of all public testimonies on the WHRFMA rule (DAR 2014a).

1.2.3.2 HAR 13-60.4

In addition to incorporating Act 306 into the Hawai'i Administrative Rules, HAR 13-60.4 identified West Hawai'i Aquarium Permit Terms and Conditions by implementing the following provisions:

- No person shall engage in aquarium collecting activities within the WHRFMA without first having been issued and possessing a West Hawai'i Aquarium Permit in addition to a valid State of Hawai'i aquarium fish permit.
- Collectors must carry either their Commercial Marine License (CML) card with both State of Hawai'i and West Hawai'i Aquarium Permit endorsements or their recreational aquarium fish permit card while collecting fish within the WHRFMA.
- In addition to applying any other penalties provided by law, the DLNR may revoke any West Hawai'i Aquarium Permit for any infraction of these rules or the terms and conditions of the permit, and any person whose permit has been revoked shall not be eligible to apply for another West Hawai'i Aquarium Permit (commercial or recreational) until one year from the date of revocation.
- Aquarium collectors (commercial and noncommercial) may take or possess only the 40 "White List" fish species.
- It is prohibited for anyone to take more than 5 Yellow Tang (*Zebrasoma flavescens*) larger than 4.5 inches in total length (TL) or more than 5 Yellow Tang smaller than 2 inches TL per day or possess more than this amount at any time while within the WHRFMA. (Note: This is called a slot limit and is meant to protect the breeding population. Yellow Tang become sexually mature at 4.5 inches TL and begin reproducing [Bushnell 2007]).
- It is prohibited for aquarium collectors to take or possess more than 5 Kole (= Goldring Surgeonfish, Yelloweye, Goldring) (*Ctenochaetus strigosus*) larger than 4 inches TL per day. Again, this measure is meant to protect the breeding population.
- It is prohibited for aquarium collectors to take or possess more than 10 Achilles Tang (*Acanthurus achilles*) of any size per day.
- It is prohibited to possess aquarium collecting gear or possess fish taken for aquarium purposes on a vessel after sunset or before sunrise without prior phone notification to the DAR Kona office. Such notification will allow the possession of more than one day's bag limit for Yellow Tang, Kole and Achilles Tang on multiple day trips.
- Aquarium collection is prohibited within FRAs, FMAs, and MLCDs. Note that a new FRA has been established in South Kona at Ka'ohe Bay (Pebble Beach) where no aquarium collecting, or recreational fish feeding is allowed.

- It is prohibited to take or possess aquarium collecting gear or fish taken for aquarium purposes on a vessel that is adrift, anchored, or moored within any of the areas prohibiting aquarium collecting.
- All aquarium collecting vessels shall be registered every year with the DAR Kona office. The current vessel identification number issued by either the DLNR or the U.S. Coast Guard (USCG) shall serve as the registration number for each vessel. After the initial vessel registration renewal can be done via mail or online.
- All aquarium collecting vessels shall permanently affix the capital letters "AQ" to both sides of the vessel. The "AQ" letters shall be no less than 6 inches high and 3 inches wide in either black or a color that contrasts with the background color of the vessel.
- Aquarium vessels must fly a "stiffened" flag or pennant from the vessel with the letter "A" as specified by the DLNR. The flag or pennant shall be displayed and clearly visible from both sides of the vessel at all times while aquarium collecting gear or collected aquarium fish, or both are onboard. The flag or pennant shall be provided at cost to West Hawai'i Aquarium Permittees.
- Aquarium vessels must display a dive flag at all times when divers are in the water.
- In the event an aquarium collecting vessel becomes inoperable while at sea, the operator of the vessel shall immediately notify the DLNR's Division of Conservation and Resources Enforcement (DOCARE) or USCG or both by VHF radio or by cellular phone.
- It is prohibited to possess or use any net or container employed underwater to capture or hold fish taken for aquarium purposes that is not labeled with the CML number (or numbers) of the person (or persons) owning, possessing, or using the equipment. Clearly mark each piece of the above gear with your CML number. There is no specific marking requirement as to size or color of lettering other than the CML number must be clearly visible and legible.
- Aquarium collectors must submit each month's daily aquarium fishing trip reports before every 10th day of the following month.
- Recreational aquarium collectors, without a valid CML, may not take more than a total of five of the White list fish specimens per person per day. Recreational aquarium collectors may not sell collected fish.
- A control date was established on August 1, 2005 to possibly limit participation in the WHRFMA commercial aquarium fishery. Persons who begin fishing in the WHRFMA commercial aquarium fishery on or after the control date will not be assured continued participation in the fishery if the DLNR establishes an aquarium limited entry program in the future. Nothing in this chapter shall prevent the DLNR from establishing another control date.
- It is prohibited to engage in or attempt to engage in SCUBA spearfishing and/or possess both SCUBA gear and a spear or speared aquatic life.

Purpose and Need

Coral/Live Rock Damage

State law prohibits the breaking or damaging, with any implement, any stony coral from the waters of Hawai'i, including any reef or mushroom coral (HAR 13-95-70). It is unlawful to take, break or damage, any implement, any rock or coral to which marine life of any type is visibly attached or affixed (HAR 13-95-71). The taking of sand, coral rubble or other marine deposits is permitted in certain circumstances. The material may not exceed one gallon per person per day, and may be taken only for personal, noncommercial purposes (HRS § 171-58.5, § 205A-44).

Fines per specimen may be imposed for each damaged coral head or colony less than one square meter in surface area or for a colony greater than one square meter in surface area, each square meter of colony surface area and any fraction remaining constitutes an additional specimen. Penalties for damage to live rock are based on each individual rock or if the violation involves greater than one square meter of bottom area, then the penalty is based on each square meter of bottom area.

No liability shall be imposed for inadvertent breakage, damage, or displacement of an aggregate area of less than one half square meter of coral if caused by a vessel with a single anchor damage incident, in an area where anchoring is not otherwise prohibited, and not more frequently than once per year; or by accidental physical contact by an individual person.

2.0 PURPOSE AND NEED

2.1 PURPOSE FOR APPLICANT'S ACTION

The purpose of the Applicant's action is to ensure that commercial aquarium fish collection allows for the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats. The objective of the proposed action is to create a program under the DLNR which helps to facilitate the permitting process for Commercial Aquarium Permits for the island of Hawai'i including the WHRFMA.

2.2 NEED FOR APPLICANT'S ACTION

The need for the Applicant's action is to continue commercial aquarium fishers' livelihoods in compliance with all applicable laws, rules, and regulations pertaining to the industry.

2.3 PURPOSE FOR APPROVING AGENCY'S (DLNR) ACTION

The purpose of an environmental review process under the HEPA is to provide the Approving Agency (DLNR) with the framework necessary for reviewing the Applicant's action and the environmental effects of issuing Aquarium Permits for the WHRFMA. The HEPA review also provides an opportunity for the public to be involved in the DLNR's decision-making process. The DLNR can also use a properly conducted HEPA analysis to review and improve plans, functions, programs, and resources under its

jurisdiction. Furthermore, this FEA is the mechanism for recording the results of a comprehensive planning and decision-making process surrounding the Applicant's action.

The underlying purpose of the DLNR's action is to determine the level of significance that issuing Aquarium Permits for the island of Hawai'i, including the WHRFMA, may have on the environment, based on the 13 criteria listed in Section 1.2.2. The final determination would result in either a FONSI, whereby the DLNR reinstates the Aquarium Permit program, or the development of an EIS to further evaluate environmental impacts and potentially additional alternatives.

2.4 NEED FOR APPROVING AGENCY'S (DLNR) ACTION

The need for DLNR's action is the Applicant's submittal of this FEA, to which the DLNR must respond.

2.5 SCOPE OF ANALYSIS

The scope of this FEA's analysis incorporates accepted methods, regulations, and historical data to determine past influences the commercial aquarium fishery and its management have had on resources, including socioeconomic, cultural, and biological resources in order to evaluate the potential direct, indirect, and cumulative impacts that the three alternatives presented in Section 3 would have over a single annual permit period for the island of Hawai'i, including the WHRFMA. Commercial Aquarium Permits issued by DLNR under HRS §188-31 are valid for no longer than one year and, therefore, must be renewed annually. Accordingly, every year, DLNR must take an action to issue Commercial Aquarium Permits. As a result, this FEA analyzes the potential impacts of the commercial aquarium fishery based on a temporal scope of one year. As Commercial Aquarium Permits come up for renewal each year, DLNR will evaluate whether there are significant new circumstances or information relevant to environmental concerns and bearing on the commercial aquarium fishery or its impacts requiring a supplemental EA. Under this approach, any changes in resource data (e.g., increase or decrease in population estimates, unforeseen circumstances, etc.) will be addressed, as necessary, by supplemental EAs, allowing for the HEPA process to quickly recognize and address any potential issues. Section 5.0 addresses the cumulative impacts of reasonably foreseeable future commercial aquarium collection.

2.5.1 Resources Evaluated and Dismissed from Further Consideration

This FEA evaluates the impacts of three commercial aquarium fish collection alternatives on the nearshore habitat (0-600 feet; 0-100 fathoms) in which commercial aquarium fishing (or lack thereof) would take place, over a single year. During the evaluation process, it was determined that some resources typically evaluated in EA's would not be impacted by any of the alternatives under consideration. The evaluation includes past use and potential impacts by the commercial aquarium fishery because it has been a part of the baseline condition of these resources since the late 1940s. Because a significant increase in commercial aquarium fishing is not anticipated during the 12-month assessment period evaluated in this FEA, this FEA does not anticipate a significant change in the current baseline condition of these resources.

The proposed action and resulting commercial aquarium collection does not include any activities different from or in addition to those that have occurred in the past. There would be no construction of

Alternatives

permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, and no dredging, and no significant use of hazardous materials that could be released into the environment.

The DLNR's issuance of Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from the current baseline condition, therefore, these resources will not be evaluated further.

2.5.2 Resources Retained for Further Analysis

The following resources could be impacted by the alternatives under consideration. Current baseline conditions of these resources are presented in Section 4.0 and impacts to these resources are evaluated in Section 5.0 of this FEA:

- Socioeconomic Resources
- Cultural Resources

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- Physical Resources
 - o Climate
- Biological Resources
 - White List Species
 - Non-White List Species
 - o Hawai'i Species of Greatest Conservation Need
 - Reef Habitat

3.0 ALTERNATIVES

Reasonable alternatives include those that are practical or feasible from cultural, scientific, technical, and economic perspectives. The HEPA recommends that applicants consider and objectively evaluate reasonable alternatives to the preferred alternative and briefly explain the basis for eliminating any alternatives that were not retained for detailed analysis.

The DLNR has been, and continues to work with stakeholders (e.g., public, various fishing and tourism industries, local governments) since the 1970's to ensure the commercial aquarium fishery is environmentally sustainable and prevents degradation of fish populations and the habitats in which they occur. As a result, many aspects of the fishery have changed over the past 40+ years due to the various alternatives recommended by stakeholders and implemented by the DLNR. The Applicant has no legislative or regulatory authority and cannot create, eliminate, or alter conservation areas (e.g., MPAs, FRAs, MLCDs); create, eliminate, or alter current regulations (e.g., bag and size limits, season length, permit term); or change reporting requirements. Despite this, during the public comment period on the Draft EA, in response to DNLR concerns and in coordination with the DNLR, the Applicant developed an additional alternative, one which would require regulation creation by DLNR. Based on discussion with the DNLR, evaluation of the impacts of the alternatives, and public comment, the Applicant has selected the new alternative as the Preferred Alternative.

Alternatives

The three alternatives retained for analysis include:

- Alternative 1: No Action Alternative
 - Current court order would remain in place and no Aquarium Permits would be issued.
- Alternative 2: Status Quo Alternative (Programmatic Issuance of Aquarium Permits for the Island of Hawai'i)
 - The DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31 (Section 1.2.1). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements.
- Alternative 3: Achilles Tang Conservation Alternative (Proposed Action and Preferred Alternative): Programmatic Issuance of Aquarium Permits for the Island of Hawai'i with an Additional Conservation Measure Limiting Achilles Tang Catch for all Fisheries within the WHRFMA.
 - The DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31 (Section 1.2.1). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, and reporting requirements. Additionally, the daily bag limit for commercial aquarium collection of Achilles Tang within the WHRFMA would be reduced from 10 per day to 5 per day, and a daily bag limit of 5 per day would be set for all other fisheries (e.g., recreational and non-aquarium commercial) within the WHRFMA.

These alternatives were evaluated based on their capacity to meet the purpose and need of the Approving Agency's action (Sections 2.3 and 2.4). The potential effects on the environment for each alternative are described and analyzed in Section 5.0; Environmental Consequences.

3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the court order would remain in place and no Commercial Aquarium Permits would be issued for the island of Hawai'i including the WHRFMA. The No Action Alternative meets the DLNR's objectives to ensure an applicant's actions do not lead to degradation of fish populations and the habitats in which they occur in the context of commercial aquarium collection alone (i.e., does not address impacts from other Hawaiian fisheries and influences discussed in Sections 4.0 and 5.0). Under the No Action Alternative, Commercial Aquarium Permits would not be issued for the island of Hawai'i including the WHRFMA and commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. However, the No Action Alternative does not meet the Applicant's purpose and need to

continue fishers' livelihoods participating in lawful, responsible, and sustainable commercial collection of approved fish species from nearshore habitats (0-600 feet; 0-100 fathoms).

3.2 STATUS QUO ALTERNATIVE

The Status Quo Alternative is based on the many years of public involvement, political involvement, and scientific research pertaining to the commercial aquarium fishery. Although this may be the first FEA written for the commercial aquarium fishery (or any fishery in the State of Hawai'i), various alternative approaches based on public, government, and scientific input have been implemented and studied since the 1970's (noted throughout this FEA).

Under the Status Quo Alternative the DLNR would begin issuing new Aquarium Permits, thereby allowing commercial aquarium fish collection on the island of Hawai'i, including the WHRFMA, to resume. Permittees would abide by all existing rules and regulations set forth in HRS 189-2,3 (Commercial Marine Permit), HRS-188-31 (Section 1.2.1), governing Commercial Aquarium Permit use, and would obtain a West Hawai'i Aquarium Permit as required under HAR 13-60.4 (Section 1.2.3.2). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements.

3.3 ACHILLES TANG CONSERVATION (PREFERRED) ALTERNATIVE

Under the Achilles Tang Conservation Alternative, the DLNR would begin issuing new Aquarium Permits, thereby allowing commercial aquarium fish collection on the island of Hawai'i, including the WHRFMA, to resume. Permittees would abide by all rules and regulations set forth in HRS 189-2,3 (Commercial Marine Permit), HRS-188-31 (Section 1.2.1), governing Commercial Aquarium Permit use, and would obtain a West Hawai'i Aquarium Permit as required under HAR 13-60.4 (Section 1.2.3.2). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements. In addition, daily bag limit for commercial aquarium collection of Achilles Tang within the WHRFMA would be reduced from 10 per day to 5 per day, and a daily bag limit of 5 per day would be set for all other fisheries (e.g., recreational and non-aquarium commercial) within the WHRFMA.

The Achilles Tang Conservation Alternative is based on the best available science, supports the DLNR's purpose to ensure Applicant's Actions do not lead to degradation of fish populations and the habitats in which they occur in the context of commercial aquarium collection, and supports the Applicant's purpose and need to continue fishers' livelihoods participating in the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats.

4.0 AFFECTED ENVIRONMENT

The affected environment is the area and its resources (i.e., socioeconomic, cultural, physical, biological) potentially impacted by the proposed action and the alternatives under consideration. The purpose of

describing the affected environment is to define the current baseline of conditions in which the impacts would occur. To make an informed decision about which alternative to select, it is necessary to first understand which resources would be affected and to what extent each alternative would result in changes from the baseline. This section attempts to provide the baseline for this understanding. Relative to the proposed action, the affected environment includes nearshore habitats from a depth of 0-600 feet (0-100 fathoms) along the coast of the island of Hawai'i, including the WHRFMA, although most fishers collect the majority of fish at depths between 30-70 feet (5-11.7 fathoms), with minimal collecting beyond this range.

Commercial aquarium fish collection has been taking place in Hawaiian waters since the late 1940s. In 1953, the territorial government of Hawai'i enacted Act 154, which authorized the Board of Agriculture and Forestry to establish a permit system for the use of fine-mesh nets and traps for the taking of aquarium fish (DAR 2014a). Beginning in 1973, collectors were required to report their monthly catch on a detailed aquarium fish catch report. As of 2014, Aquarium Permit holders are required to keep daily trip reports and submit on a monthly basis. Since 1999 when FRA's were established, the number of commercial aquarium fishers working in West Hawai'i has ranged from 24-63, and in East Hawai'i from <3-18 (DAR 2018a). Permitted commercial aquarium fishing has been a part of the socioeconomic, cultural, physical, and biological resources for decades and is considered a part of the baseline condition of the affected environment.

The DLNR's mission statement is to 'Enhance, protect, conserve and manage Hawai'i's unique and limited natural, cultural, and historic resources held in public trust for current and future generations of the people of Hawai'i nei, and its visitors, in partnership with others from the public and private sectors.' In pursuit of this mission, the DLNR has compiled, analyzed, and reported on the many facets of Hawai'i's socioeconomic, cultural, physical, and biological resources that make up the affected environment. The following sections rely heavily on the DLNR's *Hawai'i's Comprehensive Wildlife Conservation Strategy* (CWCS; Mitchell et al. 2005) and the DLNR's Hawai'i's State Wildlife Action Plan (SWAP; DLNR 2015), with numerous other sources cited as appropriate.

4.1 SOCIOECONOMIC RESOURCES

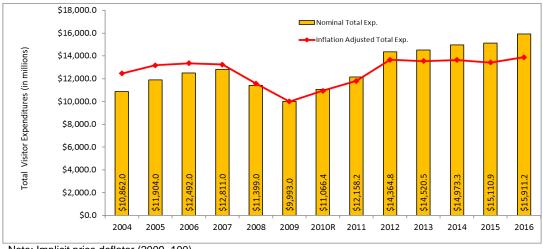
The state of Hawai'i has four local governments: The City and County of Honolulu (island of O'ahu and the Northwestern Hawaiian Islands), the County of Kaua'i (islands of Kaua'i and Ni'ihau), the County of Maui (islands of Maui, Moloka'i, Lāna'i and Kaho'olawe), and the County of Hawai'i (island of Hawai'i). Hawai'i also has a fifth county, Kalawao County, which does not have a separate government unit (Mitchell et al. 2005). Kalawao County covers the former Hansen's disease settlement at Kalaupapa (Moloka'i) and is managed by the National Park Service (NPS) under a cooperative agreement with the State Department of Health (Mitchell et al. 2005).

The population of the island of Hawai'i was estimated at 185,079 in 2010. By 2016, the population is estimated to have grown by 7.2% to 198,449 (HDBEDT 2017). Of the approximately 8.2 million visitors to the state in 2016, 17.6% (1.55 million people) spent time on the island of Hawai'i and 8.6% of those visitors stayed entirely on the island of Hawai'i. Fifteen percent of visitors spent time in West Hawai'i while 6.2% spent time on the east side (HDBEDT 2017).

Much of the state's economy is based on the island's coastal and marine resources. Tourism accounts for the majority of the state's economy, with a significant portion of the tourist activities associated with beaches and marine wildlife (DLNR 2015). Coastal development and land values have both increased with the growth in tourism. In 2002, the Hawai'i Coral Reef Initiative funded a study regarding the economic valuation of the coral reefs of Hawai'i, where the value of coral reefs to the Hawai'i economy was estimated to be about \$380 million dollars per year (DLNR 2015). In 2001, Cesar et al. documented the annual recreational value of the coral reefs of the Hawaiian reefs for snorkelers and divers was estimated to be \$281 million and \$44 million, respectively. Although the direct expenditure per diver is much larger than the direct expenditures of snorkelers, the overall value related to the latter group is much larger due to their large numbers. According to the 2017 National Oceanic and Atmospheric Administration (NOAA) Report on the Ocean and Great Lakes Economy of the United States, in 2014 (most recent data), Hawai'i employed 626,146 people and generated \$28.3 billion in wages and \$76.4 billion in gross domestic product. Hawai'i's ocean economy then employed 111,673 people and generated \$3.9 billion in wages and \$7.4 billion in gross domestic product. The ocean economy accounted for 17.8 percent of Hawaii's employment, 13.7 percent of its wages, and 9.7 percent of its gross domestic product (NOAA 2017). Commercial fish landings in Hawai'i have increased annually since 2006 and NOAA reported total landings in 2013 were valued near \$108 million dollars (DLNR 2015).

Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017). When adjusted for inflation, total visitor spending was up 3.5% from 2015 (Figure 3). A total of 8,934,277 visitors came by air or by cruise ship to the state, up 2.9% from the previous record of 8,679,564 visitors in 2015. Total visitor days rose 2% compared to 2016. The average spending per day by these visitors (\$197 per person) was also higher than 2015 (\$191 per person; HDBEDT 2017).

Arrivals by airlines in 2016 grew 3% to 8,821,802 visitors. Additionally, there were 112,475 visitors who came to the islands by cruise ship, but this was down 3.5% from 2015 due to fewer out-of-state cruise ships that visited the islands (HDBEDT 2017).



Note: Implicit price deflator (2009=100) Source: 2016 State of Hawai'i Data Book Table 7.35.

Figure 3. Total visitor spending: nominal and real 2004-2016 (HDBEDT 2017).

Total Spending by Category (HDBEDT 2017):

- Lodging, the largest spending category by all visitors to Hawai'i, increased 6.1% to \$6.73 billion and made up 42.3% of total visitor spending in 2016.
- Food and beverage, the second largest category, rose 6.4% to \$3.27 billion or 20.6% of total visitor spending.
- Shopping expenses of \$2.24 billion was up 1.5% from 2015.
- Spending on transportation (+11.4% to \$1.54 billion) and entertainment and recreation (+5.8% to \$1.41 billion) also increased from the previous year.
- Supplemental business spending of \$118.1 million was a decrease of 11.9% compared to 2015. These are additional business expenses spent locally on conventions and corporate meetings by out-of-state visitors (i.e., costs on space and equipment rentals, transportation, etc.) that were not included in personal spending.

The military has a significant presence in Hawai'i with large Naval installations located on estuarine and coastal areas such as Pearl Harbor and Kāne'ohe Bay on O'ahu, the Pacific Missile Range Facility on the south shore of Kaua'i, and the Pōhakuloa Training Area on the Hawai'i, the largest United States Department of Defense installation in the state of Hawai'i, or anywhere in the Pacific.

Agriculture has always had a special place in Hawai'i history and continues to be an important industry, generating \$2.9 billion to the state's annual economy, and directly and indirectly providing 42,000 jobs (HDA 2013). The plantation era witnessed the boom decades of the sugar and pineapple industries, expanding over thousands of acres of prime agricultural lands. Now, with the decline of the sugar and pineapple industries, these agricultural lands are returning to a new era of small farms growing diversified agricultural products (HDA 2013). Crops such as specialty exotic fruits, coffee, macadamia nuts, flowers

and foliage not only provide fresh produce and flowers to Hawai'i's markets, but also have become major exports to destinations around the world. The early fishponds have evolved into high-tech aquaculture ventures, farming from the sea varieties of fish, shrimp, lobster, abalone, and seaweed (HDA 2013).

4.1.1 Socioeconomic Aspects of the Commercial Aquarium Fishery

Fishers on the island of Hawai'i often perform day or short overnight trips, operate individually or in small groups of two or three people, and use SCUBA and barrier nets (nets used to exclude, contain, or direct fish) to capture fish (Stevenson et al. 2011). Most aquarium fishers are between the ages of 40 and 60 years, have remained active in the fishery for more than 20 years, and fish approximately 3–4 days per week (Stevenson et al. 2011). Commercial aquarium fishers are required to report their monthly catch on an aquarium fish catch report separate from, and more detailed than, the CML reports.

In 2017, the commercial aquarium fishery on the island of Hawai'i reported landings near \$1.4 million, with more than \$1.29 million coming from the WHRFMA (DAR 2018a). Since 2000, the commercial aquarium fishery on the island of Hawai'i has averaged annual landings valued at approximately \$1.4 million, with a low of approximately \$701,775 (inflation-adjusted 2017 dollars) in 2001 and a high of \$1,867,475 (inflation-adjusted 2017 dollars) in 2015 (Table 3; DAR 2018a). It should be noted that the dollar value of these fisheries represents only the *ex-vessel* value - what the fishers are paid for their catch and does not include the value which would be generated by additional dealer and retail sales. The actual economic value of the catch is thus substantially greater than the *ex-vessel* value. A study done in 1994 found that the DAR reported total average value for FY 1993/FY 1994 saw only \$819,957 (Miyasaka 1994), while analysis in 1993 by an aquarium trade group (Hawai'i Tropical Fish Association) estimated the total sales of Hawaiian aquarium fish (including freight and packaging) to be nearly 5 times this, at \$4.9 million (Walsh et al., 2003).

		WHR	RFMA	East Hawai'i				
Fiscal Year ¹	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²
2000	24	25	\$491,173	\$699,166	6	3	\$11,832	\$16,842
2001	26	23	\$506,749	\$701,776	8	0	\$0	\$0
2002	37	19	\$529,182	\$721,029	n.d.	n.d.	n.d.	n.d.
2003	30	22	\$666,153	\$887,432	9	0	\$0	\$0
2004	53	30	\$866,630	\$1,124,555	n.d.	n.d.	n.d.	n.d.
2005	41	34	\$1,168,265	\$1,466,283	11	3	\$25,263	\$31,707
2006	63	34	\$1,459,004	\$1,773,964	11	6	\$74,519	\$90,606
2007	61	40	\$1,065,093	\$1,259,154	14	4	\$33,648	\$39,779
2008	52	31	\$1,308,629	\$1,489,859	17	9	\$100,304	\$114,195
2009	55	30	\$1,159,746	\$1,325,072	13	8	\$84,022	\$96,000
2010	60	36	\$1,582,644	\$1,779,074	12	7	\$30,062	\$33,793

Table 3. Number of Aquarium Permits, reports, and fishery value on the island of Hawai'isince 2000. n.d. = Not Disclosed (DAR 2018a).

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2011	60	42	\$1,473,530	\$1,605,732	13	6	\$41,238	\$44,938
WHRFMA					East Hawai'i			
Fiscal Year ¹	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²
2012	48	28	\$1,504,487	\$1,606,226	16	7	\$79,067	\$84,414
2013	45	26	\$1,560,517	\$1,641,994	15	9	\$68,234	\$71,797
2014	43	20	\$1,570,057	\$1,625,661	18	7	\$131,086	\$135,728
2015	38	19	\$1,701,631	\$1,759,805	13	4	\$104,110	\$107,669
2016	37	19	\$1,582,011	\$1,615,713	15	4	\$80,441	\$82,155
2017	57	21	\$1,290,314	\$1,290,314	18	4	\$91,790	\$91,790
Average	46	28	\$1,193,656	\$1,354,045	13	5	\$59,726	\$65,088

¹Fiscal year runs from July 1 through June 30

²http://www.usinflationcalculator.com/, adjusted for 2017 values

Although specific export data do not exist for the aquarium fishery, it is clear that most of the aquarium catch is shipped out of the state to dealers on the mainland United States, Europe, and Asia (Dierking 2002). This is neither surprising nor atypical for commercial fisheries in Hawai'i (DAR 2014a). For example, seafood exports of various Hawaiian species exceed 3.7 million pounds annually (Loke et al. 2012).

On the island of Hawai'i, the total aquarium catch and its value have continued to increase overall since the FRAs were established in 2000, while the number of reporting fishers has fluctuated (Table 3; DAR 2018a). Since FRAs were established, overall catch has not declined and recent work (Stevenson et al. 2013) has indicated that the economic status of West Hawai'i aquarium collectors has significantly improved since the FRA network was implemented (DAR 2014a).

Of the 40 fish species which can now be collected in West Hawai'i, over 90% of the economic value between 2000 and 2017 was from four species: the Yellow Tang which made up 75.3% of the total value; the Achilles Tang which made up 7.1% of the total value; the Kole which made up 5.6% of the total value; and, the Black Surgeonfish (*Ctenochaetus hawaiiensis*; = Chevron Tang) which made up 4.9% of the total value. The remaining 36 species made up the remaining 7.2% of value during this time period (DAR 2018a).

4.2 CULTURAL RESOURCES

Commercial aquarium collection occurs in the ocean in nearshore habitats (0-600 feet; 0-100 fathoms). Cultural, historic, and archaeological resources were evaluated within the nearshore habitats by consulting with knowledgeable parties, including Native Hawaiian fishers and the Hawai'i Hunting, Farming and Fishing Association (HFFA), which is an independent organization that represents Native Hawaiians and other parties engaged in hunting and fishing in Hawai'i. Additionally, texts, including those containing oral histories of cultural practices related to the ocean and fishing, were consulted.

Based on consultation with stakeholders and a review of texts containing oral histories, there are no archaeological or historical resources within the subject area that would be impacted by the proposed action. However, these sources did reveal that the ocean, its ecosystem, and the practice of fishing were and continue to be important in Native Hawaiian culture and tradition.

The belief system of Native Hawaiians links people with all living and non-living things (Mitchell et al. 2005). Under this belief system, because all components of ecosystems were descended from Wākea (sky father) and Papahanau-moku (earth mother) and their offspring, kini akua (multitude of gods), both living and non-living elements possess spiritual qualities and mana (spiritual power). As such, Native Hawaiians, as kanaka maoli (native people), are guardians of these ecosystems and their well-being is directly related to the well-being of these ecosystems (Mitchell et al. 2005).

For example, areas such as wao akua (upland forests) are sacred places, the realm of the gods (Mitchell et al. 2005). Native Hawaiian land ownership and resource management were often based on a unit called the ahupua'a, which typically corresponded with what we today call watershed areas. This understanding of the link from uplands to the ocean was ahead of its time (Mitchell et al. 2005). Kapu (taboo) systems that limited certain classes or sexes from eating certain animals or fishing in certain places or at certain times may have aided in the conservation of some species (e.g., only men were allowed to eat honu (green sea turtle) and only royalty could eat certain fishes) (Mitchell et al. 2005).

Additionally, native species in Hawai'i play a significant role in Native Hawaiian culture. Historically, feathers from forest birds were used to make elaborate capes, leis, and helmets for the ali'i (royalty). Whale ivory, shells, and shark's teeth were used for necklaces and other adornments (Mitchell et al. 2005). Fish and sea turtle bones were used as kitchen implements, tools, and fishhooks, while sea turtle shells and scutes were used as containers. Koa (*Acacia koa*) trees were used for the ocean-voyaging canoes (Mitchell et al. 2005).

Native wildlife also play an important role in Native Hawaiian culture as many species such as the pueo (*Asio flammeus sandwichensis* [Hawaiian short-eared owl]), 'io (*Buteo solitarius* [Hawaiian hawk]), 'elepaio (*Chasiempis sandwichensis* [Hawaiian elepaio]), 'alalā (*Corvus hawaiiensis* [Hawaiian crow]), sea turtles (e.g., *Caretta* spp., *Chelonia* spp., *Dermochelys* spp., *Eretmochelys*, and *Lepidochelys* spp.), and sharks (*Hexanchus* spp.) are believed to be 'aumakua (ancestors or guardians) of certain Hawaiian families (Mitchell et al., 2005). Hawaiian names have been given to many of the native wildlife and they have been incorporated into oli (chants) and mo'olelo (legends).

Native Hawaiian culture also contains specific customs, beliefs, and practices related to fisheries and aquatic resources (Maly and Maly 2003). Historical narratives include specific references to cultural sites, such as ko'a (on shore and in ocean fishing shrines and station markers), resources procurement sites (both on land and in the water), and the traditional and customary laws governing the care for, and use of, the wide range of resources from the uplands to the ocean (Maly and Maly 2003). These historical accounts demonstrate that Native Hawaiians worked the land, water, and marine resources and, through a system of religious-based fisheries management protocols, were able to sustain themselves through the natural resources of the islands (Maly and Maly 2003). Native Hawaiian traditions surrounding aquatic resources demonstrate the cultural-historical importance of fisheries and land in the lives of Native

Hawaiians and form the basis for Native Hawaiian's cultural attachment to the ocean and fishing today (Maly and Maly 2003).

Historical accounts demonstrate that Native Hawaiians were expert fishermen, and that fishing was a skill passed down generation to generation (Maly and Maly 2003). Native Hawaiians relied on fishing in the ocean for subsistence and consumption and employed traditional fishing methods that included the use of nets, hooks and lines, baskets, and hands (Maly and Maly 2003). In addition to serving as a source of food, aquatic resources and the practice of fishing were also linked to religious practices. Fishing was associated with religious ceremonies and fishermen traditionally worshipped fishing gods and goddesses and performed rituals related to certain species of fish (Maly and Maly 2003).

Numerous other examples of the use of native plants and animals in both daily life and ritual exist. In present day Hawai'i, the link between Native Hawaiian culture and native species has not been lost and continues to be practiced in belief systems, as well as in traditional practices such as gathering of native plants for hula, traditional medicines, carving, weaving, and ceremonies (Mitchell et al. 2005).

Today, Native Hawaiian teachings play an increasing role in natural resource management, especially in areas of cultural significance like Kaho'olawe or Wao Kele o Puna (island of Hawai'i). The CWCS recognizes that the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible, in accordance with Public Access Shoreline Hawai'i versus Hawai'i County Planning Commission and subsequent case law (Mitchell et al., 2005).

4.2.1 Cultural Aspects of the Commercial Aquarium Fishery

From Jokiel et al. (2011):

For the past century Hawai'i has been dominated by a "Western" model of marine environmental management. Recently, however, there has been a renewed interest in the traditional management practices of ancient Hawaiians. Throughout Hawai'i, a growing cultural, sociological, and scientific movement is working to investigate and revive some of these traditional management tools and to integrate them with modern scientific methodology. The native islanders had devised and implemented every basic form of what are now considered modern marine fisheries conservation measures centuries ago, long before the need for marine conservation was even recognized in Western nations (Johannes 1982). Traditional restrictions, gear restrictions, and restricted entry. Additional social, cultural, and spiritual controls strengthened the conservation ethic under the old system. Ancient Hawaiians used a holistic approach that we might now recognize and strive for as integrated coastal management. Bridging the gap between traditional management and Western science represents a challenge to researchers, government agencies, resource managers, cultural practitioners and organizations, and to the people of Hawai'i.

Act 306 and formation of the WHFC (Section 1.2.3) played a significant role in bridging that gap by creating a new aquarium fish management plan that is much closer to the traditional Hawaiian system.

Commercial aquarium fish collection has been on-going in Hawai'i since the late 1940's, with most fishers active in the fishery for more than 20 years and many active for 35 – 40 years. Protecting and preserving the reef, the fish, and the cultural heritage of both Hawai'i and the fishery, is in their best personal and business interest. Commercial aquarium fish collection is not a part of Native Hawaiian culture; however, Native Hawaiians do participate in and support the fishery and Hawaiian culture has been a significant aspect of the fishery's management since the 1970's. Although the process has been contentious at times, the WHFC has been successful. See Section 1.2.3.1 for a further description of their contributions and accomplishments.

4.3 PHYSICAL RESOURCES

The Hawaiian Archipelago is composed of 8 main islands and approximately 124 smaller islands, reefs, and shoals spanning over 1,500 miles that vary in size from fractions of acres to thousands of square miles (Mitchell et al. 2005). The Archipelago was formed over the last 70 million years through volcanic eruptions from a relatively stationary hotspot beneath the slowly moving seafloor. The island of Hawai'i is the youngest island, with island age increasing to the northwest as the Pacific plate carries the older islands away from the hotspot (Mitchell et al. 2005). Millions of years of erosion, subsidence, and reef building resulted in the formation of the atolls which form the Northwestern Hawaiian Islands and the submersion under the sea surface of the seamounts which used to be islands (Mitchell et al. 2005).

Located over 2,000 miles from the nearest continent, Hawai'i is the most remote island chain in the world (Mitchell et al. 2005). Despite its relatively small area (less than 4.1 million acres), an elevation range from sea level to 13,796 feet results in Hawai'i containing all the major known ecological zones. With a wide temperature range due to the elevational gradient and with average annual rainfall ranging from less than 15 inches to over 480 inches per year, Hawai'i displays most of the earth's variation in climatic conditions. Finally, Hawai'i possesses many natural wonders: the most active volcano in the world, the wettest place on earth, the tallest seacliffs, and extensive coral reefs (Mitchell et al. 2005).

Due to the large number and the varied geology of the islands, Hawai'i has diverse marine habitats, which range from estuaries, tidepools, sandy beaches, and seagrass beds to nearshore deep waters, extensive fringing and atoll reef systems, and smaller barrier reef systems (DLNR 2015). However, introduced mangroves have altered native coastal habitats in a number of places. The distribution of marine ecosystems in Hawai'i is a result of island age, reef growth, water depth, exposure to wave action, geography, and latitude. The marine habitats found on each island depend on the type of island: large and young, mature, or drowned islands and seamounts (DLNR 2015). Large and young islands such as the island of Hawai'i have recent lava flows and few, living structural coral reefs. Beaches are rocky except around bays, and drowned reefs may be found in deep waters or off parts of the east coast of Maui. Mature islands, such as O'ahu and Kaua'i in the Main Hawaiian Islands (MHI) and Nihoa and Necker in the Northwestern Hawaiian Islands (NWHI) are the most diverse, with habitat types ranging from estuaries and sandy beaches to rocky beaches and fringing and barrier reefs to lagoons with patch or pinnacle reefs. Drowned islands, such as atolls in the rest of the NWHI, are the remains of volcanic islands with habitats ranging from coral islets and benches to caves and terraces along the slope of the atoll (DLNR 2015).

4.3.1 Climate

Features of Hawai'i's climate include mild temperatures throughout the year, moderate humidity, persistence of northeasterly trade winds, significant differences in rainfall within short distances, and infrequent severe storms (Price 1983). For most of Hawai'i, there are only two seasons: "summer," between May and October, and "winter," between October and April. Hawai'i's length of day and temperature are relatively uniform throughout the year. Hawai'i's longest and shortest days are about 13.5 hours and 11 hours, respectively, compared with 14.5 and 10 hours for Southern California and 15.5 hours and 8.5 hours for Maine (Price 1983). Uniform day lengths result in small seasonal variations in incoming solar radiation and, therefore, temperature. On a clear winter day, level ground in Hawai'i receives at least 67% as much solar energy between sunrise and sunset as it does on a clear summer day. By comparison the percentages are only 33 and 20 at latitudes 40 and 50 degrees respectively (Price 1983).

Over the ocean near Hawai'i, rainfall averages between 25-30 inches per year. The islands receive as much as 15 times that amount in some places and less than one third of it in others. This is caused mainly by orographic or mountain rains, which form within the moist trade wind air as it moves from the sea over the steep and high terrain of the islands (Price 1983). Over the lower islands, the average rainfall distribution resembles closely the topographic contours. Amounts are greatest over upper slopes and crests and least in the leeward lowlands. On the higher mountains, the belt of maximum rainfall lies between 2,000-3,000 feet and amounts decrease rapidly with further elevation. As a result, the highest slopes are relatively dry (Price 1983). Another source of rainfall is the towering cumulus clouds that build up over the mountains and interiors on sunny calm afternoons. Although such convective showers may be intense, they are usually brief and localized. Hawai'i's heaviest rains are come from winter storms between October and April. While the effects of terrain on storm rainfall are not as great as on trade wind showers, large differences over small distances do occur, because of topography and location of the rain clouds. Differences vary with each storm. Frequently, the heaviest storm rains do not occur in areas with the greatest average rainfall. Relatively dry areas may receive, within a day or a few hours, totals exceeding half of their average annual rainfall (Price 1983). The leeward and other dry areas obtain their rainfall mainly from a few winter storms. Therefore, their rainfall is usually seasonal and, their summers are dry. In the wetter regions, where rainfall comes from both winter storms and trade wind showers, seasonal differences are much smaller (Price 1983).

At the opposite extreme, drought is not unknown in Hawai'i, although it rarely affects an entire island at one time. Drought may occur when there are either no winter storms or no trade winds (Price 1983). If there are no winter storms, the normally dry leeward areas are hardest hit. A dry winter, followed by a normally dry summer and another dry winter, can have serious effects. The absence of trade winds affects mostly the windward and upland regions, which receive a smaller proportion of their rain from winter storms (Price 1983).

The waters surrounding Hawai'i are affected by seasonal variations in climate and ocean circulation. The surface temperature of the oceans around Hawai'i follow a north-south gradient and range from 75°F in the MHI to 68°F to 72°F in the NWHI in winter and spring to 79°F - 81°F throughout all the islands in the late summer and fall (DLNR 2015). The depth of the thermocline, where water temperature reaches 50°F,

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is 1,500 feet northwest of the islands and 1,000 feet off the island of Hawai'i. Surface currents generally move east to west and increase in strength moving southward (DLNR 2015). The seas are rougher between islands than in the open ocean, because wind and water are funneled through the channels. Waves generated by north Pacific low-pressure systems are larger in the winter months than in the spring and are generally bigger on the northern shores of the islands than the southern shores. Marine organisms have adapted to these general climatological and oceanographic conditions (DLNR 2015).

Climate and oceanographic indicators highlight long-term trends and recent anomalous conditions in West Hawai'i's natural environment. The El Niño Southern Oscillation (ENSO), an irregular, large-scale climate phenomenon that drives changes in regional oceanic and atmospheric conditions, has shifted over the last four decades towards increased frequency and severity in El Niño conditions, with the recent 2015 El Niño as one of the strongest on record (Gove et al. 2016). Rainfall, which can influence salinity, temperature, sediment load, and nutrient concentrations in the marine environment, has been at or below the long-term average over the past 15 years while the intensity of short-term events has increased over the same time period. Long-term sea level, an important indicator for coastal erosion and flooding, is rising by an estimated 0.15 inch per year and is expected to reach 1.6 feet higher than present day levels by 2100. Sea surface temperature, an indicator of regional and climatic forcing that is highly influential to a myriad of ecological processes, was anomalously warm in recent years and reached a record level of thermal stress in September 2015, resulting in widespread and severe coral reef bleaching in West Hawai'i (Gove et al. 2016).

4.3.2 Physical Aspects of the Commercial Aquarium Fishery

Fishers typically interact with physical resources within recreational dive limits (RDL), generally from 35-70 feet deep (BIAAF, pers. comm.). Deeper waters are fished to a lesser extent, in depths beyond RDL (130 feet). Habitats most often fished are shallow water reefs consisting of rich coral growth over rocky substrate. These reefs can be adjacent to the shoreline or apart and isolated far offshore, with the distance usually dictated by how fast the bathymetric relief occurs. Deep water fish are caught off the edge (ledge) of the reefs where the depth drops off rapidly. Coral cover diminishes and typically the habitat consists of rocks and sand.

Aquarium fish collection is generally carried out by divers equipped with some form of underwater breathing apparatus (e.g., SCUBA, surface supplied air, rebreather equipment). Most fishing activity occurs off of a boat, although some shore diving does occur infrequently. Divers use hand nets, usually in combination with the placement of short, bottom-set barrier nets. Nets are typically 30 feet in length and 6 feet in height. Sometimes even smaller fence nets are used. Most often the netting is considered "fine" with a stretched mesh size less than 1 inch. The net is always made of monofilament. Other gear may include "poker sticks" (i.e., lightweight fiberglass poles used to herd fish), catch baskets or keeps (i.e., containers into which catch is transferred).

Once the fisher(s) reaches the bottom he/she quickly identify fish of interest. Fish are typically gathered into groups utilizing poker sticks to move fish along the reef until a satisfactory number have accumulated. At this point, the fisher with the barrier net looks for a natural demarcation in the reef (e.g., strip of sand or rubble) to set the net. The net is set in a "V" formation to corral the fish as they are

advanced into the net. The net is pulled back, halfway up creating a "pocket" and hooked onto bare substrate with some sort of fastener (e.g., rubber band). At this point the net is set and the fisher circles back on the gathered fish. The fish are then directed to the net and into the pocket. From the pocket, the fish are either scooped with a hand net, or collected by hand and transferred into a catch basket. All incidental catch is released immediately, and the net is gathered up. At the end of the dive the catch baskets are clipped onto a line suspended off the boat for a slow decompression.

4.4 **BIOLOGICAL RESOURCES**

Because of Hawai'i's geographical isolation, many of its coastal and marine species are endemic (i.e., native or restricted to a certain country or area) to the Hawaiian Archipelago (including Johnston Atoll). Approximately 15 to 25% of the marine species are endemic to the Hawaiian Archipelago, one of the largest proportions of marine endemism for any island chain in the world (Randall 2007, DLNR 2015). Of the 612 known nearshore fish species in Hawai'i, 25% are endemic to the Hawaiian Archipelago (Randall 2007). Yet because of the isolation, Hawai'i has relatively low marine species richness (i.e., diversity), with approximately 580 shallow reef fish species in contrast to areas of the Pacific further west with thousands of species. In total though, Hawai'i still has over 6,000 marine species (DLNR 2015).

Toonen et al. (2011) conclude that the Hawaiian Archipelago is not a single, well-mixed marine community, but rather there are at least four significant multi-species barriers to dispersal along the length of the island chain, and that species that appear capable of extensive dispersal, such as Yellow Tang and Kole, show significant population differentiation within the Hawaiian Archipelago. In addition, there are significant consensus genetic breaks that restrict gene flow between islands, including a barrier between the island of Hawai'i and the rest of the Main Hawaiian Islands (MHI).

4.4.1 White List Species

Concerns over continued expansion of the commercial aquarium fishery and its effects in the Open Areas prompted DLNR in 2013 to establish a 'White List' of 40 species which can be taken by aquarium fishers in the WHRFMA (Table 4). All other species of fish and invertebrates are off limits within the WHRFMA. Although other aquatic life is allowed to be collected from the eastern side of the island of Hawai'i, these 40 species represent the majority of fish that are collected in East Hawai'i.

Common Name	Scientific Name	Common Name	Scientific Name	
Yellow Tang	Zebrasoma flavescens	Lei Triggerfish	Sufflamen bursa	
Achilles Tang	Acanthurus achilles	(Forster's) Blackside Hawkfish	Paracirrhites forsteri	
Black Surgeonfish (chevron tang)	Ctenochaetus hawaiiensis	Thompson's Surgeonfish	Acanthurus thompsoni	
Shortnose (Geoffroy's) Wrasse	Macropharyngodon geoffroy	Pyramid Butterflyfish	Hemitaurichthys polylepis	
Goldrim Tang	Acanthurus nigricans	Multiband (Pebbled) Butterflyfish	Chaetodon multicinctus	
Fourspot Butterflyfish	Chaetodon quadrimaculatus	Hawaiian Dascyllus	Dascyllus albisella	

Table 4. White List species (DAR 2014a).

Common Name	Scientific Name	Common Name	Scientific Name	
Orangeband (Shoulder) Surgeonfish	Acanthurus olivaceus	Saddle Wrasse	Thalassoma duperrey	
Orangespine Unicornfish (Clown Tang)	Naso lituratus	Redbarred Hawkfish	Cirrhitops fasciatus	
Forcepsfish	Forcipiger flavissimus	Eightline Wrasse	Pseudocheilinus octotaenia	
Spotted Boxfish (Boxfish)	Ostracion meleagris	Fourlined Wrasse	Pseudocheilinus tetrataenia	
Yellowtail Coris (Clown Wrasse)	Coris gaimard	Brown Surgeonfish (Lavender, Forktail Tang)	Acanthurus nigrofuscus	
Milletseed (Lemon) Butterflyfish	Chaetodon miliaris	Hawaiian Whitespotted Toby (Puffer)	Canthigaster jactator	
Kole (Goldring Surgeonfish, Yelloweye, Goldring)	Ctenochaetus strigosus	Bluestripe Snapper (Taape)	Lutjanus kasmira	
Pencil Wrasse	Pseudojuloides cerasinus	Peacock Grouper (Roi, bluespot Peacock Grouper)	Cephalopholis argus	
Bird Wrasse	Gomphosus varius	Psychedelic Wrasse	Anampses chrysocephalus	
Blacklip Butterflyfish (Coral Butterflyfish)	Chaetodon kleinii	Tinker's Butterflyfish	Chaetodon tinkeri	
Potter's Angelfish	Centropyge potteri	Longfin Anthias	Pseudanthias hawaiiensis	
Ornate Wrasse (Pinkface)	Halichoeres ornatissimus	Flame Wrasse	Cirrhilabrus jordani	
Black Durgon	Melichthys niger	Fisher's Angelfish	Centropyge fisheri	
Gilded Triggerfish (Blue- throat Triggerfish)	Xanthichthys auromarginatus	Eyestripe Surgeonfish (Palani)	Acanthurus dussumieri	

The following sections provide a brief overview of the ecology of each White List species. Population estimates presented below are based on the NOAA Coral Reef Ecosystem Program (CREP; now known as the NOAA's Ecosystem Science Division) and the DAR West Hawaii Aquarium Project (WHAP) (see Section 4.4.7 for discussion of CREP and WHAP). Population estimates derived from both data sets have varying degrees of variability (described in Section 4.4.7) and are not a measure of absolute abundance. In addition, the CREP estimates are island-wide in depths of 0-98 feet (0-30 meters). The WHAP population estimates include only the Open (fished) Areas of the WHRFMA in depths of 30-60 feet. The difference in survey methods and area often leads to large differences in population estimates between the two data sets.

4.4.1.1 Yellow Tang (Zebrasoma flavescens)

The Yellow Tang is one of the most popular aquarium species, growing to 8 inches, oval in shape and laterally compressed, with a small mouth and eyes set high on the head. Adults are bright yellow and have modified scales along the base of the tail which can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas. At night, the yellow color darkens, and a white band appears along the lateral line (University of Hawai'i

2016). The Yellow Tang is found from shallow surge zones to a depth of 130 feet and occur in the Pacific Ocean: Ryukyu, Mariana, Marshall, Marcus, Wake, and Hawaiian Islands (fishbase.org 2018)

The Yellow Tang is the only solid yellow fish common throughout Hawai'i. This species is found in subtropical waters and is rare on the western extremes of its range. Flexible comb-like teeth are used to pick algae and seaweed that grow along the reefs. Young Yellow Tangs are associated with finger coral (*Porites compressa*) which is abundant in the coastal waters of the island of Hawai'i, but less so on O'ahu (Dr. Bruce Carlson, pers. comm.). They spend a large amount of time feeding and aggressively protect prime feeding territories (University of Hawai'i 2016).

Yellow Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef-drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Yellow Tang at the 0-98 foot depth in hardbottom habitats was approximately 8,262,144 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Yellow Tang at the 30-60 foot depth was approximately 1,663,775 individuals and in 2016/2017 was approximately 2,224,149 individuals.

4.4.1.2 Achilles Tang (Acanthurus achilles)

A member of the surgeonfish family, the Achilles Tang grows to 10 inches, is laterally compressed, and has a small mouth and eyes set high on the head. Adults are recognized by the bright orange patch at the base of the tail, where modified scales can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas (University of Hawai'i 2016).

The Achilles Tang is known in the West Pacific, Oceanic Islands of Oceania to the Hawaiian Islands and Pitcairn Islands as well as Wake, Marcus, and Mariana Islands. In the Eastern Central Pacific, they are found around the southern tip of Baja, California, Mexico, and other offshore islands (fishbase.org 2018). The Achilles Tang is present throughout Hawai'i and found near exposed coral reefs and rocky shores. Flexible comb-like teeth are used to pick algae and seaweed that grow along the reefs. They spend a large amount of time foraging and aggressively protecting prime feeding territories (University of Hawai'i 2016).

Achilles Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef-drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Achilles Tang at the 0-98 foot depth in hardbottom habitats was approximately 231,377 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Achilles Tang at the 30-60 foot depth was approximately 21,627 individuals and in 2016/2017 was approximately 13,960 individuals. As discussed and analyzed in

Section 5, the WHAP estimate is low because it does not assess the primary habitat and location of the Achilles Tang population on the island of Hawai'i.

4.4.1.3 Black Surgeonfish (Chevron Tang) (Ctenochaetus hawaiiensis)

The Black Surgeonfish is widespread throughout the tropical waters of the Pacific Ocean. Juveniles have blue and purple patterns on an orange to red background, these colors fade as the individual matures. Modified scales are present along the base of the tail which can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas (Randall and Clements 2001). The Black Surgeonfish is the 5th most collected aquarium fish in Hawai'i (DAR 2010).

Black Surgeonfish inhabits high energy shallow surge zones (IUCN 2017). The genus *Ctenochaetus* feed on fine detrital material. They whisk the sand or rocky substratum with their teeth and utilize suction to draw in the detrital material that consists of diatoms, small fragments of algae, organic material, and fine inorganic sediment (Randall and Clements 2001). Species of *Ctenochaetus* share the presence of a thick-walled stomach (Randall and Clements 2001), this character is significant with respect to the nutritional ecology of this genus (Choat et al. 2002b).

Black Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Black Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 549,462 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Black Surgeonfish at the 30-60 foot depth was approximately 34,678 individuals.

4.4.1.4 Shortnose (Geoffroy's) Wrasse (Macropharyngodon geoffroy)

The Shortnose Wrasse is endemic throughout the Hawaiian Islands and Johnston Atoll (Lobel 2003) and is found at depths between 20 and 100 feet. It has dark blue spots on a yellow to orange background. Research suggests that the Shortnose Wrasse is common throughout its range (Craig 2010). This species inhabits mixed sand, rubble patches, and coral reefs where it feeds on mollusks (Lieske and Myers 1994). Distinct pairs are formed during breeding (Breder and Rosen 1966).

Shortnose Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Shortnose Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 307,032 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Shortnose Wrasse at the 30-60 foot depth was approximately 3,222 individuals.

4.4.1.5 Goldrim Tang (Acanthurus nigricans)

The Goldrim Tang has a black to purplish-blue body with a small white mark on the cheek between the mouth and eyes. The fins are dark blue with lighter blue highlights along the edges. The tail is blue with a yellow vertical bar. A yellow stripe runs along the body, against the anal and dorsal fins, forming a wishbone-shaped marking. This species can be found throughout the eastern Indian Ocean to the Hawaiian Islands. Adults grow to about 8 inches and have a spine along the base of the tail used for defense against predators (Myers 1991). The Goldrim Tang is found along outer reefs at water depths between 6 and 220 feet and feed almost entirely on algae.

Spawning occurs in monogamous pairs during which time they can be alone or in small groups. Initially, larvae develop among plankton and then move to reefs where juveniles develop to adults (Kuiter and Tonozuka 2001). Goldrim Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Goldrim Tang at the 0-98 foot depth in hardbottom habitat was approximately 97,924 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Goldrim Tang at the 30-60 foot depth was approximately 7,517 individuals.

4.4.1.6 Fourspot Butterflyfish (Chaetodon quadrimaculatus)

The upper half of the Fourspot Butterflyfish is black with two white spots. The lower half is yellow with a light blue trim around the dorsal and anal fins. They are sometimes confused with angelfish but lack a cheekspine. This species is found throughout the Indian Ocean.

Individuals are frequently found on exposed reefs between 6 and 140 feet where they feed mainly on coral polyps. Fourspot Butterflyfish are often observed alone; however, they form district pairs during breeding (Breder and Rosen 1966).

Fourspot Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fourspot Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 797,673 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Fourspot Butterflyfish at the 30-60 foot depth was approximately 22,000 individuals.

4.4.1.7 Orangeband (Shoulder) Surgeonfish (Acanthurus olivaceus)

The Orangeband Surgeonfish occurs in tropic waters of the Indo-west Pacific. The head and anterior half of the Orangeband Surgeonfish are distinctly paler than that of the dark grayish brown posterior.

Juveniles are bright yellow. Orangeband Surgeonfish are commonly found in small groups near reefs at depths of 30 to 150 feet (Randall and Clements 2001) where they feed on detritus, diatoms, and algae (Myers 1991).

Orangeband Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Orangeband Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 1,319,924 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Orangeband Surgeonfish at the 30-60 foot depth was approximately 26,101 individuals.

4.4.1.8 Orangespine Unicornfish (Clown Tang) (Naso lituratus)

The Orangespine Unicornfish has a black dorsal fin, with the black continuing onto the back as a pointed projection, with a pale blue line at base. The anal fin is mainly orange while the caudal fin is yellow. The caudal peduncle bears two forward-directed spines (Randall and Clements 2001). Orangespine Unicornfish are found at depths of 16 to 100 feet along coral, rock, and rubble of seaward reefs. They feed mostly on leafy brown algae and sometimes in groups (Randall and Clements 2001). Distinct pairs are formed during breeding.

Orangespine Unicornfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

The species is found throughout the Indo-Pacific from the Red Sea (except the Gulf of Oman and Persian Gulf) south to Natal and east to Hawai'i and French Polynesia. In the western Pacific from Suruga Bay to the southern Great Barrier Reef (Randall and Clements 2001).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Orangespine Unicornfish at the 0-98 foot depth in hardbottom habitat was approximately 897,085 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Orangespine Unicornfish at the 30-60 foot depth was approximately 150,642 individuals.

4.4.1.9 Forcepsfish (Forcipiger flavissimus)

The Forcepsfish has a long black snout, and the head is dark brown to black above and white below. The body is yellow with a black spot on the anal fin. Adults can grow up to 8 inches. This species is widespread throughout the Hawaiian Islands and the tropical waters of the Indo-Pacific area (University of Hawai'i 2016).

The Forcepsfish typically lives along exposed outer reefs containing abundant coral growth, caves, and ledges, and occasionally within lagoon reefs. This species usually occurs in pairs but may also be

encountered as solitary animals or in small groups. It feeds on a variety of small animals including hydroids, fish eggs, and crustaceans, but prefers tube feet of echinoderms, pedicilaria of sea urchins, and polychaete tentacles (Myers 1991).

Forcepsfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Forcepsfish at the 0-98 foot depth in hardbottom habitat was approximately 435,954 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Forcepsfish at the 30-60 foot depth was approximately 43,999 individuals.

4.4.1.10 Spotted Boxfish (Boxfish) (Ostracion meleagris)

The Spotted Boxfish is Hawai'i's most common boxfish. Juvenile and female Spotted Boxfish are brown to green with white spots while the males have orange bands and spots on the side of the body. They are found throughout the Hawaiian Islands and inhabit clear lagoons and seaward reefs from 3 to 100 feet. Juveniles are often observed among rocky boulders (Myers 1991).

Spotted Boxfish live in small haremic groups, usually one male to several females. They forage alone within their home ranges for sponges, worms, mollusks, copepods, and algae. Males defend territories against other males (Myers 1991).

Spotted Boxfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Spotted Boxfish at the 0-98 foot depth in hardbottom habitat was approximately 94,937 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Spotted Boxfish at the 30-60 foot depth was approximately 9,322 individuals.

4.4.1.11 Yellowtail Coris (Clown Wrasse) (Coris gaimard)

Juvenile Yellowtail Coris are bright red with white spots, as individuals mature into females they fade to orange with blue spots and a bright yellow tail. Like other wrasses (Family Labridae) adults may undergo a sex change from female to male. Males are distinguished by a green bar on the side of the body and a dark band on the upper and lower fins and numerous blue spots (University of Hawai'i 2016).

The Yellowtail Coris is a solitary species that is found in mixed coral, sand and rubble of outer reefs, lagoons, and seaward reefs. They feed primarily on mollusks, crabs, and tunicates (Myers 1991). Prominent canine teeth help this fish pick small crustaceans and mollusks from the reef. Active during the day, they take shelter in reef crevices or bury in sand at night (University of Hawai'i 2016).

Distribution ranges are from Western Australia, Cocos – Keelings Islands, Christmas Island in the eastern Indian Ocean, Southern Japan to New South Wales, Lord Howe Island and east to Hawaiian Islands (Randall 2007). Phylogeographic analyses show that the Hawaiian population is genetically distinct from elsewhere in the Pacific (Ahti et al. 2016).

Yellowtail Coris are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Yellowtail Coris at the 0-98 foot depth in hardbottom habitat was approximately 391,507 individuals. WHAP data indicate the 2104 WHRFMA Open Area population of Yellowtail Coris at the 30-60 foot depth was approximately 19,762 individuals.

4.4.1.12 Milletseed (Lemon) Butterflyfish (Chaetodon miliaris)

The Milletseed Butterfly fish is endemic to Hawai'i and the most common species of butterflyfish in Hawai'i including the Johnston Atoll (Lobel 2003). The species is named for the seed-sized black specks that are distributed in vertical rows on its lemon-yellow body. Other distinctive features are a black mask through the eye and a black spot near the tail. Adults reach lengths of 6.5 inches (University of Hawai'i 2016).

Habitat for this species includes coastal fringing reefs, lagoons, and outer reefs, with juveniles found on shallow inner reefs from April to June (IUCN 2017). The Milletseed Butterflyfish feeds primarily on zooplankton above the reef, but sometimes cleans other fishes and is also known to feed on nests of damselfish eggs if left unprotected.

Milletseed Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Milletseed Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 122,588 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Milletseed Butterflyfish at the 30-60 foot depth was approximately 7,085 individuals. However, much of the Milletseed Butterflyfish population occurs below the 60-foot depth surveyed by the WHAP and below the 98-foot depth surveyed by the CREP, and therefore the population is underestimated by both surveys.

4.4.1.13 Kole (Goldring Surgeonfish, Yelloweye, Goldring) (Ctenochaetus strigosus)

The Kole is endemic to the Hawaiian Islands (Randall and Clements 2001) and Johnston Atoll (Lobel 2003). It is brown with light blue to yellow horizontal stripes over its body which change into spots towards the face. It also has a yellow ring surrounding the eye.

Individuals are usually solitary and mainly found in shallow water, although it has been recorded at depths of 370 feet. This species is herbivorous, grazing on diatoms and algae from the sand or reef (Randall and Clements 2001), and has also been commonly observed to clean algal growths from the shells of sea turtles (Work and Aeby 2014).

Kole are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Kole at the 0-98 foot depth in hardbottom habitat was approximately 11,697,561 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Kole at the 30-60 foot depth was approximately 3,616,529 individuals and in 2016/2017 was approximately 4,662,582 individuals.

4.4.1.14 Pencil Wrasse (Pseudojuloides cerasinus)

Body color and pigmentation has been shown to vary geographically in the Pencil Wrasse; however, the most common coloration is a salmon pink body with yellowish fins. A blue to yellow double stripe extends from the head to the tail. Adults can grow up to 5 inches (Myers 1991). This species is found throughout Indian and Pacific oceans from east Africa to the Hawaiian Islands.

The Pencil Wrasse is found in clear lagoons, outer reef faces, and coral rubble at depths of 7 to 200 feet. They are also common among live coral and areas with large algae clumps (Myers 1991). When threatened, they will hide among the rubble, bury in the sand, or try to out-swim predators. Pencil Wrasses feed on small, benthic invertebrates, mainly fan worms and small crustaceans that they pluck from the substrate. The Pencil Wrasse is found in areas with abundance of sand and gradual bathymetric relief; typically, north western region of the Big Island (BIAAF pers. comm.).

Pencil Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Pencil Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 169,025 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Pencil Wrasse at the 30-60 foot depth was approximately 19,390 individuals.

4.4.1.15 Bird Wrasse (Gomphosus varius)

The Bird Wrasse has an elongated body and is laterally compressed. Adults can reach 12 inches and are easily recognized by their long snout; juveniles lack the snout and are thus difficult to identify. The first third of the body is lightly colored and the posterior is grayish with a dark border. Males tend to be more uniformly colored (Myers 1999).

The Bird Wrasse is commonly found along external slopes, reefs, and lagoons at depths of 6 to 100 feet (Myers 1991). This wrasse feeds mainly on small benthic crustaceans, and sometimes on small fishes, brittle stars, and mollusks. The Bird Wrasse is a sequential hermaphrodite, meaning juveniles develop first into females and then change to males based on external stimuli (Randall et al 1990).

Bird Wrasse are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Bird Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 877,224 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Bird Wrasse at the 30-60 foot depth was approximately 43,254 individuals.

4.4.1.16 Blacklip Butterflyfish (Coral Butterflyfish) (Chaetodon kleinii)

The body of the Blacklip Butterflyfish is yellow/brown with one or two broad lighter vertical bars, one running from the dorsal spine to the belly, and one from the middle of the back to the center of the body. A black bar runs vertically across the eye, the part before this is whitish, with a black snout. The color varies somewhat across its range (Burgess 1978).

The Blacklip Butterflyfish is found along rocky reefs and coral-rich areas of lagoons, channels, and outer reef slopes at depths of 6-200 feet. This species is mostly solitary but has been observed in pairs, and occasionally in large groups of up to about 30 individuals, sometimes high in the water column. It is a facultative corallivore, feeding on hard and soft corals, as well as algae, hydroids, and zooplankton (Myers 1991). Distinct pairing has been observed during breeding (Breder and Rosen 1966). Its range includes the east coast of Africa to the Hawaiian Islands and South Wales (Randall 2007).

Blacklip Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Blacklip Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 131,260 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Blacklip Butterflyfish at the 30-60 foot depth was approximately 5,593 individuals.

4.4.1.17 Potter's Angelfish (Centropyge potteri)

The bright orange and blue Potter's Angelfish is an endemic species found along Hawaiian reefs and the Johnston Atoll (Lobel 2003). Like other angelfishes, this species is recognized by a heavy, curved spine on its "cheek" near the edge of the gill cover. However, because it generally only reaches approximately 5 inches, it is considered a 'pygmy' angelfish. Its slender, disc-shaped body is well-suited to life on a coral reef.

Individuals limit their movements to a well-defined area close to the shelter of finger coral branches, usually at depths of at least 15 feet. Active by day, it feeds on algae and detritus on dead coral surfaces. At night, it remains alert but inactive, protected within the coral. Angelfishes are very dependent upon the protection of coral caves and crevices and are rarely seen over sandy stretches or other areas that offer little cover. They are often territorial and spend most of their time near the bottom in search of food. They have small mouths and many flexible, comb-like teeth used for plucking or scraping food from the rocks (University of Hawai'i 2016).

Peak reproductive activity occurs from mid-December through May. They spawn at dusk during the week before full moon (Allen 1985). Among angelfishes, a sex reversal from female to male can be part of the life history. Most small individuals are female and larger, more colorful individuals are male. Larger, brighter males are usually accompanied by smaller, drabber females, forming a harem. A dominant female Potter's Angelfish changes sex to become the harem master if the male is removed (University of Hawai'i 2016).

Potter's Angelfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Potter's Angelfish at the 0-98 foot depth in hardbottom habitat was approximately 1,087,709 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Potter's Angelfish at the 30-60 foot depth was approximately 237,149 individuals.

4.4.1.18 Ornate Wrasse (Pinkface) (Halichoeres ornatissimus)

This small wrasse has a pinkish head that is marked with horizontal green lines. The throat and belly are blue; scales on the sides are marked by a vertical, crescent-shaped stripe followed by blue. The dorsal fin is dark red with green spots and is traced by green and blue lines. A large dark spot on the dorsal fin and one just behind the eye are common identifiers. Males usually have more intense coloration than females (University of Hawai'i 2016). The Ornate Wrasse range extends from the Philippines to the Great Barrier Reef, New Caledonia, and east to the Hawaiian Islands (Randall 2007).

The Ornate Wrasse has an elongate soft body that is tapered and spindle-shaped. The dorsal fin is continuous, rounded, and soft. The pectoral fins are used extensively for swimming with up and down motions. The snout has a pointed mouth, fleshy lips, and canine teeth used in plucking small crustaceans and mollusks from the reef. Special bones in the gill area called pharyngeal bones help the wrasse crush the shells of their prey. The Ornate Wrasse is diurnal, feeding during the day, and sheltering in reef crevices or burying in sand patches at night. The Ornate Wrasse, like others within this family (Labridae) undergo sex changes as they develop (University of Hawai'i 2016).

Ornate Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Ornate Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 1,630,224 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Ornate Wrasse at the 30-60 foot depth was approximately 192,404 individuals.

4.4.1.19 Black Durgon (Melichthys niger)

The Black Durgon is a triggerfish with bright white lines running along its dorsal and anal fins. The body is mottled dark blue or green with an orange head. To camouflage itself, this species changes color based on habitat surroundings (Hoover 2008).

The habitat preference of the Black Durgon includes open waters and shallow exposed reefs at water depths of 15 to 115 feet. The diet consists primarily of calcareous algae and zooplankton. A study conducted in the Fernando de Noronha Archipelago showed the feces and vomit of Spinner dolphins (*Stenella longirostris*) formed part of the diet of Black Durgon. The study showed individuals could discern the postures dolphins assumed prior to voiding and would position themselves for effective feeding (Sazima et al. 2003). The Black Durgon has a circumtropical distribution (Randall 2007).

The Black Durgon produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Black Durgon at the 0-98 foot depth in hardbottom habitat was approximately 1,354,454 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Black Durgon at the 30-60 foot depth was approximately 38,033 individuals.

4.4.1.20 Gilded Triggerfish (Bluethroat Triggerfish) (Xanthichthys auromarginatus)

The Gilded Triggerfish is found throughout the Indian and Pacific oceans from east Africa to the Hawaiian Islands. The female Gilded Triggerfish lacks the blue patch on the throat and yellow tail of the male. Both sexes have a blue ring around the eye and a lavender/gray blue body with gray to white spots that make a linear pattern. Adults can grow up to 12 inches.

This species is found along drop-offs and ledges at water depths of 75 to 480 feet. This species prefers current-swept areas with abundant invertebrate growth. Small groups have been observed at 10-20 feet above the bottom feeding on zooplankton, specifically copepods (Breder and Rosen 1966).

The Gilded Triggerfish produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Gilded Triggerfish at the 0-98 foot depth in hardbottom habitat was approximately 129,089 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Gilded Triggerfish at the 30-60 foot depth was approximately 11,186 individuals.

4.4.1.21 Lei Triggerfish (Sufflamen bursa)

The Lei Triggerfish is found throughout the Indian and Pacific oceans from east Africa to the Hawaiian Islands. This species is also known as the boomerang triggerfish for the characteristic V-shaped mark behind the eye which is yellow-orange or brown-green. Adults can grow up to 9.5 inches.

This species is common on clear inner and outer reefs and drop-offs from 10 to 300 feet, where they feed on crabs, bivalves, gastropods, algae, echinoids, tunicates, worms, eggs, and detritus. Lei Triggerfish have been shown to form distinct pairing during breeding (Breder and Rosen 1966).

The Lei Triggerfish produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Lei Triggerfish at the 0-98 foot depth in hardbottom habitat was approximately 1,299,027 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Lei Triggerfish at the 30-60 foot depth was approximately 76,440 individuals.

4.4.1.22 (Forster's) Blackside Hawkfish (Paracirrhites forsteri)

The Blackside Hawkfish is yellow with a broad black or dark brown lateral band on the rear half of the body. The sides of the head and the front of the body are whitish or grey, with red speckles but there is considerable color variation among adults (Randall 1986). Geographical differences in color have also been recorded in juveniles (Myers 1999). This species ranges throughout the Indian and Pacific oceans. Adults can grow up to 8 inches.

The Blackside Hawkfish is commonly found in clear lagoons or seaward reefs at a depth of 15 to 115 feet (Lieske and Myers 1994). To hunt, the hawkfish perches on branches of coral and ambushes small fish, crustaceans, and shrimp. This species is a sequential hermaphrodite, meaning juveniles develop into females and then change to males based on external stimuli (Myers 1999).

Blackside Hawkfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Blackside Hawkfish at the 0-98 foot depth in hardbottom habitat was approximately 246,727 individuals. WHAP data indicate the

2012/2013 WHRFMA Open Area population of Blackside Hawkfish at the 30-60 foot depth was approximately 20,508 individuals.

4.4.1.23 Thompson's Surgeonfish (Acanthurus thompsoni)

The body of the Thompson's Surgeonfish is uniformly black to dark brown. The caudal fin is pale with a small dark spot below the pectoral fin. This species ranges throughout the Indian and Pacific Oceans.

This species inhabits steep outer reef slopes and drop-offs of 16 to 230 feet deep. Thompson's Surgeonfish have been observed schooling in groups feeding on zooplankton, fish eggs and crustaceans (Randall 1956).

Thompson's Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Thompson's Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 405,776 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Thompson's Surgeonfish at the 30-60 foot depth was approximately 91,728 individuals.

4.4.1.24 Pyramid Butterflyfish (Hemitaurichthys polylepis)

The Pyramid Butterflyfish has a dark brown-yellow area that fully masks the head and extends to a line from the first rays of the dorsal fin to the start of the pelvic fins. The rest of its body is white. Large yellow-orange areas at the top of the side form a characteristic pyramidal pattern, giving this species its name. This species is found throughout the tropical and subtropical waters of the Indian and Pacific oceans (Myers 1999).

This fish aggregates in large schools in open water at the edges of steep outer reef slopes at depths of 10 to 200 feet (Lieske and Myers 1994). The Pyramid Butterflyfish feeds mostly on plankton and forms pairs during breeding (Breder and Rosen 1966).

Pyramid Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Pyramid Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 23,217 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Pyramid Butterflyfish at the 30-60 foot depth was approximately 56,677 individuals.

4.4.1.25 Multiband (Pebbled) Butterflyfish (Chaetodon multicinctus)

The Multiband Butterflyfish is endemic to the Hawaiian Islands and Johnston Atoll (Lobel 2003). The body is white with five or six brown vertical bands. A dark vertical bar runs along the eye and a black band along the tail fin. The distinguishing feature is an overall covering of small spots which create a pattern of horizontal and vertical lines along the body.

The Multiband Butterflyfish inhabits heavy coral areas of lagoon and seaward reefs at depths of 15 to 100 feet. This species mainly feeds on the polyps of small corals but also supplement their diet with worms, shrimps, hydroids, and algae fragments. This species is often seen in monogamous pairs and defending an established territory (Breder and Rosen 1966).

Multiband Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Multiband Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 1,788,604 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Multiband Butterflyfish at the 30-60 foot depth was approximately 580,196 individuals.

4.4.1.26 Hawaiian Dascyllus (Domino) (Dascyllus albisella)

The Hawaiian Dascyllus is endemic to shallow, protected coral reefs around the Hawaiian Islands and Johnston Atoll (Lobel 2003). The center of the body is pale white, and the edges are dark gray to black.

This species feeds on zooplankton, invertebrates, and algae at water depths of 3 to 160 feet. Adults are most often observed in protected areas of shallow water with coral or rocky bottoms (Lieske and Myers 1994). Breeding occurs in pairs with eggs deposited in substrate and the males guarding and aerating (Breder and Rosen 1966).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Hawaiian Dascyllus at the 0-98 foot depth in hardbottom habitat was approximately 225,153 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Hawaiian Dascyllus at the 30-60 foot depth was approximately 57,796 individuals.

4.4.1.27 Saddle Wrasse (Thalassoma duperrey)

The Saddle Wrasse is a common and endemic reef fish of Hawai'i and Johnston Atoll (Lobel 2003). It is found at depths ranging from 16 to 98 feet. This species has a blue head, green body with a prominent red saddle and purple highlights around the edges of the fins (University of Hawai'i 2016).

This species is commonly observed alone, in pairs, or in small groups close to the reef where they forage for small crustaceans, mollusks, worms, urchins, and brittlestars. Canine teeth are used to pick these invertebrates from the reef. Most individuals begin life as females, when older they show the typical blue,

red, and green pattern. Females that change to males, which is common in the wrasse family (Labridae) and have a white bar behind the red saddle. These sex-changed males are called "terminal phase" males and become dominant territory holders that maintain a harem of females (University of Hawai'i 2016).

Saddle Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Saddle Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 6,396,052 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Saddle Wrasse at the 30-60 foot depth was approximately 537,688 individuals.

4.4.1.28 Redbarred Hawkfish (Cirrhitops fasciatus)

The Redbarred Hawkfish is found throughout the Hawaiian Islands and Indo-Pacific oceans in a variety of reef habitats at depths of 3 to 170 feet. Primary habitats include seaward reefs and areas with abundant coral growth (Lieske and Myers 1994). Bright red bands and speckles are found on the body, adults grow to 5 inches. This species feeds primarily on small fish, shrimp, and crab and occasionally on zooplankton (Randall 1985). The name hawkfish comes from their habit of "swooping" down on prey or invaders from "perches".

Redbarred Hawkfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Redbarred Hawkfish at the 0-98 foot depth in hardbottom habitat was approximately 231,580 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Redbarred Hawkfish at the 30-60 foot depth was approximately 9,665 individuals.

4.4.1.29 Eightline Wrasse (Pseudocheilinus octotaenia)

The Eightline Wrasse is widespread from east Africa to the Hawaiian Islands. This species has variable color patterns from yellowish/orange to a pink/reddish body. The distinguishing feature of this species are the eight horizontal stripes, ranging from orange to a maroon red. They have a pointed head and mouth which enable them to feed on coral reef invertebrates such as, mollusks, sea urchins, fish eggs, and crab larvae (Myers 1991, 1999).

The Eightline Wrasse inhabits corals and seaward reefs at depths of 6 to 164 feet (Myers 1991) and forms distinct mating pairs (Breder and Rosen 1966). This species is diurnal, feeding during the day and resting at night.

Eightline Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Eightline Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 689,221 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Eightline Wrasse at the 30-60 foot depth was approximately 187,557 individuals.

4.4.1.30 Fourline Wrasse (Pseudocheilinus tetrataenia)

The Fourline Wrasse is found in the tropical waters of the north and south Pacific. This species has a green body with blue and purple fins and four horizontal stripes that run across the upper half of the body. Each stripe is made up of three smaller stripes: one black, one blue and one red stripe. The eye is red with two white lines on it.

This species is secretive and inhabits seaward reefs, among coral or rubble at depths of 20 to 144 feet. This species uses the small heads of live coral to hide from predators (Myers 1991) and is thought to mainly feed on demersal eggs, copepods, amphipods, alpheid shrimp, crabs, larval shrimp, and gastropods (Myers 1999). The Fourline Wrasse forms distinct pairing during breeding (Breder and Rosen 1966).

Fourline Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fourline Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 1,253,164 individuals. WHAP data indicate the 2104 WHRFMA Open Area population of Fourline Wrasse at the 30-60 foot depth was approximately 327,758 individuals, but due to its secretive behavior, visual counts usually underestimate its numbers.

4.4.1.31 Brown Surgeonfish (Lavender, Forktail Tang) (Acanthurus nigrofuscus)

The Brown Surgeonfish is one of the 10 most collected aquarium fish in West Hawai'i (DAR 2018a). This species is common throughout the Indo-Pacific oceans and is one of the most abundant surgeon fishes (Randall 2002). It is a small but aggressive fish with bluish gray vertical stripes along the body. The pectoral fins are pale with the upper edge narrow and black; pelvic fins are brown. Lips blackish brown, and the dorsal fin base has a prominent black spot larger than 1/2 the eye diameter; a smaller spot is present on base of the anal fin.

The Brown Surgeonfish is often found on hard substrates of lagoons and seaward reefs at depths of 6 to 82 feet (Domeier and Colin 1997) where it feeds exclusively on filamentous algae. Adults are usually observed in small groups but can also form large schools in open water. Juveniles are often associated with mixed species aggregations (Kuiter and Tonozuka 2001) and forms large spawning groups of up to several thousand individuals (Domeier and Colin 1997). Phylogeographic analyses reveal that the Hawaiian population is genetically connected to other locations in the Central Pacific, comprising a very large management unit in terms of both geography and numbers of individuals (Eble et al. 2011).

Brown Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and

sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Brown Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 14,439,543 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Brown Surgeonfish at the 30-60 foot depth was approximately 1,646,996 individuals.

4.4.1.32 Hawaiian Whitespotted Toby (Puffer) (Canthigaster jactator)

The Hawaiian Whitespotted Toby is endemic to Hawai'i and the Johnston Atoll (Lobel 2003). This species belongs to the pufferfish family (Tetraodontidae) and reaches lengths of 4 inches. The body is brown with white spots, the eye is green.

Hawaiian Whitespotted Toby are common in lagoon and seaward reefs at depth of 3 to 290 feet (Mundy 2005). This species has also been found to utilize man-made structures (Brock 1981) and has been shown to feed on sponges, algae, detritus, tunicates, polychaetas, bryozoans, sea urchins, brittle stars, crabs, peanut worms, shrimps, zoanthids, fishes, amphipods and foraminiferans (Randall 1985). It often is afflicted with parasitic worms (nematodes), causing it to become inflated (Deardorff and Stanton 1983).

Breeding behavior has not been documented for the Hawaiian Whitespotted Toby; however, the eastern pacific white-spotted toby (*Canthigaster punctatissima*) has been found to be sexually dimorphic. It is likely that the toby's breeding behavior is similar. Males and females guard their territories against others of the same sex. Male areas include the smaller territories of multiple females. Males mate with a female from their harem one at a time.

The Hawaiian Whitespotted Toby is a broadcast spawner, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Hawaiian Whitespotted Toby at the 0-98 foot depth in hardbottom habitat was approximately 685,517 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Hawaiian Whitespotted Toby at the 30-60 foot depth was approximately 250,573 individuals.

4.4.1.33 Bluestripe Snapper (Taape) (Lutjanus kasmira)

The Bluestripe Snapper is an introduced species in Hawai'i. It has a bright yellow body and fins with four horizontal blue stripes. The yellow fades to white in the lower third of the body. The body is moderately compressed laterally, with an average length of 13.5 inches (Allen 1985a). This species is found throughout the Indo-Pacific oceans.

The Bluestripe Snapper inhabits shallow-water reefs (100 to 500 feet) where it feeds on shrimp, cephalopods, gastropods, crabs, and small fish. This species also utilizes artificial structures in shallow bays throughout its range. Juveniles have been found to use seagrass beds until reaching maturity

(Lieske and Myers 1994). The introduction of this fish into Hawai'i included at least one non-native parasite that has spread to local fishes (Gaither et al. 2013).

Bluestripe Snapper are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Allen 1985a, Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Bluestripe Snapper at the 0-98 foot depth in hardbottom habitat was approximately 7,092,851 individuals. However, this is a low estimate because much of the Bluestripe Snapper population occurs below the 98-foot depth surveyed by the CREP (2018) and is not observable by the methods of the survey. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Bluestripe Snapper at the 30-60 foot depth was approximately 7,830 individuals. The large difference in these estimates results from the larger survey area of the CREP survey which samples more of the population.

4.4.1.34 Peacock Grouper (Roi, Bluespot Peacock Grouper) (Cephalopholis argus)

The Peacock Grouper is widely distributed throughout the Indo-Pacific oceans and has been introduced to the Hawaiian Islands. Individuals can reach a length of up to 24 inches and are identified by white vertical stripes on the back half of a brown colored body. Peacock Grouper was thought to present a risk to native species of Hawai'i (Dierking 2007). However, a recently completed 5.5-year study found that removal of the Peacock Grouper did not translate into sustained increases in prey, nor to increases in total fish biomass (Giddens et al. 2017).

This Peacock Grouper prefers exposed reef front habitats with a water depth of 3 to 30 feet, while juveniles utilize thick pockets of coral (Myers 1999). Individuals use a variety of hunting techniques to capture prey. They may hover and wait, stalk prey, and follow larger predators such as eels and attack missed prey (Hoover 2008). Dierking et al. (2009) found reef fishes were the principal diet component (97.7% by % Index of Relative Importance [IRI]) of Peacock Grouper, with all 10 of the most abundant species on West Hawai'i reefs found in the stomachs of Peacock Grouper. Some fishes that were rare in the reef environment in West Hawai'i were found to be important components of the diet, while others, although highly abundant on West Hawai'i reefs, had low dietary importance. Crustaceans were the only other higher taxonomic group in the diet but were of minor importance (2.3% by %IRI) (Dierking et al. 2009).

Peacock Grouper are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984). Males defend territories and their harem of up to six females from other males.

CREP (2018) data indicate that the 2016 island of Hawai'i population of Peacock Grouper at the 0-98 foot depth in hardbottom habitat was approximately 476,556 individuals. WHAP data indicate the 2012/2013

WHRFMA Open Area population of Peacock Grouper at the 30-60 foot depth was approximately 24,610 individuals.

4.4.1.35 Psychedelic Wrasse (Anampses chrysocephalus)

The Psychedelic Wrasse is endemic to the Hawaiian Islands and is found among seaweed coral reefs at depths from 40 to 450 feet (Lieske and Myers 1994). This species is dark brown with white spots and a red tail. However, like others in the wrasse family, as the females mature they undergo a color and sexual transition to the "terminal phase" male. These males have a bright orange head covered in blue spots and radiating lines. Psychedelic Wrasse terminal phase males are usually only found in depths greater than 50 feet (DLNR 2015). The main prey for the Psychedelic Wrasse are macro-invertebrates found among the rocks and corals it inhabits. Females usually form small groups with a single male (Lieske and Myers 1994).

Psychedelic Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Psychedelic Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 36,770 individuals. However, the Psychedelic Wrasse occupies habitat below the 98-foot depth surveyed by the CREP (2018) study. As such, this is likely a low estimate, because much of the population is not observable by the methods of the study. WHAP could not produce estimates for this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Psychedelic Wrasse is a DLNR Species of Greatest Conservation Need (SGCN, Section 4.4.3), but is considered a species of 'Least Concern' by the IUCN (2017).

4.4.1.36 Tinker's Butterflyfish (Chaetodon tinkeri)

The Tinker's butterflyfish is identified by a gold mask over the eye, with a diagonal demarcation separating a white lower/front part of the body and head from a black upper rear portion. Tinker's Butterflyfish is found from Hawai'i Island through O'ahu (DLNR 2015), and the Johnston Atoll to the Marshall Islands (Lobel 2003). Tinker's Butterflyfish can be found at least as deep as 400 feet on O'ahu and Hawai'i (Pyle pers. comm.) on coral reef slopes. Common prey species for Tinker's Butterflyfish include small invertebrates, crabs, and worms (Pyle 2001).

Tinker's Butterflyfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Tinker's Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 18,475 individuals. However, the vast majority of the population occurs well below the 98-foot depth surveyed by the CREP and is not observable by the methods of the survey. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Tinker's Butterflyfish is a DLNR SGCN (Section 4.4.3) but is considered a species of 'Least Concern' by the IUCN (2017).

4.4.1.37 Longfin Anthias (Pseudanthias hawaiiensis)

The Longfin Anthias can grow up to 4 inches and is bright yellow to orange with red and purple along the fins. It is endemic to Hawai'i and the Johnston Atoll (Lobel 2003) and is found in caves or coral rubble along steep drop-offs from 85 to 400 feet deep (Randall 2007). This species feeds primarily on larvae of crustaceans and fish eggs (Bachhet et al. 2006).

Longfin Anthias are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

Most of the Longfin Anthias population occurs below the 98-foot depth surveyed by the CREP and the 60foot depth surveyed by the WHAP, and therefore the species is not observable by the methods of either survey. As such, data are not available to produce a reliable WHRFMA or island-wide population estimate.

4.4.1.38 Flame Wrasse (Cirrhilabrus jordani)

The Flame Wrasse is endemic to the Hawaiian Islands and the Johnston Atoll (Lobel 2003, Lieske and Myers 1994). Females are bright red on the dorsal part of the body fading to a light pink on the ventral side. The fins are opaque with some yellow features on the face. Females grow to about 3 inches before they begin to transform into a male. As the male matures the dorsal remains bright red fading into a vibrant yellow orange.

The Flame Wrasse utilizes seaward reefs and forms groups above large drop-offs at a depth of 15 to 600 feet, where it feeds exclusively on zooplankton along the ocean floor (Lieske and Myers 1994). Prime Flame Wrasse habitat became an FRA when Act 306 was implemented (BIAAF, pers. comm.). During breeding males and females form pairs for mating (Breder and Rosen 1966).

Flame Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

Most of the Flame Wrasse population occurs below the 60-foot depth surveyed by the WHAP and below the 98-foot depth surveyed by the CREP, and therefore the species is not observable by the methods of either survey. As such, data are not available to produce a reliable WHRFMA or island-wide population estimate.

4.4.1.39 Fisher's Angelfish (Centropyge fisheri)

The Fisher's Angelfish is mostly orange with a thin blue outline highlighting the belly and anal fin, the caudal fin is pale yellow. Adults attain a length of only 2 inches. This angelfish is found throughout Hawai'i and the Johnston Atoll (Lobel 2003). Small groups have been observed feeding on algae and

small shrimp associated with coral along outer reef slopes at depths between 10 and 200 feet (Pyle 2001). This species is hermaphroditic and changes sex as it matures. It is distributed from the east coast of Africa to the islands of French Polynesia and Hawaiian Islands and in the western Pacific from southern Japan to New South Wales (Randall 2007).

Fisher's Angelfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fisher's Angelfish at the 0-98 foot depth in hardbottom habitat was approximately 666,209 individuals. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Fisher's Angelfish is a DLNR SGCN (Section 4.4.3) but is considered a species of 'Least Concern' by the IUCN (2017).

4.4.1.40 Eyestripe Surgeonfish (Palani) (Acanthurus dussumieri)

The Eyestripe Surgeonfish is found throughout the Indo-Pacific region. This large surgeon fish can reach lengths of 21 inches with a body that is mostly yellow with purple highlights. A characteristic bright yellow band goes behind each eye to the gill cover (Myers 1991). The tail is blue to dark purple.

The Eyestripe Surgeonfish feeds on both green and brown algae and detritus from the ocean floor (Myers 1991), and are commonly found along clear corals, lagoons, and outer reefs at depths of 13 to 430 feet. Adults are usually observed alone and pair only for mating (Myers 1999).

Eyestripe Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Eyestripe Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 578,835 individuals. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

4.4.2 Non-White List Wildlife Species

Marine species in Hawai'i include over 1,200 species of fishes, with around 500 species adapted to live on coral reefs, and the rest adapted to the pelagic open surface waters, mesopelagic, or bathypelagic zones (middle or deep waters), estuaries, or sandy bottoms (DLNR 2015). At the top of the food chain are the apex predators such as the many sharks and large predatory reef and pelagic fishes of Hawai'i. Over 5,000 marine invertebrates are known from Hawai'i and include over 100 species of hard, soft, and precious corals as well as hundreds of types of snails, crabs, shrimps and small numbers of worms, jellyfish, sponges, starfish, and tunicates (DLNR 2015). Five marine turtles occur in Hawai'i; two are common residents that nest on Hawai'i's beaches and three others are more occasional visitors. All sea turtles are listed as threatened or endangered under the federal Endangered Species Act (ESA) of 1973, as amended. Federal- and state-listed species are discussed in Section 4.4.4.

Approximately 26 species of marine mammals, mostly cetaceans, are considered resident or occasional visitors to Hawai'i. These include the Humpback Whale or koholā (*Megaptera noveangliae*), which migrates during the winter months to Hawaiian waters to breed and give birth each year before returning to feed in Alaskan waters during spring and summer, False Killer Whale (*Pseudorca crassidens*), and the Spinner Dolphin (*Stenella longirostris*) and Bottlenose Dolphin (*Tursiops truncatus*). Humpback Whales and Hawaiian Monk Seals (*Monachus schauinslandi*) are common marine mammals in Hawai'i and are listed as endangered under the ESA (DLNR 2015). All marine mammals are protected by the Marine Mammal Protection Act. Many of the resident whales and dolphins feed on fishes and squids that occur in the moderately deep waters off Hawai'i's coasts.

Approximately 4,100 species of marine invertebrates are known from Hawai'i. Marine invertebrates collected under Aquarium Permits generally include those species that are colorful or aesthetically pleasing. Between 2000 and 2017 over 93% (2,066,025 individuals) of all invertebrates collected under Aquarium Permits were reported collected from the island of O'ahu. This is likely due to White List restrictions in West Hawai'i. In East Hawai'i, non-White List species may be collected, and invertebrates make up approximately 58% of the total catch of White List and non-White List species combined.

Of the approximately 249,000 invertebrates collected in East Hawai'i since 2000, over 73% (182,710 individuals) were Red Pond Shrimp (species not specified). Red Pond Shrimp (primarily *Halocaridina rubra*) also makes up 42.5% of all species collected in East Hawai'i. Other common species of invertebrates captured in East Hawai'i include hermit crabs (species not specified), Feather Dusters Worms (*Sabellastarte spectabilis*), and Zebra Hermit Crabs (*Calcinus laevimanus*).

4.4.2.1 Red Pond Shrimp

This group of species live in underground (hypogeal) environments and in anchialine ponds (landlocked ponds with a mix of freshwater and seawater through underground connections to the sea). Of the eight known species to occur in Hawai'i, all are endemic to the Hawaiian Archipelago (including Johnston Atoll) except *Antecaridina lauensis*, *Calliasmata pholidota*, and *Metabetaeus lohena* are found throughout Hawai'i and also in Chile (US Fish and Wildlife Ecos Environmental Conservation 12/2015). *Halocaridina rubra* ('Ōpae 'ula) reaches 0.5 inch in length and is an herbivore that grazes on algal, bacterial, and diatom films growing on rocks and other hard substrates. They can also filter feed in mid-water and at the

surface. The other species are all larger (up to two inches long) and some are predatory. All have red color and reduced appendages. 'Ōpae 'ula carry about 12 fertilized eggs under their abdomen for a brood period of about 38 days. They reproduce 1-2 times per year. Lifespan of 'Ōpae 'ula is long, up to 20 years in captivity. Less is known about the life history of the other species, but they are relatively long-lived for species in their taxa.

No population estimates are available for Red Pond Shrimp.

4.4.2.2 Hermit Crab (various species)

Because specific species of hermit crabs are not reported on aquarium permits reporting forms, it is not possible to know which species are collected, with the exception of zebra hermit crabs (Section 4.4.2.3). However, hermit crabs are one of the most common types of tide pool animals. They rely on empty snail shells for protection. Most species will scavenge the reefs consuming fish, other invertebrates, or algae. Some will display a variety of coloration and elaborate eye colors. Approximately 23 species of hermit crabs are known from Hawai'i shorelines.

No population estimates are available for hermit crabs.

4.4.2.3 Zebra Hermit Crab (Calcinus laevimanus)

This species of hermit crab is found in a large area of the Indo-Pacific, extending from Africa to Australia and Japan to Hawai'i. The common name comes from the coloration, black and white pincers, and white bands on dark legs. They also have orange and sky-blue eyestalks. They prefer to inhabit gastropod shells in intertidal flats, reef flats, and rock platforms, and may also be found in mangrove areas on sand mud bottoms and on rocky shores (Rahayu 2000).

No population estimates are available for Zebra Hermit Crabs.

4.4.3 Hawai'i Species of Greatest Conservation Need

Species of Greatest Conservation Need (SGCN) are identified in Hawai'i's State Wildlife Action Plan (SWAP) but are not threatened, endangered, or otherwise legislatively protected species. In fact, all three SGCN species noted below (and further discussed in Section 5) are listed as species of 'Least Concern' by the IUCN (2017). However, recognizing the need to act to protect endemic species, the DLNR identified Hawai'i's indigenous SGCN in Exhibit 1 of Hawai'i Administrative Rules Chapter 124. This list includes terrestrial mammals, marine mammals, and marine reptiles only. Additional native species were identified and added based on their presence on the following lists (DLNR 2018):

- The Federal list of threatened, endangered, candidate and concern species;
- Species protected by the U.S. Marine Mammal Protection Act;
- The State list of threatened and endangered species;
- The Checklist of the Birds of Hawai'i; and

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 Species identified as present in Hawai'i by groups or organizations with significant experience or expertise (e.g., Audubon Watch List; national and regional Bird Plans, such as the U.S. Shorebird Conservation Plan, Waterbird Conservation for the Americas; Regional Seabird Conservation Plan).

In addition to the above lists, for any terrestrial indigenous species not represented by any of the lists, their status as indigenous automatically included them as Hawai'i's SGCN. For aquatic fishes and invertebrates, endemic species were added to the list (DLNR 2018). The DAR also included native species on the International Union for the Conservation of Nature and Natural Resources' (IUCN) Threatened Red List, and the Convention on International Trade in Endangered Species (CITES) list. A Statewide Aquatic Wildlife Conservation Strategy (SAWCS) Advisory Council was developed to advise on additional species that were at risk due to specific threats. The SAWCS Advisory Council is a panel with representatives from federal and state agencies, resource user groups, and non-profit organizations that helps the DAR develop its CWCS (DLNR 2018).

Additional species considered must meet one or more of the following biological criteria (DLNR 2018):

- Species with low or declining populations;
- Species indicative of the diversity and health of the state's wildlife;
- Species with small, localized "at-risk" populations;
- Keystone species;
- Indicator species;
- Species with limited dispersal;
- Disjunct species;
- Vulnerable species;
- Species of conservation concern;
- "Responsibility" species, (i.e., species that have their center of range within a state); and,
- Species with fragmented or isolated populations.

Currently 25% of fish, 20% of mollusks, 18% of algae, and 20% of the corals are considered endemic to Hawai'i and listed as SGCN species (Randall 2007, DLNR 2015).

As a result of these parameters, three White List species occur on Hawai'i's SGCN list:

- 1. Psychedelic Wrasse
- 2. Tinker's Butterflyfish

3. Fisher's Angelfish.

The DLNR SWAP (2015) addresses these species and identifies the following actions to ensure the species conservation and sustainability:

- Conservation Actions: The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. Commercial licenses are required for aquarium collectors. In addition to common statewide and island conservation actions, specific actions include:
 - Restoration of habitat; and,
 - Maintaining healthy populations with appropriate fishing regulations and education.
- 2. Monitoring:
 - Continue to survey for populations and distribution in known and likely habitats.
- 3. Research Priorities:
 - Improve understanding of factors affecting the species population size and distribution; and,
 - Support aquaculture research to develop captive breeding for species used in the aquarium trade.

4.4.4 Threatened and Endangered Wildlife Species

A total of 8 federal, and 10 state-listed threatened or endangered marine species, consisting of one seal, four whales, and five sea turtles, occur in Hawai'i (Table 5). Federal endangered species are those species that the US Fish and Wildlife Service (USFWS) define as being in danger of becoming extinct, while threatened species are those likely to become endangered in the foreseeable future. State endangered species are those defined by the DLNR as in danger of becoming extinct at a state level, while threatened species are those likely to become endangered in the foreseeable future at the state level. No species collected by aquarium fishers occur on the state or federal list of threatened and endangered species.

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Hawaiian Monk Seal	Neomonachus schauinslandi	E	E
Fin Whale	Balaenoptera physalus	E	NA
Humpback Whale	Megaptera novaeangliae	E	E
Sperm Whale	Physeter catodon	E	E
False Killer Whale	Pseudorca crassidens	E	NA
Reptiles			
Pacific Leatherback Sea Turtle	Dermochelys coriacea schlegelii	E	E

Table 5. Threatened and endangered marine species of Hawai'i.

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Common Name	Scientific Name	State Status	Federal Status
Pacific Hawksbill Sea Turtle	Eretmochelys imbricata bissa	E	E
Loggerhead Sea Turtle	Caretta	Т	Т
Green Sea Turtle	Chelonia mydas	Т	Т
Olive Ridley Sea Turtle	Lepidochelys olivacea	Т	Т

4.4.5 Reef Habitat

Stretching for more than 1,200 miles in the Central Pacific, Hawaiian coral reefs account for about 85% of all coral reefs in the United States. More than 500 species of algae also live in Hawai'i's coral reefs providing food for fish and oxygen for all marine life. The oceans' algae provide more oxygen than all land plants worldwide combined. There are 78 species of endemic marine algae, 24 species of endemic freshwater algae, and two aquatic plants included on Hawai'i's list of SGCN (DLNR 2015).

Hawai'i's reefs are unique among the world's reef ecosystems. Compared to coral reefs in the Indo-Pacific or Caribbean, Hawaiian reefs are relatively young. Hawai'i reefs are therefore dominated by hard corals (as opposed to sponges, tunicates, and soft corals) and are inhabited by distinctive reef fish and other marine life. Most stony corals grow very slowly. Hawai'i hosts about 40 species of hard, reef building corals (MRC 2017). Due to Hawai'i's extreme isolation, an estimated 25% of the coral reef species are found nowhere else.

Stony corals are defined by Hawai'i Administrative Rule 13-95 as any species belonging to the Order Scleractinia (marine corals which generate a hard skeleton). All reef corals, including mushroom corals, belong to this order (DAR 2014b). The animals which form stony corals belong to the same major group as jellyfish and anemones. Most of them are colonial, and all secrete a hard skeleton made of calcium carbonate. The animals themselves, called polyps, form the outer living layer of a coral colony. Each polyp sits in a cup-like depression called a calyx. Most stony corals grow very slowly and can take hundreds of years to recover from damage (DAR 2014b).

The characteristic color of many living corals is due to the presence of single-celled algae, called zooxanthellae, which live inside the coral polyp. The coral and algae have a symbiotic relationship. Most stony corals produce colonial forms that are attached to the substrate, but a few are solitary and unattached (DAR 2104b).

Ecosystem indicators related to benthic reef community integrity indicate a shift in West Hawai'i towards lowered reef accretion and reduced structural complexity. Hard coral cover, an indicator of reef topographic complexity, habitat structure, and reef accretion, decreased from an average of 44% to 31% cover in the North from 2003 to 2014, a decline of roughly one-third in just 12 years (Gove et al. 2016). However, over the same time period, hard coral cover remained relatively constant in the South (Gove et al. 2016). The ratio between the cover of calcifying to non-calcifying organisms – an indicator of coral reef community dynamics and the extent to which a given system is dominated by organisms that contribute to coral reef development and persistence – declined across West Hawai'i since 2003 (Gove et al. 2016). The North experienced the biggest change in this indicator, with the a calcified: non-calcified ratio decreasing by approximately half to a present value of <1, indicating the benthic community is currently dominated by non-calcifying benthic organisms (Gove et al. 2016).

4.4.5.1 Corals Common to Hawai'i (DAR 2014b)

4.4.5.1.1. Rose or Cauliflower Coral (Pocillopora meandrina)

The most common *Pocillopora* in Hawai'i, this coral prefers wave-agitated environments, and is found at depths to about 150 feet. Commonly called "rose coral" or "cauliflower coral," the colonies form cauliflower-shaped heads about 10 to 20 inches in diameter. Branches are heavy and leaf-like, and fork bluntly near the ends. All branches have wart-like projections called verrucae that are covered with calices. Color of living colonies ranges from brown to pink.

4.4.5.1.2. Lace Coral (Pocillopora damicornis)

This delicate and fragile coral forms small bushy clumps up to about 6 inches in diameter. Colonies consist of fine branches covered with calices. These branches range from long and slender in calm waters to more robust forms in areas of wave action. Sometimes the skeleton will create pocket formations around a crab that lives among the branches. Usually found in protected areas and inner portions of large reef flats, this species appears to strongly depend on sunlight, as it is rarely found below about 30 feet. Colonies range in color from light brown in shallow waters to dark brown in deeper waters.

4.4.5.1.3. Antler Coral (Pocillopora eydouxi)

Colonies consist of thick pipe-like branches that resemble moose antlers. This species also possesses verrucae and is usually found in depths of 35 to 150 feet. Live colonies are brown in color and usually darker than other Pocilloporid corals.

4.4.5.1.4. Lobe Coral (Porites lobata)

This coral produces many encrusting or massive forms on the reef from the intertidal zone to depths of over 180 feet. Long narrow cracks found on the coral heads are produced by a type of alpheid shrimp. Calices have a snowflake-like appearance and are shallow and flush to the surface. Living colonies range in color from yellowish-green to brown and sometimes blue.

4.4.5.1.5. Finger Coral (Porites compressa)

Distinguishing features are the finger-like branching and shallow snowflake-shaped calices. This species is most common in wave-protected areas like bays or deeper reef slopes to depths of about 150 feet. It has many growth forms, but all of them show some sort of fingerlike branching. Color of live colonies ranges from light brown to light yellowish-green.

4.4.5.1.6. Rice Coral (Montipora capitata)

The most obvious characteristic of this coral is the nipple-like projections (papillae) that cover the surface. These papillae are smooth with no calices on them. Calices are found on the upper surface of the coral between the papillae. The image of the calices and papillae create a "rice & pepper" appearance. This species is found at depths up to about 150 feet. It has a number of growth forms ranging from platelike to branchlike and encrusting types. Color of living colonies is usually brown. If the colony is growing in a plate form, the edges may be white.

4.4.5.1.7. Mushroom or Razor Coral (Fungia scutaria)

This solitary (single polyp), free-living (unattached) coral is most commonly found on reef flats, frequently between cracks and crevices. It has also been found at depths of over 75 feet. Its disk-like, elliptical shape resembles a mushroom cap and ranges from 1.5 to 7 inches in diameter. Some adults may form a high arch in the middle. Immature forms are attached to the substrate or an adult mushroom coral by a stalk. It grows into a disk and, when large enough, breaks off the stalk and becomes free-living. The color of live specimens ranges from pale brown in bright sunlight to dark brown in shady areas or deeper water.

4.4.5.1.8. Cup or Tube Coral (Tubastraea coccinea)

This is a common non-reef building coral found in shallow Hawaiian waters. This species forms large calices and occurs in clumps that are 2 to 4 inches in diameter. Living tissue is usually bright orange in color but may also appear pink or even black. The bright coloration is not produced by zooxanthellae. This coral is usually found on steep ledges, in caves and in shady tidepools.

4.4.6 Invasive Species

From A Guidebook of Introduced Marine Species in Hawai'i (DeFelice et al. 2001):

Through the Hawai'i Biological Survey at Bishop Museum, a count of the total number of species in the Hawai'i Archipelago has been compiled. In 1999, there were 23,150 known species of terrestrial and aquatic algae, plants, and animals, including 5,047 nonindigenous species (~ 20%). The total number of marine and brackish water alien species in the Hawaiian Islands was 343, including 287 invertebrates, 24 algae, 20 fish, and 12 flowering plants.

The 287 alien marine invertebrate species make up about 7% of the known marine and brackish water invertebrate fauna in the Hawaiian Islands (4,099 species). Arthropods have been the most successful marine invaders, with 71 suspected alien crustacean species, while 53 alien mollusks have made it to Hawai'i. Limited information exists for these invasive species.

The greatest number of introduced marine invertebrates have arrived to Hawai'i through hull fouling, but many have also arrived with solid ballast and in ballast water. DeFelice et al. (2001) considered 201 species (70%) to be introduced, and 86 species (30%) cryptogenic (not demonstratively native or introduced). Two hundred forty-eight (87%) have become established, 15 (5%) arrived but failed to become established, 6 (2%) were intercepted, and the population status of 18 species (6%) is unknown.

The nonindigenous invertebrate species in the Hawaiian Islands are primarily of Indo-Pacific/Philippines Islands region origin. A surprising number of species from the tropical western Atlantic/Caribbean region have invaded Hawai'i as well.

Invasive algae pose the largest threat to Hawai'i's reef ecosystem. The five most common algae species posing the largest threat include Smothering Seaweed (*Kappaphycus* and *Euchema* spp.), Gorilla Ogo (*Gracilaria salicornia*), Leather Mudweed (*Avrainvillea amadelpha*), Hook Weed (*Hypnea musciformis*),

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and Prickly Seaweed (*Acanthophora spicifera*). Marine debris arriving from other countries and regions and ballast water/biofouling are the primary threat for invasion in the Hawaiian Islands.

Invasive fish species of concern in Hawai'i include two White List species: the Bluestripe Snapper (Taape), and Peacock Grouper (= Roi, Bluespot Peacock Grouper). The Blacktail Snapper (*Lutjanus fulvus*) is less common but can become invasive once established. All three species were introduced between 1956-1961, mostly as game fish (IUCN 2017). However, the Peacock Grouper is a known carrier of Ciguatera, which is well known by the local fishermen, and therefore its use as a food fish is intentionally very limited (BIAAF, pers. comm.).

The Bluestripe Snapper (Section 4.4.1.33) and Peacock Grouper (Section 4.4.1.34) are well established in Hawai'i. The Blacktail Snapper occurs at low densities only in the lower Hawaiian Islands (Randall 1987, Gaither et al. 2010 *in* IUCN 2017). From 2008 through 2014, regional estimates of the density of Blacktail Snapper ranged from 1.8 to 14.1 individuals per 2.5 acres over hard bottoms to 98.5 feet depth in Pacific coral reef areas surveyed by NOAA (NOAA unpublished data as described in Heenan et al. 2014 *in* IUCN 2017). The highest recorded density was in the MHI region (0.3 to 45.1 individuals per 2.5 acres) as compared to the lowest in the Southern Mariana Islands region (0 to 4.3 individuals; IUCN 2017).

4.4.7 Biological Aspects of the Commercial Aquarium Fishery

4.4.7.1 West Hawai'i Aquarium Project (WHAP) Surveys

To monitor and gauge the effects of the aquarium fishing industry, the West Hawai'i Aquarium Project (WHAP) established 25 study sites (Figure 4) along the West Hawai'i coastline in early 1999 at 9 FRA sites, 8 Open Area sites (aquarium fish collection areas) and 6 previously established MPAs to collect baseline data both prior to and after the closure of the FRAs. The MPAs are MLCDs and FMAs, which have been closed to aquarium collecting for at least 16 years and were presumed to have close to "natural" levels of aquarium fish abundances (DAR 2014a). They serve as a reference or 'control' to compare with the FRAs and Open Areas. It should be noted that after several years of study and observation, one of the MPA sites (Lapakahi MLCD – subzone B), was found not to be closed to aquarium collecting due to its remoteness and poorly defined seaward boundaries (i.e., 500 feet offshore). As such, the Lapakahi survey site was considered an Open Area for data analysis purposes (DAR 2014a).

The overall goals of the WHAP were two-fold: 1) To evaluate the effectiveness of the FRA network by comparing targeted aquarium fishes in FRAs and Open Areas relative to adjacent control sites and, 2) To evaluate the impact of the FRA network on the commercial aquarium fishery (DAR 2014a).

Detailed explanations of the study sites and survey methods are found in Tissot et al. (2004) and Walsh et al. (2013). To briefly summarize: Densities of all fish and selected invertebrate species were visually estimated along four 82x13 foot strip transects at each of 25 permanent sites located at depths between 30-60 feet in the three types of management areas. All survey divers either had extensive experience in conducting underwater fish surveys in Hawai'i or received training through the UH's Quantitative Underwater Ecological Survey Techniques (QUEST) training course prior to collecting data (Hallacher

and Tissot 1999). In addition to the transect surveys, a 10 minute 'free-swim' survey is also conducted by two divers in the areas surrounding the actual transects. The purpose of this survey is to better census uncommon or rare species and species of particular ecological interest such as Bluestripe Snapper, Peacock Grouper, terminal phase parrotfish (Family Scaridae), cleaner wrasses (*Labroides* spp.) and Crown-of-Thorns Starfish (*Acanthaster planci*). All sites are presently surveyed four times per year. As of December 2014 (the most recent year for which data are available), a total of 75 survey rounds of all study sites have been completed (>6,500 transects). Six rounds were conducted prior to FRA closure in 1999 (DAR 2014a).

Table 6 provides West Hawai'i Open Area population estimates of those species on the White List based on the WHAP data. It is important to note that population estimates provided in the table and previous life histories sections, only include West Hawai'i estimates of fish from Open Areas at depths of 30-60 feet (the depth at which WHAP surveys are conducted); thus, the actual population size of each species is likely greater due to individuals at other depths, in unsurveyed areas (e.g., within the FRAs). Island-wide population estimates for each species are described in Section 4.4.1 and summarized in Table 15.

Common Name	Scientific Name	Endemic	Catch ¹	30'- 60' Open Area Population ²	Catch as % of 30'-60' Open Area Population ³
Achilles Tang	Acanthurus achilles	N	7,073	21,627	32.70%
Yellow Tang	Zebrasoma flavescens	N	273,778	1,663,775	17.26%
Black Surgeonfish (chevron tang)	Ctenochaetus hawaiiensis	N	4,045	34,678	11.66%
Shortnose (Geoffroy's) Wrasse	Macropharyngodon geoffroy	Y	258	3,222	8.01%
Goldrim Tang	Acanthurus nigricans	N	439	7,517	5.83%
Fourspot Butterflyfish	Chaetodon quadrimaculatus	N	699	22,000	3.18%
Orangeband (Shoulder) Surgeonfish	Acanthurus olivaceus	N	698	26,101	2.67%
Orangespine Unicornfish (Clown Tang)	Naso lituratus	N	4,026	150,642	2.67%
Forcepsfish	Forcipiger flavissimus	N	1,045	43,999	2.38%
Spotted Boxfish (Boxfish)	Ostracion meleagris	N	175	9,322	1.88%
Yellowtail Coris (Clown Wrasse)	Coris gaimard	N	288	19,762	1.45%
Milletseed (Lemon) Butterflyfish	Chaetodon miliaris	Y	61	7,085	0.85%
Kole (Goldring Surgeonfish, Yelloweye, Goldring)	Ctenochaetus strigosus	Y	28,407	3,616,529	0.79%
Pencil Wrasse	Pseudojuloides cerasinus	N	108	19,390	0.56%
Bird Wrasse	Gomphosus varius	N	180	43,254	0.42%
Blacklip Butterflyfish (Coral Butterflyfish)	Chaetodon kleinii	N	23	5,593	0.40%
Potter's Angelfish	Centropyge potteri	Y	945	237,149	0.40%
Ornate Wrasse (Pinkface)	Halichoeres ornatissimus	N	724	192,404	0.38%

Table 6. West Hawai'i Open Area population estimates of all White List species based on WHAPdata and percent of that population taken annually by aquarium fishers at the 30'-60' depth in 2012/2013 (DAR 2014a).1

¹ Data presented in this table (DAR 2014a 2015 Report to Legislature) may differ from other publications, text sections, or tables due to time of year data were analyzed, number of monthly reports available to DAR at the time of report, and Hawai'i's confidentiality laws.

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Common Name	Scientific Name	Endemic	Catch ¹	30'- 60' Open Area Population ²	Catch as % of 30'-60' Open Area Population ³
Black Durgon	Melichthys niger	N	71	38,033	0.19%
Gilded Triggerfish (Blue-throat Triggerfish)	Xanthichthys auromarginatus	N	19	11,186	0.17%
Lei Triggerfish	Sufflamen bursa	N	128	76,440	0.17%
(Forster's) Blackside Hawkfish	Paracirrhites forsteri	N	31	20,508	0.15%
Thompson's Surgeonfish	Acanthurus thompsoni	N	130	91,728	0.14%
Pyramid Butterflyfish	Hemitaurichthys polylepis	N	73	56,677	0.13%
Multiband (Pebbled) Butterflyfish	Chaetodon multicinctus	Y	670	580,196	0.12%
Hawaiian Dascyllus (Domino)	Dascyllus albisella	Y	43	57,796	0.07%
Saddle Wrasse	Thalassoma duperrey	Y	327	537,688	0.06%
Redbarred Hawkfish	Cirrhitops fasciatus	N	6	9,665	0.06%
Eightline Wrasse	Pseudocheilinus octotaenia	N	35	187,557	0.02%
Fourlined Wrasse	Pseudocheilinus tetrataenia	N	47	327,758	0.01%
Brown Surgeonfish (Lavender, Forktail Tang)	Acanthurus nigrofuscus	N	180	1,646,996	0.01%
Hawaiian Whitespotted Toby (Puffer)	Canthigaster jactator	Y	20	250,573	0.01%
Bluestripe Snapper (Taape)	Lutjanus kasmira	N	0	7,830	0.00%
Peacock Grouper (Roi, Bluespot Peacock Grouper)	Cephalopholis argus	N	0	24,610	0.00%
Psychedelic (Redtail) Wrasse	Anampses chrysocephalus	Y	236	N/A	N/A
Tinker's Butterflyfish	Chaetodon tinkeri	N	206	N/A	N/A
Longfin Anthias	Pseudanthias hawaiiensis	Y	130	N/A	N/A
Flame Wrasse	Cirrhilabrus jordani	Y	67	N/A	N/A
Fisher's Angelfish	Centropyge fisheri	N	58	N/A	N/A
Eyestripe Surgeonfish (Palani)	Acanthurus dussumieri	N	1	N/A	N/A

N/A – Species occurs in habitats not adequately surveyed by transects

¹ Average aquarium catch over FY 2013-2014

² Estimate of total numbers of fish in collected Open Areas of hard bottom habitat in 30'- 60' depths

³ Species' population in collected Open Areas taken annually by aquarium collectors

A summary of the DAR 1999 to 2014 study findings is presented below (DAR 2014a):

- Of the 40 collected aquarium species, Yellow Tang made up 84.3% of the total and Kole 8.3% (2014).
- Fifteen years after closure, the population of Yellow Tang has increased 64.5% in the FRAs while its abundance in the Open Areas has not declined significantly.
- Outward movement of adult Yellow Tang from protected areas into surrounding areas ('spillover') augments adult stocks in Open Areas up to a 0.6 mile or more away.
- Overall Kole abundance in 30-60 foot depth range over the entire West Hawai'i coast increased by over 2.1 million fish.
- Commercial aquarium landings of Achilles Tang, have declined in West Hawai'i over the past two decades in association with a recent dramatic increase in its value. This is strongly suggestive of declining availability (i.e. abundance). (Addressed in Section 5.4.1.2 Achilles Tang).

Affected Environment

- Achilles Tang have declined in FRAs and Open Areas over the last 15 years tempered somewhat by a slight increase in the last year or two (2014). However, Achilles Tang numbers have increased in MPAs over the last four years (2014). Open Area populations are higher than FRA. Achilles Tang has had low levels of recruitment over the past decade and substantial numbers of larger fish (i.e., 'breeders') are taken for human consumption.
- Of the other top 10 collected aquarium species, two species (Forcepsfish and Potter's Angelfish) increased in one or more of the management areas while two species (Ornate Wrasse (Pinkface) and Fourspot Butterflyfish) declined. While the latter two species declined in the Open Areas, they also declined in one or the other of the protected areas (FRA or MPA) suggesting that factors other than aquarium collecting were also affecting their populations.
- For 24 other species on the White List, five showed a significant population increase in one or more of the management areas while 11 decreased. Of the species which declined, only a single one, Bird Wrasse declined exclusively in the Open Areas indicating that factors other than aquarium collecting were also affecting the populations of the other species.
- For most of the species on the White List, collecting impact, in terms of the percentage of the population being removed annually, is relatively low with 8 species having single digit percent catch and 23 species having catch values <1%.
- In terms of the yearly differences in a species' abundance between the Open Areas and the FRAs, 6 species have been consistently more abundant in the FRAs than in the Open Areas. Eleven species showed no consistent pattern and 17 species were consistently more abundant in the Open Areas.
- Survey data are lacking for six species which typically occur in deep water.
- In terms of reef fish biomass caught by the different fisheries in West Hawai'i, considerably more biomass is taken by the combined recreational and commercial (non-aquarium) fisheries either including Yellow Tang (2.8X) or excluding it (8.6X). The total take of reef fish by commercial and non-commercial ('recreational') fishers on other Main Hawai'i Islands greatly exceeds the numbers and biomass of the fish taken by aquarium collectors.
- The 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.

The Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish are all listed as SGCN in Hawai'i (Section 4.4.3). They are not federal- or state-listed as threatened or endangered species (Section 4.4.4) and are not currently afforded any protection from collection. The Psychedelic Wrasse is endemic to the Hawaiian Islands and is found among seaweed coral reefs at depths from 40-450 feet (Lieske and Myers 1994) and are the most abundant in the Northwestern side of the island (BIAAF, pers. comm.); Tinker's Butterflyfish is found deeper than 100 feet on coral reef slopes (Pyle 2001); and, Fisher's Angelfish have been observed feeding on algae and small shrimp associated with coral along outer reef slopes at depths between 10 and 200 feet (Pyle and Myers 2010). Adequate population estimates based on WHAP data (30-60 feet depth) are not available to assess the impact of continued aquarium collection on these three

species due to their deeper water habitats. However, based on deep diver observations, Tinker's Butterflyfish and Psychedelic Wrasse are substantially more common in the long term protected areas (MPAs). Commercial aquarium fishers generally do not fish in the deeper waters in which these species occur. In 2017, there were 599 Psychedelic Wrasse, approximately 290 Tinker's Butterflyfish (n.d. in East Hawai'i), and 288 Fisher's Angelfish collected by aquarium fishers on the island of Hawai'i (DAR 2018a).

4.4.7.2 Coral Reef Ecosystems Program (CREP; now known as the Ecosystem Science Division) Surveys

The NOAA has been involved in a large-scale monitoring program that surveys coral reef fish assemblages and habitats, including White List species, encompassing the bulk of the US-affiliated tropical Pacific. This effort, formerly known as the Coral Reef Ecosystem Program (CREP), has included over 5,500 surveys around 39 islands, including the island of Hawai'i. The dataset was developed as a resource that could be used to understand how human, environmental, and oceanographic conditions influence coral reef fish community structure, providing a basis for research to support effective management outcomes (CREP 2018).

In 2010, the Pacific Reef Assessment and Monitoring Program (RAMP) developed and implemented a standardized survey methodology focusing on reef fish and paired benthic habitat-monitoring using monitoring methods specified in the National Coral Reef Monitoring Plan (NCRMP). The aim of the current systematic sampling design is to maximize survey site replication, while the overarching goal was to generate data representative of coral reef hardbottom substrate at the islands-scale (CREP 2018).

Surveys were conducted around the island of Hawai'i in 2010 and 2013–2016 at 257 stationary point count locations (Figure 4) with a randomized depth-stratified design, at depths from 0-98 feet (approximately 0-30 meters). At each point count location, divers conducted fish counts, estimated benthic cover, and habitat structural complexity. Typically, 3–5 days were spent at each island during each visit (generally once every 3 years), conducting 30–50 fish surveys during that time. Detailed explanations of the study sites and survey methods are found in Heenan et. al (2017). To establish survey points, an approximately 98-foot (30-meter) transect is measured out along the substrate. For each point count, a pair of divers conducts simultaneous counts in adjacent 49.2 foot (15 meter) cylindrical plots along the transect (i.e., diver 1 surveys from the 7.5 meter mark along the transect and diver 2 surveys from the 22.5 meter mark) extending from the substrate to the limits of vertical visibility (Heenan et. al 2017).

Each fish count consists of two parts, a 5-minute species enumeration in which divers generate a list of taxa observed within their cylinder to species when possible; and, a tally portion in which divers systematically work through their species list recording the number and estimated size of fish present within the cylinder. Tallying is done by conducting a series of rapid visual sweeps of the plot with one species-group (e.g., mid-water, surgeonfish, benthic butterflyfish) counted per sweep. At the end of the sweeps, divers carefully search for small, site-attached, and semi-cryptic species. Surveys were not conducted if horizontal visibility was <25 feet (Heenan et. al 2017).

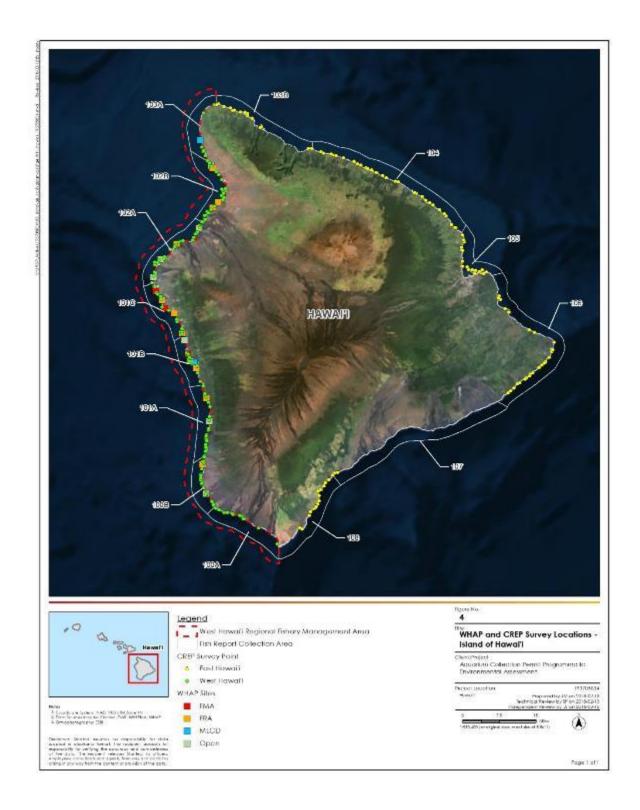


Figure 4. WHAP and CREP survey locations – Island of Hawai'i.

To facilitate analysis in this FEA, estimated population size for each White List species for the island of Hawai'i was calculated using CREP data by converting survey counts to abundance per unit area, and then multiplying by the estimated area of hardbottom habitat in <30 meters of water (16,840 Ha).

Although CREP data are the most comprehensive data publicly available for the island of Hawai'i, certain limitations of the surveys may lead to an underestimate of some populations of aquarium fish. Specifically, surveys are concentrated into a short period of survey effort (about one month each year) located in different locations from one year to the next, allowing for a larger coverage of the entire island, but over five years during a seven-year period. Also, population estimates may be an underestimate for certain species as surveys were only conducted at depths <30 meters (approximately 98 feet), in areas of hardbottom habitat. No data were collected from softbottom habitat, as these tend to not be important habitats for most aquarium species, but certain species may utilize these areas, and therefore are not represented in the population estimate. No data were collected from depths greater than 30 meters (approximately 98 feet), but certain species may utilize these areas as well, and are therefore not represented in the population estimate. In addition, divers are trained in the identification of aquarium fish; however, certain species may be cryptic, skittish, or difficult to identify in the field, which may lead to underestimates of the population of those species. All data collection methods have a range of variation, or uncertainty. For the CREP data, this results in a high and low range for population estimates (Table 15). For the purposes of this FEA, we used the median of those ranges to assess impacts.

4.4.7.3 WHAP and CREP Survey Comparison

Both the WHAP and CREP collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey (e.g., spatial coverage, depth range), and for analysis of the impact of fish collection under Aquarium Permits. In addition, both surveys collect data on the physical conditions at each survey site. The following provides a side by side comparison of some of the parameters of each survey method.

WHAP	CREP
 25 survey sites with 4 transects (82x13 foot long) each (100 transects total), in specific areas (FRAs, MPAs, Open Areas) along west coast of Hawai'i 	 257 point counts covering entire island of Hawai'i except collection zone 107
• 30-60 foot depth survey area	0-98 foot depth survey area
• 4-6 survey rounds per year	• 30-50 surveys once every 3 years
• 87 rounds completed (1999-2017) ¹	 Surveys conducted in 2010, 2013, 2014, 2015, and 2016
 Visually estimated fish density, benthic cover, and habitat structural complexity 	 Fish counts, estimated benthic cover, and habitat structural complexity

¹Updated 2017 survey data provided by DAR for Yellow Tang, Achilles Tang, and Kole. Data for the remaining 37 White List species is based on 75 rounds of survey completed between 1999 and 2013.

The WHAP data are collected from 25 transect survey sites located within the WHRFMA (Figure 4) and are designed to estimate fish densities over time within the WHRFMA between depths of 30-60 feet. By

design, the WHAP focuses on the WHRFMA and does not have full spatial coverage of the island of Hawai'i; therefore, data generated by the WHAP cannot be used to develop population estimates for East Hawai'i. In addition, because WHAP estimates population size at depths from 30-60 feet, shallow- and deep-water species (or life phases of species) that spend time outside the 30-60 foot depth range are not adequately surveyed by WHAP transects.

The CREP data are collected on all reef fish species for the Pacific islands, including from 257 stationary point count locations located around the island of Hawai'i, with the exception of collection zone 107 (Figure 4), from depths of 0-98 feet, providing an assessment of fish populations in both shallow and some deep-water habitats. Deep-water species (or life phases of species) that spend time below the 98-foot depth range are not adequately surveyed by CREP.

Differences in study design between the two surveys result in differences in how data are collected and analyzed. However, when CREP data collected at a similar depth as those collected by the WHAP are compared, the population estimates collected by the two surveys are similar. Both data sets are presented and analyzed in this FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, CREP data were considered to be a better estimator of island-wide fish populations, and therefore serve as the primary basis for the impact analysis found in Section 5.

5.0 ENVIRONMENTAL CONSEQUENCES

This section discusses the impacts of implementing the No Action Alternative, the Status Quo Alternative, and the Achilles Tang Conservation Alternative on resources retained for further analysis. Aspects of the environment that may be affected by the alternatives are discussed to the level of detail commensurate with the potential effect. Those aspects of the environment that would not be affected are discussed briefly. The content, intensity, and likelihood of the impact were taken into consideration in the making of these ratings.

Direct, indirect, and cumulative impacts are evaluated for each resource. The HEPA does not specifically define direct and indirect impacts. As such, for the purposes of this FEA, the National Environmental Policy Act (NEPA) definitions are used. The NEPA defines direct effects as those effects that are caused by the action and occur at the same time and place (40 C.F.R. § 1508.8(a)). Indirect effects include effects later in time or farther removed in distance but are still reasonably foreseeable (40 C.F.R. § 1508.8(b)). Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 C.F.R. § 1508.8).

The HEPA defines cumulative impacts as the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (HAR Section 11-200-2).

Cumulative impacts were analyzed according to a tiered approach, which allows for a resource-specific analysis of regional and local actions and narrows the focus to those impacts with direct influence on the proposed action and agency decision-making. Following this approach, the cumulative impacts analysis focused on potential impacts to White List Species, non-White List Species, SGCN, and reef habitat as these are the resources with the potential for on-going impacts due to commercial aquarium fish collection. The spatial analysis area for cumulative impacts is the nearshore waters of the island of Hawai'i down to 600 feet (100 fathoms), with emphasis on the WHRFMA. Under HRS 188-31, the DLNR may issue an Aquarium Permit not longer than one year in duration; therefore, the temporal scope of the cumulative impacts analysis is 12 months, because an EA with updated data and analysis would need to be completed on an annual basis.

Conclusions of significance are based on the best available data as analyzed in this FEA. The HEPA standards for a significant impact are described in Section 1.2.2. For the purposes of this FEA, impacts were assessed on a descending scale:

- 1. Significant impact (HEPA standards);
- 2. Significant impact that is mitigable to less than significant;
- 3. Less than significant impact;
- 4. No impact; and
- 5. Beneficial impact.

5.1 HRS §189-3 AND DATA ANALYSIS

HRS §189-3 states:

(a) Upon the demand of the department, every commercial marine licensee shall furnish to the department a report or reports with respect to the marine life taken and any other information the department may require for the purposes of this section.

(b), "Any information submitted to the department by any person in compliance with any requirement under this section shall be confidential and shall not be disclosed, except when required under court order or pursuant to subpoena issued by the department of the attorney general, or with the prior written consent of the person submitting the information, or under cooperative agreements with government agencies of the United States for exchange and use of the information specifically to manage marine life. The department, by rule, may establish procedures necessary to preserve the confidentiality, except that the department may release or make public any of the information in the aggregate or summary form which does not directly or indirectly disclose the identity of any person who submits information."

The DAR complies with this statute by keeping confidential any catch data when less than three collectors report from an individual collection zone (Figure 1). Collection zones depicted in Figure 1 correspond to areas defined by the monthly report fishers are required to provide to DAR. Confidential data are identified as *n.d.* (not disclosed) in the tables in Section 5.0. The impact of this statute on data analysis is

minimal but can cause confusion when numbers in the text or in the tables do not exactly match up, or do not match previously published reports for which the *n.d.* data were available (i.e., DAR reports). Although it is possible for 1-2 aquarium fishers to collect large numbers of fish and skew the data, this concern was minimized by the manner in which data were analyzed. Data provided by the DAR for this FEA were evaluated using many parameters, thereby minimizing any bias due to confidentiality. The data were also viewed in aggregate and over extended time periods (i.e., 2000-2017) to further minimize confidentiality issues.

5.2 SOCIOECONOMIC RESOURCES

5.2.1 Direct Impacts

As noted in Section 4.1.1, the East Hawai'i aquarium fishery represents only a small portion (4.5%) of the overall value of the fishery on the island of Hawai'i and an even smaller portion of the overall value of the fishery in the state of Hawai'i (Table 7). Table 3 (Section 4.1.1) shows the annual average of the East Hawai'i fishery for the period from 2000-2017 was approximately \$65,000 (inflation-adjusted 2017 dollars), as compared to the \$1.35 million (inflation-adjusted 2017 dollars) of the WHRFMA. Therefore, the focus for this section is on the WHRFMA and its socioeconomic impacts.

For the period 2000 to 2017, the aquarium fishery within the WHRFMA added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) to the economy (DAR 2018a, Table 7). Total *ex-vessel* value (i.e., price received by a fisher for the catch) for the WHRFMA ranged from a low of \$699,166 in 2000 to a high of \$1,779,074 in 2010 (inflation-adjusted 2017 dollars). Total *ex-vessel* value for the state of Hawai'i ranged from a low of \$1,273,982 in 2002 to a high of \$2,587,721 in 2015 (inflation-adjusted 2017 dollars) (Table 7). The 2017 *ex-vessel* inflation-adjusted value for the WHRFMA was \$1,290,314, while the state of Hawai'i was \$1,932,747 (Table 7). It should be noted that the dollar value of these fisheries represents only the *ex-vessel* value, what the fishers are paid for their catch, and does not include the value which would be generated by additional dealer and retail sales. The actual economic value of the catch is thus substantially greater than the *ex-vessel* values.

All commercial aquarium collectors must obtain a state aquarium permit and a CML, which allows them to offer the fish for sale. The Aquarium Fish Catch Report requirement is triggered by the CML. Some collectors participate in a dive team. To avoid duplicate fish catch reporting, only a principal diver is required to report the catch and effort for the dive team (DAR, pers. comm., 2018). This process ensures that reported catch data are not duplicated in the State's system. However, this reporting mechanism can lead to confusion by outside observers, as the total number of permit holders is higher than the number of permit holders reporting data (Table 7), giving the appearance of under reporting. The number of non-reporting permit holders is an indicator of industry growth and direct socioeconomic benefits. For the period 2000 to 2017, the total number of permit holders for the WHRFMA ranged from 24 to 63 (average = 46), while the number of permit holders reporting ranged from 19 to 42 (average = 28). In 2017, it is estimated that up to 57 individuals were directly employed in the commercial aquarium fishery in the WHRFMA (up to 226 employed in the state of Hawai'i).

Table 7. Summary of commercial Aquarium Permits and values by year from 2000-2017 for the WHRFMA, East
Hawai'i and the State of Hawai'i (Dar 2018a).

		۷	VHRFMA ²			Eas	t Hawai'i			State	e of Hawai'i ⁴	
Fiscal Year ¹	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³
2000	24 ⁵	25	\$491,173	\$699,166	6	3	\$11,832	\$16,842	113	82	\$1,000,750	\$1,424,529
2001	26	23	\$506,749	\$701,776	8	0	\$0	\$0	128	75	\$936,811	\$1,297,351
2002	37	19	\$529,182	\$721,029	n.d. ⁶	n.d. ⁶	n.d. ⁶	n.d. ⁶	139	63	\$935,009	\$1,273,982
2003	30	22	\$666,153	\$887,432	9	0	\$0	\$0	123	68	\$1,174,168	\$1,564,196
2004	53	30	\$866,630	\$1,124,555	n.d. ⁶	n.d. ⁶	n.d. ⁶	n.d. ⁶	145	77	\$1,442,946	\$1,872,392
2005	41	34	\$1,168,265	\$1,466,283	11	3	\$25,263	\$31,707	142	79	\$1,579,370	\$1,982,259
2006	63	34	\$1,459,004	\$1,773,964	11	6	\$74,519	\$90,606	186	87	\$2,093,857	\$2,545,864
2007	61	40	\$1,065,093	\$1,259,154	14	4	\$33,648	\$39,779	195	99	\$1,646,167	\$1,946,101
2008	52	31	\$1,308,629	\$1,489,859	17	9	\$100,304	\$114,195	178	94	\$2,065,816	\$2,351,908
2009	55	30	\$1,159,746	\$1,325,072	13	8	\$84,022	\$96,000	197	92	\$1,894,015	\$2,164,013
2010	60	36	\$1,582,644	\$1,779,074	12	7	\$30,062	\$33,793	178	91	\$2,282,618	\$2,565,925
2011	60	42	\$1,473,530	\$1,605,732	13	6	\$41,238	\$44,938	172	87	\$2,188,227	\$2,384,550
2012	48	28	\$1,504,487	\$1,606,226	16	7	\$79,067	\$84,414	166	77	\$2,306,179	\$2,462,131
2013	45	26	\$1,560,517	\$1,641,994	15	9	\$68,234	\$71,797	153	64	\$2,172,561	\$2,285,993
2014	43	20	\$1,570,057	\$1,625,661	18	7	\$131,086	\$135,728	165	61	\$2,322,564	\$2,404,818
2015	38	19	\$1,701,631	\$1,759,805	13	4	\$104,110	\$107,669	163	69	\$2,502,178	\$2,587,721
2016	37	19	\$1,582,011	\$1,615,713	15	4	\$80,441	\$82,155	166	66	\$2,257,021	\$2,305,104
2017	57	21	\$1,290,314	\$1,290,314	18	4	\$91,790	\$91,790	226	68	\$1,932,747	\$1,932,747
Average	46	28	\$1,193,656	\$1,354,045	13	5	\$59,726	\$65,088	163	78	\$1,818,500	\$2,075,088

 Average
 40
 20
 \$1,193,050
 \$1,354,045
 13
 5
 \$59,720
 \$65,060

 ¹Fiscal year runs from July 1 through June 30.
 ²The WHRFMA represents White List fish only, the remainder of the state allows for other aquatic life to be collected.
 ³http://www.usinflationcalculator.com/, adjusted for 2017 values.

⁴These data include *n.d.* data and summation of East and West Hawai'i data, as well as the other islands that make up the state of Hawai'i. ⁵Includes permittee that captured individuals in December 1999, but reported captures in January 2000

⁶Data not disclosed (n.d.) due to Hawai'i confidentiality Statute (Section 5.1).

5.2.1.1 No Action Alternative

Under the No Action Alternative, commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

In the WHRFMA, based on historic data, it is estimated that over the 12-month analysis period the commercial aquarium fishery would add approximately \$1,354,045 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy. Under the No Action Alternative an estimated \$1,354,045 would be eliminated from Hawai'i's economy and potentially over 50 jobs lost from the workforce.

In East Hawai'i, based on historic data it is estimated that over the 12-month analysis period the commercial aquarium fishery would add approximately \$65,088 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy. Under the No Action Alternative, some aquarium collection may continue using legal gear or methods other than fine mesh nets. Given the limited amount of data on commercial aquarium collection in East Hawai'i since the termination of commercial aquarium permits on October 27, 2017, this economic value cannot be reliably predicted or quantified over the 12-month analysis period.

The No Action Alternative would have a *less than significant impact* on Hawai'i's overall and ocean socioeconomic resources.

5.2.1.2 Status Quo Alternative

Based on historic data, under the Status Quo Alternative the commercial aquarium fishery is estimated to add approximately \$1,400,000 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy over the 12-month analysis period and create over 50 jobs. In 2014, Hawai'i employed 626,146 people and generated \$28.3 billion in wages and \$76.4 billion in gross domestic product. Hawai'i's ocean economy in 2014 employed 111,673 people and generated \$3.9 billion in wages and \$7.4 billion in gross domestic product. The ocean economy accounted for 17.8 percent of Hawaii's employment, 13.7 percent of its wages, and 9.7 percent of its gross domestic product (NOAA 2017).

The Status Quo Alternative would have a minimal, but *beneficial direct impact* on Hawai'i's overall and ocean socioeconomic resources.

5.2.1.3 Achilles Tang Conservation (Preferred) Alternative

The Achilles Tang Conservation (Preferred) Alternative would implement a bag limit of 5 Achilles Tang per day, resulting in an estimated 50% reduction in the number of Achilles Tang taken by the commercial aquarium fishery. Estimated value of the Achilles Tang catch in the WHRFMA since the 2014 bag limit was imposed has been \$135,627 (2015), \$129,876 (2016), and \$130,853 (2017). The worst-case scenario under the Achilles Tang Conservation (Preferred) Alternative would be that the income from Achilles Tang will be cut in approximately half (average of \$66,059 decrease in income based upon the past three years). This represents approximately 3% of the annual economic impact of the \$2,075,088 (average, inflation-adjusted value) aquarium fishery in the State of Hawaii. This impact may be buffered

however, as the cost per fish may increase as the supply of Achilles Tang decreases, negating any socioeconomic impact to the fishers. If this were to be case, the socioeconomic impact of the bag limit would be seen on the consumer side (i.e., those purchasing aquarium fish, who would have to pay a higher premium due to decreased supply).

The Achilles Tang Conservation (Preferred) Alternative would have a *less than significant impact* on Hawai'i's overall and ocean socioeconomic resources.

5.2.2 Indirect Impacts

Indirect socioeconomic impacts of the commercial aquarium fishery would primarily involve other tourist businesses such as snorkel and dive operations that rely on seeing and interacting with a healthy reef ecosystem. The presence of a healthy reef ecosystem may also impact overall land/home values on the island of Hawai'i.

5.2.2.1 No Action Alternative

Under the No Action Alternative, no interaction between other tourist operations and commercial aquarium fishers would occur in the WHRFMA. In addition, re-investment of a portion of the profits from the aquarium fishery in the WHRFMA into the state of Hawai'i's economy would no longer occur and funding provided through licenses, other fees, and taxes on aquarium fishers that is used to monitor, protect, and preserve reef fishes and their reef habitats would no longer be available.

No scientific data exist to suggest that in the absence of aquarium fishers an increase in other tourist operations would occur. The loss of funding for reef fish conservation likely would impact the ability of the DAR to monitor and protect reef fish. Nevertheless, the No Action Alternative would have a *less than significant impact* on Hawai'i's overall and ocean socioeconomic resources.

5.2.2.2 Status Quo Alternative

Indirect socioeconomic impacts between commercial aquarium fishers, dive tour operators and subsistence/cultural fishers are possible if the commercial aquarium fishing leads to a decrease in demand for snorkel and scuba tours or a decrease in availability of species of fish targeted for subsistence/cultural fishing activities. As the number of commercial aquarium collectors in West Hawai'i began to rise in the 1980s conflicts between dive tour operators and commercial aquarium collectors began to increase. A short-lived informal "Gentleperson's Agreement" was reached in 1987 whereby aquarium collectors agreed to refrain from collecting in certain areas. In return, charter operators agreed not to initiate legislation opposing collecting and to cease harassment. In 1991, four of the areas from the Gentleperson's Agreement were established as the Kona Coast Fisheries Management Area (FMA) within which aquarium collecting is prohibited (Walsh 2004; HAR §13-58). This, in part, led to the development of the WHRFWG and the WHRFMA, minimizing indirect impacts to other, tourist related industries (e.g., dive and snorkel operations), and subsistence and/or cultural fishing. In addition, the average collection of 37 of the 40 White List species is below 1% of their overall island of Hawai'i populations and collection of the remaining three species would be less than 5% of their overall

population (Section 5.4.1.2.5). The small percentage of fish collected over multiple areas would be imperceptible to the average observer.

Available data do not suggest that the Status Quo Alternative has impacted the tourism industry or land values in Hawai'i. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017). When adjusted for inflation, total visitor spending was up 3.5% from 2015 (Figure 3). A total of 8,934,277 visitors came by air or by cruise ship to the state, up 2.9% from the previous record of 8,679,564 visitors in 2015. Total visitor days rose 2% compared to 2016. The average spending per day by these visitors (\$197 per person) was also higher than 2015 (\$191 per person; HDBEDT 2017).

Despite the housing crisis and recent recession, the average sale price of homes steadily increased in Hawai'i from 2011 to 2014 after a few years of year-to-year fluctuation. The average sale price of homes in 2014 was \$594,440, which was 26.4 percent higher than the average sale price in 2011. A rapid price increase was observed particularly in 2013 and 2014. The average sale price in 2013 and 2014 was about 10 percent higher than the price in the prior year. In 2015, the total number of home sales increased by 9.3 percent, but the average sale price was 0.3 percent lower than the previous year (HDBEDT 2016).

The average value of the commercial aquarium fishery within the WHRFMA for the period 2000 to 2017 was \$1,354,045 (inflation-adjusted 2017 dollars). Under the Status Quo Alternative, a portion of the income from this fishery would continue to be put back into Hawai'i's economy through re-investment efforts in terms of equipment, maintenance, supplies, and personnel. Funds from the licenses, other fees, and taxes associated with the fishery would continue to go to environmental conservation projects and research implemented by the DLNR and other agencies/organizations to monitor, manage, and regulate the fishery to ensure environmental impacts are avoided or minimized.

In addition, while the aquarium fishery directly employs permitted collectors, these collectors hire staff/assistants, sell their catch to wholesalers, who in turn get the fish to the market, which includes pet stores and their customers (Dierking 2002).

The Status Quo Alternative would have a *less than significant impact* on Hawai'i's tourist industry, and a minimal, but *beneficial indirect impact* on Hawai'i's overall economy through re-investment efforts in terms of equipment, maintenance, supplies, and personnel, and funding reef fish conservation.

5.2.2.3 Achilles Tang Conservation (Preferred) Alternative

The indirect impacts of the Achilles Tang Conservation (Preferred) Alternative would be similar to those of the Status Quo Alternative (Section 5.2.2.2). The reduction in the Achilles Tang bag limit may make the species more visible to divers and snorkelers, but the impact would be *less than significant*. A minimal, but *beneficial indirect impact* on Hawai'i's overall economy would occur under the Achilles Tang Conservation (Preferred) Alternative through re-investment efforts in terms of equipment, maintenance, supplies, and personnel, and funding reef fish conservation.

5.2.3 Cumulative Impacts

For the period 2000 to 2017, the commercial aquarium fishery within the WHRFMA added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) (Table 7). Thus, the WHRFMA aquarium fishery accounts for approximately 65% of the overall aquarium fishery within Hawai'i. In 2016, the overall Gross Domestic Product (GDP) of Hawai'i was \$84.7 billion, of which, the commercial aquarium fishery contributed \$2,257,021 (0.003%), of which \$1,582,011 was from the WHRFMA. Over the 12-month analysis period under the Preferred Alternative, it is estimated that the aquarium fishery on Hawai'i would add an estimated \$2,000,000 to the state's economy, of which an estimated \$1,300,000 would be added from the WHRFMA aquarium fishery.

The No Action, Status Quo and Achilles Tang Conservation (Preferred) alternatives would have a minimal, but beneficial cumulative impact on Hawai'i's overall and ocean socioeconomic resources. The reduction in Achilles Tang bag limit under the Achilles Tang Conservation (Preferred) Alternative may have an effect on the non-aquarium commercial fishery; however, given that known catch of Achilles Tang make up less than 1.5% of the white list species collected by commercial fishers on the island of Hawai'i, and average only 222 per year on the Island (or 592 state-wide) (see Section 5.4.3.2, Table 16), the impact is anticipated to be *less than significant*.

5.3 CULTURAL RESOURCES

As discussed in Section 4.2, there are distinct differences between the traditional, Native Hawaiian approach to fish harvest and management and the western model approach. The core difference lies in the origins of the approaches: traditions, religion, and customs for Native Hawaiians, and science-based, data-driven results in the western model. Many steps have been taken over the years to bridge the gap between the two management approaches. Act 306 and the creation of the WHFC was the first big step in collaboration and coordination between the two approaches. Consisting of 24 voting members and 6 ex-officio agency representatives from DLNR, Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'āinana (i.e., native fishers), including one on the Board of the Office of Hawaiian Affairs, and most of the members were previously on the WHRFWG. Native Hawaiians that participate in the fishery, and those that support and oppose the commercial aquarium fishery, have always been a part of its long history and hence, its management.

5.3.1 Direct Impacts

5.3.1.1 No Action Alternative

Under the No Action Alternative, commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

Under the No Action Alternative, all commercial aquarium fish collection would stop in the WHRFMA, and it is anticipated that a minor but **beneficial impact** to cultural subsistence fishing would occur in the WHRFMA. While aquarium fish collection may continue in East Hawai'i, it is anticipated that the impacts would be **less than significant** to cultural subsistence fishing.

5.3.1.2 Status Quo Alternative

Under the Status Quo Alternative direct impacts to cultural resources could occur if commercial aquarium fish collection and fish collection for subsistence or traditional purposes are occurring simultaneously in the same areas. Kole and Achilles Tang are likely the primary crossover species between the commercial aquarium fishery and subsistence fishers (Alika Garcia, personal communication); however, the fisheries use the resource differently which has the potential to reduce conflicts. Tradition for Native Hawaiian fishers is to take the larger fish of a species, which was culturally accepted as the more sustainable practice (Alika Garcia, personal communication). Commercial aquarium fishers target smaller, juvenile fish, thereby leaving the larger fish that are targeted by subsistence fishers. In comments received from the Office of Hawaiian Affairs (OHA), OHA expressed a concern that traditional practices included collecting smaller species of fish, but did not specifically state that subsistence fishers target juvenile fish of certain species (Maly and Maly 2003). Knowledgeable parties were consulted regarding the traditional subsistence fishing practices and these parties also confirmed that juvenile fish are not targeted by traditional subsistence fishers.

In addition, as discussed in Section 5.4, the commercial aquarium fishery is not having a significant impact on overall fish populations (37 of the 40 White List species would be collected at less than 1 percent of their respective overall island of Hawai'i populations and collection of the remaining three species would be less than 5 percent of their overall population; see Section 5.4.1.3 and Table 15). Commercial aquarium fishers are limited by size and bag limits on various species and must report their catch to DLNR; however, subsistence and/or cultural fishers are not limited in the number of fish they can collect and do not have to report to DLNR. Therefore, the impact of commercial aquarium collection on traditional subsistence fishing is not quantifiable at this time, but it is not likely to be significant given the limits placed on commercial aquarium collectors and the data available regarding commercial collection rates of the White List species.

It was noted in the comments to the DEA, that the practice of commercial aquarium collection runs counter to the core values of Native Hawaiian culture and, as a result, has a direct, adverse impact on cultural resources. It is acknowledged that continued commercial aquarium collection affects cultural resources. However, in light of the fact that commercial collection has been occurring in Hawai'i since the 1940s, and analysis of 18 years of catch data and recent population estimates and trends that demonstrate the fish collected by the commercial aquarium fishery are being sustainably collected (Section 5.4), implementation of the Status Quo Alternative is anticipated to have a *less than significant direct impact* on subsistence fishing and cultural resources.

5.3.1.3 Achilles Tang Conservation (Preferred) Alternative

As noted above, it is anticipated that implementation of the Status Quo Alternative would impact cultural resources, but that the impact would be less than significant. Impacts of the Preferred Alternative will be similar those of the Status Quo Alternative for all species. However, the measures in the Preferred Alternative are intended to reduce potential conflicts with cultural practices and traditional subsistence fishing by reducing the daily bag limit for commercial aquarium collection of Achilles Tang. The implementation of this measure could likely produce a *beneficial impact* on cultural resources, as it could reduce the potential conflict between commercial aquarium collection and traditional subsistence fishers and cultural practitioners. Overall, based on the available data, the Preferred Alternative is anticipated to have a *less than significant direct impact* on subsistence fishing and cultural resources.

5.3.2 Indirect Impacts

5.3.2.1 No Action Alternative

The commercial aquarium fishery has been the primary impetus of most research, management, and monitoring of the aquarium fish resources by DLNR to date. Loss of the commercial aquarium fishery in the WHRFMA would likely lead to declines in such conservation initiatives due to lack of funding (e.g., provided by the fishery and other matching opportunities), resources (e.g., aquarium fishers knowledge and assistance), and reprioritization of agency goals. The loss of these conservation initiatives could have detrimental effects on various fish populations, which may impact Native Hawaiian subsistence fishers. Nevertheless, the No Action Alternative is anticipated to have *less than significant indirect impacts* on cultural resources.

5.3.2.2 Status Quo Alternative

As noted in Section 4.2.1, the commercial aquarium fishery is not a part of traditional Hawaiian culture. However, over the past 70 years of commercial aquarium fishing within Hawaiian waters, issues surrounding the fishery have served as an impetus to help bridge the gap between traditional Native Hawaiian resource management and the "Western" model of management. Native Hawaiians are a part of the commercial aquarium fishery and served on the WHFC assisting in the development of the WHRFMA, FRAs, and regulations guiding the management of the fishery in West Hawai'i. As a result, Native Hawaiian interest and participation has increased resulting in a more focused, successful, and stable fishery able to monitor issues as they arise. Continued involvement of Native Hawaiians (and all stakeholders) in the management of the resource will only serve to benefit Native Hawaiians and Hawai'i's overall cultural resources.

The Status Quo Alternative, through involvement of fishery management by all stakeholders and continued funding and agency prioritization for research, management, and monitoring, is anticipated to have **beneficial indirect impacts** on cultural resources.

5.3.2.3 Achilles Tang Conservation (Preferred) Alternative

Indirect impacts to cultural resources under the Achilles Tang Conservation Alternative will be similar to those of the Status Quo Alternative (Section 5.3.2.2). Implementing the Achilles Tang Conservation (Preferred) Alternative (i.e., reducing the take to no more than five (5) individual Achilles Tang per day for all fisheries in the WHRFMA) may have additional **beneficial indirect impacts** in the future which are not quantifiable at this time.

5.3.3 Cumulative Impacts

It is acknowledged that cultural resources, including traditional practices specific to both species and places have been impacted by past actions. The cumulative impacts of the three alternatives proposed in this FEA are addressed in this section.

It is not possible to fully quantify the cumulative effects of past and ongoing actions on cultural practices and beliefs. The commercial aquarium fishery has existed in Hawai'i since the late 1940s and in the past the fishery has impacted cultural resources by virtue of the fact that commercial aquarium collection occurs in a culturally significant area (the ocean) and, in some instances involves culturally significant species. Impacts on cultural resources resulting from implementation of each of the three alternatives under consideration are expected to be *less than significant*. It is reasonably foreseeable that commercial aquarium collection will continue in the future, and therefore implementation of any of the three alternatives under consideration will continue to have some impact on cultural resources. However, based on the scientific data demonstrating that commercial aquarium collection is not significantly impacting targeted fish populations overall (Section 5.4), and because cultural practitioners are targeting species at different life stages than those targeted by commercial collectors, the cumulative impacts of future commercial aquarium collection on cultural resources are not expected to be significant.

Additionally, the measures in the Preferred Alternative are designed to mitigate potential impacts to cultural resources by limiting the number of Achilles Tang that can be collected by commercial aquarium collectors each day, therefore increasing the number of Achilles Tang available for cultural practices and traditional subsistence fishers. As a result, implementation of the Preferred Alternative would likely have a **beneficial impact** on cultural resources by potentially decreasing user conflict between commercial collectors and subsistence fishers or cultural practitioners. Therefore, implementation of either the No Action Alternative, Status Quo Alternative, or the Preferred Alternative, when combined with past, present, and reasonably foreseeable future actions, is expected to have **less than significant impacts** on cultural resources.

5.4 **BIOLOGICAL RESOURCES**

5.4.1 Direct Impacts

5.4.1.1 No Action Alternative

Under the No Action Alternative issuance of Aquarium Permits would not occur and commercial aquarium fishing would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods

other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

An estimated 332,000 (18-year average) individual fish would not be collected from the WHRFMA (Table 8). The 18-year average of 13,700 fish and 10,300 invertebrates may still be collected in East Hawai'i as other methods of collection, not requiring an Aquarium Permit, may continue. It is reasonably foreseeable that some commercial aquarium collectors who previously collected in the WHRFMA may shift their collection to East Hawai'i, and that fish collection in East Hawai'i may subsequently increase from the 18-year average of 13,700 fish due to the closure of the WHRFMA. However, this impact cannot be quantified at this time. In addition, without the use of fine mesh nets, the size class of fish collected may increase over that which is caught with fine mesh nets (i.e., the smaller fish would escape the larger mesh), but again this impact cannot be quantified at this time.

A minor, although unquantifiable, population increase may occur in some species over the 12-month analysis period; however, it should be noted that individual fish targeted by commercial aquarium fishers, either by regulation and/or market demand, are generally small, juvenile fish and not the larger breeding stock. As such, non-removal of juvenile fish is not anticipated to result in a statistically significant population increase during the 12-month analysis period.

The No Action Alternative would have a *less than significant direct impact* on Hawai'i's Biological Resources.

5.4.1.2 Status Quo Alternative

Under the Status Quo Alternative issuance of Aquarium Permits would occur and commercial aquarium fishing would take place. It is likely that fishing pressure on the species collected in the past would remain relatively the same over the 12-month analysis period, resulting in an estimated 332,000 (18-year average) individual fish collected from the WHRFMA and an estimated 13,700 fish and 10,300 invertebrates collected from East Hawai'i (Table 8). Total fish and invertebrates collected from the island of Hawai'i has ranged from 192,102 individuals in 2002 to 500,493 in 2006.

Table 8. Total fish and invertebrates collected under Aquarium Permits from East Hawai'iand the WHRFMA annually from 2000-2017 (DAR 2018a).

Fiscal Year	East Hawai'i	WHRFMA	Combined
2000	6,685	241,070	247,755
2001	n.d.	243,085	243,085
2002	n.d.	192,102	192,102
2003	n.d.	233,930	233,930
2004	n.d.	336,436	336,436
2005	7,942	433,270	441,212
2006	22,371	478,122	500,493
2007	11,036	337,287	348,323
2008	36,924	342,954	379,878

Fiscal Year	East Hawai'i	WHRFMA	Combined
2009	21,494	284,537	306,031
2010	9,232	377,805	387,037
2011	39,058	361,452	400,510
2012	104,670	349,971	454,641
2013	55,945	362,444	418,389
2014	52,799	338,848	391,647
2015	25,272	358,671	383,943
2016	15,504	377,479	392,983
2017	22,002	324,565	346,567
Total	430,934	5,974,028	6,404,962
Average	30,781	331,890	355,831

5.4.1.2.1. White List Species WHRFMA (Only White List Species Collected)

Since 2000, Yellow Tang, Achilles Tang, and Kole have made up 93.3% of all individuals collected by commercial aquarium fishers in the WHRFMA (DAR 2018b). The other 37 White List species make up the remaining 6.7% of the collected fish. WHAP data indicate that establishment of the FRAs has had a significantly positive impact on Yellow Tang and Kole populations in the WHRFMA (DAR 2018a; Table 8). Although Achilles Tang population density has decreased in Open Areas since FRA establishment (1999), population density has increased slightly in MPAs (Table 9) (DAR 2018b).

Table 9. Change in density of Yellow Tang, Kole, and Achilles Tang in the WHRFMA
based on WHAP data. 'Before' = Mean of 1999-2000; 'After' = Mean 2016-
2017. Young-of-year (YOY) not included. Bold = statistically significant t-
test (DAR 2018b).

	SCIENTIFIC NAME	AREA		DENSITY I 00m²) After	OVERALL% CHANGE IN DENSITY	ρ
		FRA	12.73	35.18	+176.3%	<0.001
Yellow Tang	Zebrasoma flavescens	Open	10.24	16.18	+58.0%	<0.001
		MPA	23.08	39.86	+72.7%	<0.001
Kole (Goldring		FRA	28.38	50.82	+79.1%	<0.001
Surgeonfish,	Ctenochaetus strigosus	Open	21.18	39.22	+85.2%	<0.001
Yelloweye, Goldring)		MPA	28.53	59.15	+107.3%	<0.001
		FRA	0.26	0.19	-28.3%	0.10
Achilles Tang	Acanthurus achilles	Open	0.31	0.13	-58.1%	<0.001
Ū.		MPA	0.42	0.63	+49.1%	0.03

Yellow Tang

The Yellow Tang has been the most collected species every year since 1976 (DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 4,885,736 (81.8%) of those were Yellow Tang. The average number of Yellow Tang captured each year since 2000 was 271,430 individuals, ranging between a minimum catch of 152,047 individuals (2002) and maximum of 386,767 (2006). Under the Status Quo Alternative, it is anticipated that between 152,000 and 387,000 Yellow Tang would be collected over the 12-month analysis period.

Based on data collected between 2010 and 2016 by the CREP (2018), the island of Hawai'i Yellow Tang population is estimated at 8,260,000 individuals (Table 10). The WHAP estimates the 2016/2017 Open Area Yellow Tang population in WHRFMA at 2,224,149 at the 30'-60' depth, an increase of 560,374 since 2012/2013. Collection of Yellow Tang between 152,000 and 387,000 individuals would remove approximately 2%-5% of the current estimated population for the island of Hawai'i (Table 10).

Table 10. CREP (2018) estimated population of Yellow Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).

Island of	WHAP Open Area		WHRFMA (DAR2018b)						
Hawai'i Pop (CREP 2018)	Pop. Est. 30'-60' Depth in WHRFMA Only ¹	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population				
	2012/2013								
8,262,144	1,663,775	2,224,149	152,047	386,767	1.84%	4.68%			

¹Include both adults and young-of-the-year ²From 2000 – 2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- Since the FRAs were established the value of Yellow Tang had increased 79% while Kole had increased 10%. The population of Yellow Tang had increased 64.5% in the FRAs while its abundance in the Open Areas (areas fished by commercial aquarium fishers) had not declined significantly. Overall Yellow Tang abundance in the 30-60 foot depth range over the entire West Hawai'i coast had increased 58% (over 1.3 million fish) from 1999/2000 to 2012-2013 to a population of approximately 3,590,239 fish. Two of three sites at long-term studies in South Kohala and South Kona found Yellow Tang populations had increased to levels found over three decades ago before the expansion of aquarium collecting.
- There were no significant differences in the abundance of adult Yellow Tang in open vs. closed areas in shallow water (10-20 foot depths). Total estimated coastwise population of adult Yellow Tang in this depth range was estimated to be >2.5 million individuals. West Hawai'i had a significantly greater percent change in Yellow Tang density within its networked MPAs (and Open Areas) as compared to the non-networked sites on Maui. Five of the 10 most collected aquarium fish in West Hawai'i were significantly more abundant in West Hawai'i's Open Areas as compared to Maui MPA closed areas.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this time; however, the DAR has completed the analysis for Yellow Tang and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that the upward trend in Yellow Tang populations in the Open Areas seen since 2001 is continuing (Figure 5), even with an average increase of 10,100 individuals collected each year from 2014-2016.

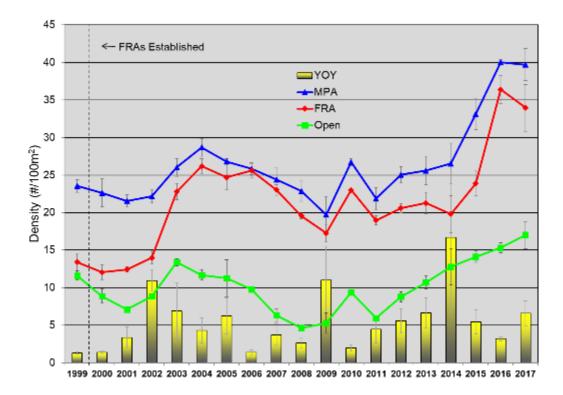


Figure 5. Overall changes in Yellow Tang density (Mean ± SE) in FRAs, MPAs, and Open Areas, 1999-2017. Yellow vertical bars indicate mean density (MAY-NOV) of Yellow Tang YOY. YOY are not included in trend line data (DAR 2018b).

It is important to note that the Yellow Tang breeding population (larger, adult fish), reflected in the trend lines in Figure 5, is not collected by commercial aquarium fishers, nor is this age/size class desired as a food fish. The brood stock is therefore protected and not significantly reduced as a result of aquarium fish collection. The vertical bars (YOY = young of the year) essentially represent the replacement/recruitment rate of the species (i.e., when juvenile fish survive to be added to a population). It is these juveniles up to several years of age that are targeted by the aquarium fishery, as there is no market for the larger fish.

Kole

The Kole has been the second most collected species every year since 1976 (DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 552,603 (9.3%) of those were Kole. The average number of Kole captured each year since 2000 was 30,700 individuals, ranging between a minimum catch of 15,961 (2001) and maximum of 42,112 (2006). Under the Status Quo Alternative, it is anticipated that between 16,000 and 42,100 Kole would be collected over the 12-month analysis period.

Based on data collected between 2010 and 2016 by the CREP (2018), the island of Hawai'i Kole population is estimated at 11,700,000 individuals (Table 11). The WHAP estimates the 2016/2017 Open Area Kole population in WHRFMA at 4,662,582 at the 30-60 foot depth, an increase of 1,046,053 since

2012/2013. Collection of Kole between 16,000 and 42,100 individuals would remove less than 1% of the current estimated population for the island of Hawai'i (Table 11).

Table 11. CREP (2018) estimated population of Kole for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).

Island of	WHAP O			WHRFMA (DAR2018b)						
Hawai'i Pop (CREP 2018)	Pop. Est. 30'-60' Depth in WHRFMA	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population					
	2012/2013	2016/2017								
11,697,561	3,616,529	4,662,582	15,961	42,112	0.14%	0.36%				
¹ Includes both adu	ilts and young-of	-the-vear								

¹Includes both adults and young-of-the-year ²From 2000-2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- The FRAs have also been very successful in increasing Kole populations. The number of Kole increased significantly in all management areas, including Open Areas, from 1999/2000 to 2012/2013. Overall Kole abundance in 30-60 foot depth range over the entire West Hawai'i coast increased 49% (over 2.1 million fish) during this time period with a population of about 6,528,024 fish in 2014.
- Long-term West Hawai'i studies have found Kole populations had decreased from 31% in South Kona to 71% in South Kohala. Given the length of protection at these sites and the overall decline in habitat quality and fish populations in South Kohala, it seems unlikely that the declines are due primarily to aquarium collecting. Comparative surveys utilizing DAR and NOAA data indicate Kole are substantially more abundant in West Hawai'i over most size ranges than in any of the other islands in the Main Hawaiian Islands or the Northwest Hawaiian Islands.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this time; however, the DAR has completed the analysis for Kole and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that Kole populations within the Open Areas were on an upward trend between 2012 and 2016 and show a slight leveling off in 2017 (Figure 6). The catch increased on average by 3,750 individuals per year between 2014-2016.

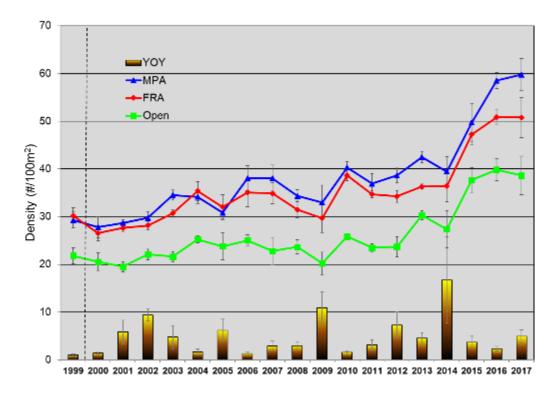


Figure 6. Overall changes in Kole density (Mean ± SE) in FRAs, MPAs, and Open Areas, 1999-2017. Vertical bars indicate mean density (JUN-NOV) of Kole YOY. YOY are not included in trend line data (DAR 2018b).

Trend lines in Figure 6 reflect Kole brood. The vertical bars (YOY) essentially represent the replacement/recruitment rate of the species (i.e., when juvenile fish survive to be added to a population).

Achilles Tang

The Achilles Tang has generally been the third most collected species every year since 1976, with a few exceptions (4th most captured fish from 2008-2009 and again 2015-2017; DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 132,775 (2.2%) of those were Achilles Tang. The average number of Achilles Tang captured each year since 2000 was 7,376 individuals, ranging between a minimum catch of 2,976 (2009) and maximum of 13,615 (2005). Under the Status Quo Alternative, it is anticipated that between 3,000 and 13,600 Achilles Tang would be collected over the 12-month analysis period. However, catch of Achilles Tang has dropped since 2007. In the 7 years from 2000-2006, a total of 66,732 Achilles Tang were collected (annual average of 9,534). In contrast, in the 11 years from 2007-2017, an almost equal amount totaling 66,043 Achilles Tang were collected (annual average of 6,004). Therefore, it is likely that the collection of Achilles Tang over the 12-month analysis period, the 2007-2017 annual average (6,004); however, for the purposes of analyzing the worst-case scenario, the maximum annual collection (13,600) was used for estimating impacts.

Based on data collected between 2010-2016 during CREP (2018) surveys, the Achilles Tang population on the island of Hawai'i is estimated at 231,000 individuals (Table 12). The WHAP estimates the 2016/2017 Open Area Achilles Tang population in WHRFMA at 13,960 at the 30-60 foot depth, a decrease of 7,667 since 2012/2013 (Table 12). Collection of Achilles Tang between 3,000 and 13,600 individuals would remove between 2-6% of its current estimated population for the island of Hawai'i (Table 12).

Table 12. CREP (2018) estimated population of Achilles Tang for the island of Hawai'i and
percentage of population taken by commercial aquarium fishers in the
WHRFMA (DAR 2018b).

Island of WHAP Open Area			WHRFMA (DAR2018b)						
Hawai'i Pop (CREP 2018)	Pop. Est. 30'-60' Depth in WHRFMA Only ¹	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population				
	2012/2013 2016/2017								
231,377	21,627	13,960	2,976	13,615	1.28%	5.88%			

¹Inlcudes both adults and young-of-the-year. See discussion below. ²From 2000-2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- Commercial aquarium landings of Achilles Tang have declined in West Hawai'i over the past two decades in association with a recent dramatic increase in its value (2014). This is strongly suggestive of declining availability (i.e. abundance). Achilles Tang had declined in FRAs and Open Areas over the last 15 years tempered somewhat by a slight increase in 2013 and 2014. However, Achilles Tang numbers have increased in MPAs over the last four years (2014). Open Area (aquarium collection allowed) populations are higher than FRA (albeit both being low). Achilles Tang has had low levels of recruitment over the past decade and substantial numbers of larger fish (i.e., 'breeders') are taken for human consumption.
- An important caveat is that the reef areas where the WHAP transects are located are not the prime habitat for adults of this species. As such the bulk of the population is not adequately surveyed by WHAP monitoring.
- Results from the WHAP monitoring program and long-term studies suggest there should be concern for the sustained abundance of this species. Achilles Tang are a very popular food fish as well as an aquarium fish and thus are being harvested both as juveniles and adults. Low levels of recruitment over the past 14 years appear insufficient to compensate for the existing levels of harvest. In order to address concerns regarding aquarium impacts on this species, the new West Hawai'i Regional Fishery Management Area Rule (HAR § 13-60.4) includes an Achilles Tang bag limit of 10 fish/person/day which applies only to aquarium collectors (2014). (Addressed below in this section).

Although the most recent DAR report to the legislature suggests there should be concern for the sustained abundance of Achilles Tang in the WHRFMA, the report concedes that WHAP transects are not located in prime habitat for adult Achilles Tang (i.e., high energy shallower surge zones), and therefore

the bulk of the Achilles Tang population is not adequately surveyed by WHAP monitoring (DAR 2014a). In addition, WHAP transects are not located in all collection zones found within the WHRFMA (Figure 4), including the two zones (100A and 108) with the highest percentage of the Achilles Tang collection, suggesting that the population of Achilles Tang in the WHRFMA is likely higher than estimated by the WHAP. This is supported by CREP (2018) data which show approximately 43% (approximately 79,000 individuals) of the island of Hawai'i Achilles Tang population (approximately 184,000 individuals) resides in collection zones 100 and 108.

The island of Hawai'i is divided into 14 collection zones for reporting purposes (Zones 100-108; Figure 4). The WHAP has survey transects only on the west side of the island as far south as collection zone 100B, but no transects within collection zones 100A and 108 located on the southwest and southeast portions of the island, respectively (Figure 4). Since 2000, 56% of all Achilles Tang collected were reported from collection zones 100 and 108, and since 2012 when collection zone 100 was subdivided into 100A and 100B, 51% of all Achilles Tang reported have been from collection zones 100A and 108 (DAR 2018a). Since 2000, less than two fishers have reported catch of Achilles Tang in collection zones 104, 105, and 106 (all n.d. data), and only in one year did more than two commercial aquarium fishers report Achilles Tang collection from zone 107 (DAR 2018a).

Because WHAP transects are not located in prime habitat, and no transects are located in areas where the majority of Achilles Tang collection occurs and over 40% of the population occurs, Achilles Tang population estimates based on WHAP data are likely underestimated, which thus results in the impact of the collection being overestimated when based solely on WHAP data. These issues related to the WHAP data support the use of the CREP population estimate for evaluating the impact of the collection (Table 12), as CREP surveys have good spatial coverage in all West Hawai'i collection zones and in the shallower water zones occupied by Achilles Tang.

The most recent DAR report to the legislature also states that commercial aquarium landings of Achilles Tang have declined in West Hawai'i over the past two decades in association with a dramatic increase in its value (DAR 2014a). The results presented by Stevenson et al. (2013) suggest the MPA network significantly displaced fishing effort from the central to the northern and southern coastal regions of the island of Hawai'i farther from ports of entry, and that estimated catch revenues and experimental catch per unit effort were statistically greater as distance from port of entry increased. These findings suggest that commercial aquarium fishers are traveling farther to reach suitable habitat areas open to Achilles Tang collection (e.g., Collection Zones 100A and 108), resulting in increased collection costs due to increased fuel consumption, equipment wear and tear, business expenses, time, etc., which is then passed on to wholesalers (i.e., increased cost per fish). At the same time, the bag limit on Achilles Tang implemented in 2014 has resulted in reduced Achilles Tang catch (average of 5,600 per year since 2014, down from 7,740 in 2014), affecting the number of fish brought to market (i.e., supply), which may also raise the price per fish. Therefore, the conservation measures that have been implemented to manage aquarium fish harvest (i.e., establishment of MPA network, bag limits) are more likely the cause of lower catch and increased value of Achilles Tang than declining availability.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this

time; however, the DAR has completed the analysis for Achilles Tang and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that Achilles Tang density (excluding YOY) within the Open Areas were on a downward trend between 2013 and 2016 and show a slight leveling off in 2017 (Figure 7). The catch of Achilles Tang decreased from 7,740 in 2014 to an average of 5,600 per year from 2015-2017. It is important to note that the Achilles Tang bag limit of 10 fish per day began in 2014, which likely accounts for the reduced catch after 2014.

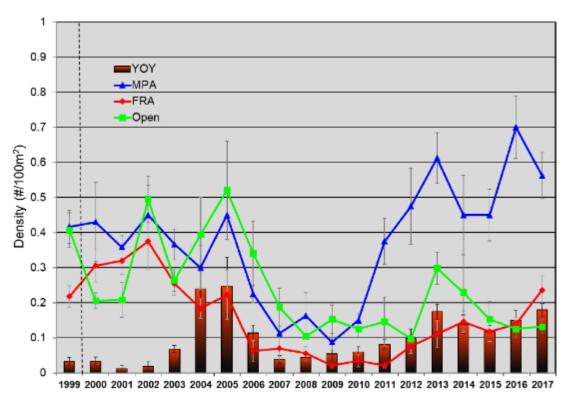


Figure 7. Overall changes in Achilles Tang density in FRAs, MPAs, and Open Areas, 1990-2017. Vertical bars indicate mean density (JUN-NOV) of Achilles Tang YOY. YOY are not included in trend line data (DAR 2018b).

As discussed above, due to WHAP survey locations, Figure 7 is likely an underestimate of the overall WHRFMA Achilles Tang population, as it represents only those Achilles Tang observed at a depth of 30-60 feet (not prime adult habitat) and does not include areas where most Achilles Tang are collected (Collection Zones 100A and 108; prime habitat for all sizes).

Other White List Species

When Yellow Tang, Kole, and Achilles Tang are excluded, the remaining 37 White List species make up 6.7% of the collected fish in the WHRFMA. The Orangespine Unicornfish (= Clown Tang) and Black Surgeonfish (= Chevron Tang) each made up approximately 2% of the overall catch in the WHRFMA since 2000. The remaining 35 species on the White List each made up less than 1% of the overall catch in the WHRFMA since 2000. Table 6 shows the percent of the Open Area population caught by commercial aquarium fishers for each species within the 30' – 60' depth range between 1999-2013 (the

most recent estimate available) (DAR 2014a). However, when overall populations (FRAs + MPAs + Open + non-surveyed areas) are considered, individuals collected would make up less than 10% of their overall population and less than 1% for most White List species. It is anticipated that these trends would continue over the 12-month analysis period.

Capture data from 2000-2017 (DAR 2018a), CREP (2018) population estimates, and estimated catch percentages for all White List species in both West and East Hawai'i can be found in Section 5.4.1.3.

East Hawai'i

Commercial aquarium fish collection in East Hawai'i is significantly less than in the WHRFMA, in both level of effort and number of individuals kept. Since 2000, approximately 245,934 fish² (White List and non-White List species combined) have been collected in East Hawai'i, compared to the 5,972,413 fish collected in the WHRFMA. The number of commercial aquarium fishers reporting catch is also significantly lower in East Hawai'i with an average of five permitted fishers reporting each year since 2000, compared to an average of 28 permitted fishers reporting from the WHRFMA over the same time period (this number does not include any permit reports that fall under the *n.d.* category).

Of the approximately 245,934 fish collected in East Hawai'i over the past 18 years, approximately 49% (119,959) were Yellow Tang. Seventy-seven percent of the Yellow Tang were captured from 2000- 2011. From 2011-2014 (the last year for which data are available), the average catch of Yellow Tang was 6,836 per year ranging between a minimum of 2,774 (2013) and a maximum of 14,269 (2014) individuals. Kole and Achilles Tang captures in East Hawai'i since 2000 have averaged 1,047 and 703 individuals per year, respectively.

The island of Hawai'i population estimates for Yellow Tang, Kole, and Achilles Tang based on data collected between 2010 and 2016 during CREP (2018) surveys are shown in Table 13. Based on these estimates, and the minimum and maximum collection of each species over an 18-year period, the proportion of the overall population removed by the East Hawai'i fishery is less than 1% for each species.

Table 13. CREP (2018) estimated populations of Yellow Tang, Kole, and Achilles Tang for
the island of Hawai'i and percentage of population taken by commercial
aquarium fishers in East Hawai'i (DAR 2018a).

	Island of	East Hawai'i (DAR2018a)							
Species	Hawai'i Pop (CREP 2018)	Minimum Collection per Year ¹	Maximum Collection per Year ¹	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population				
Yellow Tang	8,262,144	2,774	14,269	0.03%	0.17%				
Kole	11,697,561	76	3,601	<0.001%	0.03%				
Achilles Tang	231,377	525	1,525	0.23%	0.66%				
¹ From 2000-2017					·				

² Total number of White List and non-White List fish account for only those species with non n.d. data from 2000 to 2017. n.d. data is not included as it is not provided by the DAR.

Of the remaining fish species collected in East Hawai'i, none averaged more than 53 individuals collected per year since 2000; most averaged less than 25 individuals per year. Under the Status Quo Alternative, it is anticipated that the collection of White List species over the 12-month analysis period would be similar to 18-year annual average.

Capture data from 2000-2017 (DAR 2018a), CREP (2018) population estimates, and estimated catch percentages for all White List species in both East and West Hawai'i can be found in Section 5.4.1.3.

Based on the analysis presented in this section, the Status Quo Alternative would have a *less than significant direct impact* on White List species.

5.4.1.2.2. Non-White List Species WHRFMA

Only White List species are allowed to be collected from the WHRFMA and any non-target, non-White List species captured incidentally during fishing activities are to be immediately released at the capture site (Act 306; Section 1.2.3.1). Incidental captures are limited due to the capture methods implemented by fisherman, which focus on target species. Any incidental captures would therefore be negligible, and no significant direct impacts to non-White List species in the WHRFMA are anticipated.

East Hawai'i

East Hawai'i is not restricted to the White List species and many additional forms of aquatic life can be collected. Based on collection data between 2000 and 2017, a single invertebrate species, Red Pond Shrimp (unidentified species), made up the majority of the catch (DAR 2018a). Of the 185,000 non-White List aquatic animals collected in East Hawai'i over the past 18 years, approximately 99% (182,710 individuals) reported (i.e., data available) were Red Pond Shrimp. On average, 10,150 Red Pond Shrimp are taken annually from East Hawai'i (DAR 2018a). All remaining 79 non-White List species collected in East Hawai'i averaged three or less individuals collected per year since 2000 based on the data reviewed. Under the Status Quo Alternative, it is anticipated that collection of non-White List species over the 12-month analysis period would be similar to the catch reported from 2000 to 2017.

Based on the analysis presented in this section, the Status Quo Alternative would have a *less than significant direct impact* on Non-White List species.

5.4.1.2.3. Hawai'i Species of Greatest Conservation Need WHRFMA

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Psychedelic Wrasse:

This species has a relatively restricted distribution in the east-central and north-western Pacific Ocean, being found only around the Hawaiian Islands Chain. Although there is no evidence for any population declines, the species is taken in the marine aquarium fish trade. However, more than two thirds of its range are enclosed by the Papahanaumokuakea Marine National Monument. This species is therefore listed as Least Concern.

A total of 4,931 Psychedelic Wrasse were collected in the WHRFMA from 2000 to 2017 (DAR 2018a), representing 0.08% of the total White List species collected over that same period. The average number of Psychedelic Wrasse captured each year since 2000 was 274 individuals, ranging between 97 (2003) and 599 (2017) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 100 and 600 Psychedelic Wrasse would be collected over the 12-month analysis period.

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Tinker's Butterflyfish:

The species is common and fairly widespread. Although it is occasionally collected for the aquarium trade, its deep-water habitat likely prevents the harvest of many specimens. Therefore, harvesting does not appear to be a major threat and there are no signs of significant decline. It is listed as Least Concern.

A total of 5,561 Tinker's Butterflyfish were collected in the WHRFMA from 2000 to 2017 (DAR 2018a), representing 0.09% of the total White List species collected over the same period. The average number of Tinker's Butterflyfish captured each year since 2000 was 309 individuals, ranging between 166 (2013) and 586 (2015) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 170 and 590 Tinker's Butterflyfish would be collected over the 12-month analysis period.

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Fisher's Angelfish:

Listed as Least Concern in view of its wide distribution, large overall population, relatively limited collection for the aquarium fish trade, no substantial habitat loss, and no major threats overall.

A total of 1,538 Fisher's Angelfish were collected in the WHRFMA from 2002 to 2017 (DAR 2018a)³, representing 0.03% of the total White List species collected over the same period. The average number of Fisher's Angelfish captured each year since 2000 was 96 individuals, ranging between 22 (2004) and 288 (2017) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 20 and 290 Fisher's Angelfish would be collected over the 12-month analysis period.

Island of Hawai'i population estimates for Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish based on data collected between 2010 and 2016 by the CREP (CREP 2018) are shown in Table 14. Based on these estimates, and the minimum and maximum catch for each species over an 18-year period, the proportion of the overall population removed by the WHRFMA fishery ranges from less than 1% for Fisher's Angelfish to 3.2% for Tinker's Butterflyfish. In addition, Kane and Tissot (2017) demonstrate that densities of all three species are greater at depths below the 98-foot survey depth of the CREP surveys, suggesting that the actual populations of all three species are higher than those reported by the CREP surveys, and the actual impact of commercial aquarium collection is lower than reported in Table 14.

³ Data not available for 2000 and 2001.

Table 14. CREP (2018) estimated populations of Psychedelic Wrasse, Tinker's
Butterflyfish, and Fisher's Angelfish for the island of Hawai'i and
percentage of populations taken by commercial aquarium fishers in the
WHRFMA (DAR 2018a).

	Island of	WHRFMA (DAR2018a)								
Species	Hawai'i Pop ¹ (CREP 2018)	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population					
Psychedelic Wrasse	36,770	97	599	0.26%	1.63%					
Tinker's Butterflyfish	18,475	166	586	0.9%	3.17%					
Fisher's Angelfish	666,209	22	288	0.003%	0.04%					

¹All species population estimates are likely low due to the depths at which they occur.

²From 2000-2017

Based on deep diver observations, Tinker's Butterflyfish and Psychedelic Wrasse are substantially more common in the long term protected areas (MPAs) (DAR 2014a).

Based on the analysis presented in this section, the Status Quo Alternative would have *less than significant direct impacts* on SGCN species in the WHRFMA.

East Hawai'i

Due to the low number of individual commercial aquarium permits and low number of areas fished in East Hawai'i, reliable catch and population numbers are not available for the Psychedelic Wrasse in East Hawai'i. However, no Psychedelic Wrasse have been collected from East Hawai'i in 9 of the 18 years between 2000 and 2017 (DAR 2018a). It is likely that Psychedelic Wrasse are primarily taken as a result of opportunistic collection by fishers while targeting other species.

No Tinker's Butterflyfish or Fisher's Angelfish have been reported as collected from East Hawai'i during the period 2000-2017.

Under the Status Quo Alternative, it is anticipated that collection of SGCN species over the 12-month analysis period would be similar the catch reported from 2000 to 2017.

Based on the analysis presented in this section, the Status Quo Alternative would have a *less than significant direct impact* on SGCN species in East Hawai'i.

5.4.1.2.4. Reef Habitat

Herbivores, which feed on marine algae, and especially coral scraping herbivores such as parrotfish (Scaridae), are widely considered to play a key role in the overall health and subsequent recovery of coral reefs after disturbances such as bleaching. The four largest groups of herbivorous coral reef fishes are the parrotfishes, damselfishes (Pomacentridae), rabbitfishes (Siganidae), and surgeonfishes

(Acanthuridae). No parrotfishes or rabbitfishes (none in Hawai'i) are included on the White List, and therefore cannot be collected by commercial aquarium fishers in the WHRFMA. Only one damselfish, the Hawaiian Dascyllus (Section 4.4.1.26), is included on the White List and can be collected. However, Hawaiian Dascyllusare not herbivores and the average number collected per year since 2000 is 1 in East Hawai'i and 119 in the WHRFMA (Table 15).

Herbivores taken by the aquarium fishery typically consist of the smaller size classes, either by regulation (e.g., HAR 13-60.4 prohibits the take of more than 5 Yellow Tang/day larger than 4.5 inches) or by market demand (i.e., minimal market for large adult fish in the aquarium trade). The smaller fish primarily collected by commercial aquarium fishers are the least effective sizes for cropping algae. In addition, bag limits are in place for the three White List species (5 Yellow Tang >4.5" and 5 fish <2"; 5 Kole >4" [AQ fishers only]; and Achilles Tang [10 fish/day]) that have made up 93.3% of all individuals collected by commercial aquarium fishers in the WHRFMA since 2000 (Section 5.4.1.2.1). Even with making up the highest proportion of the catch, WHAP data indicate populations of Yellow Tang and Kole continue to increase (Section 5.4.1.2.1) and based on CREP population estimates the average annual collection of the three species represents less than 4% of the overall island of Hawai'i population of Yellow Tang and Achilles Tang and less than 1% of the overall island of Hawai'i population of Kole (Table 15). Therefore, it is not anticipated that a significant reduction in herbivores as a result of commercial aquarium collection would occur under the Preferred Alternative.

In a study analyzing the effects of aquarium collectors on coral reef fishes in Kona, Hawai'i, Tissot and Hallacher (2003) concluded that there were no significant differences in damaged coral between control and collected sites (i.e., sites where aquarium collection occurs) to indicate the presence of destructive fishing practices. In addition, they found no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting.

The DAR has been conducting related observations since 2003 (DAR 2018c). Monitoring of coral reef benthic cover is conducted approximately every four years at 25 permanent monitoring sites. Monitoring is conducted more frequently if substantial benthic change occurs between regular sampling years (e.g. after a coral bleaching event). The analysis compares the presence or absence of commercial aquarium collecting in West Hawai'i relative to overall coral cover and changes in coral cover. Major results of the study are summarized below:

- Coral cover was slightly higher within areas closed to the commercial aquarium fishery compared to Open Areas, but the difference was not statistically significant for any year of monitoring (2003: p = 0.276; 2007: p = 0.275; 2011: p = 0.496; 2014: p = 0.554; 2016: p = 0.673; 2017: p = 0.782). Additionally, there was no apparent trend of declining coral cover in the Open Areas over time.
- From 2003 to 2017, overall mean coral cover declined less within Open Areas compared to areas closed to commercial aquarium collection (Closed areas: -22.5% ± 3.4%; Open Areas: -15.5% ± 2.3%), but this difference in change in coral cover was not significant (p = 0.093).
- From 2014 to 2016, West Hawai'i experienced a severe coral bleaching and mortality event, which peaked in the fall of 2015. Over this time-period, overall mean coral cover decline was

slightly less in the areas open to commercial aquarium collection, but again, the difference was not significant (Closed areas: -19.6 % \pm 6.0 %; Open Areas: -17.6 % \pm 1.3 %; p = 0.605).

From 2016 to 2017, approximately one year after coral post-bleaching mortality subsided, minimal change in coral cover was documented within areas open to commercial aquarium collection (Open Areas: 0.07 % ± 2.1 %), compared to a slight decline in mean coral cover in areas closed to collection (Closed: -1.94 % ± 2.3 %), and this difference was statistically significant (p = 0.038).

Based on the analysis presented in this section, the Status Quo Alternative would have a *less than significant direct impact* on reef habitat or the resilience of corals to respond to widespread bleaching events.

5.4.1.2.5. Impact of Collection on White List Species Populations

This Section summarizes the White List species collection data under the Status Quo Alternative, as well as population estimates, into tabular format (Table 15). The primary purpose of the data analysis in regard to White List species was to estimate, as accurately as possible, what the current populations of White List species are, what level of collection is occurring in those populations, and the average and maximum proportion of the population collected annually for the period 2000-2017 for each species. The CREP (2018) data compiled by the NOAA are comprehensive in both scope and spatial coverage and provide as accurate a depiction of population numbers as possible for the island of Hawai'i. The DAR (2018a) catch data provide collection numbers to allow for impact analysis. As noted throughout this FEA, confidentiality regulations (HRS §189-3) and changes in the manner in which data were collected over the years did impact the analysis but was mitigated by the approach used during the analysis (i.e., using aggregate numbers). This method presents the most inclusive evaluation of the impact of the commercial aquarium fish collection on each of the 40 White List species.

Table 15. Summary of CREP (2018) population estimates, reported catch from East and West Hawai'i since 2000
(DAR 2018a), and the impact of average and maximum annual collection by species for the 40 White
List species. n.d. = Not Disclosed (Section 5.1); NA = Insufficient data available

	Island of Hawai'i	I	East Hawai'i (DAR 2018a)			WHRFMA (D	AR 2018a)			Island of Haw	vai'i (DAR 20)18a)
Common Name	Pop. Mean (lower- upper estimate limit) (CREP 2018)	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Achilles Tang	231,377 (113,989- 348,765)	703	1,525	0.30%	0.66%	7,376	13,615	3.19%	5.88%	8,079	21,577	3.49%	9.33%
Bird Wrasse	877,224 (686,135- 1,068,313)	n.d.	n.d.	NA	NA	345	624	0.04%	0.07%	345	969	0.04%	0.11%
Black Durgon	1,354,454 (991,054- 1,717,854)	n.d.	n.d.	NA	NA	64	143	<0.01%	0.01%	64	207	<0.01%	0.02%
Black Surgeonfish	549,462 (355,535- 743-388)	n.d.	n.d.	NA	NA	3,535	8598	0.64%	1.56%	3,535	12,133	0.64%	2.21%
Blacklip Butterflyfish	131,260 (53,712- 208,807)	n.d.	n.d.	NA	NA	72	129	0.05%	0.10%	72	201	0.05%	0.15%
Blackside Hawkfish	246,727 (201,538- 291,917)	n.d.	n.d.	NA	NA	42	85	0.02%	0.03%	42	127	0.02%	0.05%
Bluestripe Snapper - Taape	7,092,851 (- 265,739- 14,451,440)	0	0	0.00%	0.00%	43	98	<0.01%	<0.01%	43	141	<0.01%	<0.01%
Brown Surgeonfish	14,439,543 (12,820,405- 16,058,680)	n.d.	n.d.	NA	NA	891	2476	0.01%	0.02%	891	3,367	0.01%	0.02%
Eightline Wrasse	689,221 (535,601- 842,842)	n.d.	n.d.	NA	NA	119	390	0.02%	0.06%	119	509	0.02%	0.07%
Eyestripe Surgeonfish	578,835 (438,301- 719,369)	n.d.	n.d.	NA	NA	403	1143	0.07%	0.20%	403	1,546	0.07%	0.27%

	Island of Hawai'i Pop. Mean (lower- upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)					WHRFMA (D	AR 2018a)		Island of Hawai'i (DAR 2018a)			
Common Name		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Fisher's Angelfish	666,209 (382,769- 949,648)	0	0	0.00%	0.00%	96	288	0.01%	0.04%	96	384	0.01%	0.06%
Forcepsfish	435,954 (366,537- 505,372)	21	27	<0.01%	0.01%	1,831	3,152	0.42%	0.72%	1,852	4,987	0.43%	1.14%
Fourline Wrasse	1,253,164 (798,831- 1,707,496)	n.d.	n.d.	NA	NA	73	171	0.01%	0.01%	73	244	0.01%	0.02%
Fourspot Butterflyfish	797,673 (678,338- 917,008)	30	30	<0.01%	<0.01%	889	1,630	0.11%	0.20%	919	2,524	0.12%	0.32%
Gilded Triggerfish	129,089 (80,159- 178,020)	n.d.	n.d.	NA	NA	45	157	0.03%	0.12%	45	202	0.03%	0.16%
Goldrim Tang	97,924 (10,276- 185,573)	27	55	0.03%	0.06%	554	1,324	0.57%	1.35%	581	1,891	0.59%	1.93%
Kole	11,697,561 (9,547,971- 13,847,152)	1,047	3,601	0.01%	0.03%	30,700	42,112	0.26%	0.36%	31,747	73,626	0.27%	0.63%
Hawaiian Dascyllus	225,153 (91,266- 359,040)	12	12	<0.01%	<0.01%	119	231	0.05%	0.10%	131	351	0.06%	0.16%
HI Whitespotted Toby	685,517 (566,297- 804,737)	n.d.	n.d.	NA	NA	257	896	0.04%	0.13%	257	1,153	0.04%	0.17%
Lei Triggerfish	1,299,027 (1,182,364- 1,415,690)	n.d.	n.d.	NA	NA	172	301	0.01%	0.02%	172	473	0.01%	0.04%
Longfin Anthias	NA	n.d.	n.d.	NA	NA	102	102	NA	NA	102	204	NA	NA
Milletseed Butterflyfish	122,588 (69,611- 175,565)	n.d.	n.d.	NA	NA	106	421	0.09%	0.34%	106	527	0.09%	0.43%

	Island of Hawai'i Pop. Mean (lower- upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)					WHRFMA (D	AR 2018a)		Island of Hawai'i (DAR 2018a)				
Common Name		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	
Multiband Butterflyfish	1,788,604 (1,601,944- 1,975,264)	n.d.	n.d.	NA	NA	1,206	2,951	0.07%	0.16%	1,206	4,157	0.07%	0.23%	
Orangeband Surgeonfish	1,319,924 (962,298- 1,677,550)	16	16	<0.01%	<0.01%	828	2,306	0.06%	0.17%	844	3,136	0.06%	0.24%	
Orangespine Unicornfish	897,085 (758,978- 1,035,192)	36	59	<0.01%	<0.01%	5,827	8,813	0.65%	0.98%	5,863	14,654	0.65%	1.63%	
Ornate Wrasse	1,630,224 (1,403,166- 1,857,282)	15	15	<0.01%	<0.01%	1,657	12445	0.10%	0.76%	1,672	14,104	0.10%	0.87%	
Peacock Grouper - Roi	476,556 (399,275- 553,837)	n.d.	n.d.	NA	NA	3	3	<0.01%	0.00%	3	6	<0.01%	<0.01%	
Pencil Wrasse	169,025 (79,513- 258,536)	n.d.	n.d.	NA	NA	165	424	0.10%	0.25%	165	589	0.10%	0.35%	
Potter's Angelfish	1,087,709 (826,174- 1,349,245)	n.d.	n.d.	NA	NA	1,086	3,370	0.10%	0.31%	1,086	4,456	0.10%	0.41%	
Psychedelic Wrasse	36,770 (10,627- 62,913)	n.d.	n.d.	NA	NA	274	599	0.75%	1.63%	274	873	0.75%	2.37%	
Pyramid Butterflyfish	23,217 (559- 45,874)	n.d.	n.d.	NA	NA	133	714	0.57%	3.08%	133	847	0.57%	3.65%	
Redbarred Hawkfish	231,580 (165,409- 297,751)	n.d.	n.d.	NA	NA	13	21	<0.01%	<0.01%	13	34	<0.01%	<0.01%	
Saddle Wrasse	6,396,052 (5,757,305- 7,034,799)	9	9	<0.01%	<0.01%	602	982	<0.01%	0.02%	611	1,585	<0.01%	0.02%	
Shortnose Wrasse	307,032 (157,058- 457,006)	9	9	<0.01%	<0.01%	228	582	0.07%	0.19%	237	811	0.08%	0.26%	

	Island of Hawai'i Pop. Mean (lower- upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)					WHRFMA (D	AR 2018a)		Island of Hawai'i (DAR 2018a)			
Common Name		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Spotted Boxfish	94,937 (55,775- 134,099)	n.d.	n.d.	NA	NA	170	454	0.18%	0.48%	170	624	0.18%	0.66%
Thompson's Surgeonfish	405,776 (205,636- 605,916)	n.d.	n.d.	NA	NA	182	947	0.04%	0.23%	182	1,129	0.04%	0.28%
Tinker's Butterflyfish	18,475 (- 1,556- 38,505)	36	38	0.20%	0.21%	309	586	1.67%	3.17%	345	909	1.87%	4.92%
Flame Wrasse	NA	n.d.	n.d.	NA	NA	75	168	NA	NA	75	243	NA	NA
Yellow Tang	8,262,144 (6,849,295- 9,674,993)	11,996	33,809	0.15%	0.41%	271,430	386,767	3.29%	4.68%	283,426	668,194	3.43%	8.09%
Yellowtail Coris	391,507 (318,678- 464,335)	17	18	<0.01%	<0.01%	575	851	0.15%	0.22%	592	1,428	0.15%	0.36%

While research into the reproductive biology and fecundity (i.e., ability to produce offspring) of specific species of reef fish is limited in availability, some generalities can be derived from available research, and most reef species are long-lived and highly productive. For reef fishes in general, the relationship between size and fecundity is well documented, with larger fish producing exponentially more eggs (Thresher 1984, Berkeley et al. 2004). Moreover, evidence from a diverse set of species indicates that older individuals produce larger, faster growing, and more starvation-resistant larvae (Thresher 1984, Bobko and Berkeley 2004). For these reasons, Birkeland and Dayton (2005) recommend protecting larger or older individuals to increase the sustainability of harvested populations.

Yellow Tang is a species which provides a good example of high fecundity, as well as the relationship between size and fecundity. Bushnell et al. (2010) studied Yellow Tang and found large individual variation in batch fecundity, with a range from 44 to >24,000 eggs per female produced on a single sampling date. Smaller females (3.1-4.75-inch standard length [LS]), produced limited numbers of eggs, while larger females (≥4.75-inch LS) were capable of maximal egg production (>20,000 eggs per batch). Bushnell et al. (2010) estimated the annual fecundity of Yellow Tang to average 1,055,628 eggs per female (with a standard error of 120,596 eggs).

In addition to high levels of fecundity, many reef fish are long-lived. Choat and Axe (1996) studied four *Naso* species in the Great Barrier Reef, and found life spans of 35 to 40 years, with rapid growth during the first 3 to 4 years of life. Eble et al. (2009) found that the Hawaiian kala (*Naso unicornis*) is also long-lived, with rapid initial growth. Sampled kala ranged in age from 1 to 58 years with the majority of growth occurring within the first 15% of the life span. These two studies indicate that *Naso* species in general exhibit life-spans in excess of 40 years (Eble et al. 2009). While studying habitat- and sex-specific life history patterns of Yellow Tang, Claisse et al. (2009) found a 41-year old individual. In addition, they found median size and age at the transition between deeper coral-rich and shallow turf dominated habitat use were about 0.75 inch longer and about 2 years older for males than females and coincided with an increase in reproductive output. The sexual difference in size at habitat transition, combined with sexual size dimorphism results in differences in the size distributions of both sexes in the two habitats (Claisse et al. 2009).

Due to the combination of a high fecundity and long life-span, reef fish can likely sustain fairly high levels of continuous harvest. While specific research into sustainable levels of take has not been conducted for the 40 White List species, Ochavillo and Hodgson (2006) suggest collection of between 5% and 25% is sustainable for various reef species in the Philippines that are similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). For 37 of the 40 White List species, the average annual collection as a result of commercial aquarium fishing represents less than 1% of the estimated island-wide population, with the remaining three species averaging less than 5% (Table 15).

In addition to the low percentage of the populations which are harvested each year, commercial aquarium fishing has a distinct advantage over other types of fishing because it is targeted to specific species, and within those species, it primarily targets specific size-classes which minimizes the impact to the brood stock. Because commercial aquarium fishers target the smaller individuals in populations, the larger individuals with higher fecundity are left within the population.

Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection would have a *less than significant direct impact* on reef fish populations and the reefs in which they occur.

5.4.1.3 Achilles Tang Conservation (Preferred) Alternative

Under the Achilles Tang Conservation (Preferred) Alternative, impacts would be the same as those described in Section 5.4.1.2 for the Status Quo Alternative for all fish and invertebrate species with the exception of the Achilles Tang.

Based on WHAP data, the DAR has suggested decreasing population trends for the Achilles Tang in the WHRFMA. Commercial aquarium fishers worked with DLNR in 2012 to pass HAR 13-60.4, which beginning in 2014 limited commercial aquarium collection of Achilles Tang to 10 individual fish per day (recreational and non-aquarium commercial harvest is not subject to the bag limit). Under the Achilles Tang Conservation (Preferred) Alternative, the daily bag limit for Achilles Tang would be reduced from 10 per day to 5 per day for all fisheries in the WHRFMA.

Therefore, under this alternative, catch of Achilles Tang over the 12-month analysis period is estimated to be reduced by 50% from that under the Status Quo Alternative (5,600; the average amount collected since the 2014 bag limit was imposed) to 2,800, or 1.2% of the island-wide population that would be taken over the 12-month analysis period. This level of take is well below the lower end of what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Based on the analysis presented in Section 5.4.1.2, the Achilles Tang Conservation (Preferred) Alternative would have *less than significant direct impacts* on White List and invertebrate species but would have *beneficial impacts* for the Achilles Tang when compared to the Status Quo Alternative.

5.4.2 Indirect Effects

5.4.2.1 No Action Alternative

Under the No Action Alternative issuance of Aquarium Permits would not occur and commercial aquarium fishing would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

An estimated 332,000 (18-year average) individual fish would not be collected from the WHRFMA (Table 8). In the WHRFMA, a minor, although unquantifiable, increase in number of White List species, non-White List species, and SGCN may occur over the 12-month analysis period, which may provide additional viewing opportunities for tourists, an increase in the prey base, additional individual herbivores to maintain the reef, and increased competition between species for available resources. However, data do not exist that would allow for a thorough analysis of such effects. Nevertheless, it is anticipated that

the No Action Alternative would have a *less than significant indirect impact* on tourists, as well as on collected fish populations and the reefs in which they occur.

The 18-year average of 13,700 fish and 10,300 invertebrates may still be collected in East Hawai'i as other methods of collection, not requiring an Aquarium Permit, may continue. It is reasonably foreseeable that some commercial aquarium collectors who previously collected in the WHRFMA may shift their collection to East Hawai'i, and that fish collection in East Hawai'i may subsequently increase from the 18-year average of 13,700 fish due to the closure of the WHRFMA. However, this impact cannot be quantified at this time. In addition, without the use of fine mesh nets, the size class of fish collected may increase over that which is caught with fine mesh nets (i.e., the smaller fish would escape the larger mesh), but again this impact cannot be quantified at this time. These larger fish may represent the brood stock. Nevertheless, it is anticipated that the No Action Alternative would have a *less than significant indirect impact* on tourists, as well as on collected fish populations and the reefs in which they occur

5.4.2.2 Status Quo Alternative

Under the Status Quo Alternative issuance of Aquarium Permits would occur and commercial aquarium fish collection would take place. An estimated 332,000 (18-year average) individual, primarily juvenile fish would be collected from the WHRFMA and an estimated 13,700 primarily juvenile fish and 10,300 invertebrates (18-year average) would be collected from East Hawai'i. Removal of over 345,000 primarily juvenile fish and over 10,000 invertebrates would result in a decrease in number of White List species, non-White List species, and SGCN over the 12-month analysis period, which may provide fewer viewing opportunities for tourists, a decrease in the prey base, and reduced competition between species for available resources. However, adequate data do not exist that would allow for a thorough analysis of the potential effects. Nevertheless, given the low proportion of the island populations of the species that would be removed (Table 15, Section 5.4.1.2.5), and the geographic area over which the removal would occur (i.e., WHRFMA, island of Hawai'i), it is anticipated that indirect impacts on viewing opportunities, prey base, and competition would be minor or nonexistent.

Based on the Tissot and Hallacher (2003) study and the 15 years of coral reef data collected and analyzed by the DAR (2018c) as described in Section 5.4.1.2.4, it is not anticipated that any significant indirect impacts to reef habitat would occur under the Status Quo Alternative.

It is anticipated that implementation of the Status Quo Alternative would have a minor effect on invasive fish species over the 12-month analysis period. A total of 128 individual Bluestripe Snappers have been reported as caught in the WHRFMA since 2000. The Peacock Grouper and Blacktail Snapper have not been reported as caught from the WHRFMA over the 18-year assessment period. Of the three invasive fish species, only the Peacock Grouper has been reported as caught (all *n.d.* data) in East Hawai'i.

Based on the analysis in this section, the Status Quo Alternative would have a *less than significant indirect impact* on tourists, as well as on collected fish populations and the reefs in which they occur.

5.4.2.3 Achilles Tang Conservation (Preferred) Alternative

Indirect impacts under the Achilles Tang Conservation Alternative would be similar to those of the Status Quo Alternative. The implementation of the 5 per day bag limit on Achilles Tang may provide increased viewing opportunities for tourists, but this cannot be quantified at this time.

Based on the analysis in this section, the Achilles Tang Conservation Alternative would have *less than significant indirect impact* on tourists, as well as on collected fish populations and the reefs in which they occur.

5.4.3 Cumulative Impacts

5.4.3.1 Recreational Aquarium Fish Collection

Recreational aquarium fish collection is governed by state law and regulations. Under HRS 188-31, individuals may use fine mesh nets (< 2-inch mesh) to collect aquatic life for an aquarium. A permit is not required if:

- The net has large mesh (more than two-inch mesh);
- The net has small mesh but is less than three feet in length, height, or width, including the handle; or,
- Using a slurp gun.

A recreational aquarium permit is required if using a small mesh net other than a hand net, or a small mesh hand net larger than the dimensions indicated above. Small mesh throw nets are always prohibited. Regardless of whether a permit is required, regulations that impose bag limits, seasons, and limit the size of fish that can be collected apply to all recreational fish collection. The aquarium permit only exempts a person from the small mesh restriction. The recreational aquarium permit rules apply everywhere in the state, except for West Hawai'i, which has its own rules and permits specific to the WHRFMA (HAR §13-60.4).

Under a recreational aquarium permit, individuals are authorized to collect up to five aquatic animals per day (1,825 per year) (HAR 13-60.4). Since 2000, the number of recreational permits issued for the state (island-specific numbers not available) has averaged 159 annually (DAR 2018a). The DAR collected recreational aquarium fish catch information from 1975 until 1985, after which, data collection was discontinued, and currently no reporting of catch is required for recreational aquarium permit holders. Historic recreational catch data were not digitized or processed into a database, and therefore, are not available for analysis (DAR 2018a).

Because reporting of recreational aquarium catch is not required, the impact of recreational collection on White List species cannot be quantified. It is likely that not all recreational permit holders collect the maximum allowable number (1,825); however, if each of the average 159 statewide permit holders were to collect 50% of the allowable catch (913), it would result in the collection of 145,088 aquatic animals per year statewide. If it is assumed that only 50% are White List species, it would result in an estimated

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72,544 White List species taken by recreational aquarium permit holders annually. The same estimation would apply to non-White List species. These estimates are likely high based on results from Harding (2017), which found that 57% of recreational aquarium permit holders surveyed had not utilized their permit in the previous 12-month period. Of the 43% who had used their permits, their average yearly catch was 45 fish per permit (Harding 2017), which is well below the maximum allowable number of 1,825 fish or the 50% used to estimate impacts above.

Because reporting of recreational aquarium catch is not required, the impact of the collection on SGCN cannot be quantified. Nevertheless, it is likely that SGCN are occasionally taken by recreational aquarium permit holders. However, given the low number of SGCN individuals collected by commercial aquarium collectors (average 274 Psychedelic Wrasse/year; average 309 Tinker's Butterflyfish/year; average 96 Fisher's Angelfish/year) it is estimated that recreational collectors are collecting fewer individuals of these species.

Because reporting of interactions (e.g., damage from contact with collection equipment) with corals resulting from recreational aquarium collecting and recreational aquarium catch is not required, the impact of the interaction with reef habitat cannot be quantified. However, studies conducted by Tissot and Hallacher (2003) found that aquarium collecting had no significant impact (beneficial nor detrimental) on reef habitat. In addition, 15 years of coral reef data collected and analyzed by the DAR (2018b) found no significant difference in coral cover in areas open to commercial aquarium fish collection. It is assumed that recreational aquarium collect would likewise not have a significant impact.

Recreational aquarium collection impacts to biological resources cannot be fully quantified. However, data presented by DAR (2014a) indicate that some species may be declining in various management areas (e.g., FRA, MPA, Open) due to factors other than commercial aquarium collecting which may include recreational aquarium collection. Given the assumed past and present impacts of recreational aquarium collection on biological resources, foreseeable future actions would likely result in some impacts to biological resources. However, data presented in this FEA demonstrates that implementing the No Action, Status Quo or Achilles Tang Conservation Alternative, would not combine with recreational collection to produce incrementally different impacts on biological resources. Therefore, the cumulative impacts of implementing the No Action, Status Quo or Achilles Tang Conservation (Preferred) Alternative, when combined with the past, present, and reasonably foreseeable future recreational collection of aquarium species, would be *less than significant*.

5.4.3.2 Non-Aquarium Commercial and Non-Commercial Fishing (Non-Aquarium Fish)

Coral reef species are targeted by non-aquarium commercial fishers using numerous fishing gears including nets, traps, hook and line, spear, hand, and other methods. Commercial fish industry landings in Hawai'i have increased annually since 2006 and the NOAA reported total landings in 2013 were valued near \$108 million dollars (DLNR 2015). Akule (coastal pelagic scads) dominate nearshore commercial landings and are typically collected using surround or fence nets, gillnets or hook and line (Western Pacific Regional Fishery Management Council-WPRFMC 2017). Other top species by weight and value include soldierfishes, parrotfish, surgeonfishes and goatfishes, which may be targeted because they may bring a high price in some seasons (WPRFMC 2017).

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Non-commercial fishing includes subsistence/consumptive, recreational, and cultural fishing and gathering activities that occur in ocean and coastal zones. The State of Hawai'i has the most developed recreational fishing infrastructure in the U.S. Pacific and is a substantial economic contributor to the State. The State of Hawai'i does not track non-commercial fish collection. However, creel surveys suggest that the total inshore non-commercial catch from reef areas could be as high as the reported commercial catch (WPRFMC 2017).

The most recent DAR summary report available on the West Hawai'i aquarium fishery (DAR 2014a) analyzed data collected since 2003 by the Hawai'i Marine Recreational Marine Fishing Survey (HMRFS) and subsequently since 2007 by NOAA's Marine Recreational Information Program (MRIP) to gain perspective on the generalized impact on reef fishes by aquarium collecting versus other types of reef fishing activities. Statewide, looking at the period from 2008-2011, the number of reef fishes caught by the recreational and commercial sectors was found to be comparable, averaging 1,511,025 per year for recreational fishers and 1,554,010 per year for commercial (i.e., non-aquarium) fishers. The combined catch was found to be 1.7 times the total statewide take of aquarium fishes (1,810,402/year).

McCoy et al. (2018) found that 12.8% of households on Hawai'i participate in recreational (non-aquarium) fishing. Most of this fishing is conducted using lines from shore (65.6%), which catches an estimated 0.33 pounds of reef fish per hour fished (McCoy et al. 2018). The results of this study found that on Hawai'i, non-commercial annual catch was approximately 10.5 times commercial catch when comparing the average pounds per year between 2004 and 2013 (McCoy et al. 2018).

In West Hawai'i (i.e., the WHRFMA), on average the commercial aquarium fishery annually takes 1.8 times (343,729/year) the number of reef fishes taken annually by recreational and other commercial fishers combined (194,674/year) (DAR 2014a). However, if Yellow Tang, which is primarily collected at small sizes and generally not targeted by other fishers, is excluded, on average the recreational and commercial fisheries combine to take 3 times the number of reef fishes (194,674/year) caught annually by aquarium collectors (64,815/year) (DAR 2014a). In terms of reef fish biomass caught by the different fisheries in West Hawai'i (i.e., the WHRFMA), DAR (2014a) concluded that more biomass is taken by the combined recreational and commercial fisheries regardless of including Yellow Tang (2.8 times) or excluding Yellow Tang (8.6 times). In addition, unlike the aquarium fishery which targets mostly immature fish, the commercial and recreational fisheries selectively target the larger breeding portion of the population which has profound implications for the sustainable usage of the resource (DAR 2014a).

The non-aquarium commercial fish industry targets some coral reef species; however, commercial nonaquarium fishers do not directly target most White List species. Data for non-aquarium commercial fishing is lacking due to the DAR confidentiality regulations (HRS §189-3). Because most non-aquarium commercial fishers do not target aquarium species, there are usually less than three fishers reporting. Therefore, the data presented in Table 16 are underestimated.

Table 16. Available data on White List species collected by commercial non-aquariumfishers in the State and on the island of Hawai'i from 2000-2017 (DAR2018a). n.d. = Not Disclosed (see Section 5.1).

White List Species	WHRFMA Catch		East Hawai'i Catch		Island of Hawai'i Catch		State Catch Total	
	Total	Annual Average	Total	Annual Averag e	Total	Annual Average	Total	Annual Average
Achilles Tang	1,552	87	2,435	136	3,987	222	10,641	592
Yellow Tang	n.	.d.	n	.d.	r	n.d.	n.	.d.
Kole (=Goldring Surgeonfish, Yelloweye, Goldring)	4,773	266	28,496	1,584	33,269	1,849	103,391	5,744
Peacock Grouper (=Roi, Bluespot Peacock Grouper)	212	12	73	4	285	16	17,892	994
Eyestripe Surgeonfish (=Palani)	4,891	272	2,412	134	7,303	406	202,286	11,239
Orangeband (=Shoulder) Surgeonfish	396	22	604	34	1,000	56	95,380	5,299
Saddle Wrasse	4	1	62	4	66	4	1,150	64
Brown Surgeonfish (=Lavender, Forktail Tang)	n.	.d.	58	4	58	4	58	4
Bluestripe Snapper (=Taape)	15,499	861	64,660	3,593	80,159	4,454	715,913	39,773
TOTAL COLLECTED	COLLECTED 27,327		98,800		126,127		1,146,711	

It is expected that the average number of White List individuals collected by non-aquarium commercial fishers would continue at these rates (at a minimum) over the 12-month analysis period.

Because reporting of non-aquarium recreational, cultural and subsistence/consumptive catch is not required, the impact of recreational, cultural and subsistence/consumptive collection on White List species, non-White List species, and SGCN cannot be quantified. However, nearshore recreational and subsistence catch is likely at similar catch levels as that of non-aquarium commercial fishing (Friedlander 2017).

The impacts of non-aquarium commercial and non-commercial fishing on biological resources cannot be fully quantified. However, as discussed above data presented by DAR (2014a) indicate that some species are declining in various management areas (e.g., FRA, MPA, Open) due to factors other than commercial aquarium collecting, which include non-aquarium commercial and non-commercial fishing. However, there is no way to fully quantify the cumulative effects of past and ongoing non-aquarium commercial and non-commercial fishing on biological resources. Given the assumed past and present impacts of non-aquarium commercial fishing on biological resources, foreseeable future actions would likely result in some impacts to biological resources.

Under the No Action Alternative, commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, which may increase pressure from non-aquarium commercial fishing and non-commercial fishing, but this impact cannot be quantified at this time. However, data presented in this FEA demonstrates that implementing the No Action Alternative or Status Quo Alternative, while still adverse, would not combine with non-aquarium commercial and non-commercial collection to produce incrementally different impacts on biological resources. Therefore, the cumulative impacts of implementing the No Action Alternative or Status Quo Alternative, when combined with the past, present, and reasonably foreseeable future non-aquarium commercial and non-commercial fishing on biological resources, would be *less than significant*.

The cumulative impacts to biological resources would be the same under the Achilles Tang Conservation (Preferred) Alternative as described above for the Status Quo Alternative, with the exception of cumulative impacts to the Achilles Tang. The Achilles Tang population faces pressure on all fronts. Commercial and recreational aquarium fishers collect young, small Achilles Tang in their fishery, while non-aquarium commercial and non-commercial (e.g., non-aquarium recreation, subsistence, Native Hawaiian traditional collection) fisheries target adult, large Achilles Tang in their fisheries. Research studies and data analyzed in this FEA cannot identify a single fishery or factor (e.g., climate change, run-off, pollution) responsible for the downward trend observed in the WHRFMA (DAR 2018b). As with all complex systems, multiple causes likely play a role. Implementing the Achilles Tang Conservation (Preferred) Alternative (i.e., reducing the take to no more than five (5) individual Achilles Tang per day for all fisheries in the WHRFMA) would have a *cumulative beneficial impact* on the species and the reef ecosystem. However, it is imperative that for this bag limit to be effective, it must apply to all other fisheries within the WHRFMA, as limiting Achilles Tang collection by commercial aquarium fishers alone will not address the overall conservation issues facing the species.

5.4.3.3 Commercial Aquarium Collection

As noted in Section 1.0, the commercial aquarium collection fishery has existed in Hawai'i since the late 1940s. Commercial aquarium collection pursuant to permits issued by DLNR was only recently halted after the Supreme Court of Hawai'i's determination that DLNR's issuance of the permits required compliance with HEPA. As explained in Section 2.0, the scope of the analysis of this FEA is limited to a 12-month period, because Commercial Aquarium Permits must be renewed by DLNR every year. Given the long history of commercial aquarium collection in Hawai'i, it is reasonably foreseeable that commercial aquarium collection will continue. Based on available data regarding species abundance and yearly commercial aquarium collection will proceed generally at the same rate and have the same level of impact as in the past 18 years. To the extent new data regarding the impacts of commercial aquarium collection on biological resources becomes available in the future, DLNR may consider those data and, to the extent necessary, supplement this impacts analysis.

As noted in Section 5.4.1.2.5:

• Reef fish have high fecundity and are long lived, and as such produce a large number of young each year over many years;

- Commercial aquarium collection targets juvenile fish leaving behind the adult broodstock; and,
- A low percentage of the overall population of each of the targeted species would be collected annually by commercial aquarium fishers, and this collection would be spread throughout the year and across multiple areas.

As such, Section 5.4.1.2.5 concludes that commercial aquarium collection would not have a significant impact on island of Hawai'i reef fish populations. Thus, it is not anticipated that losses would accumulate over time due to the low percentage taken each year and the high fecundity of reef fishes. Accordingly, implementation of the No Action Alternative, Status Quo Alternative or the Preferred Alternative, when combined with past, present, and reasonably foreseeable future commercial aquarium collection, would result in *less than significant impacts* on biological resources.

5.4.3.4 Tourism

Hawai'i is a major tourist destination and tourism contributes the most to the state's economy. Over time this industry has grown and reshaped the native landscapes and sensitive ecosystems through major coastal development, increased energy consumption, and tourism based recreational activities. Major coastal development for tourism (i.e., hotels, resorts, restaurants, recreational outfitters) and associated point source pollution (e.g., petroleum hydrocarbons, pharmaceuticals, heavy metals, and sediment from agriculture and development) threaten the quality of coral reef ecosystems (State of Hawai'i 2010). When coral reefs are damaged, it could potentially expose reef dependent organisms and leave them vulnerable to other threats such as disease, predation, and climate change (State of Hawai'i 2010), including the reef fishes and other aquatic animals targeted by both commercial and recreational aquarium fishers.

Human interaction with native flora and fauna is also a growing concern. Damage to sensitive ecosystems (i.e., coral reefs, tide pools, shorelines) through tourism based recreation overuse (e.g., SCUBA diving, snorkeling, etc.) has been attributed to killing many aquatic organisms that in turn may affect many more species that rely on such organisms as a food source. Damage to coral reef habitat in association with tourism (through coastal development, point source pollution, and recreational activities) threatens most White List species that are dependent on reefs for habitat and foraging in the foreseeable future (State of Hawai'i 2010).

Tourism in Hawai'i can affect biological resources. The impacts of implementing any of the three alternatives under consideration on biological resources are expected to be *less than significant*. Therefore, the combined impacts of implementing any of the three alternatives under consideration, with the impacts of tourism, are not expected to produce incrementally different impacts on biological resources.

5.4.3.5 Climate Change

Warming of the planet and rising average temperatures may produce variations in precipitation and temperature patterns, sea levels, and storm severity. This process is commonly referred to as "climate change." Changes in sea surface temperatures have been documented, with temperatures warmer than normal in recent years (increase of 0.22 °F per decade), and even reaching record levels of thermal

stress in September 2015 (Casey 2001; Gove et al. 2016). Warmer water temperatures can result in coral bleaching. When water is too warm, corals will expel the algae living in their tissues causing the coral to turn completely white. When coral bleaches, it is not dead; corals can survive a bleaching event, but they are under more stress and are subject to mortality. In 1998, global coral bleaching and die-off was unprecedented in geographic extent, depth, and severity. Researchers predict that coral bleaching events would occur when the average sea temperatures are 33.8 °F or more above average (DLNR 2015). In the fall of 2015, leeward reefs of Hawai'i Island suffered catastrophic coral mortality due to widespread and severe coral bleaching. Survey results indicated that overall coral bleaching prevalence averaged 53.3% and resulted in an average coral cover loss of 49.7%. Regional differences in bleaching prevalence and subsequent coral mortality were not detected. High post-bleaching mortality was detected for the coral species, *Pocillopora meandrina, Porites evermanni*, and *Porites lobata* (Kramer et al., 2016). Acidification can also damage corals and marine life that depend on minerals for shell/skeletal development. The acidity of the Pacific Ocean has increased by about 25% over the last 300 years and is predicted to increase 40-50% by 2100 (EPA 2016).

Changes in climate currently impact the physical resources of Hawai'i. Warming sea temperatures and acidification could result in damage, disease outbreaks, and ultimately death of coral reefs. The weakening or loss of coral reef ecosystems may threaten entire marine ecosystems in the region as many organisms, including numerous fish species, are not only dependent on these ecosystems for suitable habitat, but due to the isolation of the islands in the central pacific, are unable to move to new environments that provide suitable conditions for survival (EPA 2016).

Several White List and non-White List species are endemic to the Hawaiian Archipelago (including Johnston Atoll) and therefore may be impacted when faced with changes in climate over time (e.g., warming temperatures, habitat loss due coral bleaching, etc.). The extent and severity of impacts to White List Species from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate change (e.g., tropical storms, coral bleaching episodes, acidification, etc.), or other natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List and non-White List species and SGCN.

The past, present, and reasonably foreseeable impacts of climate change on biological resources are adverse. However, the impacts of implementing the No Action, Status Quo or Achilles Tang Conservation Alternative on biological resources are expected to be *less than significant*. As a result, the combined impacts of implementing the No Action, Status Quo or Achilles Tang Conservation Alternative, with the past, present, and reasonably foreseeable actions associated with climate change, are not expected to produce incrementally different impacts on biological resources.

5.5 EVALUATION OF HEPA SIGNIFICANCE CRITERIA

 The Preferred Alternative (i.e, Achilles Tang Conservation Alternative) does not involve an irrevocable commitment or loss or destruction of any natural or cultural resource. If the average catch based on 18 years of data were to occur over the 12-month analysis period, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations (Section 5.4.1.3, Table 15 Average Percent of Island of Hawai'i Population). Collection of Achilles Tang would be reduced by 50% from the Status Quo, to 1.2% of their overall population. Collection of the remaining two species would be less than 5% of their overall population. Ochavillo and Hodgson (2006) suggest collection of between 5%-25% is sustainable for various reef species similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection likely has minimal impacts on populations in general.

Based on the results of the Tissot and Hallacher (2003) study and the 15 years of data collected and analyzed by the DAR (2018c), no significant direct impacts to reef habitat due to commercial aquarium fishing would occur under the Preferred Alternative.

Aside from reducing the daily bag limit for Achilles Tang for all fisheries in the WHRFMA, the Preferred Alternative does not include any activities different from, or in addition to, those that have occurred in the past. There would be no construction of permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, and no dredging, and no significant use of hazardous materials that could be released into the environment.

The DLNR's issuance of Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife, and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from the current baseline condition.

- 2. The Preferred Alternative does not curtail the range of beneficial uses of the environment. Act 306 has created a platform on which the public can learn about and participate in the management of the fishery. Since the Act's implementation, the DAR has created Fish Replenishment Areas and conducts annual monitoring and research on the fish and coral, ensuring that the full range of beneficial uses of the environment remain now and into the future. The loss of the aquarium fishery may mean the loss of funds to support monitoring and research that benefits reef ecosystems.
- 3. The Preferred Alternative does not conflict with the State's long-term environmental policies, goals, or guidelines as expressed in chapter 344 HRS.
- 4. The Preferred Alternative does not substantially affect the economic welfare, social welfare, and cultural practices of the community or State, but plays an important role as a nearshore fishery in the State. For the period 2000 to 2017, the aquarium fishery within the WHRFMA alone added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) to the economy. In 2017, it is estimated that up to 57 individuals were directly employed in the aquarium fishery in the WHRFMA (up to 266 employed in the state of Hawai'i). Loss of the fishery would result in the loss of income, tax revenue, and jobs.

- 5. The Preferred Alternative will not affect public health.
- 6. The Preferred Alternative does not involve substantial secondary impacts, such as population changes or effects on public facilities. There is no expectation that populations or the public will be negatively impacted by continuing the fishery.
- The Preferred Alternative does not involve a substantial degradation of environmental quality. Two studies have concluded that the fishery has no significant impact on coral or the reef ecosystem (Tissot and Hallacher 2003; DAR 2018c).
- 8. The Preferred Alternative does not have considerable cumulative effect upon the environment or involve commitment for larger actions.
- 9. The Preferred Alternative does not affect threatened or endangered species or their habitats nor does it have a significant impact on rare species.
- 10. The Preferred Alternative does not detrimentally affect air or water quality or ambient noise levels. On average, approximately 28 boats are involved in the island of Hawai'i fishery as compared to the thousands of other boats on the waters of Hawai'i.
- 11. The Preferred Alternative would not significantly affect or suffer damage by being located in environmentally sensitive areas, geologically hazardous land, estuaries, freshwater, or coastal water. As noted earlier, the fishery has been active since the late 1940s. Regulations have been implemented restricting the fishery from sensitive areas.
- 12. The Preferred Alternative does not substantially affect scenic vistas and view planes identified in county or state plans or studies.
- 13. The Preferred Alternative does not require substantial energy consumption.
- 14. No significant adverse effects would occur as a result of the Preferred Alternative. Therefore, mitigation for impacts is not warranted and no mitigation measures would be implemented.

Under HRS 188-31, the DLNR may issue a commercial Aquarium Permit to a qualified party for a period of one year in duration, subject to renewal. Therefore, this EA analyzes the direct, indirect, and cumulative impacts of Aquarium Permits on affected resources for a period of one year. Less than significant or slightly beneficial impacts are expected under the Preferred Alternative. Therefore, at the end of one year, if environmental conditions presented in this FEA (e.g., annual catch, population estimates and/or trends, reef health, etc.) are not materially different than those analyzed in this FEA, then this FEA may adequately disclose the environmental impacts of new or renewed Aquarium Permits. Consequently, DLNR will reevaluate the analysis contained in this FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and it will assess if any new information exists warranting reevaluation of this analysis.

6.0 AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED

6.1 FEDERAL AGENCIES

The following federal agencies were consulted during the development of this FEA:

- National Marine Fisheries Service
- Coral Reef Ecosystem Program
- Western Pacific Regional Fishery Management Council

6.2 STATE AGENCIES

The following state agencies were consulted during the development of this FEA

- Hawai'i Department of Land and Natural Resources, Division of Aquatic Resources
- Hawai'i State Department of Health, Office of Environmental Quality Control

6.3 COMMUNITY ORGANIZATIONS

The following community organizations were consulted during the development of this FEA:

- Hawai'i Fishermen's Alliance for Conservation and Tradition
- Hawai'i Hunting, Farming & Fishing Association
- Pacific Islands Fisheries Group

6.4 INDEPENDENT REVIEWERS

The Applicant solicited independent scientific peer reviews of the information contained in this FEA from the following individuals (Review comments received are found in Appendix A):

- Dr. Rob Toonen, Researcher, Hawai'i Institute of Marine Biology, SOEST, University of Hawai'i at Mānoa
- Dr. Brian Bowen, Researcher, Hawai'i Institute of Marine Biology, University of Hawai'i at Mānoa
- Dr. Richard Pyle, Database Coordinator, Associate Zoologist, Dive Safety Officer, Bernice Pauahi Bishop Museum.

6.5 INDIVIDUALS

The Applicant consulted with the following Native Hawaiians knowledgeable in the geographic areas under review and the cultural uses, beliefs and practices at issue during the development of this FEA:

- Alika Garcia
- Makani Christensen, President, Hunting Farming and Fishing Association
- Mikolelehua Barrios
- John Deponte
- David (Puna) Brown
- Bronson Beyer
- Chad Souza
- Kamalou Souza

7.0 DRAFT EA PUBLIC REVIEW

In accordance with HEPA, the DEA was circulated for public review and comment. The DEA was published in The Environmental Notice for public review on April 8, 2018 in accordance with requirements set forth in the HEPA. Public comments were accepted during a 30-day period following publication. A total of 836 responses were received: 435 supported the conclusions of the DEA and issuance of commercial aquarium permits; 398 did not support the conclusions of the DEA and opposed issuance of commercial aquarium permits; and 3 did not express support or opposition. Comments received during the comment period were taken into account in assessing impacts of the proposed action and resulted in some modifications in this FEA. Responses to comments on the DEA can be found in Appendix B.

The DEA was distributed via copies or email on April 7, 2018 to the following elected officials, federal agencies, and state, county, and local offices, and to individuals and organizations. Copies of the transmittal emails and letters are found in Appendix C.

- Federal Agencies
 - Department of Agriculture, National Resources Conservation Service
 - > Department of Commerce, National Marine Fisheries Service
 - > Department of Homeland Security, Coast Guard
 - > Department of the Interior, Fish and Wildlife Service
 - > Department of the Interior, Geological Survey, Pacific Islands Water Science Center
 - > Department of the Interior, National Parks Service
 - > Department of Transportation, Federal Aviation Administration
 - > Department of Transportation, Federal Transit Administration
 - > Western Pacific Fishery Management Council

- Stage Agencies
 - Department of Agriculture
 - > Department of Accounting and General Services
 - > Department of Business, Economic Development and Tourism
 - > Department of Business, Economic Development and Tourism, Research Division Library
 - Department of Business, Economic Development and Tourism, Strategic Industries Division
 - > Department of Business, Economic Development and Tourism, Office of Planning
 - Department of Defense
 - > Department of Education, Hawaii State Library, Hawaii Documents Center
 - > Department of Education, Hawaii State Library, Kaimuki Regional Library
 - > Department of Education, Hawaii State Library, Kaneohe Regional Library
 - > Department of Education, Hawaii State Library, Pearl City Regional Library
 - > Department of Education, Hawaii State Library, Hawaii Kai Regional Library
 - > Department of Education, Hawaii State Library, Hilo Regional Library
 - > Department of Education, Hawaii State Library, Kahului Regional Library
 - > Department of Education, Hawaii State Library, Lihue Regional Library
 - > Department of Hawaiian Home Lands
 - > Department of Health, Environmental Health Administration
 - > Department of Land and Natural Resources
 - > Department of Land and Natural Resources, State Historic Preservation Division
 - Department of Transportation
 - > University of Hawaii, Water Resources Research Center
 - > University of Hawaii, Environmental Center
 - > University of Hawaii, Thomas H. Hamilton Library
 - University of Hawaii, Edwin H. Mookini Library
 - > University of Hawaii, Maui College Library
 - > University of Hawaii, Kauai Community College Library
 - Office of Hawaiian Affairs
 - Legislative Reference Bureau Library
- County of Hawaii
 - > Department of Environmental Management
 - > Department of Parks and Recreation
 - Department of Public Works
 - Department of Water Supply
 - Planning Department
- County of Kauai
 - Department of Planning
 - Department of Public Works
 - Department of Water
- County of Maui
 - Department of Planning

- Department of Public Works
- City and County of Honolulu
 - Board of Water Supply
 - > Department of Customer Services, Municipal Library
 - > Department of Design and Construction
 - Department of Environmental Services
 - > Department of Facility Maintenance
 - > Department of Planning and Permitting
 - > Department of Parks and Recreation
 - Department of Transportation Services
- Libraries and Depositories
 - Nearest public library
- News Media
 - > The Garden Island
 - > Hawaii Tribune Herald
 - Honolulu Star Advertiser
 - Maui News
 - > Molokai Dispatch
 - West Hawaii Today
 - Elected and Other Officials
 - County Council Representatives
 - Valerie Poindexter
 - Ron Menor
 - Neighborhood Board Representative (Oahu only)
 - State Representatives
 - o Scott Saiki
 - o Kaniela Ing
 - Cindy Evans
 - State Senators
 - Ronald Kouchi
 - Karl Rhoads
 - Lorraine Inouye
 - U.S. Representatives
 - o Tulsi Gabbard
 - o Colleen Hanabusa
 - U.S. Senators

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- o Brian Schatz
- Mazie Hirono
- Consulted parties and commenters
 - > Paul H. Achitoff
 - Summer Kupau-Odo
 - Center for Biological Diversity
 - Humane Society of the United States

- Conservation Council of Hawai'i
- > Rene Umberger
- > Mike Nackachi
- > Willie Kaupiko
- Ka'imi Kaupiko
- American Zoos and Aquariums
- Pacific Islands Fisheries Group
- > Hawai'i Hunting, Farming and Fishing Association

In the cover letter for the publication of the DEA, the DLNR requested comment on four specific issues:

- 1. The effects of the Commercial Aquarium Fishery on Achilles Tang (*Acanthurus achilles*), and its sustainability given its life history characteristics, current population trends, and harvest by other fisheries.
- The adequacy of the analysis presented in this DEA, including but not limited to removal and replenishment rates for vulnerable species; specifically, how is the estimated sustainable range of 5% to 25% annual take of the estimated total population arrived at, and should the threshold be 5% or 25%.
- The interpretation of data presented in this DEA, including the analysis of NOAA NMFS Coral Reef Ecosystem Project (CREP) data versus DLNR Division of Aquatic Resources West Hawai'i Aquarium Project (WHAP) data.
- 4. Conservation measures to minimize or avoid impacts to target species, and specifically, whether other alternatives might be proposed to minimize or avoid impacts other than the two presented of no action, with no aquarium permits issued, and the preferred alternative of programmatic issuance of aquarium permits for the Island of Hawai'i such as consideration of specific management measures for Achilles tang and other species.

The Applicant's responses to the request for comment along with an independent scientific reviewer's comments on the responses are found in Appendix D.

8.0 LIST OF PREPARERS

Pet Industry Joint Advisory Council	Stantec Consulting Services Inc.
Bob Likins	Terry VanDeWalle Senior Ecologist
	Jeffrey H. Schwierjohann Senior Biologist
	Josh Otten Wildlife Biologist
	Molly Stephenson Wildlife Biologist

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Independent Reviewer Comments

Dr. Brian Bowen, Researcher Hawai'i Institute of Marine Biology, University of Hawai'i at Mānoa From: Brian Bowen [mailto:bbowen@hawaii.edu] Sent: Thursday, March 08, 2018 7:42 PM To: Lynch, James M. Subject: Re: Hawaii AQ Fishery

Jim:

Attached my comments/suggestions on the draft Hawaii EA. My suggested changes are on pages 7,23,33,37,40,41,43-46,52,55, 94, plus references. I added two references to further document life history.

None of these changes are pertinent to the science, just matters of presentation.

I find the conclusions about the preferred alternative to be supported by the best available science, and don't know of any science that was omitted or overlooked. It is an impressive document.

Yes, you can use my comments publicly. Thank you for doing this.

Brian

CURRICULUM VITAE

			IAM BOWEN			
Title Address	Haw Univ P.O	earch Professor vaii Institute of Marine Biology versity of Hawaii . Box 1346 eohe, HI 96744	e-mail: <u>bbowen@hawaii.edu</u> office: 808-236-7426 lab: 808-236-7471 cell: 808-284-9642			
Web Site	9 5	http://www2.hawaii.edu/~ http://hawaii.academia.e http://youtu.be/R-K7Rd Facebook: https://www.fa	ZVk			
Birthdat	e	May 18, 1957				
Educatio	on 1980	D Bachelor of Science, Biolo Advisor: Dr. Eugene Dona				
	198	7 Master of Science, Marine Advisor: Dr. John A. Musie	e Biology, College of William and Mary ck			
-	1992	2 Doctor of Philosophy, Ger Advisor: Dr. John C. Avise	etics, University of Georgia			
Thesis T		lower Chesapeake Bay. M.A	ructure of the white perch, <i>Morone americana</i> , in A. thesis, College of William and Mary, Williamsburg			
	Bow	VA. ven, B.W. 1992. Evolutionary Ph.D. dissertation, Univ. of (genetics and natural history of marine turtles. Georgia, Athens.			
	onal Exper 1975-preser					
	1981	Appalachian Trail, walked	2140 miles from Georgia to Maine			
	1983-85	Marine Turtle Stranding N	etwork, Virginia			
	1984	Groundfish Survey, Natior	al Marine Fisheries Service			
	1984-85	Chesapeake Bay Monthly	Trawl Surveys			
	1986-2000	12 international expeditions to collect specimens of sea turtles				
	1992-97	Established and directed t Biotechnology Program at	he Conservation Genetics Core in the University of Florida			
	1994	developing nations (Febru	genetics workshop for biologists from ary 1994), funded by the U.S. Agency for t and the National Science Foundation.			
	1994		Phylogeography of the Testudines, for the iety for Study of Amphibians and Reptiles			
1	1994-96	National Science Foundat Biology	on Panelist: Conservation and Restoration			
1	1995	Organized and convened	the International Symposium on Conservation			

Genetics of Marine Turtles, with W.W. Witzell (September 1995)

- 1996 Workshop on Endangerment and Extinction in the Sea, organized by Elliot Norse, Center for Marine Conservation, Washington D.C.
- 1997-2002 Assistant Professor, Dept. of Fisheries and Aquatic Sciences, Univ. of Florida
- 1997-2011 Lecturer in short course organized by Stephen O'Brien: Recent Advances in Conservation Genetics, NIH/Smithsonian/Natl. Zoo
- 1998 New graduate course: Marine Phylogeography
- 1999 National Science Foundation Panelist: Biological Oceanography
- 1999 Marine Mammal Molecular I.D. Workshop, La Jolla, CA (June)
- 2000 Organized a colloquium, Taxonomic Status of the Black Turtle, for the annual meeting Sea Turtle Biology and Conservation, Orlando, FL
- 2000-2002 Annual expeditions to Bahamas to survey reef organisms, using the Florida research vessels Suncoaster and Bellows (with S.A. Karl)
- 2003 2006 Assistant research professor, Hawaii Institute of Marine Biology, Univ. of Hawaii
- 2003 present International expeditions to collect reef fishes at Christmas Island (Pacific Ocean), American Samoa, Okinawa, Marshall Islands, Johnston Atoll, Palau, Cocos/Keeling, Christmas Island (Indian Ocean), French Polynesia, Chagos, Saudi Arabia, Cook Islands, Djibouti, Philippines, and elsewhere
- 2005 2010 Three domestic expeditions (24 30 days) as chief HIMB scientist on the NOAA research vessel Hiialakai, to conduct scuba sampling in the Northwest Hawaiian Islands (Papahanaumokuakea Marine National Monument)
- 2006 2010 Associate Research Professor, Hawaii Institute of Marine Biology, Univ. of Hawaii.
- 2007 Hosted and organized the short course with Stephen O'Brien: Recent Advances in Conservation Genetics, Jan. 7-20, 2007.
- 2007-2016 Chair, HIMB Departmental Personnel Committee
- 2008 Mesophotic Reef Research Priorities Workshop, Jupiter Beach, FL (July)
- 2008 IUCN Marine Turtle Specialist Group, Burning Issues, Shepherdstown, West Virginia (August)
- 2008 2010 Training on the Silent Diving "Evolution" closed-circuit rebreather, to facilitate deep reef exploration
- 2009 Convened symposium *Phylogeography of Reef Fishes* with Luiz Rocha at the 8th Indo-Pacific Fish Conference, Fremantle, Australia (June)
- 2010 present Research Professor, Hawaii Institute of Marine Biology, Univ. of Hawaii
- 2016 National Science Foundation Panelist: Graduate Research Fellowship Program (Evolution and Systematics)
- 2016 Organizer: National Academy of Sciences Sackler Colloquia: *In Light of Evolution X: Comparative Phylogeography* (January 8-9), with Francisco Ayala and John Avise

Awards

1990	American Society of Ichthyologists and Herpetologists,
	Stoye Award for best student paper in herpetology
1991	Annual Marine Turtle Symposium, award for best student paper
1992	University of Georgia, Charles C. Anderson Memorial Award for
	research excellence in a dissertation thesis
1996	Fellow, American Association for the Advancement of Science
2015	Kobe Award (Japan) for lifetime achievement in aquatic biology
2016	University of Hawaii Board of Regents Excellence in Research Award

Graduate Students and Post-Doctoral Researchers

M.S. Program

Joseph Roman (1998), Jeff Colborn (1999), Andrew Muss (1999), Ellen Waldrop (2014), Anna Pauliina Ahti (2014), Richard Coleman (2014), Garrett Johnson (2016)

Ph.D. Program

Angelica Ĝarcia-Rodriguez (2000), Luiz Rocha (2003 w/Debra Murie), Jennifer Schultz (2009), Toby Daly-Engel (2009 w/Kim Holland), Jeff Eble (2010), Timothy Clark (2010 w/Kim Holland), Michelle Gaither (2011), Craig Musburger (2012 w/Kim Holland), Christie Wilcox (2014), Joshua Copus (current), Richard Coleman (current), Sean Canfield (current), Michael Hoban (current), Cassie Ka'apu-Lyons (current), Derek Kraft (current), Keith Kamikawa (current), Charley Westbrook (current)

Post-Doctoral Program Matthew Craig (2005 - 2009) Luiz Rocha (2006 - 2008) Joseph DiBattista (2009 - 2012) Kim Andrews (2010 - 2012) Iria Fernandez Silva (2010 - 2013) Jean-Paul Hobbs (2014 - 2015)

Professional Societies

American Genetics Association International Biogeography Society International Society for Reef Studies Society for the Study of Evolution American Academy of Underwater Sciences

Professional Affiliations

Graduate Faculty, Marine Biology Graduate Program, Univ. of Hawaii Graduate Faculty, Dept. of Cell and Molecular Biology, Univ. of Hawaii Graduate Faculty, Dept. of Biology, Univ. of Hawaii Graduate Faculty, Ecology, Evolution, and Conservation Biology Program (EECB), Univ. of Hawaii

Advisory Positions

1994 - present	IUCN Species Survival Commission, Marine Turtle Specialist
1994-2000	Conservation Committee, Soc. Study of Amphibians and Reptiles
1998-2010	Fundacao Pro-TAMAR (Brazil) Ad-Hoc Consultants Committee
2000-2002	Lab for Conservation Genetics, Max Planck Inst., Scientific advisor
2001-2002	Steering Committee, North Atlantic Biogeography Project
2005 - 2016	Reserve Advisory Council, NW Hawaiian Islands Marine Sanctuary
2006-2012	Science and Statistics Committee, Western Pacific Regional Fishery
	Management Council
2006-2008	Research Council, UH School of Oceanography (SOEST)
2009-2010	National Research Council, Committee on the Review of Sea Turtle
	Population Assessment Methods
2010 – present	International Steering Committee, Indo-Pacific Fish Conference
2010 – present	Genome 10K Project Associate
2011 – present	EECB Grants Committee (internal grants at UH)
	· · · · · · · · · · · · · · · · · · ·

	2011 2012 - 2013 2013 - present 2014 - present 2016 - 2017 2016 - 2017 2017 - present	UH Marine Biology Graduate Program, curriculum committee UH Biology Department, graduate instruction committee Chair, marine mammal faculty search committee
Editoria	al Positions 1993-1999 1996-2004 1998-2000 2000-2012 2003-2013	<i>Genetica</i> , Associate Editor <i>Herpetological Review</i> , Associate Editor <i>Evolution</i> , Associate Editor <i>Molecular Ecology</i> , Editorial Review Board <i>Journal of Heredity</i> , Associate Editor
Invited	Presentations	(includes 39 international presentations in 22 nations and territories)
	1990	U.S Air Force Base, Ascension Island, U.K.
	1991	Southwest Fisheries Science Center, La Jolla CA
	1992	Archie Carr Center for Sea Turtle Research, University of Florida National Marine Fisheries Service, Charleston Lab, Charleston SC Hopkins Marine Lab, Stanford University, Pacific Grove CA
	4000	CINVESTAV Graduate Research Institute, Merida, Yucatan, Mexico
	1993	Drexel University, Philadelphia PA
		University of Central Florida, Orlando FL Louisiana State University, Baton Rouge LA
		Annual Interuniversity Congress on Marine Turtles, Mazatlan, Mexico
	1994	Second World Congress of Herpetology, Adelaide, Australia
	1004	Society for the Study of Evolution, annual meeting, Athens GA
		Symposium on Molecular Genetics of Marine Mammals, La Jolla CA
	1995	American Assn. for Advancement of Science, annual meeting, Atlanta GA
	1000	University of Vermont, Burlington VT
		Society for Study of Amphibians and Reptiles, annual meeting,
		Boone NC
	1996	Western Society of Naturalists, annual meeting, Seattle WA
		Crocodilian DNA Workshop, Univ. of South Carolina, Columbia SC
		Florida Academy of Sciences, annual meeting, Melbourne FL
		University of California, Santa Cruz CA
		American Genetics Association, annual meeting, Athens GA
		University of South Florida, St. Petersburg, FL
		Atwood Memorial Lecture, University of Toronto, Ontario, Canada
		Dickinson Memorial Lecture, University of Richmond, Richmond, VA
	1997	National Shellfish Association, annual meeting, Gulf Coast FL
		Gulf Coast Research Lab, Ocean Springs, MS
		Florida Wildlife Rehabilitators Association, Live Oak, FL
	1000	Southampton University, Long Island, NY
	1998	Annual Symposium on Sea Turtle Biology and Conservation, Mazatlan,
		Mexico, Keynote address
		Society for Study of Amphibian and Reptiles, annual meeting,
		Guelph, Canada
		Universidad Federal da Paraíba, Joáo Pessoa, Brazil
		TAMAR Sea Turtle Station, Isla Fernando de Noronha, Brazil Duke University, Durham, NC
		Ninth Annual Meeting of the Japanese Sea Turtle Society, Yagushima,
		Japan, Keynote address
		University of South Florida, Tampa, FL
	1999	Universite Laval, Quebec City, Canada
	1000	Marine Mammal Molecular Identification Workshop, La Jolla, CA
		International Seminar on the Biology and Conservation of Sea Turtles,
		Santa Marta, Colombia
		Centre d'Etude et de Decouverte des Tortue Marines, Reunion Is.,
		French Indian Ocean Territory

2000	University of South Carolina, Columbia, SC Sea Turtle Biology and Conservation, annual meeting, Orlando, FL Whitney Marine Lab, Volusia, FL College of Veterinary Medicine, Univ. of Florida
2001	Society for Conservation Biology, annual meeting, Missoula, MT College of Charleston, Charleston SC Wheaton College, Norton, MA Whitney Marine Lab, Volusia, FL
	Keynote address, FECES 9 th Annual Meeting, Ordway, FL University of South Carolina, Columbia, SC University of New Orleans, LA
2002	Montana State University, Missoula, MT McGill University, Montreal, Quebec, Canada Univ. of Southern California, Los Angeles, CA
2003	Univ. of Hawaii, Honolulu, HI National Conservation Training Center, Shepherdstown, WV Florida Atlantic University, Boca Raton, FL Annual Hawaii Conservation Conference, Honolulu, HI
2003	International Biogeography Society, inaugural meeting, Mesquite, NV Dept. of Zoology, University of Hawaii, Manoa HI
2004	International Coral Reef Symposium, Okinawa, Japan Dept. of Biology, University of Hawaii, Hilo HI American Samoa Community College, Pago, Pago, Am. Samoa
2005 2006	Smithsonian Tropical Research Institute, Bocas del Toro, Panama Hanauma Bay Nature Reserve, Hawaii
2007 2008	Sea of Islands Forum, Honolulu, Hawaii Air Force Command, Diego Garcia, British Indian Ocean Territory
2006	Hopkins Marine Station, Stanford University Pelagic Fisheries Research Program, SOEST, Honolulu
	EECB Program, University of Hawaii
2009	Smithsonian Tropical Research Institute, Gamboa, Panama Eighth Indo-Pacific Fish Conference, Fremantle, Australia:
	Phylogeography of Indo-Pacific Reef Fishes (Symposium Organizer)
	Pacific Science Intercongress, Tahiti, Keynote Address Western Pacific Regional Fisheries Management Council
2010	Conservation Genetics Course, White Oak Plantation, Florida
	International Sea Turtle Society, Goa, India, Keynote Address
	Association for Tropical Biology and Conservation, Bali, Indonesia American Genetics Association, Hilo, HI
2011	King Abdullah University of Science and Technology, Saudi Arabia
	Evolution of Life on Pacific Islands and Reefs, Honolulu, HI
	22 nd Pacific Science Congress, Kuala Lumpur, Malaysia Conservation Genetics Course, Aquidauana, Pantanal, Brazil
	Google Managers Retreat, Princeville, Kauai, HI
	International Congress of Conservation Biology, Auckland NZ
2012	Smithsonian Tropical Research Institute, Gamboa, Panama National Center for Evolutionary Synthesis, Duke Univ., Durham NC
	University of the South Pacific, Cook Islands
	Smithsonian Journeys/Celebrity Cruise Line speaker, Bermuda
2012	King Abdullah University of Science and Technology, Saudi Arabia
2013	Oceanographic Center, Nova Southeastern University, FL University of the Ryukyus, Japan
	Ninth Indo-Pacific Fish Conference, Okinawa, Japan
	Gordon Research Conference on Marine Molecular Ecology, Hong Kong
	Ocean University of China, Qindao, China Oceanographic Institute, Chinese Academy of Sciences, China
	Hawaii Pacific University, Kailua, HI
0044	Bureau of Fisheries and Aquatic Resources, Quezon, Philippines
2014	King Abdullah University of Science and Technology, Saudi Arabia Texas A&M University, College Station Campus, Plenary Speaker
	Texas A&M University, Corpus Christi Campus

	Smithsonian Botanical Symposium on Biogeography, Washington D.C. University of California, Santa Cruz CA
2015	Atmosphere and Ocean Research Institute, Univ. Tokyo, Japan (March)
	Suma Aqualife Park, Kobe, Japan (May 23)
	Hotel Okura, Kobe, Japan (Ceremony to accept Kobe Award, May 24)
2016	University of California, Irvine CA
2017	University of Tokyo/University of Hawaii Joint Symposium on Ocean,
	Coastal, and Atmospheric Science, Honolulu
	University of Ryukyus, Okinawa, Japan

ELECTRONIC MEDIA

On Lionfish Invasion

https://www.hakaimagazine.com/article-short/invasive-lionfish-may-be-superfish-hybrids https://blog.oup.com/2017/10/lionfish-perfect-invader/

Think-Tech on population genetics with Rob Toonen <u>https://www.youtube.com/watch?v=idwR098oOaE</u>

On the colonization of Hawaii Voice of the Sea VOS4-12 The Kiritimati to Hawai'i Connection https://vimeo.com/237805099 or https://youtu.be/4jPITfQIFcM

Voice of the Sea VOS5-3 Fish Origins Revealed in DNA <u>https://vimeo.com/257572127</u> or <u>https://youtu.be/7n13RLwV58g</u>

BOOKS

- Bowen, B.W. and W.N. Witzell (eds.) 1996. Proceedings of the International Symposium on Sea Turtle Conservation Genetics. NOAA Tech. Memo. NMFS-SEFSC-396. Silver Spring, MD
- Helfman, G.S., B.B. Collette, D.E. Facey, B.W. Bowen. 2009. The Diversity of Fishes, Second Edition. Wiley-Blackwell, Oxford, UK
- National Research Council. 2010. Sea Turtle Status and Trends: Integrating Demography and Abundance. National Academies Press, Washington, D.C. Authors: K.A. Bjorndal (chair), B.W. Bowen, M. Chaloupka, L.B. Crowder, S.S. Heppell, C.M. Jones, M.E. Lutcavage, D. Policansky, A.R. Solow, B.E. Witherington.

CHAPTERS

- Bowen, B.W. 1995. Molecular genetic studies of marine turtles. Pp. 585-588 *In* Biology and Conservation of Sea Turtles, Second Edition, K. Bjorndal (ed.) Smithsonian Institution Press, Washington, D.C.
- Bowen, B.W. and J.C. Avise. 1995. Conservation genetics of marine turtles. Pp. 190-237 In Conservation Genetics: Case Histories from Nature, J.C. Avise and J.L. Hamrick (eds). Chapman and Hall, NY.
- Bowen, B.W. and S.A. Karl. 1996. Population structure, phylogeography, and molecular evolution. Pp. 29-50 *In* The Biology of Sea Turtles, P.L. Lutz and J.A. Musick (eds.), CRC Press, Boca Raton, FL
- Bowen, B.W. 1997. Complex population structure and the conservation genetics of migratory marine mammals: lessons from sea turtles. *In* Molecular Genetics of Marine Mammals, A.E. Dizon, S.J. Chivers, and W.F. Perrin (eds.), J. Marine Mammalogy, Special Publication 3:77-84.
- FitzSimmons, N.N., B.W. Bowen, and C. Moritz. 1999. Population identification. Pp. 72-79 In K. Eckert, K.A. Bjorndal, A. Abreu-Grobois (eds.) Research and Management Techniques for the Conservation of Marine Turtles. IUCN/SSC Marine Turtle Specialist Group Publication No. 4.
- Bowen, B.W. 2003. What is a loggerhead turtle? The genetic perspective. Pp. 7 27 *In* A.B. Bolten and B. Witherington (eds.) The Biology of Loggerhead Sea Turtles. Smithsonian Institution Press, Washington, D.C.
- Briggs, J.C., B.W. Bowen and M.A. Rex. 2004. Introduction to Biogeography of the Sea. Pp. 233-237 In Lomolino and Brown (eds.) Frontiers in Biogeography. Sinauer Assoc., Sunderland MA.
- Friedlander, A., J. Caselle, J. Beets, C. Lowe, B.W. Bowen, T. Ogawa, K. Kelly, T. Calitri, M. Lange, and B. Anderson. 2007. Biology and ecology of the recreational bonefish fishery at Palmyra

Atoll National Wildlife Refuge with comparisons to other Pacific Islands. Pp. 28-56 *In* J.S. Ault (ed.) Biology and Management of the World Tarpon and Bonefish Fisheries. CRC Press, Boca Raton, FL

- Bowen, B.W., S.A. Karl, and E. Pfeiler. 2007. Resolving evolutionary lineages and taxonomy of bonefishes (*Albula* spp.). Pp. 147-154 *In* J.S. Ault (ed.) Biology and Management of the World Tarpon and Bonefish Fisheries. CRC Press, Boca Raton, FL
- Sheppard, C.R.C., B.W. Bowen, C.A. Chen, M.T. Craig, J.A. Eble, N.N. Fitzsimmons, C.-H. Gan, M.R. Gaither, M. Gollock, S. Keshavmurthy, H. Koldewey, J.A. Mortimer, D. Obura, M. Pfeiffer, A.D. Rogers, A.L.S. Sheppard, C. Vogler, G. Worheide, M.-C. Yang, C. Yesson. 2013. British Indian Ocean Territory (the Chagos Archipelago): Setting, Connections and the Marine Protected Area. Pp. 223 240 *In* C.R.C. Sheppard (ed.) Coral Reefs of the United Kingdom Overseas Territories, Springer Netherlands.
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- Gaither M.R., Randall J.E. 2012. On the validity of the Cirrhitid fish genus *Itycirrhitus* Aqua: International Journal of Ichthyology 18:219-226.
- Wilcox, C. 2012. Guest Editorial: It's time to e-volve: Taking responsibility for science communication in a digital age. Biological Bulletin 225:85 87.
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Dr. Richard Pyle, Database Coordinator, Associate Zoologist, Dive Safety Officer Bernice Pauahi Bishop Museum ------ Original Message ------From: Richard Pyle <pylediver@gmail.com> on behalf of Richard Pyle <deepreef@bishopmuseum.org> Date: Sun, March 11, 2018 7:51 PM -0700 To: "Lynch, James M." <jim.lynch@klgates.com> Subject: Review of Draft Environmental Assessments of Issuance of Commercial Aquarium Permits for the Islands of O'ahu and Hawai'i

To Whom it May Concern:

I have read and reviewed copies of the Draft Environmental Assessments of Issuance of Commercial Aquarium Permits for the Islands of both O'ahu and Hawai'i. My review is based on my expertise acquired over several decades as professional marine biologist and ichthyologist, including research and publications relating specifically to the Marine Aquarium trade.

Overall, I was extremely impressed with the thoroughness and accuracy of both draft Assessments. I have crosschecked many of the data summaries and other conclusions cited in the Assessments against the original published literature, and in all cases I have found them to be both accurate and complete as represented in the Assessments. Moreover, I found that the conclusions and recommendations included in both Assessments to be entirely appropriate and consistent with the available scientific data, as well as my own personal research and observations concerning the marine aquarium industry in Hawaii, and the particular species involved. The summary of the history and context of the industry in Hawaii is also accurate, complete, and represented without bias.

I was also very impressed with the wording, format, data tables, figures, and literature cited as presented in both Assessments. The content is complete and accurate, and the tone is neutral and appropriate.

I have provided some specific very minor suggestions on grammar and formatting, none of which affect the meaning and content of the overall Assessments.

Please feel free to contact me with any specific questions, comments, concerns, or requests for qualification or elaboration on any specific parts of either of the Draft Assessments.

Sincerely,

Richard L. Pyle, PhD Associate Zoologist Bernice Pauahi Bishop Museum 1525 Bernice Street, Honolulu, HI 96817-2704 Office: (808) 848-4115; Fax: (808) 847-8252 eMail: <u>deepreef@bishopmuseum.org</u> BishopMuseum.org

Our Mission: Bishop Museum inspires our community and visitors through the exploration and celebration of the extraordinary history, culture, and environment of Hawai'i and the Pacific.

CURRICULUM VITAE

RICHARD L. PYLE

Department of Natural Sciences, Bishop Museum, 1525 Bernice St., Honolulu, HI 96817 Tel: +1 (808) 848-4115; email: <u>deepreef@bishopmuseum.org</u>

PERSONAL:

Born: 24 March 1967, Kailua, Hawaii Married to Dr. Lisa A. Privitera (1994), daughter Cara (born 1995), son Owen (born 2000)

EDUCATION:

2003	Ph.D. – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii
1992	B.S. – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii
1985	High School Diploma, Punahou High School, Honolulu, Hawaii

EMPLOYMENT:

2010-present	Dive Safety Officer, B.P. Bishop Museum, Honolulu, Hawaii
2002-present	Database Coordinator, Department of Natural Sciences, B.P. Bishop Museum,
	Honolulu, Hawaii
2000	Graduate Teaching Assistant (Ichthyology Lab) – Department of Zoology,
	University of Hawaii at Manoa, Honolulu, Hawaii
1999–2002	Graduate Research Assistant (John E. Randall, PI) – Department of Zoology,
	University of Hawaii at Manoa, Honolulu, Hawaii
1997-present	Associate Zoologist – Department of Natural Sciences, B.P. Bishop Museum,
	Honolulu, Hawaii
1990-present	President – LavaVideo Productions, Inc.
1986–1997	Collections Technician – Ichthyology Collection, Department of Natural Sciences,
	B.P. Bishop Museum, Honolulu, Hawaii
1985–1986	Vice President/Chief Collector – Feetlebomb Fish of Palau, Inc., Koror, Palau
1985	Student Aquarist – Waikiki Aquarium, Honolulu, Hawaii

PROFESSIONAL SERVICE:

Member, Catalog of Life Global Team
Board of Editors, Indo-Pacific Fishes
Steering Committee Member, PLoS Biodiversity Hub
Principal Science Advisor - One World Ocean Campaign, MacGillivray Freeman
Films
Committee Member, Special Committee on Electronic Publication, International
Committee for Botanical Nomenclature.
Committee Member, International Committee for Bionomenclature
Founding Board Member, Plazi.ch Association (Plazi)
Program Committee, International Conference on Biodiversity Informatics (e-
Biosphere)
Convener, Taxonomic Names and Concepts Group, Biodiversity Information
Standards (TDWG)
Council Member, International Commission on Zoological Nomenclature (ICZN)
Steering Committee, World Registry of Marine Species (WoRMS)
Member, Informatics Advisory Board, Encyclopedia of Life (EoL)

1	Commissioner, International Commission on Zoological Nomenclature (ICZN)
2006	Active Participant in the Global Biodiversity Information Facility (GBIF) Globally
	Unique Identifiers (GUID) Workshop Series
2005	Active Participant in the development of the Taxonomic Concept Schema (TCS),
	Taxonomic Databases Working Group (TDWG)
2003–present	Founding Board Member, Chief Technology Officer (2003–2005), Chief Science
	Officer (2005–2014), Chief Technology Officer (2014–present), Association for
	Marine Exploration (AME)
2001–present	Committee Member, Pacific Basin Information Node, National Biological
0001	Information Infrastructure
2001	Promising Technology Committee – All Species Foundation, San Francisco,
2001	California CEO Sasrah Committee All Species Foundation
	CEO Search Committee – All Species Foundation Manuscript Reviewer – <i>Marine Technology Society</i>
2000–present 2000–2003	Scientific Advisor – MacGillivray Freeman Films
2000–2003	
2000–2001 2000–2001	Database Consultant & Scientific Advisor – All Species Foundation Organizing Committee – All Species Foundation
1998	Secretary, Diving Control Board – University of Hawaii at Manoa
	Board of Advisors – International Association of Nitrox and Technical Divers
1997-present	(IANTD)
1	Web Site Development Group – Bernice P. Bishop Museum
-	Database Development Group – Bernice P. Bishop Museum
1996	Manuscript Reviewer – Evolution
1996	"Major Contributor" – Scientific Diving: A general Code of Practice. (N.C.
	Flemming and M.D. Max, eds.). Second Edition (1996), Sponsored by the World
	Underwater Federation (CMAS) and UNESCO's Intergovernmental Oceanographic
	Commission (IOC). UNESCO Publishing, Paris. xviii+278 pp.
1995–1996	Board of Directors – Aquademy, Inc. (A California nonprofit public benefit corporation)
1995–2005	Diving Control Board Member – University of Hawaii at Manoa
1995-present	Board of Advisors – Immersed technical journal
1995-present	Data Standards Subcommittee – American Society of Ichthyologists and
	Herpetologists
1994-present	Experimental Test Diver and Technical Consultant – Cis-Lunar Development
	Laboratories, Inc.
1994–1995	Organizing Committee Member – 20th Annual Albert L. Tester Memorial
	Symposium, University of Hawaii at Manoa
1994	Technical Advisor – CMAS/UNESCO Code of Practice for Scientific Diving
1994	Manuscript Reviewer – Pacific Science
1992–1996	Editorial Board and Contributing Editor – AquaCorps technical journal
1991-present	Scientific Advisor – American Association of Zoological Parks and Aquariums
1001 1002	Marine Fishes Taxon Advisory Group
1991–1993	Hawaii State Shark Task Force
-	Board of Directors – Hawaii Tropical Fish Association
1989–present	č
1984–1985	Volunteer Aquarist – Waikiki Aquarium

GRANTS & AWARDS:

Pending:

2017 **PI**: ABI Development: Expanding the Global Names Architecture through development of the Global Names Usage Bank. National Science Foundation (DBI-1661545), 2016 (\$1,677,706).

Funded:

- 2016 **PI:** Preparation for an Expedition to Rapa Nui. NOAA Sanctuary Foundation, 2016 (\$15,000).
- 2016 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2016 (\$45,000).
- 2015 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2015 (\$45,000).
- 2014 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2014 (\$20,800.00, of a total of \$101,353).
- 2014 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2014 (\$40,000).
- 2013 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2013 (\$20,800.00, of a total of \$101,513).
- 2013 **Co-PI:** Combined Submersible and Rebreather Diver Operations for Scientific Research. (Kenneth R. Longenecker, PI), Hawaii Undersea Research Laboratory (HURL). 1 June 2013 (\$29,891.92).
- 2012 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2012 (\$20,800.00, of a total of \$101,513).
- 2012 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2012 (\$90,000).
- 2011 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2011 (\$40,000).
- 2010 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2010 (\$50,000).
- 2010 **Co-PI:** Collaborative Research: ABI: Innovation: The Global Names Architecture, an infrastructure for unifying taxonomic databases and services for managers of biological information (PI of Bishop Museum Component; David J. Patterson, PI; Stanley D. Blum and Chris Freeland, Co-PIs for the collaborative proposal). National Science Foundation (DBI-1062441), 2010 (\$325,291; as part of a collaborative proposal totaling \$2,123,648).
- 2010 PI: Collaborative Research: BiSciCol Tracker: Towards a tagging and tracking infrastructure for biodiversity science collections (PI of Bishop Museum component; Nico Cellinese [originally Reed S. Beaman], PI; Steven R Manchester, Gustav Paulay, Norris H Williams, P. Bryan B. Heidorn, Robert P. Guralnick, Neil Davies, Jonathan A. Coddington, Christopher P. Meyer, Thomas M. Orrell and George K. Roderick, Co-PIs for the

collaborative proposal), National Science Foundation (DEB-0956415), 2010 (\$316,136; as part of a collaborative proposal totaling \$1,799,472).

- 2009 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2009 (\$70,000).
- 2009 **Co-PI:** Holistic management of coastal ecosystems: roles of deep hermatypic reefs (Kenneth R. Longenecker, PI), Hawaii Undersea Research Laboratory (HURL). 1 June 2009 (\$136,367).
- 2009 **Subcontract:** Development of the Global Names Usage Bank (GNUB), Global Biodiversity Information Facility (GBIF), 1 January 2009. (\$5,000).
- 2009 **PI:** Development of a Species Portal for Pacific Islands (Year 3), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 November 2008. (\$70,000).
- 2008 **Subaward PI:** Deep Reef Survey component of the Moorea Biocode Project (Neil Davies, PI), Gordon and Betty Moore Foundation, 1 January 2008. (\$46,834).
- 2008 **PI:** Development of a Species Portal for Pacific Islands (Year 2), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 November 2008. (\$100,000).
- 2007 **Contract:** ZooBank LSID and TAPIR Implementations. International Commission on Zoological Nomenclature (ICZN), through Global Biodiversity Information Facility (GBIF), 31 May 2007. (\$5,000).
- 2007 **Partner Researcher:** Providing Access to Authoritative New Names: the Zootaxa-ZooBank Interface (Zhi-Qiang Zhang, PI), Global Biodiversity Information Facility (GBIF), 1 April 2007. (\$49,000).
- 2007 Lead PI: CRES 2007: Investigating the Deep (50-100 m) Coral Reefs of Hawai'i. Coral Reef Ecosystem Studies (CRES), National Oceanic and Atmospheric Administration (NOAA), 11 Nov 2006. (\$1,499,961).
- 2007 **Co-PI:** Comparing Hawaii's Deep Reef Coral Communities (Anthony Montgomery, PI), Hawaii Undersea Research Laboratory (HURL). 1 October 2007 (\$72,279).
- 2007 **PI:** Development of a Species Portal for Pacific Islands (Year 1), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2007 (\$100,000).
- 2007 **Co-PI:** Catalog of Fishes 2.0: Improving Services and Preparing for Community Participation (Stan Blum, PI), National Science Foundation (NSF DBI-0642321). 15 April 2007 (\$642,461)
- 2006 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2006 (\$120,000).
- 2005 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2005 (\$150,000).
- 2004 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access, including Collaboration on the Development of a Pacific Biodiversity Information Forum and Survey of Taxonomic Capacity in Pacific Islands (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2004 (\$175,000).
- 2003 **Co-PI:** Exploration of the deep slopes of the US Line and Phoenix Islands to investigate the biogeography of deepwater fish and corals, and identify paleo-shorelines (Frank A. Parrish,

PI), NOAA's Undersea Research Program (NURP). (\$5,000, plus 10 PISCES IV/V submersible dives).

- 2003 **Co-PI:** Continued Development of an Information Utility Focused on Hawaii and the Pacific Region Using Bishop Museum's Vouchered Collections and Documented Data (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2003 (\$150,000).
- 2002 **Co-PI:** Development of an Information Utility Focused on Hawaii and the Pacific Region Using Bishop Museum's Vouchered Collections and Documented Data (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2002 (\$150,000).
- 1999 **PI:** Doctoral Fellowship Award for the Systematic and Biogeographic analysis of the Fish Family Pomacanthidae (administered through the Department of Zoology, University of Hawaii). (\$30,000).
- 1998 **Co-PI:** Preparation of Bishop Museum Marine Invertebrates Catalogues and Species Listings for Publication on the World Wide Web. (Steve L. Coles, PI), Charles H.and Margaret B. Edmondson Research Foundation Research Fund.
- 1991 Student Travel Award, American Society of Ichthyologists and Herpetologists, 73rd Annual Meeting, University of Texas at Austin, Texas (\$200).

Approved but not Funded:

2003 PBI: Global Inventory of 75 Families of Coral-Reef Actinopterygian (Ray-Finned) Fishes (John E. Randall, PI), Planetary Biodiversity Inventories (PBI), Biodiversity Surveys & Inventories (BS&I), Division of Environmental Biology (DEB), National Science Foundation (NSF). (\$7,457,882).

Awards and Honors:

- 2005 NOGI Award for Science Diving, Academy of Underwater Arts and Sciences
- 2004 "GEnius Award", *Esquire* Magazine (\$45,000)
- 2004 "Best and Brightest", *Esquire* Magazine
- 1996 Finalist, Rolex Awards for Enterprise
- 1994 Honorable Mention, Stoye Award, American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, University of Southern California, Los Angeles, California
- 1993 Best Paper Award, 19th Annual Albert L. Tester Memorial Symposium, University of Hawaii at Manoa (\$700).

DIVING QUALIFICATIONS:

Certifications:

- 2000 IANTD Cis-Lunar Technical Rebreather Instructor (#2846)
- 1999 IANTD Cis-Lunar Mixed Gas Rebreather Instructor (#2846)
- 1999 IANTD Advanced EANx Instructor (#2846)
- 1997 IANTD Cis-Lunar MK-5P Supervisor (#2846)
- 1996 DAN Oxygen Provider (#2846)
- 1994 Cis-Lunar MK-4P Experimental Diver
- 1994 IANTD Trimix Diver (#345)
- 1993 IANTD Nitrox Diver (#2347)
- 1982 PADI Advanced Open Water Diver (#813214240)
- 1981 PADI Basic Diver

Experience:

- 1994-present 4,000+ hours Mixed-gas, Closed-Circuit Rebreather
- 1989-present 250+ dives open-circuit trimix/nitrox
- 1981-present 5,000+ dives air SCUBA

FIELD EXPEDITIONS:

- 1980 Christmas Island, Kiribati
- 1983 Palau (twice); Pohnpei
- 1984 Christmas Island, Kiribati (twice)
- 1985 Christmas Island, Kiribati
- 1986 Palau (twice)
- 1987 Christmas Island, Kiribati (twice)
- 1988 Christmas Island, Kiribati (twice); Guam; Pohnpei; Johnston Atoll
- 1989 Christmas Island, Kiribati; Midway Atoll; Rarotonga
- 1990 Mauritius; Ogasawara Islands; Izu (Japan); Guam
- 1991 Easter Island; Midway Atoll; Rarotonga
- 1992 Kerama Islands; Ogasawara Islands; Rarotonga
- 1993 Solomon Islands
- 1995 Papua New Guinea (Milne Bay)
- 1997 Palau (<u>http://www.bishopmuseum.org/research/treks/palautz97/</u>); Hong Kong
- 1998 Papua New Guinea (D'Entrecasteaux Islands); Necker Island
- 2000 Black coral Survey off Maui (in conjunction with NOAA)
- 2001 Fiji (<u>http://www.coralfilm.com</u>), American Samoa (<u>http://www2.bishopmuseum.org/PBS/samoatz01/</u>)
- 2002 Fiji
- 2004 Fiji
- 2005 Green Island (Taiwan); Pulley Ridge, Gulf of Mexico; Christmas Island, Kiribati
- 2006 Espiritu Santo (Vanuatu)
- 2007 Caroline Islands (Chuuk, Puluwat, Grey Feather Bank, Fais, Ulithi, Yap, Kayangel, Palau Islands)
- 2009 Papua New Guinea (Kamiali); Northwestern Hawaiian Islands (Nihoa Island, Necker Island, Laysan Island, Pearl and Hermes Reef, Kure Atoll, Midway Atoll)
- 2010 Fiji; Cayman Islands; Eilat (Red Sea); Northwestern Hawaiian Islands (Nihoa Island, French Frigate Shoals, Pearl and Hermes Reef, Midway Atoll); Maui
- 2011 Maui; South Africa (Sodwana Bay); Northwestern Hawaiian Islands (Nihoa Island, French Frigate Shoals, Lisianski, Laysan, Gardiner Pinnacles, Pearl and Hermes Reef); Cocos Island
- 2012 Moorea; Indonesia; Cook Islands (Rarotonga); Northwestern Hawaiian Islands (Nihoa, French Frigate Shoals, Maro Reef, Pearl and Hermes Reef, Midway Atoll)
- 2013 Oahu (HURL collaboration); Philippines
- 2014 Philippines; Pohnpei; Northwestern Hawaiian Islands (Kaula Rock, French Frigate Shoals, Lisianski, Pearl and Hermes Reef, Midway Atoll)
- 2015 Pohnpei, Northwestern Hawaiian Islands (), Maui/Hawaii
- 2016 Northwestern Hawaiian Islands; Pohnpei, Lehua, Midway
- 2017 American Samoa

PUBLISHED INTERVIEWS, PROFILES, AND BIOGRAPHIC EXCERPTS:

- 1. Kawai, Tadashi. 1989. Profile of Randall Kosaki and Richard Pyle. *Tropical Marine Aquarium Magazine* 25:38–39, 2 figs. (In Japanese)
- 2. Kawai, Tadashi. 1990. Interview with Richard Pyle. *Tropical Marine Aquarium Magazine* 28:40–41, 3 figs. (In Japanese)
- Gilliam, B. 1992. Bishop Museum Deep Project, Hawaii. p. 154–156. *In*: Deep Diving: An Advanced Guide to Physiology, Procedures and Systems. (Gilliam, B., R. Von Maier, J. Crea, and D. Webb, eds). Watersport Publishing, Inc., San Diego. 255 pp.
- Somers, L.H. 1992. Chapter 18. Looking Ahead: Mixed Gas in Scientific Diving. *In*: Mount, T. and B. Gilliam (Eds.). Mixed Gas Diving: The Ultimate Challenge for Technical Diving. Watersport Publishing, Inc., San Diego. 392 pp.
- 5. Silverstein, Joel. 1995. Richard Pyle Ph.D. (Phish Doctor): an exclusive interview. *Sub Aqua Journal*. 5(2):16–19, 4 figs.
- 6. Kelly, Jim. Is deep air dead? AquaCorps, 13:39-44.
- Ambrose, Greg. 1996. Breathe Deep: Isle divers test new gear that recycles air, allowing them to probe deeper and stay longer. *Honolulu Star Bulletin* April 3, 1996:A-1,A-8. (Related articles: Ambrose, Greg. 1996. Rebreather opens up a new ocean frontier. *Honolulu Star Bulletin* April 3, 1996:A-8; Ambrose, Greg. 1996. 'Twilight Zone' yields to crystal clear waters. *Honolulu Star Bulletin* April 3, 1996:A-8.)
- 8. Comper, Walter and Win Remley. 1996. Rebreather roundtable: DeepTech and seven industry experts take a hard look at rebreather safety issues and training standards. *DeepTech* 5:48–56.
- Montres Rolex S.A. 1996. Richard Pyle, United States. Project: Investigate biodiversity in the undersea Twilight Zone (Exploration and Discovery). P. 146–147. *In: Spirit of Enterprise: The 1996 Rolex Awards*. Secretariat of the Rolex Awards for Enterprise, Geneva, Switzerland.191 pp.
- 10. Halstead, B. 1996. Hi-Tek Adventure. Scuba Diver, September/October 1996: 61-64.
- 11. Watt, J.D. 1997. Exploring the Twilight Zone with Richard Pyle. *SCUBA Times* 18(6) No. 104: 64.
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FILM AND RADIO PROJECTS AND INTEVIEWS:

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- 2. Interviewee: 1992. Thomas Horton Associates, Inc. The Discovery Channel.
- 3. **Footage**: *World of Wonder: Underwater Volcano* (Episode 113). 1995. GRB Entertainment. The Learning Channel.
- 4. **Technician**: *Sea Tek: Rebreathers segement.* 1996. GRB Entertainment. The Learning Channel.
- 5. Footage: Sea Tek: Birth of an Island. 1996. GRB Entertainment. The Learning Channel.
- 6. **Feature, Footage**: *Incredible Frontiers-I Extreme Divers: Lava Divers.* 1997. GRB Entertainment. The Learning Channel.
- 7. Footage: Oceans: Episode I. 1997. The Discovery Channel.
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- 9. Footage: Planet of Ocean, Episode 2: Into the Abyss. 1998. NHK.
- 10. **Feature**: *Mysteries of the Twilight Zone*. 1998. Thomas Lucas Productions. The Discovery Channel/National Geographic.
- 11. **Technician, Videographer**: *Hammeheads: Nomads of the Sea*. 1998. Thomas Lucas Productions. The Discovery Channel.
- 12. Interviewee: *Hawaiian Diving Adventures: Midway Atoll*. 1998. Cal Hirai and Kimo Santos. Oceanic Cable Channel 16.
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- 14. Feature: Footage: How'd They Do That?: Lava Divers segment. 1998. The Learning Channel.
- 15. Footage: Savage Earth. 1998. Granada Television. PBS/ITV Network.
- 16. Footage: Visual Earth: Exploring the Oceans. 1998. TERC. CD-ROM production.
- 17. **Technician**: *Reflections* (underwater HDTV video production featuring musician Paul Gillman with dolphins). 1999.
- 18. Footage: Volcanoes of the Deep. 1999. Paula S. Apsell, NOVA/WGBH.
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- 20. Feature: Aquanauts: Volcanoes. 1999. The Learning Channel.
- 21. Footage: Savage Planet. 1999. Granada Television. PBS/ITV Network.
- 22. Footage: Restless Earth. 1999. Fulcrum Productions.
- 23. Footage: Volcanoes Video. 1999. Auckland Museum.
- 24. Footage: A Walk to Red Rocks. 1999. DMP Films.
- 25. Footage: If We Had No Moon. 2000. York Films. Discovery Channel.
- 26. Footage: Hawaii: Fire from the Sea. 2000. Chrisman Films.
- 27. Footage: Firewalkers. 2000. Parallax Films.
- 28. Feature, Footage: Xtreme Machines. 2001. Pioneer Productions. Discovery Channel.
- 29. Feature, Footage: Volcano. 2001. Pioneer Productions. Discovery Channel.
- 30. Host Researcher, Footage: JASON XII. 2001. Media Arts. Jason Project.
- 31. Feature: Enduring Extremes. 2001. Wall to Wall Television. Discovery Health Channel.
- 32. Feature: Coral Reef Adventure. 2003. MacGillivray Freeman Films. IMAX feature film (<u>http://www.coralfilm.com</u>)
- 33. **Feature, Footage, Producer**: *Rebreather FUNdamentals*. 2003. Gallant Aquatic Ventures, Incorporated / International Association of Nitrox and Technical Divers.
- 34. Producer & Editor: Uncharted Waters. Association for Marine Exploration.
- 35. **Feature**: *Expedition Pacific Abyss*. 2007. British Broadcasting Corporation (BBC). Discovery Channel. 14 October 2007

- 36. Feature: Pacific Abyss. 2008. British Broadcasting Corporation (BBC).
- Support: Kilauea: Mountain of Fire. 29 March 2009. Nature, PBS. (<u>http://video.pbs.org/video/1133372360/; http://www.pbs.org/wnet/nature/kilauea-mountain-of-fire-video-full-episode/4825/</u>)
- 38. Feature: [Educational DVD thingy]
- 39. Advisor: One World Ocean. MacGillivray Freeman Films.
- 40. Feature: Dinofish, 2012. Earth-Touch (PTY) Ltd., National Geographic. 1 April 2012.
- 41. Feature: *DeepSee Synergy*, 2012. Howard Hall Productions, 15 August 2012 (<u>https://vimeo.com/47595340</u>)
- 42. **Feature**: *Nature's Greatest Secret: The Coral Triangle. Episode 1 A Deep Secret.* Wild Fury. International Broadcast. August 2013 (<u>http://vimeo.com/107782561</u> [Tralier])
- 43. Feature: Ocean Mysteries with Jeff Corwin ABC television. Season 3, episode 307. November 2013.
- 44. **Interviewee**: Bytemarks Café. Episode 313: Diving into the Twilight Zone. 27 August 2014. (http://www.bytemarkscafe.org/2014/08/27/episode-313-diving-into-the-twilight-zone/)
- 45. **Interviewee**: Hawaii's Aquarium Fishery: Regulated, Valuable, Sustainable. 20 November 2016 (https://youtu.be/50L6JcMOVLQ)
- 46. Feature: Sea of Hope. National Geographic Society. 15 January 2017.

PUBLIC PRESENTATIONS:

Scientific and Technical (Invited):

- Invited Panelist: Evacuation and Treatment Panel (45 min), tek.93: An Emerging Dive Technologies Conference, 18–19 January 1993, Orlando, Florida. R.W. Bill Hamilton, Chair. (Sponsored by AquaCorps technical journal)
- Invited Panelist: Tech Ops: A Tutorial on Technical Diving (60 min), tek.93: An Emerging Dive Technologies Conference, 18–19 January 1993, Orlando, Florida. John Crea, Chair. (Sponsored by AquaCorps technical journal)
- Invited Panelist: Medical, Academic, & Government Institutions Panel (60 min), *The Deep Diving Forum: A Question of How Deep is Safe?*, 20 January 1993, Orlando, Florida. R.W. Bill Hamilton, Chair. (Sponsored by the Scuba Diving Resource Group)
- 4. **Invited Speaker**: Using Trimix to explore the Twilight Zone (25 min), *Diving Technologies Conference and Exhibition (tek.94)*, 19–23 January 1994, New Orleans, Louisiana. (Sponsored by *AquaCorps* technical journal)
- Invited Session Chair: In-water Recompression as an emergency treatment for decompression illness (60 min), *Diving Technologies Conference and Exhibition (tek.94)*, 19–23 January 1994, New Orleans, Louisiana. (Sponsored by *AquaCorps* Magazine)
- Invited Speaker: The potential uses of closed-circuit rebreathers in marine biological research (25 min), *AquaCorps Rebreather Forum*, 20–25 May 1994, Key West, Florida. (Sponsored by *AquaCorps* technical journal)
- Invited Speaker: Systematics of reef and shore fishes of Oceania (30 min), Marine and Coastal Biodiversity in the Tropical Island Pacific Region: I. Species Systematics and Information Management Priorities, 2–4 November 1994, East-West Center, Honolulu, Hawaii. (Sponsored by the Ocean Policy Institute of the Pacific Forum/CSIS)
- 8. **Invited Speaker**: Patterns of coral reef fish biogeography in the Pacific region (30 min). *Marine and Coastal Biodiversity in the Tropical Island Pacific Region: I. Species Systematics and Information Management Priorities*, 7–9 November 1994, East-West

Center, Honolulu, Hawaii. (Sponsored by the Ocean Policy Institute of the Pacific Forum/CSIS)

- 9. Invited Panelist: Deep Air (60 min), Diver Safety Session, *Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. Hal Watts, Chair. (Sponsored by Imbert, Ciesielski, & Fructus)
- Invited Session Co-chair: Gearing Up (60 min), Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95), 21–24 January 1995, Moscone Center, San Francisco, California. Gary Gentile, Co-Chair. (Sponsored by Scuba Times Magazine)
- Invited Speaker: Exploring the Twilight Zone (30 min), Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95), 21–24 January 1995, Moscone Center, San Francisco, California. (Sponsored by AquaCorps technical journal)
- Invited Session Chair: In-water Recompression (60 min), Diver Safety: The Dive Technologies Conference & Exhibition (tek.95), 21–24 January 1995, Moscone Center, San Francisco, California. (Sponsored by Imbert, Ciesielski, & Fructus)
- Invited Panelist: Dive Into the Internet (60 min), Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95), 21–24 January 1995, Moscone Center, San Francisco, California. David Story, Chair. (Sponsored by AquaCorps technical journal)
- Invited Speaker: The use of nitrox in closed circuit rebreathers for scientific purposes (45 min), American Academy of Underwater Sciences Nitrox Diving Workshop, 30 September 4 October 1995, Wrigley Marine Science Center, Catalina Island, California (Sponsored by the American Academy of Underwater Sciences)
- Invited Speaker: Using closed-circuit, mixed gas rebreathers to explore the Twilight Zone (30 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. (Sponsored by *AquaCorps* technical journal)
- Invited Panelist: Deep Diving Forum (120 min), Diving Technologies Conference and Exhibition (tek.96), 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. R.W. Hamilton, Chair. (Sponsored by AquaCorps technical journal)
- 17. **Invited Panelist**: Understanding Trimix Tables (60 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. R.W. Hamilton, Chair. (Sponsored by *AquaCorps* technical journal)
- Invited Panelist: Future of Rebreathers (60 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. Michael Menduno, Chair. (Sponsored by *AquaCorps* technical journal)
- Invited Panelist: Rebreather Maintenance & Logistics (60 min), *Rebreather Forum 2.0.* 26–28 September, 1996. Redondo Beach, CA.
- Invited Speaker: Using Mixed-Gas Closed-Circuit rebreathers for deep decompression diving. End User Operational Experience (90 min), *Rebreather Forum 2.0.* 26–28 September, 1996. Redondo Beach, CA.
- 21. **Invited Speaker**: Keeping up with the times: Technical diving practices for in-water recompression (45 min). In-Water Recompression: A symposium and Workshop. *Undersea and Hyperbaric Medical Society Annual Scientific Meeting*. 24 May 1998. Seattle, Washington.
- Invited Seminar Speaker: Using advanced diving technology to explore the deep coral reefs (60 min.), 17 December 1998, *Bodega Marine Laboratory*, University of California – Davis. (Sponsored by the Bodega Marine Laboratory)

- 23. Invited Speaker: In Water Recompression (35 min.), 24 April 1999, *OZTeK99 Diving Technologies & Rebreather Forum*, Australian National Maritime Museum, Sydney, Australia. (Sponsored by OZTeK99)
- Invited Featured Evening Lecture Speaker: Deep Reef Explorations (45 min.), 24 April 1999, OZTeK99 – Diving Technologies & Rebreather Forum, Australian National Maritime Museum, Sydney, Australia. (Sponsored by OZTeK99)
- 25. Invited Speaker and Panelist: Mixed Gas Closed Circuit Rebreather Use for Identification of New Reef Fish Species from 200–400 fsw (40 min), 3 November 1999, Technical Diving Forum: Assessment and feasibility of Technical Diving Operations for Scientific Exploration. *American Academy of Underwater Sciences Workshop*, West Coast Santa Cruz Hotel, Santa Cruz, California.
- 26. **Invited Speaker**: Using Advanced Diving Technology to Explore the Twilight Zone (60 min), 6 November 1999, *BioForum: Innovative Research in Field Biology. California Academy of Sciences*, San Francisco, California.
- 27. **Invited Symposium Speaker**: How Many Reef Fishes are we Missing?: Patterns of New Species Discovery on Deep Coral Reefs in the Indo-Pacific (15 min), *American Society of Ichthyologists and Herpetologists*, 80th Annual Meeting, 14–20 June, 2000, Universidad Autonoma De Baja California Sur, La Paz, Mexico.
- 28. **Invited Participant**: Original Organizing Meeting, All Species Foundation, 18–19 September 2000, California Academy of Sciences, San Francisco, CA.
- Invited Speaker: Insights on Deep Bounce Dive Safety From the Technical Diving Community (20 mins), Panel On Diving Safety, Scientific Session III: Diving Safety, 16th Meeting of the United States-Japan Cooperative Programs on Natural Resources (UJNR), 1–3 November 2001, East-West Center, Honolulu, Hawaii.
- Invited Session Chair and Presenter: Surface Logistics and Consumables for Open-Circuit and Closed-Circuit Deep Mixed-Gas Diving Operations (15 minutes), Session 43: Rebreathers, Tools For The Next Generation, *Marine Technology Society/IEEE Oceans* 2001, 5–8 November 2001, Hilton Hawaiian Village, Honolulu, Hawaii.
- 31. **Invited Presentation**: Hawaii Biological Survey: Taking inventory of the fauna and flora of the Hawaiian Islands. *Biodiversity Informatics Cooperation Pacific Basin*, 10–12 June 2002, Maui, Hawaii.
- 32. **Invited Panelist**: E-types Workshop, All Species Foundation, 5–6 November 2002, Smithsonian Institution, Washington, DC.
- 33. **Invited Speaker**: Exploring Deep Reefs with Closed-Circuit Rebreathers (30 min), 2nd International Coelacanth Symposium, 4–7 December 2002, Marathon, Florida. (via telephone)
- Invited Joint Presentation (with Bill Steiner, Mark Fornwall, Lloyd Loupe, Shannon McElvaney, Melia Lane-Kamahele, and Ron Salz): Biodiversity and Information in Hawaii: A Partnership Presentation (90 min), NBII All Node Meeting, 6–9 January 2003, Maui, Hawaii.
- 35. **Invited Speaker**: Empirical Observations Relating To 'Deep Stops': A Fish Nerd's Perspective (30 min), *Deep Stops and Modern Decompression Strategies Workshop, National Association of Underwater Instructors (NAUI)*, 22–23 February 2003, Tampa, Florida. (via telephone)
- 36. Invited Speaker: Fishes of the Pacific Region (20 min) 20th Pacific Science Congress:
 "Science and Technology for Healthy Environments". 17–21 March 2003, The Sofitel Central Plaza Bangkok Hotel, Bangkok, Thailand. (Delivered by Allen Allison)

- 37. **Invited Panelist**: Second E-types Workshop, All Species Foundation, 12–14 May 2003, Smithsonian Institution, Washington, DC.
- Invited Speaker and Panelist: Modeling Needs for the All-Species Hawaii Initiative. Biodiversity Modeling Workshop, National Biological Information Infrastructure. 28 July – 1 August 2003, Maui High Performance Computing Center, Kihei, Maui.
- Invited Presentation and Discussion: Taxonomer Schema Explanation (4 hrs). SEEK Taxon Group, 23–28 January 2004, National Center for Ecological Analysis and Synthesis, University of California at Santa Barbara, Santa Barbara, California.
- 40. **Invited Keynote Speaker**: Banquet presentation (1 hr). Marine Aquarium Conference of North America. 11 September 2004, New England Aquarium, Boston, Massachusetts.
- 41. **Invited Speaker**: Tapping into an Unexplored Undersea Realm: the Biodiversity of Deep Coral Reefs (20 min), National Marine Educators Association Conference, 14 July 2005, Maui Community College, Kahului, Maui. http://www.hawaii.edu/maui/oceania/NMEA05.html
- 42. **Invited Moderator**: ECAT Seed Money Prioritization E-Conference, Global Biodiversity Information Facility (GBIF), May 25 June 1, 2005.
- 43. **Invited Speaker**: Implementing the Digital Taxonomic Revolution: Strategies for a Successful Web-Based Registry of Taxonomic Names. ZooBank Symposium. 18 December 2005. Annual Meeting of the Entomological Society of America. Ft. Lauderdale, Florida. (via internet) http://www.nhm.ac.uk/hosted_sites/iczn/Fort_Lauderdale_ZB_Symposium.htm
- 44. Invited Speaker: CoML 1.
- 45. Invited Participant-GBIF-GUID 1
- 46. Invited Speaker: CoML 2.
- 47. Invited Participant-GBIF-GUID 2
- 48. Invited Speaker: New Caledonia.
- 49. Invited Speaker: Explorers' Club.
- 50. Invited Speaker: ZooBank Symposium, Smithsonian, May 2007.
- Invited Participant: Overview of *Encyclopedia Pacifica*, ZooBank, CoF, Creefs (10 min). Encyclopedia of Life (EoL) Informatics (Data Model) Workshop. 10–11 February 2007. MBL, Woods Hole, Massachusetts, USA.
- 52. Mesophotic Coral Ecosystems (NOAA Workshop Florida)
- 53. TDWG 2008
- 54. Invited Speaker: ZooBank and the Global Names Architecture. 8 January 2009. Interoperability of Museum, Taxonomic, and DNA Databases. 7–9 January 2009. Database Working Group, Consortium for the Barcode of Life, Field Museum of Natural History, Chicago, Illinois. (20 min)
- 55. Invited Speaker: Exploring Life on the Edge of Darkness. 11 February 2009. Looking for Life: Adventures and Misadventures in Species Exploration. International Institute of Species Exploration (IISE). Arizona State University, Tempe, Arizona. (30 min)
- 56. Invited Speaker: Taxonomy Comes of Technological Age. 2 June 2009. e-Biosphere 09: The International Conference on Biodiversity Informatics. 1–3 June 2009. Queen Elizabeth II Conference Centre, Westminster, London, UK http://www.youtube.com/watch?v=PSzL2NwRemU
- 57. **Invited Speaker:** ZooBank and the Global Names Architecture. 4–5 June 2009. International Committee on Bionomenclature, Natural History Museum, London, UK.
- Invited Participant: IUCN Red List workshop to assess the extinction risks of Butterflyfishes and Angelfishes. 5–9 October 2009, Global Marine Species Assessment, Biodiversity Assessment Unit, IUCN Species Programme, Georgia Aquarium, Atlanta, Georgia.

- 59. Invited Speaker: The Global Names Architecture: Integration In Action (NOT "Inaction"). 11 November 2010. TDWG (Biodiversity Information Standards) Annual Conference. CORUM Conference Center, Montpellier, France (90 min)
- 60. Invited Banquet Speaker: A Brief History of Deep Coral-Reef Exploration: A Fish-Nerd's tale. 27 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Waikiki Aquarium, Honolulu, Hawaii. (40 min) (<u>https://youtu.be/gHEHHLnfwNg</u>)
- 61. **Invited Speaker**: A History of Cis-Lunar Rebreathers. 15 May 2010. Inner Space Conference. Cayman Islands. (45 min)
- 62. **Invited Speaker:** Adventures of a Fish Nerd: Learning to Dive Deep the Hard Way. 19 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (60 min)
- 63. **Invited Speaker:** Logistical and Practical Considerations for Deep (100m+) Mixed-gas Diving in Remote Locations. 21 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (60 min)
- 64. **Invited Speaker:** Undiscovered Biodiversity within Pacific Mesophotic Coral Ecosystems. 23 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (30 min)
- 65. **Invited Speaker:** Mesophotic Coral Ecosystems of the Au'au Channel, Hawai'i (DeepCRES/Hawaii). 27 August 2010. Site Visit Symposium for the Hawaii Deep-CRES project. NOAA Papahānaumokuākea Marine National Monument Conference Room. Hawaii Kai, Hawaii. (15 min)
- Invited Session Chair: Taxon Names & Concepts (Introduction, 6 Presentations, Discussion session). TDWG (Biodiversity Information Standards) Annual Conference. Woods Hole, MA, 27 September 2010 (105 min)
- 67. Invited Speaker: Mesophotic Coral Ecosystems of the Au'au Channel, Hawai'i (DeepCRES/Hawaii). 6 October 2010. Western Pacific Regional Fishery Management Council, 105th Meeting of the Scientific and Statistical Committee. Honolulu, Hawaii. (15 min)
- Invited Speaker and Panelist: Exploring deep coral reefs in the tropical Pacific. 18 October 2010. FishBase Symposium 2010 — Discover! Naturhistoriska riksmuseet. Stockholm, Sweden. (45 min, plus Panel Discussion)
- 69. Invited Participant and Committee Member: IUBS/IUMS International Committee On Bionomenclature (ICB): BioCode Working Group Meeting. 21–23 October, 2010. Botanischer Garten und Botanisches Museum Dahlem, Freie Universität Berlin. Berlin, Germany.
- 70. **Invited Keynote Speaker:** Towards a Global Names Architecture: The Future of Indexing Scientific Names. 28 October 2011. Anchoring Biodiversity Information: From Sherborn to the 21st Century and Beyond. Flett Theatre, The Natural History Museum, London, UK
- 71. Invited Speaker: Endangered: Earth's Greatest Library. 2 November 2011. TEDx Honolulu. Cupola Theatre at Honolulu Design Center, Honolulu, Hawaii. http://www.youtube.com/watch?v=ZRFGUT594ug
- 72. **Invited Keynote Speaker:** A Brief History of Everything that Really Matters. 14 November 2011. Life and Literature, 14–15 November 2011. Biodiversity Heritage Library. Field Museum of Natural History, Chicago, Illinois. (60 min) http://www.lifeandliterature.org/2011/12/life-and-literature-speaker 08.html
- 73. NOMINA meetings (check all)
- 74. Public Presentation: Cook Islands.

- 75. **Invited Keynote Speaker:** British Subaqua Club annual meeting, 27 November 2012. NEC, Birmingham, England. (60 min.)
- 76. Literature Group Pro-iBiosphere, February 2013
- 77. GUIDs Pro-iBiosphere (15 min)
- 78. Ellinor presentation Austria
- 79. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Marine Biology Seminar, University of Hawaii, 8 March 2013 (60 min.)
- 80. **Featured lecturer:** Deep Diving Discoveries. Science Alive! Family Sunday, Atherton Halau, Bishop Museum, Honolulu, Hawaii. 17 March 2013 (40 min.)
- 81. **Invited Speaker:** Fishing the Twilight Zone: A Panoply of Nerdry. Honolulu Nerd Nite #3. Mercury Bar, Honolulu, Hawaii. 10 April 2013 (25 min)
- 82. Pro-iBiosphere (Berlin), May 2013 [http://wiki.proibiosphere.eu/wiki/Workshops Berlin, May 2013]
- Invited Participant: AntCat Technical Workshop (including presentation on the Global Names Architecture). Romberg Tiburon Center, San Francisco, California. 25-26 August 2013.
- 84. **Presentation:** The Global Names Architecture. California Academy of Sciences, San Francisco, California. 27 August 2013 (25 min)
- Invited Participant: AntCat Editorial Workshop (including presentation on the Global Names Architecture). Romberg Tiburon Center, San Francisco, California. 29–30 August 2013 (20 min)
- Invited Speaker: Why do we explore? The importance of discovering and documenting biodiversity. NOAA Marine Science Educators conference. Waikiki Aquarium, Honolulu, Hawaii. 18 October 2013 (20 min)
- 87. TDWG 2013 Organizer
- 88. TDWG 2013 Presentation
- 89. Singapore
- 90. Ellinor presentation DC
- 91. Manila
- 92. **Invited Lecturer:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Guest Lecture for Marine Biology Course. University of Hawaii at Manuoa, St. John Hall, room 011. 1 April 2014. (1 hour)
- Invited Speaker: In-Water Recompression: Where Have We Been; Where Are We Going? In Water Recompression Controversies Symposium, Kona Kai Resort, San Diego, California. 28 April 2014. (30 mins)
- 94. **Co-Authored Presentation:** (presented by Ellinor Michel). Global Digital Infrastructure for Biological Nomenclature and Taxonomy. Forum Herbulot 2014: How to accelerate the inventory of biodiversity.
- 95. **Invited Presentation:** (presented by Ellinor Michel). Global Digital Infrastructure for Biological Nomenclature and Taxonomy. (<u>http://www.slideshare.net/EllinorM/michel-</u> <u>digital-nomenclaturegnazoobank2014conamesconfv2</u>)</u>
- 96. Invited Speaker: Deep Diving, New Species Discovery, and the Greatest Library on Earth. Natural Sciences Annex, Room 101, University of California, Santa Cruz, California.. 22 October 2014. (1 hour, 60 people)
- 97. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Conference Room, California Academy of Sciences, San Francisco, California. 23 October 2014. (1 hour, 40 people)

- 98. Workshop Participant and Presenter: Biocollections Identifiers Workshop. Swedish Museum of Natural History, Stockholm, Sweden. 24–25 October 2014. (2 days,)
- 99. Workshop Session Chair: Darwin Core Workshop: Nomenclature in Darwin Core. TDWG Biodiversity Information Standards. Elmia Congress Centre, Jönköping, Sweden. 28 October 2014 (90 min, 60 people)
- 100. **Invited Speaker and Panelist:** Why Technology Makes Rebreathers the Norm and Not the Exception. Divers Equipment and Marketing Association (DEMA), Las Vegas Convention Center, Las Vegas, Nevada (Room N242). 20 November 2014. (1 hour, 25 people)
- 101. Invited Speaker: Deep Diving, New Species Discovery, and the Greatest Library on Earth. Special Science Seminar, Natural History Museum, London (Flett Events Theatre). 14 January 2015. (1 hour; 80 people) <u>http://youtu.be/8cUnkz9wSCU</u>
- 102. Invited Speaker: The ZooBank Experience. The Future of Digital Nomenclature an 'ICDN'? (NOMINA 14) International Committee for Bionomenclature Meeting. Mineralogy Meeting Room (Earth Science Building), Natural History Museum, London. 15 January 2015. (2.5 hours; 9 people)
- 103. Invited Speaker: Rebreather Evolution in the Foreseeable Future. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 16 February 2015 (30 minutes, 50 people)
- 104. Invited Speaker: Use of Rebreathers for Biological Research and Remote Field Operations. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 17 February 2015 (60 minutes, 50 people)
- 105. **Invited Presenter:** Overview of Poseidon SE7EN Rebreather, hands-on session. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 17 February 2015 (30 minutes, 50 people)
- 106. **Invited Presenter:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Sustainable Oceans Summit, McDonough School of Business, Rafik B. Hariri Building, Georgetown University, Washington, D.C. 25 April 2015 (12 minutes, 200 people)
- 107. Invited Presenter and Participant: ZooBank. Global Registry of Biodiversity Repositories: Designing GRBio Version 2, U.S. National Museum of Natural History, Smithsonian Institution, Washington, DC. 27-28 April 2015 (10 minutes, 21 people)
- 108. Invited Presentation: Update on the status of ZooBank. International Committee on Bionomenclature. 32nd International Union of Biological Sciences General Assembly & Conference in Berlin 14 December 2015 (15 min, 15 people)
- 109. Invited Presentation: ZooBank, Registration & the Digital Future for Nomenclature.
 BioNomenclature: Making nomenclatural codes, concepts and tools fit for modern research.
 32nd International Union of Biological Sciences General Assembly & Conference in Berlin
 15 December 2015 (20 min, 60 people)
- 110. Invited Presentation: ZooBank Status. International Commission on Zoological Nomenclature. 32nd International Union of Biological Sciences General Assembly & Conference in Berlin 16 December 2015 (120 min, 16 people)
- 111. Invited Presentation and Symposium Organizer: The Habitat Persistence Hypothesis. Mesophotic and Deep-Sea Coral Ecosystems: A Tribute to the Pioneering Efforts of Dr. John Rooney, 13th International Coral Reef Symposium, Honolulu, 21 June 2016 (15 min, 120 people). (<u>https://youtu.be/N4-8tlh5fC0</u>)
- 112. Guest Lecturer: Documenting the Global Biodiversity Library: Explorations and Discoveries on Deep Coral Reefs. Hawaii Pacific University, Hawaii Loa campus, Kailua. 6 October 2016. (60 min; 45 people).

- 113. Invited Participant: Names in November
- 114. **Invited Participant:** Update on the ICZN and ZooBank. American Association for Zoological Nomenclature (AAZN). Washington, DC, 12 December 2016 (Remote Paricipation via telephone) (15 min, 12 people).
- 115. Invited Presentation: Documenting the Global Biodiversity Library: Explorations and Discoveries on Deep Coral Reefs. U.S. National Museum of Natural History, Smithsonian Institution, Washington, D.C. 6 January 2017 (60 mins, 100 people)
- 116. American Samoa presentation
- 117. Woods Hole presentation (Remsen)
- 118. Woods Hole presentation (rebreather)
- 119. PechaKucha
- 120. **Invited Presentation:** Exploring deep coral reefs with high-tech SCUBA. University of the Ryukyus, Okinawa. 17 November 2017 (30 mins, 25 people)
- 121. Invited Presentation: Physics and "Fizzyology": The Battle of the Bends in Deep-Sea Diving. Nerd Nite: Bishop Museum Takeover! Anna O'Brien's, Honolulu, Hawaii. 6 March 2018 (20 mins, 150 people)
- 122. Invited Panelist: Expert Panel Discussion & Film Screening for "Chasing Coral" documentary. The Global Issues Network 2018 Conference, Le Jardin Academy, Kailua, Hawaii. 9 March 2018 (60 mins, 200 people)
- 123. Invited Presentation: Exploring the uniqueness of Marine Biodiversity in the Hawaiian Archipelago: Workshop on Ocean Health and Biodiversity. The Global Issues Network 2018 Conference, Le Jardin Academy, Kailua, Hawaii. 11 March 2018 (40 mins x 2 workshops, 50 people total)

Scientific and Technical (Other):

- 124. **Presenter:** Deep Thoughts: Comments on the use of Trimix for exploring the 'Twilight Zone', American Society of Ichthyologists and Herpetologists, 71st Annual Meeting, 15–20 June 1991, New York, New York.
- 125. Presenter: Using Nitrox to extend bottom times for moderate-depth SCUBA dives (12 min), American Society of Ichthyologists and Herpetologists, 71st Annual Meeting, 15–20 June 1991, New York, New York.
- 126. **Presenter:** Probing the `Twilight Zone': Investigating Deepwater Ichthyofauna (20 min), 17th Annual Albert L. Tester Memorial Symposium, 16 April 1992, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
- 127. Presenter: The Twilight Zone: The potential, problems, and theory behind using mixed gas, surface-based scuba for research diving between 200 and 500 feet (30 min), American Academy of Underwater Sciences Twelfth Annual Scientific Diving Symposium, September, 1992, Wilmington, North Carolina. (P. Sharkey, co-author and presenter)
- 128. **Presenter:** Mixed Gas Research Diving (30 min), 1992 International Conference on Underwater Education, 10–11 October 1992, Philadelphia, Pennsylvania. (P. Sharkey, co-author and presenter).
- 129. **Presenter:** The reef and shore fishes of the Ogasawara Islands: a biogeographic perspective (20 min), 18th Annual Albert L. Tester Memorial Symposium, 23 April 1993, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
- 130. Presenter: Biogeographical analysis of the reef and shore fishes of the Ogasawara Islands (12 min.), American Society of Ichthyologists and Herpetologists, 73rd Annual Meeting, 29 May–2 June 1993, University of Texas at Austin, Austin, Texas.

- 131. **Presenter:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), Bishop Museum Research Seminar Series, 31 August 1993, Bishop Museum, Honolulu, Hawaii.
- 132. Presenter: Evoluncheon Seminar, 9 November 1993, University of Hawaii, Honolulu, Hawaii.
- 133. Presenter: Patterns of hybridization in coral reef fishes (20 min), 19th Annual Albert L. Tester Memorial Symposium, April 1994, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
- 134. **Presenter:** Patterns of hybridization in coral reef fishes (20 min), American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, 2–8 June 1994, University of Southern California, Los Angeles, California.
- 135. Presenter: Patterns of hybridization in coral reef fishes (20 min), Ecological and Evolutionary Ethology of Fishes, 9th Conference, 15–18 May, 1994, University of Victoria, British Columbia.
- 136. Presenter: Use of new diving technology to explore the Twilight Zone (60 min), American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, 2–8 June 1994, University of Southern California, Los Angeles, California.
- 137. Presenter: How Many Reef Fishes are we Missing?: Patterns of New Species Discovery on Deep Coral Reefs in the Indo-Pacific (15 min), 25th Annual Albert L. Tester Memorial Symposium, 13 April 2000, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
- 138. Presenter: A comprehensive database management tool for systematic and biogeographic research (Poster), American Society of Ichthyologists and Herpetologists, 80th Annual Meeting, 14–20 June, 2000, Universidad Autonoma De Baja California Sur, La Paz, Mexico.
- 139. **Presenter:** Exploring Deep Coral Reefs: Past, Present, and Future (20 min), Hawaii Institute of Marine Biology Student Colloquium, 5 December 2001, Kaneohe, Hawaii.
- 140. **Presenter:** Counting angelfishes on the head of a pin? The science and art of taxonomy as applied to the Poamcanthidae (60 min), PhD Dissertation Defense presentation, University of Hawaii at Manoa, 5 December 2003, Honolulu, Hawaii.
- 141. **Presenter:** Protonyms, References, and Assertions: An introduction to the Taxonomer data model (20 min), TDWG Biodiversity Information Standards. University of Canterbury, Christchurch, New Zealand. 14 October 2004.
- 142. Presenter: Recent Discoveries of New Fishes Inhabiting Deep Pacific Coral Reefs, with Biogeographic Implications (20 min), 7th Indo-Pacific Fish Conference, Taipei, Taiwan. 18 May 2005.
- 143. **Presenter:** Video highlights of deep coral reefs. (30 min), 7th Indo-Pacific Fish Conference, Taipei, Taiwan. 19 May 2005.
- 144. Presenter: LSIDs for Taxon Names: The ZooBank Experience (15 min), TDWG Biodiversity Information Standards. SÚZA Conference Center, Bratislava, Slovakia. 18 September 2007.
- 145. Co-Author: The Presence of Deep-Coral Reefs (40 120 M) in Hawaii. Montgomery, Anthony, Rooney, John, Pyle, Richard, Boland, Raymond, Parrish, Frank, Spalding, Heather, Longnecker, Ken, Popp, Brian, presented by A. Montgomery. 11th International Coral Reef Symposium: Reef Status and Trends. Ft. Lauderdale, FL. 8 July 2008.
- 146. Co-Author: Efficiency and safety of scientific diving Closed Circuit Rebreathers. Sieber, A., Pyle, R., & Sjöblom, K., presented by A. Sieber. 7 October 2009. 2nd International Symposium on Occupational Scientific Diving (ISOSD2009) of ESPD, Organised by Finnish Scientific Diving Steering Association, Tvärminne Zoological Station, University of Helsinki, Finland. (20 min).

- 147. Co-Author: Baseline surveys of exploited reef-fish populations at Kamiali, Papua New Guinea: challenges and progress working in a remote, subsistence economy. Longenecker, K., Langston, R, Pyle, R., Pence, D. & Talbot, S. authors, presented by K. Longenecker. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
- 148. Co-Author: New report of black coral species from the Northwestern Hawaiian Islands. Wagner, D., Toonen, R.J., Papastamatiou, Y.P., Kosaki, R.K., Gleason, K.A., McFall, G,B, Boland, R.C. & Pyle, R.L., presented by D. Wagner. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
- 149. Co-Author: Technical diving used for mesophotic coral ecosystem characterization in the Papahānaumokuākea Marine National Monument. Kosaki, R., Pyle, R.L., Boland, R., McFall, G., Gleason, K., presented by R. Kosaki. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
- 150. Presenter: TDWG 2010 (Check others)
- 151. TDWG 2011
- 152. NOMINA
- 153. Presentation (Presented by Dmitry Y Mozzherin): Identifiers for Biodiversity Informatics: The Global Names Approach. Biodiversity Information Standards (TDWG), Santa Clara de San Carlos, Costa Rica, 8 December 2016 (15 mins)
- 154. GSA 25 May 2017

155.

Popular and Educational:

- 156. **Invited Presentation**: Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Hawaiian Malacological Society Meeting*, 1 September 1993, First United Methodist Church, Honolulu, Hawaii.
- 157. **Invited Presentation**: Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Underwater Photography Society*, Epic Dives Hawaii, Kaneohe, Hawaii.
- 158. **Invited Presentation**: Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Windward Dive Club*, Kaneohe, Hawaii.
- 159. **Invited Presentation**: Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Sea Camp, YMCA*, Kaneohe, Hawaii.
- 160. Invited Plenary Speaker: Rare fishes, the Twilight Zone, and thoughts on captive propagation (90 min), *Marine Aquarium Conference of North America*, 6th Annual Meeting, October 1994, Cleveland, Ohio. (Sponsored by the Marine Aquarium Society of North America).
- 161. Invited Presentation: Applications of rebreathers for underwater photographers (60 min), Underwater Photography Society, Hawaii Chapter meeting, 14 March 1995, Windward Community College, Mahi Room 113. (Sponsored by the Underwater Photography Society, Hawaii Chapter).
- 162. **Invited Presentation**: Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Sea Lancers Dive Club*, 18 September, 1996, Hickam Air Force Base, Honolulu, Hawaii.
- 163. **Invited Speaker**: Fishes of Kaneohe Bay (60 min), *UCLA Summer Program*, 17 October 1996, Hawaii Institute of Marine Biology, Kaneohe, Hawaii.

- 164. **Invited Presentation**: Using advanced diving techniques to explore the 'Twilight Zone' (60 min). *Hawaiian Malacological Society Meeting*, 5 February 1997, First United Methodist Church, Honolulu, Hawaii.
- 165. Guest Lecturer: Patterns of Coral Reef Fish Distributions, and the Exploration of the Twilight Zone (75 min), Biology 320: The Atoll, *University of Hawaii at Manoa*. 18 February 1997. Honolulu, Hawaii.
- 166. Banquet Speaker: Diving Into the Twilight Zone (75 min). *Hawaii Council of Diving Clubs* annual banquet, 8 March 1997, Waikiki Aquairum, Honolulu, Hawaii.
- 167. **Invited Speaker**: Exploring the Twilight Zone (60 min). *Department of Land and Natural Resources*, Honolulu, Hawaii. Fall 1997.
- 168. Invited Speaker: Exploring the Twilight Zone (60 min). B.P. Bishop Museum Evening Lecture Series, Honolulu, Hawaii. Fall 1997.
- 169. **Invited Speaker**: "Meet a Deep Sea Explorer" (60 min). *Bishop Museum In the Dark Day Camp*, 25 March 1998, B.P. Bishop Museum, Honolulu, Hawaii.
- 170. Invited Speaker: Exploring the Twilight Zone (60 min). *Bishop Museum "Explorers" Series*, 30 March 1998, B.P. Bishop Museum, Honolulu, Hawaii.
- 171. **Invited Presentation**: Closed Circuit Rebreathers and the 'Twilight Zone' (60 min.), *Sea Lancers Dive Club*, 12 December, 1998, Hickam Air Force Base, Honolulu, Hawaii.
- 172. Invited Speaker: History of Fish Exploration in Hawaii (60 min.), *Waikiki Aquarium Evening Lecture Series*, Honolulu, Hawaii. Spring 1999.
- 173. Featured Evening Lecture Speaker: Exploration into the Ocean's Twilight Zone, New Species from Deep Coral Reefs Using Advanced Diving Technology (120 min), 17 November 1999, Marine Ornamentals '99. Hilton Waikaloa Village, Kailua-Kona, Hawaii.
- 174. Guest Lecturer: Reef Fishes (50 minutes), Zoology 200: Marine Biology. University of Hawaii at Manoa. 23 January 2001. Honolulu, Hawaii.
- 175. Guest Lecturer: Reef Fishes (75 minutes), Zoology 480: Ichthyology. University of Hawaii at Hilo. 19 April 2001. Hilo, Hawaii.
- 176. **Featured Evening Speaker**: Exploring Deep Coral Reefs: Past, Present, and Future (45 min), *Hawaii Aquaculture Association Annual Meeting*, 19 January 2002, B. P. Bishop Museum, Honolulu, Hawaii.
- 177. **Invited Presentation**: Applications of Advanced Diving Technology for Underwater Science: The Deep, the Long, and the Quiet (60 min), *Pagen-Pauley Summer Program*, 2 July 2002, Hawaii Institute of Marine Biology, Kaneohe, Hawaii.
- 178. **Invited Presentation**: Applications of Advanced Diving Technology for Underwater Science: The Deep, the Long, and the Quiet (60 min), MacGillivray Freeman Films Staff Presentation, 6 August 2002, *MacGillivray Freeman Films*, Laguna Beach, California.
- 179. **Invited Presentation**: So many fish, so little time...Using advanced diving technology to explore the 'Twilight Zone' (45 min), *Marin Community Foundation*, 8 August 2002, Marin Community Foundation, San Francisco, California.
- 180. **Invited Presentation**: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (15 min x 3 presentations), *Tech Museum of Innovation*, 5 March 2003, San Jose, California.
- 181. Invited Presentation: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (25 min x 2 presentations), National Museum of Naval Aviation, 20 March 2003, Pensacola, Florida.
- 182. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (60 min x 4 presentations), First Ward Elementary School, 7 April 2003, Charlotte, North Carolina.

- 183. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min), *Discovery Place*, 7 April 2003, Charlotte, North Carolina.
- 184. **Invited Presentation**: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min), *Bethlehem Center*, 7 April 2003, Charlotte, North Carolina.
- 185. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (45 min x 2 presentations), Cochran Middle School, 8 April 2003, Charlotte, North Carolina.
- 186. **Invited Presentation**: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (60 min), *Grier Heights Community Center*, 8 April 2003, Charlotte, North Carolina.
- 187. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30–45 min x 11 presentations), Carnegie Science Center (SciTech Festival), 10–13 April 2003, Pittsburgh, Pennsylvania.
- 188. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (45 min x 3 presentations), Museum of Discovery and Science, 17 April 2003, Ft. Lauderdale, Florida.
- 189. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (60 min), Oregon Museum of Science and Industry, 22 April 2003, Portland, Oregon.
- 190. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (25 min x 8 presentations), Duluth OMNIMAX Theatre, 24–25 April 2003, Duluth, Minnisota.
- 191. **Invited Presentation**: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min x 3), *Cincinnati Museum Center at Union Terminal*, 6–7 May 2003, Cincinnati, Ohio.
- 192. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min), *Newport Aquarium*, 7 May 2003, Newport, Kentucky.
- 193. **Invited Presentation**: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (90 min), *Reuben H. Fleet Science Center*, 21 June 2003, San Diego, California.
- 194. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min x 3 presentations), *Tech Museum of Innovation*, 2–3 August 2003, San Jose, California.
- 195. Invited Presentation: Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of Coral Reef Adventure. (30 min x 5 presentations), Great Lakes Science Center, 12–13 December 2003, Cleveland, Ohio.
- 196. **Invited Presentation**: Exploring Deep Coral Reefs/"Uncharted Waters" (60 min), *Sea Lancers Dive Club*, 22 September 2004, Hickam Air Force Base, Honolulu, Hawaii.
- 197. Invited Presentation: A dive into the reef's Twilight Zone (20 min). TED2004: The Pursuit of Happiness, Monterey Conference Center, Monterey, California, 27 February 2004. (http://www.ted.com/talks/richard_pyle_dives_the_twilight_zone)
- 198. Invited Presentation: Exploring the Twilight Zone (30 min) Lanikai Elementary School, Kailua, Hawaii. 10 April 2006.

- 199. Invited Presentation: Exploring the Twilight Zone (30 min) SCUBAnaut International group (60 min) Bernice P. Bishop Museum, Ichthyology Collection, Honolulu, Hawaii. 19 October 2007.
- 200. Guest lecturer: Le Jardin Academy High School Advanced Placement Biology class, "Exploring Deep Coral Reefs", 9 May 2008 (45 min x 3 classes)
- 201. Waikiki Aquarium
- 202. **Invited Speaker:** Into the Twilight Zone: Exploring the Deep Coral Reefs (60 min). 12 June 2008. Atherton Halau, Bernice P. Bishop Museum, Honolulu, Hawaii.
- 203. Sweden-Life at the Twilight Zone (60 min). Universeum, Gothenburg, Sweden.
- 204. **Guest lecturer:** "Advanced Topics in Marine Biology" class, Cindy Hunter professor (45 min), 3 March 2009, University of Hawaii, Honolulu, Hawaii.
- 205. Guest lecturer: Le Jardin Academy High School Biology class, "Taxonomy and Systematics", 5 March 2009 (45 min x 3 classes)
- 206. **Speaker:** Life as a Marine Biologist. 20 March 2009. Waimanalo School Career Day, Waimanalo Intermediate School, Waimanalo, HI. (30 min. x 5 classes)
- 207. **Speaker:** Exploring Life on the Edge of Darkness. 60 min. 16 April 2009. Harvard Club Brown Bag Luncheon, Atherton Halau, Bishop Museum, Honolulu, HI
- 208. **Invited Speaker:** Back to the Future in Underwater Exploration: An Old Technology Comes of Age. 60 min. 7 October 2009. Georgia Aquarium Brown Bag Lunch Series, Atlanta, GA.
- 209. **Guest lecturer:** University of Hawaii at Manoa for Biol 404 Advanced Topics in Marine Biology, "Exploring Deep Coral Reefs", 18 February 2010 (75 min.)
- 210. Guest lecturer: Hawaii Institute of Marine Biology for Tropical Ecology visiting class, "Exploring Deep Coral Reefs", 29 March 2010 (75 min.)
- 211. Guest lecturer: Le Jardin Academy High School Advanced Placement Biology class, "Exploring Deep Coral Reefs", 15 April 2010 (45 min x 3 classes)
- 212. **Invited Speaker:** Exploring the Twilight Zone: New Technology to find New Species, Midwest Marine Conference, Bloomfield Hills, MI, 22 May 2010 (60 min)
- 213. **Guest lecturer:** Le Jardin Academy High School Biology class, "Taxonomy and Systematics", 15 March 2011 (45 min x 3 classes)
- 214. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, April 2012 (75 min x 3 classes)
- 215. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, 25–26 April 2013 (75 min x 3 classes)
- 216. **Invited Presentation:** The Greatest Library on Earth. Saranac Lake Free Library, Saranac Lake, New York. 8 July 2013 (1 hour)
- 217. Invited Keynote Speaker: MACNA 2013
- 218. **Invited Speaker:** Commencement Speech for a group of graduating Eagle Scouts (Boy Scouts of America), St. John Vianney Chapel, Kailua, Hawaii. 12 January 2014 (15 min)
- 219. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 25–26 April 2014 (75 min x 3 classes)
- 220. **Invited Presenter:** (with Neal Evenhuis and Sonia Rowley) Natures Wonders Exhibit, presented to Bishop Museum Docents. Long Gallery, Bernice P. Bishop Museum. 26 August 2014. (1 hour)
- 221. **Invited Speaker:** Fishing the Twilight Zone. NOAA Ship R/V Hi'ialakai, Papahānaumokuākea Marine National Monument. 24 September 2014 (20 min)
- 222. Invited Speaker: Diving with Coelacanths. NOAA Ship R/V Hiʻialakai, Papahānaumokuākea Marine National Monument. 24 September 2014 (30 min)

- 223. **Invited Joint Presentation:** (with Sonia Rowley). Exploring deep coral reefs. Bernice P. Bishop Museum, Hawaiian Hall Atrium. 28 November 2014 (25 min, 15 people)
- 224. Invited Presentation: Exploring Papahānaumokuākea. Bernice P. Bishop Museum, Science Adventure Center. December 3 2014 (1 hour).
- 225. **Invited Joint Presentation:** (with Sonia Rowley). Exploring deep coral reefs. Bernice P. Bishop Museum, Hawaiian Hall Atrium. 19 January 2015 (25 min)
- 226. Guest lecturer: Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, 30 April–1 May 2015 (75 min x 3 classes)
- 227. Invited Joint Presentation: (with Sonia Rowley and Brian Greene). Exploring deep coral reefs in Pohnpei. College of Micronesia, Pacific Small Business Center Building, Top Floor. 26 July 2015 (60 min, 150 people)
- 228. **Invited Joint Presentation:** (with Sonia Rowley and Brian Greene). Exploring deep coral reefs in Pohnpei. Conservation Society of Pohnpei. 26 July 2015 (60 min, 20 people)
- 229. Invited Presentation: Closed Circuit Rebreathers. NOAA Ship R/V Hi'ialakai, Papahānaumokuākea Marine National Monument. XX September 2015 (60 min, 20 people)
- 230. Invited Presentation: Creatures of the Deep. Waikiki Aquarium Distinguished Lecture Series. Thurston Memorial Chapel of his alma mater, Punahou School, Honolulu. 19 November 2015 (75 min, 300 people) <u>https://youtu.be/ZD3RuqLP18U</u>
- 231. Monument Expansion (CEQ)
- 232. Bishop Museum Interns, 1 April 2016 (12 people)
- 233. TOTP1
- 234. **Invited Speaker:** Poseidon Rebreathers. NOAA Diving Center Safety Board Meeting, Daniel K. Inouye Regional Center (IRC), Ford Island, Honolulu, 26 February 2016 (45 min; 25 people).
- 235. Featured Speaker: Saving the Biodiversity Library. Honolulu Science Café, JJ's Bistro, Honolulu, 19 April 2016 (60 min; 20 people).
- 236. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 28–29 April 2016 (75 min x 3 classes)
- 237. Featured Speaker: Saving the Biodiversity Library. Rotary Club of Honolulu Sunset, Waikiki Yacht Club, Honolulu, 20 June 2016 (25 min; 35 people).
- 238. **TOTP2**
- 239. MACNA
- 240. **Invited Lecturer:** Exploring deep coral reefs in Hawaii. Aloha Bowl Team Home School Group, Aliamanu Military Reservation, Honolulu, 3 October 2016 (45 min; 15 people).
- 241. DEMA Evolution of Oxygen Sensors, 16 November 2016 (60 people)
- 242. Coral Fish Hawaii, 20 November 2016 (20 people)
- 243. **Invited Panel:** Follow-up discussion on premiere of the film, "Sea of Hope", National Geographic Grosvenor Auditorium, Washington, D.C. 5 January 2017 (20 mins, 300 people)
- 244. **Invited Presentation:** Exploration and Discoveries on Deep Coral Reefs. NOAA National Marine Sanctuary of American Samoa Center. 27 February 2017 (45 mins, 120 people)
- 245. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 28–29 April 2017 (75 min x 3 classes)
- 246. Invited Presentation: (Douglas McCauly and Stephen Palumbi, co-presenters) Science in support of the Papahānaumokuākea Marine National Monument. Office of Earl Comstock, Office of Policy and Strategic Planning, U.S. Department of Commerce, Washington, D.C. 14 June 2017 (45 mins, 6 people)

247. **Invited Presentation:** Building a Common Nomenclatural Infrastructure. National Center for Biotechnology Information, Bethesda, Maryland. 16 June 2017 (90 mins, 22 people)

Other National and International Meetings and Conferences:

- U.S.- Japan Workshop on Elasmobranchs as Living Resources, American Elasmobranch Society, 10–14 December 1987, Honolulu, Hawaii.
- American Society of Ichthyologists and Herpetologists, 69th Annual Meeting/American Elasmobranch Society, 5th Annual Meeting, 17–23 June 1989, San Francisco, California.
- Ecological and Evolutionary Ethology of Fishes, 7th Conference, 19–23 May, 1990, Flagstaff, Arizona.
- Pacific Science Congress, 17th Annual Conference, Honolulu, Hawaii.
- American Academy of Underwater Sciences, 11th Annual Scientific Diving Symposium, 26–29 September 1991, Honolulu, Hawaii.
- Implementing Enriched Air Nitrox (EAN) Technology: A Community Guideline, 13–14 January 1992, Houston, Texas.

PUBLICATIONS

Scientific and Technical:

- Pyle, R.L. 1988. A new subspecies of butterflyfish (Chaetodontidae) of the genus *Roaops* from Christmas Island, Line Islands. *Freshwater and Marine Aquarium Magazine* 11(9):56–62,123–124, 10 figs.
- 2. **Pyle, R.L.** 1990. *Centropyge debelius*, a new species of angelfish (Teleostei: Pomacanthidae) from Mauritius and Réunion. *Révue française Aquariologie* 17(2):47–52, 7 figs.
- Kosaki, R.K., R.L. Pyle, J.E. Randall and D.K. Irons. 1991. New records of fishes from Johnston Atoll, with notes on biogeography. *Pacific Science* 45(2):186–203, 17 figs.
- 4. **Pyle, R.L.** 1992. The peppermint angelfish *Centropyge boylei*, n.sp. Pyle and Randall. *Freshwater Mar. Aquar.* 15(7):16–18, 3 figs. + cover.
- Pyle, R.L. and J.E. Randall. 1992. A new species of *Centropyge* (Perciformes: Pomacanthidae) from the Cook Islands, with a redescription of *C. boylei*. *Révue française Aquariologie* 19(4):115–124, 7 figs.
- 6. Pyle, R.L. 1992. The Twilight Zone. AquaCorps: Mix. 3(1):19, 1 fig.
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206. Pyle,



Comments Received on the DEA and Responses

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
1-1	RT Distributors Inc.	н	4/12/2018	Abundant populations of flame wrasse and fishers angels around Oahu, based on observations, GPS coordinates, and video from their dives.	Comment noted. Addition been added to the O'ahu densities at lower water o 5.4.1.2.1.
	RT Distributors Inc.	Н		Believes data in report on fishers angels, as well as other species, is in error due to their ability to take cover during counts/video.	Comment noted. Addition been added to the O'ahu
2-1	Michael Corsale	н	4/12/2018	Harvesting has an effect on populations, such as the plethora of Yellow Tangs that is now much reduced.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava Section 5.4.1.2.1 of the Ha populations of Yellow Tar and Figure 5).
2-2	Michael Corsale	н	4/12/2018	Eco-tourism would create many jobs.	Comment noted. Sections various aspects of your co records in total visitor spe record growth in both cat 5.3% to a new high of \$15
2-3	Michael Corsale	н	4/12/2018	The collectors will increase if permitted.	Comment noted. Please s the number of collectors l increases or decreases. T experience and expertise Therefore, although the n actual number of collecto
2-4	Michael Corsale	Н		Follow Australia's example of allowing zero collecting.	Comment noted.
3-1	Mary Menacho	н	4/19/2018	Requesting better environmental analysis (full environmental impact statement).	Comment noted. The FEA impact therefore an envir
3-2	Mary Menacho	н	4/19/2018	Ocean health as highest priority, rather than financial.	Comment noted. As note studies (Tissot and Hallac concluded that commerci
	, Evelyn Lennon	LN	4/19/2018	Worry of dwindling populations and reprocussions; ecosystem should decide what stays and what goes.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
<u>4-1</u> 5-1	Thomas Nakagawa	N/A	4/13/2018	Stop selling off the active tourist trade.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
	Kevin & Noni O'Connor	Н	4/10/2018	No benefit, except for the few involved in fish collecting; ban aquarium fish	Comment noted. Section

ional information on Fisher's Angelfish densities at lower water depths has nu FEA in Section 5.4.1.2.3. Additional information on Flame Wrasse rr depths has been added to the O'ahu FEA in Sections 4.4.4.6 and

ional information on Fisher's Angelfish densities at lower water depths has nu FEA in Section 5.4.1.2.3.

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). In addition, Hawaii FEA includes information from the DAR illustrating increasing "ang in West Hawaii within all areas, including open areas (see Table 10

ons 4.1 and 5.2 of each FEA addresses Socioeconomics, including the comment. In regards to tourism, Hawai'i's tourism industry achieved new spending and visitor arrivals in 2016, marking the fifth consecutive year of categories. Total spending by visitors to the Hawaiian Islands increased 515.91 billion (HDBEDT 2017).

e see Table 3 in the Hawai'I FEA and Table 2 in the O'ahu FEA. Although rs has fluctuated over the past 18 years, there have been no substantial The technical and administrative aspects of the industry require se which has likely been the reason for the stability in numbers. e number of permits issued may change over the assessment period, the ctors is not likely to change significantly.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher 2003 and a long-term DAR coral monitoring program) have rcial aquarium fishing has had no significant impact on the island's reefs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

on 5 of each FEA analyzes the potential adverse and beneficial impacts the ce to Hawai'i and O'ahu under the various alternatives.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
6-2	Kevin & Noni O'Connor	н	4/18/2018	Consider the tourism industry.	Comment noted. Sections 4 comment. In regards to tour and visitor arrivals in 2016, r spending by visitors to the H
7-1	Jonathan Balcombe	N/A	4/11/2018	Cease capture and export of native fish; right to live in natural homes.	Comment noted.
7-2	Jonathan Balcombe	N/A		Fearful fish behavior observed in areas where they are captured.	Comment noted.
8-1	Jane Taylor	н	4/10/2018	Too short of time to see any impacts of ceasing/continuing aquarium fish collection; have watched reefs change for the worse over the years.	Comment noted. The FEA As described in the FEAs, science. Cumulative impa in Section 5.4.3.3 of both
8-2	Jane Taylor	н	4/10/2018	Reef fish eating algae can help coral regenerate; no collecting would be one small contribution towards the health of the embattled reef systems.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish Section 5.4.1.2.4 of the H (2003) found no evidence collection, despite differe
9-1	Diane Aliperti	N/A	4/17/2018	Stop fish collections at coral reefs.	Comment noted. The FEA
10-1	Bob Smith	HI	4/10/2018	Data in DEA is not applicable due to severe 2015/2016 coral bleaching	Comment noted. The bes included in the FEAs. The accurate.
10-2	Bob Smith	н	4/10/2018	Yellow Tang are needed to eat algae off of the reef.	Comment noted. The spe Hawi'l and O'ahu FEA. Re 5.4.1.2.5 in the O'ahu FEA aquarium collection is not on the island of Hawai'i o continue to serve their fu the Hawai'i FEA and Section evidence that algal growt despite differences in fish
10-3	Bob Smith		4,10,2010	Need to discuss cumulative and secondary impacts beyond one year, as outlined in Hawaii law.	Under HRS 188-31, the D duration; therefore, a ten analysis contained in the Aquarium Permits and wi analysis presented in the
11-1	Kathryn Reynolds	N/A	4/10/2018	Ignoring Hawaii's future and tourism for the profit of a few individuals.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
12-1	Rick Umphress	HI		Benefits of divers in monitoring reef condition.	Comment noted.The FEAs
12-1	Rick Umphress	н	4/20/2018	Real reef killers are run off, too many people; assigning blame to one small	Comment noted. Cumula FEAs.
13-1	Gary Goldberg	NJ		Requesting better environmental assessment.	Comment noted. The FEA

s 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your ourism, Hawai'i's tourism industry achieved new records in total visitor spending 6, marking the fifth consecutive year of record growth in both categories. Total e Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EAs conclude no significant impact from commercial aquarium collection. As, this is based off of 18 years of collection data and the best available pacts of commercial aquarium collection over multiple years is discussed th FEAs.

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. As noted in Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher ice that algal growth was higher in areas of collection versus areas without erences in fish abundance.

EAs conclude no significant impact from commercial aquarium collection.

pest available scientific data concerning species abundance has been nese datasets predate the period at issue. Peer reviewers confirm data are

specific life history of Yellow Tang is described in Section 4.4.1 of both the Reef impacts are found in Section 5.4.1.2.4 in the Hawai'i FEA and Section EA. In addition, given the conclusions in the FEAs that commercial not significantly impacting the populations of any of the White List Species i or the top 20 collected species in O'ahu, the species are anticpated to functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of ction 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no wth was higher in areas of collection versus areas without collection, ish abundance.

DLNR may issue an Aquarium Permit not longer than one year in emporal scope of one year is appropriate. DLNR will reevaluate the ne FEA on an annual basis prior to renewal or issuance of commercial will assess if any new information exists warranting reevaluation of the ne FEA.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor ig the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

As conclude no significant impact from commercial aquarium collection.

lative impacts from other sources are discussed in Section 5.4.3 of both

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
14-1	Emily Norton	MA	4/16/2018	Preserve wild fish populations.	Comment noted. The bes included in the FEAs. Pee impact from commercial of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
15-1	Sadie Schrader	N/A	4/17/2018		Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
15-2	Sadie Schrader	N/A	4/17/2018	Fish collection further threatens the coral reefs, as well as being cruel and unsustainable.	Comment noted. The FEA As noted in Sections 5.4. Hallacher (2003)) and a lo commercial aquarium fisl
	Clova Abrahamson	ОК	4/16/2018	Request more complete evaluation of the impact of commercial tropical fish	Comment noted. The FEA
	Rabecca	N/A	4/16/2018	Stop baryasting tropical fich to allow species recovery	Comment noted. The FEA
18-1	Halszka Sangowicz	N/A	4/16/2018	Greed will destroy aquatic beauty	Comment noted.The FEA
19-1	Laurie Hillyard	HI	4/20/2018	Fisheries are not sustainable; allow a few to profit on the permanent loss to a delicate ecosystem.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Aquarium industry should breed and grow their own stock.	Comment noted. The FEA
19-2 20-1	Laurie Hillyard Scott Folsom	HI HI	4/20/2018	Hawaii's aquarium industry is sustainable, as demonstarted by the science.	environment. Comment noted. The FE/ The FEAs use the best ava are accurate.
	Scott Folsom	н	4/22/2018	Aquarium industry complies with the reporting requirements, have proposed regulations/limitations on collecting activities, avoid areas used by tourists, and have a vested interest in protecting the ocean and its	Comment noted. The FEA
21-1	Tullio Dell Aquila	IJ		The proposed regulation would disrupt 2.5 million dollars in business for	Comment noted. Socioed

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EA concludes that the Preferred Alternative will not have a significant

As conclude no significant impact from commercial aquarium collection.

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EAs analyze the impact of comemrcial aquarium collection on the

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

economic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
21-2	Tullio Dell Aquila	ιN	4/22/2018	Many of the islanders affected know of no other way of life or income.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
22-1	Martin Wisner	н	4/20/2018	Permitted collecting zones greatly reduce the area allowed for legal commercial fish collecting (65% of the west coast is protected) and have been proven to work to protect fish populations.	Comment noted. The FEA The FEAs use the best ava are accurate. Cumulative i 5.4.3 of both FEAs.
22-2	Martin Wisner	н	4/20/2018	The majority of long term fish collectors are very careful; are not "evil destroyers of the reefs" as described by people who disapprove of commercial fish collecting.	Comment noted. The FEA
22-3	Martin Wisner	н	4/20/2018	Look carefully at EA and not at what those who make statements based on emotion say.	Comment noted. The FEA
23-1	Coral Fish Hawaii	н		The EA shows that the most studied fishery in Hawaii is sustainable and I (wholesaler, retailer, collector) know this to be true and care about the fish, ocean, ecosystem.	Comment noted. The FEA impact.
23-2	Coral Fish Hawaii	н	4/19/2018	Animal rights activists have distorted the truths of the industry with lies about declining fish populations.	Comment noted. The FEA The FEAs use the best ava are accurate.
23-3	Coral Fish Hawaii	Н	4/19/2018	Follow the science and accept the EA, allowing collectors to continue to use small meshed nets.	Comment noted. The FEA
24-1	Dave Ramos	н	4/20/2018	Fish collectors know how to move around and allow fish to reproduce and replenish the reefs, contrary to the false information given by the "powers	Comment noted. The FEA The FEAs use the best ava are accurate.
24-2	Dave Ramos	Н	4/20/2018	The science and history of fish collection in Hawaii shows that it is sustainable.	Comment noted. The FEA impact.
24-3	Dave Ramos	н		The majority of local Hawaiian people recognize the fishing culture, and the agenda of the anti fish collection people is to take away that culture and give back nothing.	Comment noted. The FEA
25-1	Edward Johnson	N/A	4/20/2018	The EA shows a valid study and should be recognized as such by the courts and state government to avoid unnecessary regulatory actions in Oahu and other affected island water fish populations in Hawaii	Comment noted. The FEA impact.
26-1	Pacific Planktonics	HI		Collectors working with DAR, research on the fishery, and permitting based on government studies of fish abundance have helped regulate the industry and make things sustainable.	Comment noted. The FEA
26-2	Pacific Planktonics	н	4/20/2018		Comment noted. Cumulat FEAs.
26-3	Pacific Planktonics	н	4/20/2018	Support of responsible collectors because aquaculture cannot provide all aquarium fish.	Comment noted. The FEA
26-4	Pacific Planktonics	н	4/20/2018	Random airport inspections of fish being shipped out of state could help assure compliance, but the banning of collection is not justified by DAR's data.	Comment noted. The FEA
27-1	Ryan Snodgrass	N/A	4/20/2018	The industry is sustainable per the DLNR; must involve bringing in industry and the public.	Comment noted. The FEA impact.
28-1	David Sommers	н	4/20/2018	The aquarium trade mainly harvests juvenile fish, which have a 97% natural mortality rate; when harvested, they have an overwhelming probability of a long life.	Comment noted. The FEA impact.
28-2	David Sommers	н	4/20/2018	The actual mortality rate in shipping is 0.01%, as opposed to the 95% being reported elsewhere.	Comment noted. The FEA
29-1	Linda Purcell	N/A	4/21/2018	The tropical fish industry is sustainable (per DLNR), and the ocean can support nature and the industry.	Comment noted. The FEA impact.
30-1	Brian Bowen	н		The EAs are accurate and backed by a large volume of good science, with aquarium fish collecting having an undetectably low impact on the environment.	Comment noted. The FEA impact.
30-2	Brian Bowen	н		The snorkel tourism industry is what needs regulation due to the damage caused to the reefs.	Comment noted. Impacts

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data ve impacts from other sources, including tourism, are discussed in Section

EAs conclude no significant impact from commercial aquarium collection.

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EA concludes that the Preferred Alternative will not have a significant

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lative impacts from other sources are discussed in Section 5.4.3 of both

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ts from tourism are discussed in Section 5.4.3.4 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
30-3	Brian Bowen	н	4/21/2018	Eliminating ornamental fish capture, a model of sustainable fishing, would damage the economy and embarrass the Hawaiian government.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
31-1	National Aquarium	MD	4/22/2018	Please accent the environmental assessment	Comment noted. The FEA
	Richard Buchner	N/A		Support and recommend the EA; tropical fish industry is valuable to education and the economy, keeping future generations interested in environmental issues.	Comment noted. The FEA collection.
33-1	David Pangayan	N/A	4/21/2018	Approve of the EA and agree with the Department of Land and Natural Resources that the tropical fishery in Hawaii is sustainable.	Comment noted. The FEA The FEAs use the best ava are accurate.
	Reefco Aquarium Service	NJ		Support of EA, proving that collection for the aquarium trade is not causing harm to the reefs or fish populations.	Comment noted. The FEA collection.
34-2	Reefco Aquarium Service	NJ	4/22/2018	Reported in the Hawaii Tribune-Herald: "Analysis found collection rates of less than 1 percent of the population of 37 of the allowed aquarium fish species and less than 5 percent of the other three species around Hawaii Island. Research suggests collection of between 5 percent and 25 percent is sustainable for the various reef species, the report says."	Comment noted. The FEA
35-1	Lisa L. Anderson	н	4/22/2018	The reef fish that the aquarium fisherman catch are done so in numbers that can sustain the natural reef fish population (would ruin their livlihoods if done otherwise).	Comment noted. The FEA impact.
35-2	Lisa L. Anderson	н	4/22/2018	Please reinstate the permits and end the discrimination against the legal and ethical aquarium fish industry.	Comment noted. The FEA
36-1	Merit Imports Inc.	NJ	4/23/2018	Sustainability and the aquarium trade work hand in hand - people have aquariums because of their care for nature.	Comment noted. The FEA collection.
				Allows for strides in captive marine breeding and coral propogation, which could eventually be used to repopulate areas affected by the real problems causing fish loss (pollution, pesticide runoff, waste water, dredging, global	Comment noted. The FEA The FEAs use the best ava are accurate. Cumulative
36-2	Merit Imports Inc.	NJ	4/23/2018	warming). Divers know that their livlihoods depend on keeping the reefs and fish	Section 5.4.3 of both FEA
36-3	Merit Imports Inc.	NJ	4/23/2018	numbers healthy for the future. Economic impact extends to box markers, bag suppliers, tank manufacturers, filtration companies, lighting manufacturers, freight carriers, wholesale distributers, retail outlets, while the impact to the environment is	Comment noted. The FEA Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
36-4	Merit Imports Inc.	NJ	4/23/2018	Studies have not been conducted on the numbers of fish caught and the relationship to numbers in the wild; size and numbers of collection of	Comment noted. The FEA
36-5 37-1	Merit Imports Inc. Merlin Contracting and Developing	NJ NV		species is the answer. Support permits for Hawaii's professional aquarium fish collectors in the best managed and regulated fishery in the world.	Comment noted. The FEA collection.
37-2	Merlin Contracting and Developing	NV	4/23/2018	People are reminded of Hawaii's special and unique place in the world when they see a Yellow Tang in an aquarium.	Comment noted. The FEA
37-3	Merlin Contracting and Developing	NV	4/23/2018	Opportunities found in the islands' challenging economic environments should be recognized, supported, and managed as scientifically sustainable industries valuable to Hawaii's economy.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
38-1	Tom Lodge	н	4/23/2018	Bans always disenfranchise without due process; do not include the totality of the constituency affected to work together to manage responsibly.	Comment noted. The FEA
38-2	Tom Lodge	н		The recent assessments belie any need for additional outside management, and a court is not a manager nor respresentative of science (compare to Mauna Kea and Kaupulehu).	Comment noted. The FEA collection.
38-3	Tom Lodge	н	4/23/2018	Isn't it likely that aquarium fish might actually survive longer in aquariums	Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
39-1	Laura Reid	СТ	4/24/2018	Assessments are thorough, comprehensive, appear to include all available research, and show populations are stable/increasing.	Comment noted. The FEA The FEAs use the best ava are accurate.
39-2	Laura Reid	СТ	4/24/2018	Respected scientists who peer-reviewed the research and data also support the sustainability of the Hawaiian fishery.	Comment noted. The FEA
40-1	Michael Wiskoski	мо		The practice is sustainable when limits are set and populations are taken into account; should be available to all legal collectors when done conservatively.	Comment noted. The FEA impact.
40-2	Michael Wiskoski	мо	4/24/2018	Jobs are created with both the collection of the specimens and monitoring of the industry.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
41-1	Michael Hennessy	FL		Data is impresive, substantial, drawn from numerous records, well documented, and does not include any gaps/omissions in pertinent data; draws reasonable conclusions about there being any unlikely negative consequences.	Comment noted. The FEA The FEAs use the best ava are accurate.
41-2	Michael Hennessy	FL	4/24/2018	If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEA The FEAs use the best ava are accurate.
41-3	Michael Hennessy	FL	4/24/2018	aquarium collectors (Achilles Tang details may not mesh with current data and fish collection locales).	Comment noted. The FEA impact. An additional alte Achilles Tang. Specifically 10/day to 5 per day for co bag limt for other fisherie
41-4	Michael Hennessy	FL	4/24/2018	Commercial food fishery catch and size limits may be needed so that mature, breeding fishes are better protected.	Comment noted. An addi with Achilles Tang. Specif form 10/day to 5 per day 5/day bag limt for other f
42-1	Alice G. Fernley	N/A		Support of the EA; impressed with the educational benfits associated with many of the businesses (educate children while demonstrating care and respect for the environment).	Comment noted. The FEA collection.
43-1	All Things Aquariums	OR	4/24/2018	The current standard in Hawaii should be shared with the world to create these collection practices everywhere; Hawaii sets the bar for sustaining the species desired for the aquarium trade.	Comment noted. The FEA
44-1	City and County of Honolulu	HI		No comments on the Project at this time.	Comment noted.
45-1	Michael Schrader	N/A	4/24/2018	We in the marine hobby work to put time, money, and resources into the sustainability of the trade.	Comment noted. The FEA
45-2	Michael Schrader	N/A	4/24/2018	Iromoval at tich tram thair natural habitat in the tuture	Comment noted. The FEA
45-3	Michael Schrader	N/A	4/24/2018	A safe, sustainable, natural collection can be managed well with the current laws in place.	Comment noted. The FEA
46-1	Walter and Theresa Andreae	HI		The 50 year industry has proven to be the best managed and regulated near shore fishery in the world.	Comment noted. The FEA collection.
46-2	Walter and Theresa Andreae	ні	4/24/2018	Aquariums provide joy and education to people around the world.	Comment noted. The FEA
46-3	Walter and Theresa Andreae	ні		Are aware and impressed with the careful and respectful practice of this fishery; offer our complete support for the industry.	Comment noted. The FEA
47-1	Randy Jahier	СТ		Aquarium fish populations are stable or growing, and the fishery is not adversely affecting these or other fish populations in Hawaii; fishery is well managed by the State.	Comment noted. The FEA The FEAs use the best ava are accurate.
47-2	Randy Jahier	СТ	4/25/2018	Amount of data is impressive, and conclusions are well-supported; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEA The FEAs use the best ava are accurate.
48-1	, William Parlee	СТ	4/25/2018	Fisheries are sustainable and species are actually increasing in these areas.	Comment noted. The FEA The FEAs use the best ava are accurate.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

A concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

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EA concludes that the Preferred Alternative will not have a significant Iternative was added in the Hawai'i FEA that addresses concerns with ally, the alternative proposes reducing the Achilles Tang bag limit form commercial aquarium collection in the WHRFMA and imposing a 5/day ries in the WHRFMA.

ditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.

As both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

Comment No.	Commenter	State/ Location	Date Received	Comment	Response
48-2	William Parlee	CT		Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world	Comment noted. The FEA
48-3	William Parlee	СТ	4/25/2018	The EA justifies the reopening of the fishery, if the decision is based off of	Comment noted. The FEA The FEAs use the best ava are accurate.
49-1	Arthur Parola	КҮ	4/25/2018	The conclusions made in the documents are well supported by peer reviewed data; no scientific information omitted that would result in an alternate conclusion.	Comment noted. The FEA The FEAs use the best ava are accurate.
49-2	Arthur Parola	кү	4/25/2018	The scientific community holds the Hawaiian aquarium fishery in high regard as one of the best managed near shore fisheries in the world.	Comment noted. The FEA collection.
49-3	Arthur Parola	КҮ		The management of Hawaii's resources should be based on science, not politics; science shows the sustainable fish populations and supports the re- opening of the aquarium fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
50-1	Alice Hughes	Н	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
50-2	Alice Hughes	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
50-3	Alice Hughes	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, North Kohala, Puna.	Comment noted. The best included in the FEAs. The collection.
50-4	Alice Hughes	HI	4/22/2018	Kona is the last great place for reef fish to be seen by the general public without going far out to sea or in remote areas.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of the population. This level of ta
50-4 50-5	Alice Hughes	HI		Encourage everyone to use reef safe sunscreen.	Comment noted.
50-6	Alice Hughes	Н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

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des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
51-1	Shayla Middleton	н	4/22/2018	Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
51-2	Shayla Middleton Shayla Middleton	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai	Comment noted. The best included in the FEAs. The collection.
51-4	Shayla Middleton	н	4/22/2018	Seen radical decline in fish populations in the last 15 years I have been snorkeling Maui waters.	Comment noted. Neither available scientific data co conclude no significant im
51-5	Shayla Middleton	н		Encountered an aquarium collector about 10 years ago with large boat and	Comment noted. The FEA
51-6	Shayla Middleton	н		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
52-1	Donna Burrows	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
52-2	Donna Burrows	N/A	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

er FEA covers commercial aquarium fishing on the island of Maui. The best concerning species abundance has been included in the FEAs. The FEAs impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
52-3	Donna Burrows	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
53-1	Jeanne Jones	н	4/22/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
53-2	Jeanne Jones	н	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
53-3	Jeanne Jones	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kohala, South Kohala, Waikiki/Diamond Head	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
53-4	Jeanne Jones	н	4/22/2018	Reef condition has declined in the past few years, with one reason being the aquarium trade.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish impacts from other sourc
					Comment noted. The FEA The FEAs use the best ava are accurate. As noted in studies (Tissot and Hallacl concluded that commerci
F2 F	Jeanne Jones	н	4/22/2018	Save the reefs and the fish who call them home before it's too late.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
53-5 53-6	Jeanne Jones	Н		Encourage others to boycott fish caugth in Hawaii to put the thiefs who destroy the reef out of business.	Comment noted.
53-7	Jeanne Jones	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. Cumulative rces are discussed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
54-1	Linda Wright	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
54-2	Linda Wright	HI	4/22/2018	Specific concerns about these species: Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Collec overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
54-3	Linda Wright	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
54-4	Linda Wright	Н	4/22/2018	Reefs of Hawaii are isolated in the Pacific, so once species begin to disappear that will not recover.	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
54-5	Linda Wright	н	4/22/2018	Health of the reefs will then decline exponentially.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
54-6	Linda Wright	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Brian Dunleavy	NJ		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or otherfish populations in Hawaii.	Comment noted. The FEA
	, Brian Dunleavy	Ι		Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEA
	Brian Dunleavy		4/25/2018	Amount of data is impressive, and conclusions are well-supported; no	Comment noted. The FEA The FEAs use the best ava are accurate.
	Brian Dunleavy	NJ		The scientific assessments justify the reopinging of the Hawaii fishery.	Comment noted. The FEA collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs both conclude no significant impacts from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
56-1	Pamela Polland	ні	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
56-2	Pamela Polland	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
56-3	Pamela Polland	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and oth
56-4	Pamela Polland	HI	4/22/2018	The reefs and fish populations have changed and diminished since 1976; remember that extinction is forever; do everything possible to protect Hawaii reefs and fish.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava
	Pamela Polland	HI	4/22/2018	Astounded that the DLNR would support EAs that were drafts by the aquarium trade proponents, when the DLNR has written many reports about the devastation the aquarium trade has had on Hawaii reefs.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a concerning species abunc accurate.
	Pamela Polland	Н	4/22/2018	Know many people who no longer come to Hawaii for vacation, but rather go to places with healthy reefs, such as Belize, Fiji, Borabora, and Palau.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
56-7	Pamela Polland	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

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pplicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate. The best available scientific data ndance has been included in the FEAs. Peer reviewers confirm data are

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
57-1	Frank Fiorentino	н	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Snowflake eels, Moorish Idols, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
57-2	Frank Fiorentino	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The
57-3	Frank Fiorentino	н	4/22/2018		collection.
57-4	Frank Fiorentino	н		Very few reef fish seen when snorkeling/scuba diving on Maui; only place to see them is the Maui Ocean Center. Think legal action should be taken against the management of Hawaii Dept.	FEA.
57-5	Frank Fiorentino	ні	4/22/2018	of Land and Natural Resources for allowing our natural resources to be exploited and exported, leaving the ocean naked of reef fish and killing the reefs.	Comment noted. The FEA
57-6	Frank Fiorentino	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
58-1	Shakayla Thomas	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
	Shakayla Thomas	N/A	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

nercial aquarium collection on the island of Maui is not covered by either

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
58-3	Shakayla Thomas	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
58-4	Shakayla Thomas	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
59-1	Ryan Snodgrass	N/A	4/21/2018	Culture of supporting the underdog; time to ask why they are small in numbers and why science does not support their argument.	Comment noted. The FEA
60-1	April C. Lee	н	4/25/2018	Collection of fish is sustainable.	Comment noted. The FEA
60-2	April C. Lee	н		To halt all collection without proof is unfair to businesses and those who do it as a hobby for their own aquariums; how does The Humane Society halt collection without an EA?	Comment noted. The FEA The FEAs use the best ava are accurate.
60-3	April C. Lee	н	4/25/2018	No collection in Hawaii will only increase the importation of fishes from all over the world, which can end up in Hawaii's waters as invasive animals that can reek havoc and harm the ecosystem.	Comment noted. The FEA
61-1	Wayne Sugiyama	н	4/20/2018	Has held an aquarium permit and commercial fishing license since 1972 - never seen the reefs overfished.	Comment noted. The FEA The FEAs use the best ava are accurate.
61-2	Wayne Sugiyama	н	4/20/2018	Small group of outsiders trying to shut down a viable industry; don't consider the fish for food industry.	Comment noted. The FEA
61-3	Wayne Sugiyama	н	4/20/2018	EA is well written and documented, should be accepted by DLNR.	Comment noted. The FEA The FEAs use the best ava are accurate.
61-4	Wayne Sugiyama	н	4/20/2018	May have to shut down my business, layoff employees, and sell house because of environmentalists who want local people out of work.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
62-1	Exotic Reef Imports	CA	4/20/2018	Aquarium fishery in Hawaii has always stood out as one of the best regulated, most sustainable, most responsible fisheries that we deal with; always has been, and remains, a paragon of virtue and a model fishery in the international area and should be allowed to continue.	Comment noted. The FEA
62-2	Exotic Reef Imports	CA	4/20/2018	Data clearly demonstrates that the fishery is highly sustainable and is not destructive to the local aquatic environments.	Comment noted. The FEA The FEAs use the best ava are accurate.
62-3	Exotic Reef Imports	CA	4/20/2018	Hope that whomever is assessing the EA and the data not be swayed by the emotional attack of the opposition.	Comment noted. The FEA
	Sylvia Litchfield	н	4/25/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on available

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
63-2	Sylvia Litchfield	HI	4/25/2018	been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
63-3	Sylvia Litchfield	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best included in the FEAs. The collection.
63-4	Sylvia Litchfield	н	4/25/2018	Fish eat algae and sea vegetables, and keep a harmonious balance that allows the coral reefs to thrive and survive.	Comment noted. As note O'ahu FEA, Tissot and Hal of collection versus areas
63-5	Sylvia Litchfield	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
64-1	Mary Binder	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
64-2	Mary Binder	HI	4/25/2018	may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	population. This level of t
64-3	Mary Binder	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, Waikiki/Diamond Head, Maui / Molokai / Lanai.	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
64-4	Mary Binder	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

oted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the Hallacher (2003) found no evidence that algal growth was higher in areas as without collection, despite differences in fish abundance.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
65-1	Wendy Harvey	н	4/25/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
65-2	Wendy Harvey	Н	4/25/2018	Specific concerns about these species: Species I once encountered are missing.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Wendy Harvey	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The bes included in the FEAs. The collection.
	Wendy Harvey	HI	4/25/2018	Reefs I visit have lost most or a significant number of fish in the last 15 years.	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
65-5	Wendy Harvey	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Yvette Vernet	N/A	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish, Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
		51/4	1/25/2010	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
66-2	Yvette Vernet Yvette Vernet	N/A N/A	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
66-4	Yvette Vernet	N/A	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
67-1	Thalia Davis	НІ	4/25/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses, All White List Species Taken in West Hawaii, Hermit crabs, Snowflake eels, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
67-2	Thalia Davis	HI	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
67-3	Thalia Davis	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Waikiki/Diamond Head, Kauai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
67-4	Thalia Davis	HI	4/25/2018	1	l

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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'ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
68-1	Victoria Martocci	н	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
			4/25/2040	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
68-2	Victoria Martocci	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
68-3	Victoria Martocci	н	4/25/2018	the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai.	included in the FEAs. The collection.
68-4	Victoria Martocci	Н	4/25/2018	Hawaii's marine species are vulnerable to so many large threats that it is foolish, short-sighted, and irresponsible to further impact the ecosystem; torturous treatment during collection, transport, and ultimate death by starvation.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava impacts from other sourc
68-5	Victoria Martocci	н		Disallowing practice is motivation for the industry to find ways to breed them in captivity.	Comment noted.The FEA: conclude no significant in
68-6	Victoria Martocci	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
69-1	Kaimi Kaupiko	Н	4/24/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

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EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative irces are discussed in Section 5.4.3 of both FEAs.

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
69-2	Kaimi Kaupiko	HI	4/24/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	fish harvest based on ava the FEAs comclude no sig
69-3	Kaimi Kaupiko	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
69-4	Kaimi Kaupiko	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE/ impact therefore an envir
69-5	Kaimi Kaupiko	HI	4/24/2018	The cultural prospective of the Hawaiian people is critical to the health of all places; comments from native people are ignored and feedback is unwanted by the entities that are supposed to sustain Hawaii.	As noted in Sections 4.2 participate in the fishery, have always been a part of WHFC. The Hunting, Farr parties engaged in farmin consulted extensively wit EA (Comment 768-1).
69-6	Kaimi Kaupiko	HI	4/24/2018	Fish are depleting; surveys in Miloli'I show fewer each year.	Comment noted. The bes included in the FEAs. Peer the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
70-1	Cynthia Van Kleef	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

2 and 5.3 of both the Hawai'i and O'ahu FEAs, Native Hawaiians that y, and those that support and oppose the commercial aquarium fishery, c of its long history and its management, inlcuding participation in the rming and Fishing Association, representing Native Hawaiians and other inig, hunting, and fishing in Hawai'i, commented that the group has ith the Applicant during the development of both the Hawai'i and O'ahu

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The Hawai'i FEA concludes the ne 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less cive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006).

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
70-2	Cynthia Van Kleef	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
70-2			4/24/2016	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best
70-3	Cynthia Van Kleef	н	4/24/2018	the following Hawaii Island districts: North Shore, Leeward, Maui / Molokai	included in the FEAs. The collection.
70-4	Cynthia Van Kleef	HI	4/24/2018		Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their over top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006). As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish also concluded that from mortality subsided, minim commercial aquarium coll to collection, and this diffe
				Should shut down and rotate snorkeling areas so reef and fish systems can	Comment noted. Impacts
70-5 70-6	Cynthia Van Kleef Cynthia Van Kleef	HI HI	4/24/2018		Comment noted. The FEA impact therefore an envir
				Fishery is sustainable, proven by DLNR fish counts and the EA; constitutional right to take pet fish for enjoyment while ensuring	Comment noted. The FEA The FEAs use the best ava
71-1	Abraham Neiss	н	4/24/2018	sustainability.	are accurate.
71-2	Abraham Neiss	н	4/24/2018	Fishermen have and will continue to work with the DLNR to ensure sustainability; collect from small areas of the highly renewable fish populations (produce 10,000 to 20,000 fry per spawning several times a year).	Comment noted. The FEA The FEAs use the best ava are accurate.
71-3	Abraham Neiss	н	4/24/2018	Lack of permits is hurting family and business for no legitimate reasons; moral and legal travesty.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant I aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their I of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the during the 12-month analysis period would be less than 1% of their I of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. The DAR study n 2016 to 2017, approximately one year after coral post-bleaching imal change in coral cover was documented within areas open to ollection, compared to a slight decline in mean coral cover in areas closed ifference was statistically significant (p = 0.038).

ts from tourism are discussed in Section 5.4.3.4 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Michael Davidson	н		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
72-2	Michael Davidson	Н	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui /	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
	Michael Davidson Michael Davidson	н	4/24/2018	Molokai / Lanai, Kauai. Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Andrea Anixt	н		Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
73-2	Andrea Anixt	н	4/24/2018	Specific concerns about these species: Species abundance has been significantly reduced, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Andrea Anixt	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kaneohe/Windward, North Shore.	Comment noted. The besi included in the FEAs. The collection.
73-4	Andrea Anixt	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
73-5	Andrea Anixt	н	4/24/2018	Wrasse, O'ama, tako were once plentiful but are now scarce (examples given).	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
	Laszlo Kurucz	н		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por
74-2	Laszlo Kurucz	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kauai.	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
	Laszlo Kurucz Laszlo Kurucz	н	4/24/2018	Fish do not live long in saltwater aquariums	Comment noted. The FEA environment.
	Laszlo Kurucz	н	4/24/2018	Need to let fish live free and multiply because fish have declined on reefs in the last decades (scuba diver).	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Laszlo Kurucz	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

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Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs analyze the impact of comemrcial aquarium collection on the

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
75-1	Rene Young	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
75-2	Rene Young	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
75-3	Rene Young	Н	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
75-4	Rene Young	HI	4/24/2018	Reefs are less abundant and in poor condition than 15 years ago	Comment noted. As note studies (Tissot and Hallac concluded that commerc
75-5	Rene Young	HI	4/24/2018	So many threats to the ocean; now is not the time to take fish for decoration, as it's expected to have no fish by 2048; are overdrawing; if keep taking unnecessarily, there won't be anything left to take for profit; this is a long term solution for a long term problem.	Comment noted. The bes included in the FEAs. Pee impact from commercial of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
75-6	Rene Young	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA
76-1	William Lansford	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Hermit crabs, Bandit Angelfish, Moorish Idols, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
76-2	William Lansford	н	4/24/2018	As a former aquarium fish collector, belive there should be a bag limit on Yellow Tangs (open to over exploitation), butterflyfish (Raccoon, auriga, frembeli, and a few others are fine to take but obligate coralavores should not be allowed until their obligatory diet can be met in the aquarium), bandit angels, and Moorish Idols. Sphex lions are too rare to collect without specific bag limits.	Comment noted. Both FEA fish collection, including b the FEAs). Both FEAs also certain species.
76-3	William Lansford	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
77-1	Kayle Maikai	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (inclue reef habitat, or species po reviewers confirm data are
77-2	Kayle Maikai Kayle Maikai	ні	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Ewa.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
77-4	Kayle Maikai	н	4/24/2018	No need to own saltwater fish, unless for education or rehabilitation.	Comment noted. The FEAs environment.
77-5	Kayle Maikai	н		Seeing species in the wild is much more rewarding than seeing them in display cases; only place to see them since they are being taken from the reef ecosystems.	Comment noted. The FEAs environment.
77-6	Kayle Maikai	HI	4/24/2018	Consider, at the least, putting restriction on species, size, age, and seasons for stores and hobbyists who want to own salt water species.	Comment noted. An addi concerns with Achilles Tar limit form 10/day to 5 per a 5/day bag limt for other O'Ahu FEA that addresses Flame Wrasse bag limit of The Hawai'i FEA discusses Section 1.2. The O'ahu FEA 1.2.3.
	Kayle Maikai	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro

EAs discuss the existing regulations that govern commercial aquarium g bag and size limits on Yellow Tang on both islands (see Section 1.2.3 of so include a new Preferred Alternative with additional regulations for

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ILCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As analyze the impact of comemrcial aquarium collection on the

As analyze the impact of comemrcial aquarium collection on the

dditional alternative was added in the Hawai'i FEA that addresses "ang. Specifically, the alterantive proposes reducing the Achilles Tang bag er day for commercial aquarium collection in the WHRFMA and imposing er fisheries in the WHRFMA. An additional alternative was added in the es concerns with Flame Wrasse. Specifically, the alterantive proposes a of 10/day for commercial aquarium collection in O'ahu.

es existing regulations, including the White List and existing bag limits, in EA discusses existing regulations, including bag and size limits, in Section

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
78-1	Kini Burke	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
78-2	Kini Burke	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai Kauai Hilo, Puna Kona ka'u, Kohala, Moloka'i, Oahu	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
78-3	Kini Burke	HI		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
78-4	Kini Burke Jason Nguyen	HI N/A	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
79-2 79-3	Jason Nguyen Jason Nguyen	N/A N/A	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
80-1	Dan Harrang	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Flame Wrasses, Bandit Angelfish, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Dan Harrang	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The bes included in the FEAs. The
	Dan Harrang Dan Harrang	н	4/24/2018	Keep the moratorium on for-profit gathering of aquarium fish; for each one or two jobs, thousands of species are taken and often arrive dead/injured to their destimations.	collection. Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species of respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
	Dan Harrang	HI	4/24/2018	Significant environmental impact is not worth the minimal positive economic impact; detrement to the animals/reef and tourist dollars are not accounted for.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of populations. Collection of population. This level of t fish harvest based on ava Sections 4.1 and 5.2 of ea industry achieved new rea fifth consecutive year of r Hawaiian Islands increase
	Dan Harrang	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism records in total visitor spending and visitor arrivals in 2016, marking the of record growth in both categories. Total spending by visitors to the used 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
81-1	Nicole Busto	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
81-2	Nicole Busto	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
			1/21/2010	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The bes included in the FEAs. The
81-3	Nicole Busto	HI	4/24/2018	There should be no taking any of these fish from reefs in Hawaii; disrupts	collection. Comment noted. The FEA
81-4	Nicole Busto	HI	4/24/2018	the entire ecosystem. Have the power to make the best decision for the fish and reefs; don't let greed cloud your good judgement.	impact. Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
81-6	Nicole Busto Don McLeish	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Don McLeish	<u> </u>	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Maui / Molokai / Lanai.	Comment noted. The bes included in the FEAs. The
82-3	Don McLeish Don McLeish	н	4/24/2018	Health of the West Maui reefs have worsened in the last 30 years, with reduced diversity of life; any reduction of take would benefit the reefs.	collection. Comment noted. Neither
	Don McLeish	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
83-1	Brenda Ford	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
83-2	Brenda Ford	Н	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
	Brenda Ford	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
	Brenda Ford	н		Captured fish do not live a normal lifespan in aquariums, cannot breed, diminish the fauna of the reef, and interrupt the food chain off the cost of West Hawaii Island.	Comment noted. The FEA
	Brenda Ford	н		Few families involved in this practice; can operate other businesses with taking the fish.	Comment noted. Socioec
			+/24/2010	Tourists complain that the reefs are no longer abundant in fish; now to go to Fiji instead.	Comment noted. Sections tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

er of the FEAs cover the Island of Maui.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
83-7	Brenda Ford	HI		A reef fish collector physically attacked a woman who was videotaping the collection of fish.	Comment noted. The ap
83-8	Brenda Ford	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
84-1	Kawaipio Border	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
04.2	Keurainia Dandar		4/24/2010	Specific concerns about these species: The natural beauty of coral reefs is diminished, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
84-2	Kawaipio Border	HI	4/24/2018		
84-3	Kawaipio Border	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
84-4	Kawaipio Border	н	4/24/2018	The imbalance of the natural cycle is disrupted when taking of fish of any kind are constantly removed for human purposes.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai
84-5	Kawaipio Border	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an environment of the second sec
85-1	Thomas Carey	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
85-1	Inomas Carey	HI	4/24/2018		1

applicant supports full enforcement of all applicable regulations.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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				Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
85-2	Thomas Carey	ні	4/24/2018		
85-3	Thomas Carey	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best included in the FEAs. The collection.
85-4	Thomas Carey	н	4/24/2018	As a diver for forty years, I know it's time to stop collecting marine critters; protection of the ocean and its reefs is paramount.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
85-5	Thomas Carey	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
86-1	Steven Dennis	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
86-2	Steven Dennis	ні	4/24/2018		
86-3	Steven Dennis	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala, Maui / Molokai / Lanai, Kauai.	Comment noted. The best included in the FEAs. The collection.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
86-4	Steven Dennis	HI	4/24/2018	Experienced dramatic reduction in certain reef fish species over nearly 40 years of diving; most reef fish are territorial.	Comment noted. The bes included in the FEAs. Pee the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodg
86-5	Steven Dennis	н	4/24/2018	Collecting reef fish anywhere in the world makes no sense; vast majority die in transit or within a year in an aquarium; more reef fish are now being bred in captivity.	Comment noted Recause
	Steven Dennis	HI	4/24/2018	Health of the reef system depends on full biodiversity; please protect one of the great natural resources of the State.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
86-7	Steven Dennis Sandy Train	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
87-2	Sandy Train	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
87-3	Sandy Train	HI	4/24/2018		<u> </u>

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% dgson 2006).

use mortality post-collection is not anticipated to change from current icipated that this factor will alter the estimated collection numbers.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

87-4 Sandy Train H 4/24/2018 comprehensive Fourianmental and Cultural Impact Statements. Impact Herefore a month analysis per populations. Colle on month analysis per populations. The Viewall, E. Sone and Bout the following species: All White List Species Taken In West Boundare has been apprendixed. The Hawall FL Account and populations. Colle on month analysis per populations. Colle on month analysis per populations. Colle on the species: All White List Species Taken In West Boundare has been apprendixed. The Hawall FL Account and populations. Colle on month analysis per populations. Colle on the species: The natural beauty of contrarefs is former noted. Concerned about the following species: All White List Species Taken In West Boundare has been attend for the species have been impacted on reserving. Comment noted. The species is apprendixed on the species is apprendixed on the species is apprendixed. Comment noted. The species is apprendixed on the species is apprendixed. Comment noted. The species is apprendixed on the species is apprendixed. Comment notes on the species identified above have been	Comment No.	Commentor	State/ Location	Date Received	Comment	Response
B8-1Larry O'BrienHI4/24/2018Concerned about the following species: All White List Species Taken in Wes appulations. Colle populations. Colle populations. Colle populations. Colle populations. Colle populations. Colle 	87-4	Sandy Train	ні	4/24/2018	comprehensive Envrionmental and Cultural Impact Statements	Comment noted. The FEA impact therefore an envir
Ba-2Larry O'BrienHI4/24/2018Specie for concerns about these species. The natural beauty of coral reefs is diminished, Specie I on cere concurtered are mising. Species abundance has been significativ reduced, Committee on reefs, Reduced biodiversity diminishes opulation. This is opulation. The real possibility that future generations may not encounter these species. DLNB restrict the time to assess populations/set taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.during the 12-mon O'ahu population O'ahu population opulation. This is the FEAs conclude taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.during the 12-mon O'ahu population O'ahu population opulation. This is the following Hawaii Island districts: North Kona, South Kona, Ka'u, South included in the FEA collection.88-2Larry O'BrienHI4/24/2018Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, South collection.Comment noted. The following Hawaii Island districts: North Kona, South Kona, Ka'u, South (collection.88-3Larry O'BrienHIKahaAs noted in Section Hallacher (2003) is commercial aquari form a loss of diversity, overall population, and increased algae growth (collection, despite hallacher (2003) is commercial aquari generation and inscriber form a loss of diversity, overall population, and increased algae growth eriod would be le of the remaining to ordinaria duari generation aquari section stating to ordinaria duari form a loss of diversity, overall population, and increased algae growth eriod would be le of the remaining to ordinaria to ordinaria to the pe	88-1	Larry O'Brien	н		Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, South Included in the FEA collection. Comment noted. T included in the FEA collection. 88-3 Larry O'Brien HI 4/24/2018 Kohala. As noted in Section Hallacher (2003))a commercial aquari Section 5.4.1.2.4 o (2003) found no ev collection, and increased algae growth (examples given). As noted in Section Hallacher (2003))a commercial aquari Section 5.4.1.2.4 o (2003) found no ev collection, despite	88-2		HI		Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
88-3 Larry O'Brien HI 4/24/2018 Kohala. collection. Reefs from Kua in the North to Kona Paradise in the South have suffered from a loss of diversity, overall population, and increased algae growth (examples given). As noted in Section Hallacher (2003) a commercial aquari section Hallacher (2003) found no explicit on despite from a loss of diversity, overall population, and increased algae growth (examples given). As noted in Section Hallacher (2003) found no explicit on despite form a loss of diversity, overall population, and increased algae growth (examples given). As noted in Section Hallacher (2003) found no explicit on despite form a loss of diversity, overall population, and increased algae growth (examples given).	00 2			4/24/2010	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
Reefs from Kua in the North to Kona Paradise in the South have suffered from a loss of diversity, overall population, and increased algae growth (examples given).	88-3	Larry O'Brien	н	4/24/2018		included in the FEAs. The collection.
88-4 Larry O'Brien HI 4/24/2018					from a loss of diversity, overall population, and increased algae growth (examples given).	As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish Section 5.4.1.2.4 of the Ha (2003) found no evidence collection, despite differe As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collecti period would be less than of the remaining three spi concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ochar

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. As noted in Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher ce that algal growth was higher in areas of collection versus areas without rences in fish abundance.

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of their respective overall island of O'ahu populations. Collection of their spective overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
88-5	Larry O'Brien	н	4/24/2018	Nonsense for an EA to dismiss the effects of population disruption on the entire coral system (see "Phase Shifts, Herbivory, and the Resilience of Coral Reefs to Climate Change" (Hughes, 2007. https://doi.org/10.1016/j.cub.2006.12.049)).	Comment noted. The pap fish can lead to adverse in EAs the commerical aqua broodstock, which as note addition, given the conclu- significantly impacting the or the top 20 collected sp functions in the ecosyster Section 5.4.1.2.5 of the O growth was higher in area fish abundance.
88-6	Larry O'Brien	НІ	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Colly Norman	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Colly Norman	Н	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
89-2 89-3	Colly Norman	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
89-4	Colly Norman	HI	4/24/2018	Fish belong on the reef to enrich everyone not a few who sell them to	Comment noted. Socioec
89-5	Colly Norman	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
90-1	Charles "Chuck" Wall, Jr.	тх	4/24/2018	Fishery is sustainable, proven by DLNR fish counts and the EA.	Comment noted. The FEA The FEAs use the best ava are accurate.
90-2	Charles "Chuck" Wall, Jr.	тх	4/24/2018	Fishermen have and will continue to work with the DLNR to ensure sustainability; collect from small areas of the highly renewable fish populations (produce 10,000 to 20,000 fry per spawning several times a	Comment noted. The FEA The FEAs use the best ava are accurate.
90-3	Charles "Chuck" Wall, Jr.	тх	4/24/2018	Lack of permits is hurting family and business for no legitimate reasons; moral and legal travesty.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor

aper cited in the comment concludes that removal of adult herbivorous e impact to coral reefs. As noted, throughout both the Hawai'i and O'ahu uarium fishery targets smaller, juvenile fish leaving behind the adult oted in the paper cited in the comment serve as the primary herbivores. In clusions in the FEAs that commercial aquarium collection is not the populations of any of the White List Species on the island of Hawai'i species in O'ahu, the species are anticpated to continue to serve their tem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal reas of collection versus areas without collection, despite differences in

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
91-1	Aquatic Inspirations	N/A	4/24/2018	EA has shown that the fisheries is sustainable; important to the collectors and for the environment.	Comment noted. The FEA The FEAs use the best ava are accurate.
91-2	Aquatic Inspirations	N/A	4/24/2018	economic importance of each fish species will drive the forces to prtect	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconon
92-1	Richard Terrell	N/A	4/24/2018	Urge you to tune out the irrational and radical pleas to shut down the fishery; EA shows sustainability and the fishery serves as shining example of ethical fishery compared to those in other parts of the Pacific.	Comment noted. The FEA impact.
92-2	Richard Terrell	N/A	4/24/2018	Provides income for local fishers and is important to many home hobbyists around the world.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconon
92-3	Richard Terrell	N/A	4/24/2018	Survival rate is very high, especially compared to those collected from other parts of the world.	Comment noted. The FEA
	Richard Terrell	N/A		A managed fishery provides incentive to all stakeholders to act as stewards of the resource and to protect it.	Comment noted. The FEAs
93-1	Cara Lueders	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Shrimps, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
93-2	Cara Lueders	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O's during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (includ reef habitat, or species po reviewers confirm data are
93-3	Cara Lueders	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
93-4	Cara Lueders	HI	4/24/2018	As a kayak guide, see the dying reef and less abundance of fish.	Comment noted. As note studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

A concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

As conclude no significant impact from commercial aquarium collection.

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des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
93-5	Cara Lueders	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
94-1	Janice Keanaaina	н	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
94-2	Janice Keanaaina	ні	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u	Comment noted. The bes included in the FEAs. The
94-3 94-4	Janice Keanaaina Janice Keanaaina	ні	4/24/2018	Health of reef and fish populations from North Kona thru Ka'u has deteriorated	collection. Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
94-5	Janice Keanaaina	Н	4/24/2018	Reefs need protected from anyone gathering more than would be used to feed their family until the reef is restored.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avait In addition, both FEAs discollection. Both FEAs also
				Does not respect the ways of our ancestors of sustainable living; steals our	Comment noted. Impacts
94-6 94-7	Janice Keanaaina Janice Keanaaina	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs.

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

iscuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

ts to cultural resources are discussed in Section 5.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
95-1	Laurel Whillock	н		Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avai
95-2	Laurel Whillock	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
95-3	Laurel Whillock	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
95-4	Laurel Whillock	н	4/24/2018	Number and variety of reef fish have diminished (examples included), rarely comment on quality of diving here.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their or top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
95-5	Laurel Whillock	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
96-1	Tropical Fish Emporium	н	4/24/2018	Findings coincide with the data available for years showing a sustainable fishery in HI.	Comment noted. The FEA The FEAs use the best ava are accurate.
96-2	Tropical Fish Emporium	н	4/24/2018	More than happy to answer any other questions and provide insight if needed; lookforward to getting back to work.	Comment noted. The FEA
97-1	Robert Schmidt	н		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
97-2	Robert Schmidt	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
	Robert Schmidt	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
97-4	Robert Schmidt	HI	4/24/2018	Seen decrease in reef health and sea life in the last ten years; favor the stopping of aquarium fishery in HI and around the world.	Comment noted. As note studies (Tissot and Hallacl concluded that commerci As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collecti period would be less than of the remaining three sp concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ochar
97-5	Robert Schmidt	н	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
98-1	Melanie Lewis	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No	Commentor	State/ Location	Date Received	Comment	Response
08.2	Melanie Lewis		4/24/2019	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
98-2 98-3	Melanie Lewis	н	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best included in the FEAs. The collection.
98-4	Melanie Lewis	HI	4/24/2018	In past ten years, have seen decrease in fish near Milolii where the daily harvest is; must be some controls and regulations put in place.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
90-4			4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
98-5 99-1	Melanie Lewis Nichole Zirzow	ні	4/24/2018	comprehensive Envrionmental and Cultural Impact Statements. Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Dragon Eels, Tobys/Puffers.	impact therefore an envir The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
00.2	Nicholo Zizzow			Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are mising, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
99-2	Nichole Zirzow	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best
99-3	Nichole Zirzow	ні	4/24/2018	the following Hawaii Island districts: South Kona, Hawaii Kai, Lanikai/Kailua, Kauai.	included in the FEAs. The collection.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
99-4	Nichole Zirzow	ні	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
100-1	Donya Drummond	N/A	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
100-2	Donya Drummond	N/A	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
100-3	Donya Drummond	N/A		While fish species are being depleted, this no doubt affects the ocean (acidification), which can put more species at risk that are not utilized by the aquarium industry.	Comment noted. The FEA Cumulative impacts, inclu 5.4.3 of the FEAs.
100-4	Donya Drummond	N/A	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
101-1	Kelly Ann Williams	N/A	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii, All Top 20 species taken on Oahu.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
101-2	Kelly Ann Williams	N/A	4/23/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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As conclude no significant impact from commercial aquarium collection. Iuding climate change (and ocean acidification), are discussed in Section

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
101-3	Kelly Ann Williams	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala North Kohala, Puna, Hilo, Hamakua,, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Kauai.	Comment noted. The bes included in the FEAs. The collection.
101-4	Kelly Ann Williams	N/A	4/23/2018	Protect this jewel of diversity; feel like the numbers are down by 75% or more.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their over top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
	Kelly Ann Williams	N/A		Should breed them in captivity	Comment noted. The FEAs conclude no significant im
101-6	Kelly Ann Williams	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
101-6	Larry Stevens	Н		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
102-2	Larry Stevens	Н	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
102-3	Larry Stevens	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
102-4	Larry Stevens	НІ		Fish abundance has decreased steadily over many years across Maui's leeward reefs.	Comment noted. Comme FEA.
102-5	Larry Stevens	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

nercial aquarium collection on the Island of Maui is not covered by either

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Sandy Shimmon	HI		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Snowflake eels, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
	Constant Christian and		1/22/2010	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	population. This level of ta
103-2	Sandy Shimmon	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The O'al
103-3	Sandy Shimmon	н	4/23/2018	the following Hawaii Island districts: Waikiki/Diamond Head, Kaneobe/Windward, Lanikai/Kailua	of the existing Waikiki ML aquarium fishers and othe
103-4	Sandy Shimmon	ні	4/23/2018	Lanikai dreadfully missing fish and reefs need these fish to keep healthy.	Comment noted.
103-5	Sandy Shimmon	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Elizabeth McDermott	НІ	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
104-2	Elizabeth McDermott	н		Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
104-3	Elizabeth McDermott	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
104-4	Elizabeth McDermott	н	4/23/2018	Have seen catastrophic changes to our reefs and marine life in just a few decades (examples given).	Comment noted. The FEA The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
104-5	Elizabeth McDermott	н			Comment noted. The FEA Cumulative impacts from climate change, are discus
104-6	Elizabeth McDermott	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Sarahlynn Bower	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
105-2	Sarahlynn Bower	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
105-3	Sarahlynn Bower	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
106-1	Bob Williams	н		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing and cussed in Section 5.4.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
106-2	Bob Williams Bob Williams	<u> </u>	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best included in the FEAs. The collection.
106-4	Bob Williams	н	4/23/2018	Bleaching of the coral has been significantly increased in the last 10 years.	The cumulative impacts o both FEAs.
106-5	Bob Williams	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
107-1	Shannon Shea	Н	4/23/2018	Concerned about the following species: Cleaner Wrasses, All White List Species Taken in West Hawaii, Flame Wrasses, Bandit Angelfish, Shrimps, Dragon Eels.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
107-2	Shannon Shea	Н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
107-3	Shannon Shea	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The bes included in the FEAs. The collection.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

of global warming and coral bleaching are discussed in Section 5.4.3 of

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
107-4	Shannon Shea	HI	4/23/2018	As a regular diver, notice difference in fish abundance between dive sites in areas where collection is premitted and where it is not; comments from tours.	Comment noted. The best included in the FEAs. Peet the collection of 37 of the less than 1% of their resp three species would be less collection of 18 of the to than 1% of their respective species would be less that within what is considered 25%; Ochavillo and Hodg
107-5	Shannon Shea	н	4/23/2018	Reefs already under stress from climate change, population growth/run-off, and other man-made threats; have the power to eliminate this threat and protect our waters like we do our plants, culture, and lands	Comment noted.The cun Section 5.4.3 of both FEA
107-6	Shannon Shea	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE impact therefore an envi
108-1	Hawaii Pacific Brokers	ні		Reef fish are collected in sustainable numbers; would be fool hardy to do otherwise.	Comment noted. The FEA
108-2	Hawaii Pacific Brokers	н		Fishermen at forefront of ecological observations; premit these hard working and tax paying individuals to continue to help inspire care and thoughtfulness regarding our oceans in others.	Comment noted. The FEA
109-1	Jean Love	н	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of fish harvest based on ava
109-2	Jean Love	HI	4/23/2018	may not encounter these species.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data and
109-3	Jean Love	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona	Comment noted. The bes included in the FEAs. The collection.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

Imulative impacts of global warming and coral bleaching are discussed in EAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

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des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
109-4	Jean Love	н	4/23/2018	Fish are becoming less every year, for past eighteen years.	Comment noted. The bes included in the FEAs. Peet the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
109-5	Jean Love	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE impact therefore an envir
110-1	Floyd Rhoades	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Floyd Rhoades	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
	Floyd Rhoades	HI	4/23/2018	At least 10 times as many fish in 1970; tragedy what has been done.	Connection. Comment noted. The bes included in the FEAs. Peer the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
	Floyd Rhoades	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
111-1	Nedi McKnight	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
111-2	Nedi McKnight	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
111-3	Nedi McKnight	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai,	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
111-4	Nedi McKnight	HI	4/23/2018	Shorelines appear almost dead, shocking contrast to 20 years ago.	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species of respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
111-5	Nedi McKnight	н	4/23/2018	Fiji and New Zealand still have intact ecosystems; must get act together if to continue to rely on tourism in HI.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
	Nedi McKnight	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
112-1	Kari Kolton-Zajackowski	тх	4/26/2018		Comment noted. The FEA The FEAs use the best ava are accurate.
112-2	Kari Kolton-Zajackowski	ТХ	4/26/2018	Naïve to blame one industry for the challenges facing fish populations around the HI islands (examples given); management needs to be appraised holistically.	Comment noted. The FEA Cumulative impacts from

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

D'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. m other sources are discussed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
113-1	Dr. John Paul Wright	ні	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Moorish Idols, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
113-2	Dr. John Paul Wright	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Dr. John Paul Wright	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Maui/Molokai/Lanai, North Kona, South Kona, Ka'u, South Kohala.	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
113-4	Dr. John Paul Wright	HI	4/23/2018	Personally observed vastly decreased numbers of reef fish (examples given).	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
	Dr. John Paul Wright	ні		Fish belong in the ocean, not a personal collection; fish are the heritage of all of us, not just a greedy careless few; Compare to startingaviaries and collecting native birds.	Comment noted. The FEA environment.
114-1	Caroline Azelski	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

D'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs analyze the impact of comemrcial aquarium collection on the

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
	Caroline Azelski Caroline Azelski	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
	Caroline Azelski	HI	4/23/2018	Hawaii does not have a multitude of fish, as would be expected.	Comment noted. The FEA The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
114-5	Caroline Azelski	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Benjy Garfinkle	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
115-2	Benjy Garfinkle	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneohe/Windward,	Comment noted. The O'al of the existing Waikiki ML
115-3	Benjy Garfinkle	НІ	4/23/2018	North Shore, Maui / Molokai / Lanai, Kauai	aquarium fishers and othe

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
115-4	Benjy Garfinkle	н	4/23/2018	Current condition of fish stock and reef condition is in serious trouble and needs strong, quick, sustained action for the future.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
	Benjy Garfinkle	HI	4/23/2018	Fish and reef in FL have recovered since enforcement of stronger rules.	Comment noted. An add with Achilles Tang. Specif form 10/day to 5 per day 5/day bag limt for other f O'Ahu FEA that addresses Flame Wrasse bag limit of The Hawai'i FEA discusses Section 1.2. The O'ahu FE 1.2.3.
	Benjy Garfinkle	н	4/23/2018	Large death rates of the aquarium industry.	Comment noted. The FEA environment.
116-1	Carrie Sparks	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
116-2	Carrie Sparks	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Carrie Sparks	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

dditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA. An additional alternative was added in the ses concerns with Flame Wrasse. Specifically, the alterantive proposes a of 10/day for commercial aquarium collection in O'ahu.

ses existing regulations, including the White List and existing bag limits, in FEA discusses existing regulations, including bag and size limits, in Section

EAs analyze the impact of comemrcial aquarium collection on the

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				See less healthy reefs, receding beach, and fewer fish; must preserve for future generations.	Comment noted. As note studies (Tissot and Hallach concluded that commercia As noted in Sections 5.4.1 Hallacher (2003)) and a log commercial aquarium fish concludes the the collection period would be less than of the remaining three spe concludes that collection of period would be less than the remaining two species well below or within what research (5% - 25%; Ochaw
116-4	Carrie Sparks	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
116-5	Carrie Sparks Grant Heidrich	N/A HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, Tobys/Puffers.	impact therefore an environment of the Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
117-2	Grant Heidrich	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sigr biological resources (inclu reef habitat, or species po reviewers confirm data are
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, South Kona,	Comment noted. The best included in the FEAs. The
117-3	Grant Heidrich Grant Heidrich	HI	4/23/2018	North Kohala. The ongoing collection of ornamental fish from near shore fisheries (reefs) is destroying the ecosystem, and the natural ecology of the ocean.	collection. Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA n of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of ies would be less than 8% of their overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available navillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
117-5	Grant Heidrich	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
118-1	Glenn Fukuda	HI	N/A	Many species are not actually rare, juat at much deeper depths (90% of all marine species in the twilight zone)	Comment noted. Additior FEAs .
118-2	Glenn Fukuda	н	N/A	Nature is very resilient; any study would confirm the industry's data.	Comment noted. The FEA The FEAs use the best ava are accurate.
118-3	Glenn Fukuda	н	N/A	Industry depends on adaptation of species, excess fish used and reproducing ones left alone.	Comment noted. The FEA
118-4	Glenn Fukuda	н	N/A	Stop common sense fixes for such a complex environment.	Comment noted. The FEA
119-1	David Balfour	н		Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Bandit Angelfish, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
119-2	David Balfour	HI		Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
119-3	David Balfour	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Maui/Molokai/Lanai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
119-4	David Balfour	н	4/23/2018	Do not allow our reefs to be impacted by greedy harvesters of our precious island resources.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
119-4	David Balfour	Н		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
120-1	Phyllus Robinson	HI		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

ional information for some deep water species has been added to the

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
120-2	Phyllus Robinson	н	4/23/2018		Comment noted. The besi
120-3	Phyllus Robinson	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	included in the FEAs. The collection.
120-4	Phyllus Robinson	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
121-1	Hallie Larsson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
121-2	Hallie Larsson	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
121-3	Hallie Larsson	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala.	Comment noted. The best included in the FEAs. The collection.
121-4	Hallie Larsson	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
122-1	Erik M. Stein	ні	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

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122-2	Erik M. Stein	н	4/23/2018		
122-3	Erik M. Stein	ні		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Maui/Molokai/ Lanai.	Comment noted. The best included in the FEAs. The collection.
122-4	Erik M. Stein	н	4/23/2018	Reefs are poorer and EA is inadequate; need more than a couple of years of study.	Comment noted. The FEA: The FEAs use the best ava are accurate. Many of the
122-5	Erik M. Stein	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
123-1	Marco Marin	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
123-2	Marco Marin	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
123-3	Marco Marin	н	4/23/2018	comprehensive Envrionmental and Cultural Impact Statements	impact therefore an enviro
124-1	Mary Johnson	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data he studies cited in the FEAs include 18 years of data.

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por
124-2	Mary Johnson Mary Johnson	N/A N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, North Kohala, Hilo, Hamakua, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa,	Comment noted. The best included in the FEAs. The collection.
124-4	Mary Johnson	N/A	4/23/2018	I am very concerned with the diminishing coral reefs and the decline in many different sea life in Hawaii.	Comment noted. The FEA
124-5	Mary Johnson	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
125-1	Marjorie Chase	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii, Snowflake eels, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
125-2	Marjorie Chase	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
125-3	Marjorie Chase	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
125-4	Marjorie Chase	н	4/23/2018	Dramatic decline in diversity of fish and impact on reef since 1984.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Consider source of EA study and look at all the scientific studies when making decision.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a
125-5	Marjorie Chase	н	4/23/2018		The FEAs use the best ava are accurate.
125-6	Marjorie Chase	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Linda Sparks	HI		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Linda Sparks Linda Sparks	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The bes included in the FEAs. The collection.
				As an underwater photographer, have seen huge decrease in number and variety of fish on reefs; stop massive depletion of marine species due to collecting.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their resp three species would be less collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs
	Linda Sparks	<u> </u>	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Linda Sparks Margaret Haraa Mori	CA	4/23/2018	Having a tropical aquarium provides opportunities to learn about the ocean	Comment noted. The FEA The FEAs use the best ava are accurate.
	Margaret Haraa Mori	CA		Tropical fishing industry is sustainable; biggest impacts to reefs are refuse, pesticides, toxic run-off, and plastics.	Comment noted. The FEA

pplicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency m applicant prepared EA is appropriate.

available data regarding species abundance. Peer reviewers confirm data

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
128-1	Leslie Hutchinson	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection or population. The O'ahu FE the 12-month analysis pe populations. Collection or population. This level of t fish harvest based on ava
120.2			1/22/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on ava
128-2	Leslie Hutchinson Leslie Hutchinson	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
128-4	Leslie Hutchinson	Н	4/23/2018	Seems unconscionable that we must argue to convince the DLNR not to allow the depletion of the reefs' inhabitants.	Comment noted. The best included in the FEAs. Pee impact from commercial of the 40 White List spec respective overall island be less than 5% of their of top 20 collected species of respective overall island less than 8% of their over considered to be sustain and Hodgson 2006).
128-5	Leslie Hutchinson	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE. impact therefore an environment in the second sec
129-1	Maren Anka	Н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Species abundance has been significantly reduced, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
129-2	Maren Anka	н	4/23/2018		Comment noted. The besi
129-3	Maren Anka	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	included in the FEAs. The collection.
129-4	Maren Anka	HI	4/23/2018	As a dive guide for 15 years, have seen fish populations drop and algae growth increase; don't destroy the delicate balance of nature.	Comment noted. The FEA As noted in Section 5.4.1.3 Hallacher (2003) found no areas without collection, of The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
	Maren Anka	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
130-1	Mary Sherman	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
130-2	Mary Sherman	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection. 1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and no evidence that algal growth was higher in areas of collection versus , despite differences in fish abundance.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
130-3	Mary Sherman	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka`u, North Kohala, Puna, Hamakua, Waikiki/Diamond Head, Lanikai/Kailua, North Shore, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
130-4	Mary Sherman	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
131-1	Tina Wildberger	н	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por
131-2	Tina Wildberger	ні	4/22/2018		
131-3	Tina Wildberger	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.
131-4	Tina Wildberger	ні	4/22/2018	With so many factors that are difficult to control, it is imparative that we preserve and protect our resources where we can.	Comment noted. The FEA Cumulative impacts from
131-5	Tina Wildberger	ні	4/22/2018	Kill rate is too high; act within your abilities to stop this practice that is selfish and predatory.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
131-6	Tina Wildberger	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
132-1	Louise Priest	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. m other sources are included in Section 5.4.3.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
132-2	Louise Priest Louise Priest	N/A N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head,	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
132-4	Louise Priest	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro
133-1	Evelyn J. Lennon	N/A	4/23/2018	Depletion of fish in the bay would be a travesty; needed to balance ecosystem.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs 5.4.1.2.5 (O'ahu) of the FE monitoring program have impact on the island's ree
133-2	Evelyn J. Lennon	N/A	4/23/2018	Expect to see the permits terminated, to protect the HI people and their beauty.	Comment noted. The FEA: The FEAs use the best ava are accurate. The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
134-1	Tammy Sterrett	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The Hawai'i FEA concludes the ne 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less cive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral we concluded that commercial aquarium fishing has had no significant eefs.

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

134-2 Tammy Sterrett HI 4/23/2018 Some or all of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in or comparison of the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on reefs in the species identified above have been impacted on the species identified above have been impacted o	Comment noted. The Hav luring the 12-month anal lawai'i populations. Colle overall population. The O luring the 12-month anal D'ahu populations. Collec population. This level of t ish harvest based on ava he FEAs comclude no sig piological resources (inclu eef habitat, or species po eviewers confirm data ar
Some or all of the species identified above have been impacted on reefs in	
I I I I I I I I I I I I I I I I I I I	Comment noted. The bes ncluded in the FEAs. The ollection.
Economic value of visitors snorkeling far outnumbers the aquarium trade;Hattime regulate/eliminate.202	Comment noted. Sections Iawai'i's tourism industr 2016, marking the fifth co isitors to the Hawaiian Is
	Comment noted. The FEA mpact therefore an envir
Concerned about the following species: All Top 20 species taken on Oahu. poly	The Hawai'i FEA conclude nonth analysis period wo populations. Collection of population. The O'ahu FE he 12-month analysis pe populations. Collection of population. This level of t ish harvest based on ava
Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction.	Comment noted. The Hav luring the 12-month anal lawai'i populations. Colle overall population. The O luring the 12-month anal O'ahu populations. Collec population. This level of t ish harvest based on ava he FEAs comclude no sig piological resources (inclu eef habitat, or species po eviewers confirm data ar
Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

ons 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. try achieved new records in total visitor spending and visitor arrivals in consecutive year of record growth in both categories. Total spending by Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
135-4	Susy Ruddle	н	4/23/2018	Have noticed disappearance of many fish on the Kohala Coast and seen fish collectors delivering cargo to the airport; is said by cargo staff that one-third of the fish will die in transport.	
135-5	Susy Ruddle	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Suzanna Shriner	НІ		Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
136-2	Suzanna Shriner	н	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
136-3	Suzanna Shriner	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
	Suzanna Shriner	н	4/23/2018	Over three decades, have watched Yellow Tang disappear; lie that fisheries industry has had "little or no impact"	Comment noted. Yellow T limits. In addition, Section illustrating increasing pop areas (see Table 10 and Fi commercial aquarium coll
136-5	Suzanna Shriner	ні	4/23/2018	Aquarium fisheries industry benefits only a few people but negatively impacts all of us.	Comment noted. The FEA
136-6	Suzanna Shriner	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
137-1	Doreen Virtue	н	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, Moorish Idols, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

w Tang are already regulated on both islands with bag limits and size ion 5.4.1.2.1 of the Hawaii FEA includes information from the DAR opulations of Yellow Tang in West Hawaii within all areas, including open I Figure 5). Both FEAs conclude no significant impact on Yellow Tang from collection.

As conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

137-2 Doreen Virtue H 4/22/2018 137-3 Doreen Virtue H 4/22/2018 137-4 Doreen Virtue H 4/22/2018 137-5 Doreen Virtue H 4/22/2018 137-6 Doreen Virtue H 4/22/2018 137-7 Doreen Virtue H 4/22/2018 137-8 Doreen Virtue H 4/22/2018 137-9 Doreen Virtue H 4/22/2018 137-1 Doreen Virtue H 4/22/2018 137-2 Doreen Virtue H 4/22/2018 137-3 Doreen Virtue H 4/22/2018 137-4 Doreen Virtue H 4/22/2018 137-5 Doreen Virtue H 4/22/2018 137-6 Doreen Virtue H 4/22/2018 137-7 Doreen Virtue H 4/22/2018 137-8 Doreen Virtue H 4/22/2018 137-9 Doreen Virtue H 4/22/2018 137-9 Doreen Virtue H 4/22/2018 137-6 Doreen Virtue H 4/22/2018 137-7 Doreen Virtue H 4/22/2018 137-8 Doreen Virtue H </th <th>Comment No.</th> <th>Commentor</th> <th>State/ Location</th> <th>Date Received</th> <th>Comment</th> <th>Response</th>	Comment No.	Commentor	State/ Location	Date Received	Comment	Response
Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, South Kohal, indived in it 4/22/2018 Comment no indived in it 4/22/2018 137-3 Doreen Virtue H 4/22/2018 Comment no indived in it the collection 137-4 Doreen Virtue H 4/22/2018 Comment no indived in it three species collection of three species collection of thr	127.2	Doroon Virtuo	41	4/22/2018	significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
137-4Doreen VirtueHI4/22/2018Included in the collection less than 1% of the species collection of					Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, South Kohala,	Comment noted. The best included in the FEAs. The collection.
137-5 Doreen Virtue HI 4/22/2018 Comment no tourism, Haw in 20 spending by (HDBEDT 201 industry. 137-6 Doreen Virtue HI 4/22/2018 Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements. Comment no impact there impact there impact the EAs, and require comprehensive Envrionmental and Cultural Impact Statements. Comment no impact there impact the impact there impact the impact there impact there impact there impact there impact there impact the impact there impac	137-4	Doreen Virtue	Н		ten years	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs
137-6 Doreen Virtue HI 4/22/2018 comprehensive Envrionmental and Cultural Impact Statements. impact therei 137-6 Doreen Virtue HI 4/22/2018 Concerned about the following species: Yellow Tangs, Butterflyfish, Cleant Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i Fish harvest the eels, Frogfishes, Daragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i Parametrian Angelfish and the eels, Frogfishes, Slame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i Fish harvest the diminished, Species about these species: Natural beauty of coral reefs is is diminished, Species about these species is Natural beauty of coral reefs is is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed during the 12 by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine Iife threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species the FEAs are wholly Oral populations. The FEAs are wholly					Tourists say HI oceans are boring compared to Mexico and the Caribbean; aquarium trade has resulted in drop of tourism for snorkel and scuba industry.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
Image: specific concerns about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hernit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers. populations. population. T fish harvest to diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real population. TComment no during the 12 Hawai'i popu orce and value, Marine life threatened with local extinction, The real population. The real population is population to reed species approach the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are whollyMonth analys populations. populations. population. T the 12-month population. T fish harvest to disolate the time to assess populations/set take limits for 40 species	137-6	Doreen Virtue	н		comprehensive Envrionmental and Cultural Impact Statements	Comment noted. The FEA impact therefore an envir
Specific concerns about these species: Natural beauty of coral reefs isduring the 12diminished, Species abundance has been significantly reduced, Species IHawai'i populonce encountered are missing, Communities of reef species have beenoverall populdisrupted & the balance has been altered, Economic benefits are curtailedduring the 12by reduced health & beauty of our reefs, Reduced biodiversity diminishesO'ahu populaeducational value, Marine life threatened with local extinction, The realpopulation. Tpossibility that future generations may not encounter these species, DLNRfish harvest bestimated the time to assess populations/set take limits for 40 speciesthe FEAs comtaken by the aquarium trade at 10-15 years. These EAs are whollybiological res	138-1	Deborah Wallace	Н		Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
	120 2	Deborah Wallace			diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar

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ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
138-3	Deborah Wallace	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, North Shore, North Kona, South Kona.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
138-4	Deborah Wallace	н		With climate change already damaging the reefs, lack of abundance and diversity of fish will further damage them; have seen far fewer fish over last decade at Hanauma Bay.	Comment noted. The FEA Cumulative impacts, inclu
138-5	Deborah Wallace	HI	4/22/2018	Lose quality of reefs, affecting locals and tourists, for the benefit of a few aquarists.	Comment noted. As note studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of spopulation. This level of ta fish harvest based on avai Sections 4.1 and 5.2 of eac tourism industry achieved marking the fifth consecut to the Hawaiian Islands in
138-6	Deborah Wallace	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
139-1	Helen Malnar	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
139-2	Helen Malnar	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa,	Comment noted. The O'al of the existing Waikiki ML
139-3	Helen Malnar	N/A	4/23/2018	Maui/Molokai/Lanai, Kauai, North Kona, South Kona.	aquarium fishers and c

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection. Iuding climate change, are discussed in Section 5.4.3 of the FEAs.

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's ed new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. Total spending by visitors increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
139-4	Helen Malnar	N/A	4/23/2018	Hawaii diving is not like it used to be as far as abundant sea life (examples given).	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
139-5	Helen Malnar	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE. impact therefore an envi
140-1	Janice Palma-Glennie	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
140-2	Janice Palma-Glennie		4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
140-2	Janice Palma-Glennie	ні	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The bes included in the FEAs. The collection.
140-4	Janice Palma-Glennie	н	4/23/2018	Experience with reef destruction (examples given); decimation compounded by collection of reef fishes.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish impacts from other sourc
140-5	Janice Palma-Glennie	н	4/23/2018	Other concerns include loss of envrionmental integrity, disruption and even cessation of subsistence activities and needs, and cultural and economic concerns	Comment noted. The FEA The FEAs use the best ava are accurate. Impacts on discussed in Sections 5.2
140-6	Janice Palma-Glennie	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. Cumulative irces are discussed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data in subsistence fishing, cultural resources, and socioeconomics are all .2 and 5.3 of the FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
141-1	Hugo Escobar	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
141-2	Hugo Escobar	N/A	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
141-3	Hugo Escobar Jeffrey Hill	N/A HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Moorish Idols, Angelfishes, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of
142-2	Jeffrey Hill	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
	Jeffrey Hill	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, South	Comment noted. The bes included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
142-4	Jeffrey Hill	HI	4/23/2018	Watched dimishing number and numbers of species in last thirty years on reefs of the west coast of Hawaii; more than one factor causing this but aquarium trade further threatens a limited resource.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
142-5	Jeffrey Hill	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
143-1	Richard Marks	ні	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
142.2	Diskard Marka		4/22/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
143-2	Richard Marks Richard Marks	HI HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai, Lanai, Kauai.	Comment noted. The bes included in the FEAs. The collection.
143-4	Richard Marks	HI	4/23/2018	Drastic reduction in fish and sea creatures in last 17 years.	Comment noted. The bes included in the FEAs. Peer butterflyfish species on th collection of 37 of the 40 than 1% of their respectiv three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
143-5	Richard Marks	Н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. In the WHRFMA, only the White List can be collected. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be less tive overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
144-1	David Meyer	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
144-2	David Meyer	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
144-3	David Meyer	N/A		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, Hawaii Kai, Lanikai/Kailua, North Shore.	Comment noted. The bes included in the FEAs. The collection.
144-4	David Meyer	N/A	4/23/2018	Starting to see Yellow Tang rebound - startled by any action that might threaten their recovery.	Comment noted. Section illustrating increasing pop areas (see Table 10 and F
144-5	David Meyer	N/A	4/23/2018	Will see drop in attendance and loss of tourist dollars once the word gets out that there are better fish elsewhere.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
144-6	David Meyer	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE impact therefore an envi
145-1	, Lynn Beittel	Н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

on 5.4.1.2.1 of the Hawaii FEA includes information from the DAR opulations of Yellow Tang in West Hawaii within all areas, including open I Figure 5). Both FEAs conclude no significant impact on Yellow Tang.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
	Lynn Beittel Lynn Beittel	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
145-4	Lynn Beittel	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
146-1	Meredith Miller	HI	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
146-2	Meredith Miller	н	4/23/2018	Specific concerns about these species: Species I once encountered are missing, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Meredith Miller	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kohala.	Comment noted. The best included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
146-4	Meredith Miller		4/23/2018	Disappearance of certain species (examples given); see fish collectors and spearfishermen.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe- three species would be less collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs 5.4.1.2.5 (O'ahu) of the FE monitoring program have impact on the island's ree fishers, is inclued in Section
140-4		HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
146-5	Meredith Miller	ні	4/23/2018	comprehensive Envrionmental and Cultural Impact Statements.	impact therefore an envir
147-1	Garry Russell	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail
147-2	Garry Russell		A/22/2019	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
147-2	Garry Russell	HI	4/23/2018		Comment noted. The bes
147-3	Garry Russell	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka'u.	included in the FEAs. The collection.

est available scientific data concerning species abundance has been beer reviewers confirm data are accurate. The Hawai'i FEA concludes the she 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral we concluded that commercial aquarium fishing has had no significant reefs. Cumulative impacts associated with other sources, including other ction 5.4.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Damage to the reef by the use of nets and fish taken by collectors in last 16 years.	Comment noted. Section note that two studies hav practices have no signific 5.4.1.2.4 (Hawai'i) and 5.4 and a long-term DAR cora has had no significant imp The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of populations. Collection of population. This level of t fish harvest based on ava
147-4	Garry Russell	HI	4/23/2018		
147-5	Garry Russell	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE/ impact therefore an envir
147-5	Dolores Burke	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
148-2	Dolores Burke	н	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
148-3	Dolores Burke	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneobe/Windward, Leeward, Maui / Molokai / Lanai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
148-4	Dolores Burke	HI	4/23/2018	99% of reef fish die within a week or two	Comment noted. The FEA environment.
148-5	Dolores Burke	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
	•	-		•	

on 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA have concluded that the aquarium fishery and aquarium fish collection ficant impact on coral or the reef ecosystem. As noted in Sections 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) oral monitoring program have concluded that commercial aquarium fishing mpact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Hawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of oblection of the remaining three species would be less than 5% of their e O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer a are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs analyze the impact of comemrcial aquarium collection on the

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
149-1	Paula Hanson	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail
149-2	Paula Hanson	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
149-3	Paula Hanson Ping Collis	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
150.2	Ping Collic		4/22/2019	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
150-2	Ping Collis	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka`u, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua,	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
150-3	Ping Collis	н	4/23/2018		Comment noted. The FEA
150-4	Ping Collis	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
151-1	Robert Detrick	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
151-2	Robert Detrick		4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
151-2	Robert Detrick	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
151-4	Robert Detrick	н	4/22/2018	Not good people; have observed poaching through suction devices (examples of areas given).	Comment noted. As state 2010 and 2014 Hawai'i Isl underreporting of catch b applicable regulations.
151-5	Robert Detrick	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
152-1	Warren Blum	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
152-2	Warren Blum	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
152-3	Warren Blum	ні	4/23/2018	the following Hawaii Island districts: Maui / Molokai / Lanai, North Kona, South Kona.	included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

ated in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the Island aquarium catch report validation did not indicate substantial by aquarium collectors. The applicant supports full enforcement of all

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
152-4	Warren Blum	н	4/23/2018	As dive master over 17 years, seen decline in fish populations.	Comment noted. The bes included in the FEAs. Peet the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
	Warren Blum	НІ	4/23/2018	Shortened lifespans in aquariums (Yellow Tang example given).	Comment noted. The FEA environment.
152-6	Warren Blum	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Don Mc	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
153-2	Don Mc	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Don Mc	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
	Don Mc	н	4/23/2018	Papa Bay Area effected big time.	Comment noted. The bes included in the FEAs. Peet impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o considered to be sustaina and Hodgson 2006).
	Don Mc	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EAs analyze the impact of comemrcial aquarium collection on the

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
154-1	David Fry	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Leaf Scorpionfish, Frogfishes, Flame Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
154-2	David Fry	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
134-2			4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, North Kona,	Comment noted. The bes included in the FEAs. The
154-3	David Fry	N/A	4/23/2018	South Kona, North Kohala, South Kohala.	collection.
154-4	David Fry	N/A	4/23/2018		Comment noted. The best included in the FEAs. Peet impact from commercial a of the 40 White List speci respective overall island of be less than 5% of their of top 20 collected species of respective overall island of less than 8% of their over considered to be sustaina and Hodgson 2006).
154-5	David Fry	N/A	4/23/2018	Reefs are an asset that needs protected, including financial asset (examples given).	Comment noted. Socioec
154-6	David Fry	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
155-1	Amber Train	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
155-2	Amber Train Amber Train	N/A N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
155-4	Amber Train	N/A	4/23/2018	Marine populations are being altered by pollution, aquarium trade, fishing practices, and global ocean changes; coral is important to many species.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai Cumulative impacts from in Section 5.4.3 of both FE
			1,20,2010	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
155-5 156-1	Amber Train Judith Soltz	N/A HI	4/23/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	impact therefore an envir The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
156-2	Judith Soltz	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

m other sources, including other fishing and global warming, is described FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
156-3	Judith Soltz	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hamakua, South Kohala.	Comment noted. The best included in the FEAs. The collection.
156-4	Judith Soltz	HI	4/23/2018	Critical to protect the reefs and save the fish we still have.	Comment noted.
156-5	Judith Soltz	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
157-1	Bonnie McMullen	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
157-2	Bonnie McMullen	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai,	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
157-3	Bonnie McMullen Bonnie McMullen	<u>HI</u>	4/23/2018	See diminished specie count from year to year (examples given); stopped snorkeling because there's nothing to see; resources have been neglected.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustaina and Hodgson 2006).
157-5	Bonnie McMullen	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
158-1	Y Alarab	ні		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
158-2	Y Alarab Y Alarab	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
158-4	Y Alarab	ні	4/23/2018	Fish populations appear decimated.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be les collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs
158-5	Y Alarab	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
159-1	Jeannette Heidrich	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
159-2 159-3	Jeannette Heidrich Jeannette Heidrich	HI HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The Hawai'i FEA concludes the ne 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been le FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
159-4	Jeannette Heidrich	н	4/23/2018	Reduction in reef health and beauty for tourists.	Comment noted. As note studies (Tissot and Hallac concluded that commerci Sections 4.1 and 5.2 of ea tourism industry achieved marking the fifth consecu to the Hawaiian Islands in
159-5	Jeannette Heidrich	н	4/23/2018	Take the time to adequately assess the impacts; takes more than several months to develop system to do so (should also be done for game fish).	Comment noted. The FEA The FEAs use the best ava are accurate. Many of th
159-6	Jeannette Heidrich	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
160-1	Scott Parrish	н	4/23/2018	Wrasses, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Frogfishes, Bandit Angelfish, Moorish Idols, Angelfishes, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por
160-2	Scott Parrish	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
160-3	Scott Parrish	ні	4/23/2018	the following Hawaii Island districts: North Kona, South Kona, South Kohala, Maui/Molokai/Lanai.	included in the FEAs. The collection.
160-4	Scott Parrish	н	4/23/2018	Affects on tourism, primary economic drive.	Comment noted. Sections 4 tourism industry achieved n fifth consecutive year of rec Islands increased 5.3% to a
	Scott Parrish	НІ		Stunned in how few fish are left, must go to reserves to see them.	Comment noted. The FEA reviewers confirm data an The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's ved new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. Total spending by visitors increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data the studies cited in the FEAs include 18 years of data.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

s 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's I new records in total visitor spending and visitor arrivals in 2016, marking the record growth in both categories. Total spending by visitors to the Hawaiian a new high of \$15.91 billion (HDBEDT 2017).

EAs use the best available data regarding species abundance. Peer are accurate.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
160-6	Scott Parrish	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
161-1	Matt Jisa	н	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
161-2	Matt Jisa	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
161-3	Matt Jisa	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikkiki/Diamond Head.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe concludes that the Prefere
161-4	Matt Jisa	HI		Aquarium trade is cruel, imprisons sea creatures.	Comment noted.
161-5	Matt Jisa	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
162-1	Lon Wallace	НІ	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Snowflake eels, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
162-2	Lon Wallace	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists). In addition, the FEA erred Alternative will not have a significant impact.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
162-3	Lon Wallace	ні	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kohala, South Kohala.	Comment noted. The bes included in the FEAs. The collection.
				Need to have extremely tough laws and regulations to prevent the declines we were witnessing (starting to see populations increase again).	Comment noted. The Hav existing bag limits, in Sect size limits, in Section 1.2.3 concerns with Achilles Tar limit form 10/day to 5 per a 5/day bag limt for other O'Ahu FEA that addresses Flame Wrasse bag limit of
162-4	Lon Wallace	н	4/23/2018		
162-5	Lon Wallace	н	4/23/2018	Water and reefs to be preserved for future generations and current locals/tourists; capital gain should not override this sensibility.	Comment noted. The FEA Socioeconomic impacts ar
162-6	Lon Wallace	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
163-1	Matt Binder	HI	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
163-2	Matt Binder	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The besi
163-3	Matt Binder	н	4/23/2018	the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	
163-4	Matt Binder	HI	4/23/2018	Mockery of environmental laws by saying "no environmental impact" from taking tens of thousands of fish; akin to saying "no impact" if to "remove" 10,000 people from Hawaii given that the population would be "sustainable".	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				No nationale given there is the alternative in breeding aquarium fish	Comment noted.The FEAs
163-5	Matt Binder	HI	4/23/2018		conclude no significant im

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

lawai'i FEA discusses existing regulations, including the White List and ection 1.2. The O'ahu FEA discusses existing regulations, including bag and 2.3. An additional alternative was added in the Hawai'i FEA that addresses Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag per day for commercial aquarium collection in the WHRFMA and imposing her fisheries in the WHRFMA. An additional alternative was added in the ses concerns with Flame Wrasse. Specifically, the alterantive proposes a of 10/day for commercial aquarium collection in O'ahu.

EAs conclude no significant impact from commercial aquarium collection. are discussed in Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
163-6	Matt Binder	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
164-1	Patricia Cadiz	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por
164-2	Patricia Cadiz	HI	4/23/2018		Comment noted. The best
164-3	Patricia Cadiz	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	included in the FEAs. The collection.
164-4	Patricia Cadiz	HI	4/23/2018	Concerned loss of reef fish contributes to degradation of the reefs (which protect shorelines from sea level rise).	Comment noted. As note studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
164-5	Patricia Cadiz	HI	4/23/2018	Short-sighted to protect the devastating aquarium trade business for the sacrifice of the greater good.	Comment noted. The FEA The FEAs use the best ava are accurate. As noted in S studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have recial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data n Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
164-6	Patricia Cadiz	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
165-1	Aimee Lemieux	ні	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
165-2	Aimee Lemieux	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
165-3	Aimee Lemieux	н	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.
165-4	Aimee Lemieux	НІ		Huge decrease in number of fish and sea life in the last 19 years south and west of Maui.	Comment noted. Commer FEA.
165-5	Aimee Lemieux	н	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
166-1	Mike Moran	ні	4/23/2018	Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii, Flame Wrasses, Moorish Idols.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
166-2	Mike Moran	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been le FEAs conclude no significant impact from commercial aquarium

ercial aquarium collection on the Island of Maui is not covered by either

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Mike Moran	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, North Kona, South Kona, South Konala.	Comment noted. The best included in the FEAs. The collection.
166-4	Mike Moran	ні	4/23/2018	Reduction of reef fish continues in Maui county; numerous reasons; need to stop allowing resources to be taken for someone else's gain.	Comment noted. Neither available scientific data co conclude no significant im
	Mike Moran	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
167-1	Teresa Hill	НІ	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
167-2 167-3	Teresa Hill Teresa Hill	ні	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
167-4	Teresa Hill	HI	4/23/2018	Fish populations and reefs have changed and diminished since 1995.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be les collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs
			.,,	DLNR now supports EAs drafted by trade proponents; previously had published many reports about the devastation caused by the aquarium trade.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a
167-5	Teresa Hill	н	4/23/2018		The FEAs use the best ava are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

er FEA covers commercial aquarium fishing on the island of Maui. The best concerning species abundance has been included in the FEAs. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

oplicant prepared the FEAs in accordance with state law. As noted in , the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency applicant prepared EA is appropriate.

available data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
167-6	Teresa Hill	н	4/23/2018	People now choosing to vacation elsewhere.	Comment noted. Section tourism, Hawai'i's tourisn arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
167-7	Teresa Hill	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE/ impact therefore an envir
168-1	Dan Erdahl	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
168-2	Dan Erdahl	N/A	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
168-3	Dan Erdahl	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
168-4	Dan Erdahl	N/A	4/22/2018	Oceans under constant attack; fish for aquariums should be 100% farm raised.	Comment noted.The FEAs conclude no significant in
168-5	Dan Erdahl	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
169-1	Don Schwartz	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
169-2	Don Schwartz	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
169-3	Don Schwartz	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
170-1	Jeffrey Zankel	N/A	4/22/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
170-2	Jeffrey Zankel	N/A	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
170-2	Jeffrey Zankel	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka`u, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, Lanikai/Kailua, North Shore, Leeward, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
			lecencu		Comment noted. Sections tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
				Divers now prefer to go other places due to the servely depleted marine species; ensure the future of diving in HI by placing strict regulation and enforcement.	As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collection period would be less than of the remaining three spe concludes that collection of period would be less than the remaining two species well below or within what research (5% - 25%; Ochav is anticipated to be imperior
170-4	Jeffrey Zankel	N/A	4/22/2018		In addition, the O'ahu FE existing Waikiki MLCD, wh aquarium fishers and othe
170-5	Jeffrey Zankel	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
171-1	Teresa Drummond	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Frogfishes, Bandit Angelfish, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
171-2	Teresa Drummond	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
171-3	Teresa Drummond	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
171-4	Teresa Drummond	N/A		Reefs being impacted negatively during March 2018 visit, will have ripple effect to other environmental areas of the world.	Comment noted. The FEA
171-4	Teresa Drummond	N/A		Entire economic system will continue to be affected at the islands	Comment noted. Sections

ns 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA n of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of ies would be less than 8% of their overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available navillo and Hodgson 2006). As concluded in both FEAs, this level of impact erceptible to casual observers.

EA includes a revised Preferred Alternative that includes expansion of the which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been le FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

ns 4.1 and 5.2 of each FEA addresses Socioeconomics.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
171-6	Teresa Drummond	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
172-1	Cyndy Urry	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
172-2	Cyndy Urry	HI	4/23/2018	Specific concerns about these species: Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data an
			., 25, 2010	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best
172-3	Cyndy Urry	ні	4/23/2018	the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	collection.
172-4	Cyndy Urry	HI	4/23/2018	I have seen a real reduction in our coral within the past 10 years due to higher temperatures and bleaching and fish reduction . The algae is starting to take over the dead or injured coral and our fish that usually keep this in check are working ,but if we reduce the numbers of these fish, Hawaii's reefs will be doomed. I used to see Bandit Angelfish, Leaf Scorpionfish, Flame Wrasses, Snowflake Eels, and Flame Angelfish pretty regularly as I dive once a week. I haven't see any of these (and many more) in a long time and I am afraid my grandchildren will never see these beautiful fish in the wild again. The aquarium trade is very big here in West Hawaii and we have all seen these people unchecked , gathering hundreds of these fish , rushing to the airport, and get them off island so fast it's scary. Even though there is a ban right now, we see people still collecting. Please stop this before it's too late!	Comment noted. As note studies (Tissot and Hallack concluded that commercia As noted in Section 5.4.1.3 Hallacher (2003) found no areas without collection, of As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collection period would be less than of the remaining three spe concludes that collection of period would be less than the remaining two species well below or within what research (5% - 25%; Ochaw The No Action Alternative fish collection without the
±12 Ŧ			4/23/2010	Have seen people unchecked, gathering hundreds of fish and quickly getting	Comment noted. The FEA The No Action Alternative
172-5	Cyndy Urry	н	4/23/2018		without the use of fine me
172-6	Cyndy Urry	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. 1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and no evidence that algal growth was higher in areas of collection versus a, despite differences in fish abundance.

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of their respective overall island of O'ahu populations. Collection of their swould be less than 8% of their overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

ve in both FEAs has been revised to relfect the continuation of aquarium he use of fine mesh nets.

As conclude no significant impact from commercial aquarium collection. we has been revised in the FEAs to reflect the continuation of collection mesh nets.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
173-1	Dr. Mary Trotto	н	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
173-2	Dr. Mary Trotto	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	, Dr. Mary Trotto	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai	Comment noted. The bes included in the FEAs. The collection.
173-4	, Dr. Mary Trotto	н	4/23/2018	Reef and fish populations have changed drastically off the coast of South Maui; many impacts (examples given).	Comment noted. Neither available scientific data co conclude no significant in
173-5	Dr. Mary Trotto	н	4/23/2018	The aquarium industry can not police itself nor hire experts to do the EA.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a
173-6	Dr. Mary Trotto	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
174-1	, Robert Babson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

er FEA covers commercial aquarium fishing on the island of Maui. The best concerning species abundance has been included in the FEAs. The FEAs impact from commercial aquarium collection.

pplicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency in applicant prepared EA is appropriate.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
174-2	Robert Babson Robert Babson	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
174-4	Robert Babson	HI	4/23/2018	Reduction in fish (examples given); should ban the fish trade or at least have bag limits, like all national parks do.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustaina and Hodgson 2006). The Hawai'i FEA discusses Section 1.2. The O'ahu FEA 1.2.3. An additional altern Achilles Tang. Specifically 10/day to 5 per day for co bag limt for other fisheries FEA that addresses concer Wrasse bag limit of 10/da
174-5	Robert Babson	н	4/23/2018	Will decrease tourism as the word spreads	Comment noted. Section: tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
174-6	Robert Babson	ні	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
174-0	Diane Shepherd	н	4/23/2018	Concerned about the following species: Cleaner Wrasses, Leaf Scorpionfish, Snowflake eels, Shrimps.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant I aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their I of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the of during the 12-month analysis period would be less than 1% of their of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

es existing regulations, including the White List and existing bag limits, in EA discusses existing regulations, including bag and size limits, in Section rnative was added in the Hawai'i FEA that addresses concerns with lly, the alterantive proposes reducing the Achilles Tang bag limit form commercial aquarium collection in the WHRFMA and imposing a 5/day ies in the WHRFMA. An additional alternative was added in the O'Ahu cerns with Flame Wrasse. Specifically, the alterantive proposes a Flame day for commercial aquarium collection in O'ahu.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
475 2	Diana Chambaud		4/22/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
175-2	Diane Shepherd Diane Shepherd	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, South Kona, North Kona, South Kohala.	Comment noted. The best included in the FEAs. The collection.
175-4	Diane Shepherd	н	4/23/2018	Degradation reefs is undeniable and recent El Nino was devastating; recovery and preservation of coral reefs depends on healthy ecosystem.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish impacts from other source
	Diane Shepherd	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Stan Walerczyk	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	, Stan Walerczyk	н	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
	Stan Walerczyk	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
	Stan Walerczyk	н	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. Cumulative rces are discussed in Section 5.4.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
177-1	Don Erway	н	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
		HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Don Erway			Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
	Don Erway	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
	Don Erway Annette Felix	ні N/А	4/22/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
178-2	Annette Felix		4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Annette Felix Annette Felix	N/A N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

178-4 Amette Felix N/A 4/23/2018 Induced in the support for a considered to a consi considered to a considered to a consi	Commontor	State/	Date	Comment	Response
Ize-5Annette FelixN/A4/23/2018Urge DLNR to recognize the significant impacts, reject the FAs, and require importantions. Comparison indust marking the fit h to Hawaii TE/ month analysis populations. The to Hawaii TE/ month analysis populations. The populations. The sections for healthy reef ecosystem and for tourism.studies (Tissot, concluded that populations. Ct populations. The populations. Ct populations. The populations. The the 12-month analysis populations. The impact therefore populations. The populations. The populations. The the 12-month analysis populations. The infish harvest basis angelfishes, Flame Wrasse, Bandit Angelfish, Moorish Idols, Shrimspis, Angelfishes, Flame Wrasse, Bandit Angelfish, Moorish Idols, Shrimspis, Angelfishes, Flame Wrasse, Bandit Angelfish, Moorish Idols, Shrimspis, Angelfishes, Flame Wrasse, Bandit Angelfish, Moorish Idols, Shrimspis, Angelfishe, Spragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Pulfers. Hawaii 1004 during the 12-month and oppulations. The if sh harvest basis diminished, Spreider abundance has been significantly reduced, oreal populations. The Hawaii 1004 during the 12-month in the reservest abar may be the significant three generations.179-1Alexandra WaitersN				REEF.org).	Comment noted. The bes included in the FEAs. Pee impact from commercial of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
178-6 Annette Felix N/A 4/23/2018 Urge DLNR to recognize the significant impacts, reject the EAs, and require impact therefore impact the following species: Yellow Tangs, Butterflyfish, Clearer Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, Hi Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i FEA month and populations. Cc month and populations. Cc populations. Cc month and seles, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, Hi Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i FEA month and populations. Cc mopulation. Thi fish harvest bas: diminished, Species abundance has been significantly reduced, Ccommunities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generation may not encounter these species, DLNR estimated the time to assess population. Thi fish harvest bas population. Thi fish harvest bas population. Thi fish arvest bas population. Thi fish arvest bas populations ccommunitites of 40 species taken by the aquarium trade				Need stricter regulations for healthy reef ecosystem and for tourism.	Comment noted. As note studies (Tissot and Hallac concluded that commerci The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava Sections 4.1 and 5.2 of ea tourism industry achieved marking the fifth consecu to the Hawaiian Islands in
178-b Annette relix N/A 4/23/2018 The Hawai'i FEZ 178-b Annette relix N/A 4/23/2018 The Hawai'i FEZ Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eles, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers. The Hawai'i FEZ 179-1 Alexandra Walters N/A 4/23/2018 Communities of reef species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered. Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generation may not encounter these species, DLNR estimated the time to assess populations. The fabitat, or reef habitat, or reef				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE
Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.				Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
179-2 Alexandra Walters N/A 4/23/2018				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
Unacceptale that many species and coral are under threat: need to work to				Unacceptale that many species and coral are under threat; need to work to	Comment noted. The FEA

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's ved new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. Total spending by visitors increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
179-4	Alexandra Walters	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
180-1	Diane M. Kastel and family	IL	4/23/2018	The HSUS, and, it's partners, are calling on the DLNR to require the recreational aquarium aquarium fish collection inductry to conduct a full environmental impact statement, and, thoroughly examine the impacts of these permites, prior to issuing any more!	Comment noted.The FEA of impact therefore an enviro
180-2	Diane M. Kastel and family	IL	4/23/2018	Little to no supprt from Hawaii's residents for this industry (90% think HI should limit collection, 83% believe it should end altogether); HI's resource managers recently estimated that completing stock assessments and catch limits for 40 species would require \$10 million a year for 10-15 years.	Comment noted. Section 6 with stakeholders prior to publication. Comments on preferred alternatives with
181-1	David Brooke	N/A	4/26/2018	Collection is already highly regulated and considered to be sustainable.	Comment noted. The FEAs
181-2	David Brooke	N/A		Support the EAs and believe collectors should be able to continue to use small mesh nets.	Comment noted. The FEAs collection.
182-1	Derek Clay	N/A	4/23/2018	Believe that the ban is solely financed by snorkel bob and his people to stop the collection with no bearing on the degradation of the ecology or reef system.	Comment noted. The FEAs
182-2	Derek Clay	N/A	4/23/2018	Biggest tolls from unaware tourists, pesticide runoff, and commercial	Comment noted. The cum Section 5.4.3 of both FEAs
183-1	, Dobi Dobroslawa	N/A	4/22/2018	Ask for full environmental impact statement prior to issuing any more	Comment noted. The FEA impact therefore an enviro
183-2 D	Dobi Dobroslawa	N/A	4/22/2018	HI's tropical fish are vitally important to the health of the reefs and entire ecosystem.	Comment noted. The FEAs The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
184-1	kawa4	N/A	4/23/2018	There are some lawful abiding fishermen/aquarians doing the right thing for the environment, oceans, etc.	Comment noted. The FEAs collection.
185-1	Shawn Verne	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
185-2	Shawn Verne	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sigr biological resources (include reef habitat, or species po reviewers confirm data are

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

A concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

n 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new vith bag limits for certain species in both FEAs.

As conclude no significant impact from commercial aquarium collection.

As both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

mulative impacts of tourism and commercial fishing are discussed in As.

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As both conclude no significant impacts from commercial aquarium

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
185-3	Shawn Verne	н	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, South Kohala. North Kohala, Ka'u, Hawaii Kai, Lanikai/Kailua, North Shore, Leeward, Ewa	Comment noted. The best included in the FEAs. The collection.
185-4 Sh	Shawn Verne	HI	4/23/2018	Dramatic decline in torpical fish and coral degradation since 1980s; will end up like Caribbean Islands, which has lost most of its resources.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs 5.4.1.2.5 (O'ahu) of the FE monitoring program have impact on the island's ree
185-5	Shawn Verne	н		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Ambrosio's Aquatics	со		Fishery is sustainable per DLNR fish counts and the EA.	Comment noted. The FEA The FEAs use the best ava are accurate.
186-2	Ambrosio's Aquatics	со	4/23/2018	Constitutional right to take pet fish while ensuring sustainability.	Comment noted. The FEA
186-3	Ambrosio's Aquatics	со	4/23/2018	Fishermen work with DLNR and care about the environment; only small areas collected from with highly renewable fish populations.	Comment noted. The FEA
186-4	Ambrosio's Aquatics	со	4/23/2018	Lack of small mesh net aquarium permits is hurting my family and business.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
	Karol Rybinski	IL		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
187-2	Karol Rybinski	IL	4/26/2018		Comment noted. The FEA The FEAs use the best ava are accurate.
188-1	Jerry Isham	н	4/26/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEA
188-2	Jerry Isham	ні	4/26/2018	Reopen trade now that science has proven its stable; fisherman can go back to feeding their families.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
189-1	C Colbert	ТХ	4/26/2018	Be fair and judicial; HI's fisheren are doing right by our waterways and inhabitants - deal with the few who might not be doing the right thing.	Comment noted. The FEA
190-1	Ron Tubbs	Н	4/26/2018	Laws affecting ecological concerns must be based in science or they will undermine the meaning and importance of real ecological issues; untruths of HI's fish populations do not align with 17 years of scientific studies.	Comment noted. The FEA The FEAs use the best ava are accurate.
	Ron Tubbs	н		Additional laws that took effect in 2014/2015 are in place to ensure sustainability and have been effective.	Comment noted. The FEA

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less trive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral we concluded that commercial aquarium fishing has had no significant reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

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As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
190-3	Ron Tubbs	н		HI's aquarium fishery management has been touted worldwide as an exemplar; hope those making decisions can make make the right one like Honorable Governor David Ige (http://www.reef2rainforest.com/2017/06/01/scientists-implore-hawaiis- governor-use-science-to-manage-aquarium-fish-collecting/).	Comment noted. The FEA
	Gary Jones	PA		Fishery is sustainable and a worthy activity to educate our population about	Comment noted. The FEA The FEAs use the best ava are accurate.
192-1	Jim Elder	н		As a long time collector, can attest that the reefs in North and South Kohala, with the exception of Kawaihae harbor, are in really good shape; plentiful fish populations and reproduce twice a year.	
193-1	Charles Wall	тх		Conclusions are well-supported and include all available scientific	Comment noted. The FEA The FEAs use the best ava are accurate.
193-2	Charles Wall	ТХ	4/27/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEA
193-3	Charles Wall	тх	4/27/2018	Demonstrate that fish populations are stable/growing and fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
194-1	Jerry Morrissey	IL	4/26/2018	Comprehensive documents including all available scientific information.	Comment noted. The FEA The FEAs use the best ava are accurate.
194-2	Jerry Morrissey	IL	4/26/2018	Justify the reopening of the fishery based on scientific information.	Comment noted. The FEA
195-1	Jose Enovejas	н	4/26/2018	As a salt water fish hobbyist, personally know two fish collectors - this decision will affect their businesses.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
195-2	Jose Enovejas	н		Examine the EA results, stating not significant threat and sustainability of the industry.	Comment noted. The FEA The FEAs use the best ava are accurate.
195-3	Jose Enovejas	н		Tropical fish play important part in my life and being able to purchase HI fish keeps the prices low.	Comment noted. The FEA collection.
196-1	John Moyles	WI	4/27/2018	Comprehensive documents including all available scientific information.	Comment noted. The FEA The FEAs use the best ava are accurate.
196-2	John Moyles	WI	4/27/2018	Well-supported conclusions that the fisheries will not result in adverse effects on the environment; if decision is based on science, the assessments justify the reopening of the fishery, which sets the standard for the rest of world	Comment noted. The FEA The FEAs use the best ava are accurate.
197-1	Louie Polsinelli	WI		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA The FEAs use the best ava are accurate.
197-2	Louie Polsinelli	WI		Well-supported conclusions that the fisheries will not result in adverse effects on the environment; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEA The FEAs use the best ava are accurate.
198-1	Dan Dolaptchieff	н	4/26/2018	Aquarium fishery on west HI is the most studied and protected sustainable fishery in the world.	Comment noted. The FEA:
199-1	Haley Baldwin	N/A	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

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des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
199-2	Haley Baldwin	N/A	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	the FEAs comclude no sig
199-2	Haley Baldwin	N/A	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
199-4	Haley Baldwin	N/A	4/26/2018	Needs to be a limit; must conserve resources wisely to protect fish that are disappearing.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of populations. Collection of population. This level of ta fish harvest based on avai The Hawai'i FEA discusses Section 1.2. The O'ahu FE/ 1.2.3. An additional altern Achilles Tang. Specifically 10/day to 5 per day for co bag limt for other fisherie FEA that addresses concer Wrasse bag limit of 10/da
199-5	Haley Baldwin	N/A	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
200-1	Linda Willaby	HI	4/25/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, Surgeonfishes, Moorish Idols, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

D'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

ses existing regulations, including the White List and existing bag limits, in FEA discusses existing regulations, including bag and size limits, in Section ernative was added in the Hawai'i FEA that addresses concerns with ally, the alterantive proposes reducing the Achilles Tang bag limit form commercial aquarium collection in the WHRFMA and imposing a 5/day ries in the WHRFMA. An additional alternative was added in the O'Ahu cerns with Flame Wrasse. Specifically, the alterantive proposes a Flame day for commercial aquarium collection in O'ahu.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	the FEAs comclude no sig
	Linda Willaby Linda Willaby	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo, Waikiki/Diamond Head, Maui / Molokai / Lanai	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
	Linda Willaby	н	4/25/2018	In last ten years, have seen greatly dimished fish popuations (examples of species and place given); will never recover without a long moratorium period.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustaina and Hodgson 2006).
200-5	, Linda Willaby	н		Reef fish must also contend with ecological disasters of global warming, coral die off, and ocean pollution.	Comment noted. Cumulat discussed in Section 5.4.3
	Linda Willaby	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
201-1	James Long	н	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
201-2	James Long	н	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

'ahu FEA includes a revised Preferred Alternative that includes expansion /ILCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant l aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the during the 12-month analysis period would be less than 1% of their of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

ative impacts from other sources, including global warming, are .3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
201-3	James Long	н	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The bes included in the FEAs. The collection.
201-4 J	James Long	н	4/26/2018	Steady decline in reef fish over last 14 years.	Comment noted. The FEA reviewers confirm data an The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				Hawaii needs to transition to more sustainable jobs and protect its coastal	Comment noted. The FEA
201-5 201-6	James Long James Long	н	4/26/2018	resources. Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	impact. Comment noted. The FEA impact therefore an envir
202-1	Adam Welch	AZ		Aquarium fish populations are stable or growing, and the fishery is not adversely affecting these or other fish populations in Hawaii; fishery is well managed by the State. Conclusion reached based on the data is well-supported; no indirect or	Comment noted. The FEA The FEAs use the best ava are accurate. Comment noted. The FEA
202-2	Adam Welch	AZ	4/28/2018	cumulative impacts that were not adequately considered; jusytify the reopening of the fishery.	The FEAs use the best ava are accurate.
202-3	Adam Welch	AZ	4/28/2018	Home aquariums offer sanctuary from rising sea temperatures and ocean adificiation; do what is best for our ecosystem and our heritage as a species.	Comment noted. The FEA impact.
203-1	Ryan Francess	NY	4/29/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
204-1	Judith Perino	N/A	4/27/2018	Increase in population and denisty; WHRFMA on HI Island is best managed fishery in the world; juvenile fish have a 97% natural mortality rate due to predation and other natural occurrences	Comment noted. The FEA The FEAs use the best ava are accurate.
204-2	Judith Perino	N/A	4/27/2018	Public aquariums and hobbyists are key to enriching our understanding and enjoyment of life below the ocean's surface.	Comment noted. The FEA The FEAs use the best ava are accurate.
204-3	Judith Perino	N/A	4/27/2018	Collectors have partnered with DLNR and other working groups over the past 18 years to craft a management plan to ensure vitality and sustainability.	Comment noted. The FEA
204-4	Judith Perino	N/A	4/27/2018	Law dictates that HEPA must be applied fairly, so either everyone needs a HEPA review or all CML permits should be exempt.	Comment noted. The app
205-1	Mary B	N/A	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs use the best available data regarding species abundance. Peer are accurate.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

applicant supports full enforcement of all applicable regulations.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	the FEAs comclude no sig
205-2	Mary B Mary B	N/A N/A	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
205-4	Mary B	N/A	4/26/2018	No comparison to how the reefs used to look back in the 1960s.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
205-5	Mary B	N/A		Marine aquarium trade is no different than the illegal poaching and harvesting of the world's exotic wildlife; need to protect our oceans worldwide.	Comment noted. The app
205-6	Mary B	N/A	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
206-1	Charles Laquidara	HI	4/27/2018	eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
206-2 206-3	Charles Laquidara Charles Laquidara	HI HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hilo, Hamakua, North Shore, Leeward, Maui / Molokai / Lanai.	Comment noted. The best included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

plicant supports full enforcement of all applicable regulations.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
206-4	Charles Laquidara	HI		Watched as reefs and creatures around them have diminished over last 20 years; stop favoring aquariums and commercial outfits that are not giving back to the sea.	Comment noted. The FEA
206-5	Charles Laquidara	н	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
207-1	Mark Schacht	N/A	4/25/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
207-2	Mark Schacht	N/A	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
207-3	Mark Schacht	N/A	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Kaneobe/Windware, North Shore, Maui / Molokai / Lanai	Comment noted. The best included in the FEAs. The collection.
	Mark Schacht	N/A		As professional diver, strong oppose the resumption of the aquarium trade anywhere in HI and challenge the notion that there has been no significant impact; personally witnessed the slow but steady loss of healthy reef accompanied by significant reef fish species degradation/elimination.	Comment noted. As note studies (Tissot and Hallacl concluded that commercia The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
207-4			4/25/2010	Not all at the hands of the industry, but its role exacerbates these trends and should be eliminated; DLNR cannot establish base lines and sustainable take limits demonstrates that it is incapable to exercise any meaningful	Comment noted. The best confirm data are accurate significant impact.
207-5	Mark Schacht	N/A		oversight role. Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA
207-6	Mark Schacht	N/A	4/25/2018	· ·	

As conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

est available scientific data has been included in the FEAs. Peer reviewers te. The FEA concludes that the Preferred Alternative will not have a

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
208-1	Judith Cucco	н	4/26/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
208-2	Judith Cucco	Н	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	the FEAs comclude no sig
208-3	Judith Cucco	н	4/26/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
208-4	Judith Cucco	н	4/26/2018	Have completed over 850 species and abundance surveys for Reef Environmental Education Foundation on Oahu since 2010; data indicates a decline in the number of fish/species.	Comment noted. The bes included in the FEAs. Pee collection of 18 of the to than 1% of their respecti species would be less tha within what is considered 25%; Ochavillo and Hodg
208-5	Judith Cucco	н	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE impact therefore an envi
209-1	Richard Reed	н	4/25/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
209-2	Richard Reed	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The
209-3	Richard Reed	ні	4/25/2018		collection.
209-4	Richard Reed	ні	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
210-1	Uwe Giebel	Germany	4/28/2018	Need the aquarium fish from HI for German Aquarist; please allow permits.	Comment noted. The FEA
211-1	Travis Terazono	N/A	4/29/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEA collection.
212-1	Atlantis Aquarium	Germany	4/30/2018	German hobbyists love to keep species from HI islands; helps to preserve	Comment noted. The FEA The FEAs use the best ava are accurate.
213-1	Jan Sabmann	Germany	4/29/2018	Need HI fish for German customers.	Comment noted. The FEA
214-1	Atlantic Pacific Tropicals	FL	4/25/2018	Fishery is sustainable; consitutional right to pet fish for enjoyment	Comment noted. The FEA
214-2	Atlantic Pacific Tropicals	FL	4/25/2018	Only small areas collected from and small portions of the highly renewable fish populations.	Comment noted. The FEA The FEAs use the best ava are accurate.
214-3	Atlantic Pacific Tropicals	FL	4/25/2018	Moral and legal travesty that the small mesh aquarium permits were removed; make daily limits of collections with a monthly cap as compromise for the benefit of all.	Comment noted. The FEA Additional alternatives wi
215-1	Jeff Kuwabara	н	4/25/2018	DAR data has been misused by Snorkel Bob and Rene Umberger to try to show the decimating of the fish populations, when the data clearly shows the opposite.	Comment noted. The FEA The FEAs use the best ava are accurate.
215-2	Jeff Kuwabara	н	4/25/2018	So many environmental influences on fish populations; lines on the chart (attached) show that changes are not driven by the aquarium industry.	Comment noted. The FEA
215-3	Jeff Kuwabara	н	4/25/2018	Banning the industry has put a needless hardship on the collectors, with no changes to commercial fishing.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
215-4	Jeff Kuwabara	HI		If reef scientists say aquarium collecting is sustainable, then do a better job of monitoring take, limit the number of permits, continue to limit the species list and bag limits, but leave keep things open to allow these peopleto make a living.	Comment noted. The FEA
216-1	Peter Caldwell	н		Approve the Tropical Fish EA as being accurate and appropriate.	Comment noted. The FEA
	Peter Caldwell	н		Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEA collection.
217-1	Jason McCohen	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. with new bag limits were added to both FEAs.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

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EAs both conclude no significant impacts from commercial aquarium

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
218-1	William Hartwell	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
219-1	Jay Sung	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
220-1	Daryl Uyeda	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
221-1	Jack Cao	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
222-1	Kasey Kawamoto	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
223-1	Kevin Winchester	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
224-1	Mark Cao	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
225-1	Glenn Akiona	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
226-1	Donna LaFrance	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
227-1	James LaFrance	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
228-1	Cody Segawa	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
229-1	Cathy Goff	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
230-1	Jeff Goff	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
231-1	Ihilani Mangca	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
232-1	Debra L. Mangca	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
233-1	Frederick D. Mangca	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
234-1	Jonathon Stevens	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
235-1	Charlene Sweet	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
236-1	William Simonsen	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
237-1	Cheryl Park	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
238-1	Jason Pinero	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
239-1	Raegan Vilanueva	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
240-1	Delmiro R. Villanueva	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
241-1	Michael B. Zafrahr	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
242-1	Tim Pochef	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
243-1	Michael Allison	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
244-1	Stormi Allison	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
245-1	Nick Ramirez	н		DEA shows aquarium fishery is sustainable; since establishment of the WHRFMA, the population has increased.	Comment noted. The FEA
245-2	Nick Ramirez	н	4/28/2018	DEA requirement took away my job.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
	Niek Dewine			Testimonies that don't support the DEA are not supported by scientific data; any duplicate copy testimonies by differen persons should not count because they are not the opinion of the actual person and may be the same	Comment noted. The FEA The FEAs use the best ava are accurate.
245-3	Nick Ramirez Hawaii Tropical Fish Company	н	4/28/2018	person making multiple testimonies. Have a thiry plus year industry and world class fishery that is sustainable; only fishery that targets juvenile fish.	Comment noted. The FEA The FEAs use the best ava are accurate.
246-2	Hawaii Tropical Fish Company	н		Support the scientific facts; hurts the opposition's feelings, but tell that to the full time fishermen's families who have had their livlihoods ripped out from under them.	Comment noted. The FEA The FEAs use the best ava are accurate.
247-1	Janelle Kiefer	н	4/29/2018	West HI Aquarium Fishery management is the gold standard of fishery management worldwide; proven sustainable at current levels.	Comment noted. The FEA impact.
247-2	Janelle Kiefer	н	4/29/2018	House Bill 306 set aside 35% of the reef to preserve the resources for future generations and there is no evidence to support the depletion of the resources due to overfishing.	Comment noted.House B
				Fishermen depend on their trade to support their families and need their licenses restored.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconol
247-3 248-1	Janelle Kiefer Randy	HI N/A	4/29/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEA collection.

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FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EA concludes that the Preferred Alternative will not have a significant

Bill 306 is discussed in Section 1.2.3 of the Hawai'i FEA.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs both conclude no significant impacts from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
249-1	Eileen McKee	н	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
249-2	Eileen McKee	HI	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The C during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data a
249-3	Eileen McKee	н	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai	Comment noted. The bes included in the FEAs. The collection.
249-4	Eileen McKee	НІ	4/25/2018	Have enough greed killing our world; stop theft of precious resoureces.	Comment noted. The FEA The FEAs use the best av are accurate. The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of fish harvest based on ava
249-5	Eileen McKee	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE impact therefore an envi
250-1	Laurie Pottish	Н	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Commont No	Commenter	State/	Date	Comment	Response
<u>Comment No.</u> 250-2	Laurie Pottish	HI	Received	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of to fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
250-3	Laurie Pottish	Н	4/25/2018	Has been going on far too long; stop it now before it is too late.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of the table ta
250-4	Laurie Pottish	н	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
				Periodic and seemingly random blooms of various fish, which should be considered in any evaluation of sustainable populations of fish in HI; The following are exception fish and invertebrate recruitments I have personally observed in the last fifty years: o 1963 – Cigar Wrass – Chielo inermis o 1966 – Moi- Polydactylis sexfilis o 1968-1969- Aweoweo –Priacanthus cruentatus o 1971 – RazorfishWrass – Xyrichtys umbrilatus o 1975 – Redtail Filefish-Pervagor spilosoma o 1976 – Yellow Tang – Zebrasoma flavescens o 1980 – Blue Goby – Eleotrid sp. o 1984-1987 - Redtail File – Pervagor spilosoma o 1987- Eel Cleaner Shrimp – Lysmata amboinensis o 2002 – 2006 – Hawaiian Hogfish – Bodianus bilunulatus o 2010 – Flame Wrass – Cirrhilabrus jordani o 2014 – Yellow Tang (Zebrasoma flavescens), Pyramid Butterfly (Hemitaurichthys polylepis), Heniochus Butterfly (Heniochus diphreutes), Omilu (Caranx melampygus) o 2017 – Fisher's Angel (Centropygy fisheri)	Comment noted. The FEA The FEAs use the best ava are accurate. Cumulative i 5.4.3 of both FEAs.
251-1	Dennis Yamaguchi		4/30/2018	Without a long historical first person perspective observing large recruitment events, one could easily come to the wrong conclusion as to how common, rare, over exploited, or abundant a given species is; example	Comment noted. Both FE
251-2	Dennis Yamaguchi	н	4/30/2018	of the Redtail file (citations given). While it is undeniable we catch fish and therefore affect their numbers, I	FEA).
251-3	Dennis Yamaguchi	н	4/30/2018	believe the finding of no significant impact holds true. Approve of the Tropical Fish EA because the DLNR and NOAA have proven	Comment noted. The FEA
252-1	New Vision Aquatics	н	4/30/2018	that the industry is sustainable.	Comment noted. The FEA

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data ve impacts from other sources, including tourism, are discussed in Section

FEAs use 18 years of DAR catch data and DAR population trend data ass impact to aquarium fish (Section 5.4 in both the Hawai'l and O'ahu

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
252-2	New Vision Aquatics	н		Time to manage the fishery scientifically and not emotionally; fact based decisions so that the fishermen can respect the decisions of those in charge of our islands' resources.	Comment noted. The FEA
253-1	Exotic Sealife International	FL		Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FE
253-2	Exotic Sealife International	FL		Have found the fish life in HI to be abundant and plentiful everywhere.	Comment noted. The FEAT The FEAS use the best availate accurate.
253-3	Exotic Sealife International	FL		FL and HI only states with individuals relying on tropical fish collection as their only means of an income.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
254-1	David Lum	ні	4/30/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
254-2	David Lum	н		Fish in home aquaria the best way to educate myself, my family, my friends, and visitors on the diversity, biology, and ecology of our marine fish species.	Comment noted. The FEA The FEAs use the best ava are accurate.
254-3	David Lum	ні	4/30/2018	To not pass the EA would mean that HI is incapable of making sound policy based on proven scientific facts.	Comment noted. The FEA collection.
234 3				EA shows that the industry is sustainable and has been for the past thirty	Comment noted. The FEA
255-1	Scott Mudd Scott Mudd	н	4/2//2018	Do not allow a few ethically-challenged mainland-sponsored people to get away with unsubstantiated, morally corrupt, and purposefully-deceitful claims; shameful that State Supreme Court repeatedly fails to discern fact and scientific evidence from bolier-than-thou preaching	are accurate. Comment noted. The FEA
256-1	199799997			Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DI NR and NOAA	Comment noted. The FEA The FEAs use the best ava are accurate.
		HI		DEA does not appear to fully comply with HEPA since it does not adequately describe the affected environment or identification and mitigation of cumulative and secondary impacts, including long term effects; many impacts affecting this fishery (examples given) that were not adequately addressed.	
257-2	257-1 Mary Metcalf	Н		As DLNR recommended in their Dec. 2014 report, their recommended actions should be put in place as mitigation before permitting for commercial aquarium fishing is allowed to resume.	Comment noted. An addi with Achilles Tang. Specif from 10/day to 5 per day 5/day bag limt for other f O'Ahu FEA that addresses Flame Wrasse bag limit of expansion of the Waikiki
	Mary Metcalf			The DEA is woefully lacking in early consultation with citizen stakeholders, especially concerned community members and conservation groups, and the alternatives analysis does not include input from the community; both	Comment noted. The FEA stakeholders prior to DEA publication. Comments of
257-3 257-4	Mary Metcalf Mary Metcalf	HI		are required in HEPA. Data validity is questioned because of the low number of commercial aquarium permit holders who are submitting catch reports (less than half); puts into question the determination of no significant impact.	Comment noted. As noted and 2014 Hawai'i Island a underreporting of catch b examples or information information was provided
257-5	Mary Metcalf	н		Black markets more than likely exist in this lucrative international business, prompting both the under reporting of catch and non permitted collecting; effective enforcement should be included as a mitigation measure to help ensure both the accuracy of catch reports and minimization of non permitted activity.	Comment noted. The app in Section 4.7.7.1 of the H aquarium catch report va aquarium collectors. The supporting statements ab by the commenter.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

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EAs both include a section on the affected environment (Section 4.0 in n on environmental consequences (Section 5.0 in both FEAs), including pacts, indirect impacts, and cumulative impacts. A statement regarding to Section 5.5 in both FEAs.

dditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA. An additional alternative was added in the ses concerns with Flame Wrasse. Specifically, the alterantive proposes a of 10/day for commercial aquarium collection in O'ahu and the ki MLCD.

EAs have been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs.

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 I aquarium catch report validation did not indicate substantial In by aquarium collectors. The applicant is unaware of any specific In supporting statements about underreporting in Hawaii, and not such ed by the commenter.

applicant supports full enforcement of all applicable regulations. As noted e Hawai'i FEA, the DAR conlcuded that the 2010 and 2014 Hawai'i Island validation did not indicate substantial underreporting of catch by ne applicant is unaware of any specific examples or information about underreporting in Hawaii, and not such information was provided

Comment No.	Commontor	State/ Location	Date Received	Comment	Response
	Mary Metcalf	HI		HI State Legislature and DLNR are highly encouraged to pursue legislation and rule making for the DLNR recommended actions as mitigation measures for commercial aquarium fishing in West HI.	Comment noted.The FEAs As such, no mitigation is c
	Jim Sims	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
	Jim Sims	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sigr biological resources (includ reef habitat, or species po reviewers confirm data are
	Jim Sims	н	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, Waikiki/Diamond Head, Hawaii Kai, Kaneobe/Windward	Comment noted. The O'ah of the existing Waikiki ML aquarium fishers and othe
	Jim Sims	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro
	Alice Hughes	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (inclue reef habitat, or species po reviewers confirm data are
	Alice Hughes Alice Hughes	<u>н</u>	4/27/2018		Comment noted. The best included in the FEAs. The l collection.

As conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ILCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12yould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
259-4	Alice Hughes	н	4/27/2018	fish along Kona Coast and Kohala Coast	Comment noted. Comme FEA. The Hawai'i FEA con month analysis period wo populations. Collection of population. TThis level of fish harvest based on ava
					Comment noted. The FEA The FEAs use the best ava are accurate.
	Alice Hughes	н	4/27/2018	Help keep our reefs for future generations; can't harvest trees from the National Park, so people shouldn't be able to profit from our wildlife.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
259-5				Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
259-6 260-1	Alice Hughes Bruce Oatway	н	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Bruce Oatway	HI	4/27/2018	Specific concerns about these species: Species I once encountered are missing, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	population. This level of t
260-2	Bruce Oatway	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The
260-3	Bruce Oatway	н	4/27/2018	the following Hawaii Island districts: Hilo, Hamakua.	collection.
260-4	Bruce Oatway	н	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir

nercial aquarium collection on the island of Maui is not covered by either oncludes the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall of take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. Ivailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
					Comment noted. The FEA The FEAs use the best ava are accurate.
261-1	Jennifer Valentine	N/A	5/1/2018	Lost abundance, missing species, and diminished beautry.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
261.2		N/A	E /1 /2010	Asking for a full assessment of the trade's environmental, cultural, and ethical impacts.	Comment noted. The FE/ impact therefore an envir impacts are discussed in S
261-2 262-1	Jennifer Valentine Big Island Association of Aquarium Fishermen	N/A HI	<u>5/1/2018</u> 4/26/2018	DEA includes all available scientific information on the effects of the Hawaii	Comment noted. The FEA The FEAs use the best ava are accurate.
	Big Island Association of Aquarium Fishermen	н	4/26/2018	Management and operation of HI's fishery sets standard for the rest of the	Comment noted. The FEA
	Big Island Association of Aquarium Fishermen	н	4/26/2018	Conservation measures: Three species of land fish are harvested at a rate of 5% or less of the population, which is on the low end of what published literature consideres sustainable harvest; remaining permitted species are	Comment noted. The FEA
	Big Island Association of Aquarium Fishermen	н		Comprehensive rules package (HAR 13-60.4) passed with layers of additional management, including: bag limits and/or size restrictions on the three most landed fish, establishment of a White List of approved species, expansion of the Pebble Beach FRA, creation of an additional required	Comment noted.This is d
262-5	Big Island Association of Aquarium Fishermen	н	4/26/2018	Population trends of the Achilles tang comments: conservation measures include adoption of a closure of 35% of the WHRFMA from the harvest of aquarium fish (Act 306), ban on all aquarium fishing at night, bag limit of 10 Achilles per aquarium fisher per day (HAR 13-60.4).	An additional alternative Tang. Specifically, the alt per day for commercial ac other fisheries in the WH
262-6	Big Island Association of Aquarium Fishermen	н	4/26/2018	BIAFF proposes that the DLNR implement a conservation measure limiting catch of Achilles tang in the WHRFMA in all fisheries to 5 per day, as well as suggest and support that the HEPA review period conincide with the five year report to the legislature.	Comment noted. An addi with Achilles Tang. Speci form 10/day to 5 per day 5/day bag limt for other f
	Big Island Association of Aquarium Fishermen	н		For some species, recruitment can be highly variable between years, as noted by Dr. Walsh; therefore, encourage the HEPA review process to begin in conjunction with the next report commencing with 2024 and each five year period thereafter.	Comment noted As state contained in the FEAs on aquarium permits, and wi analysis.
	Big Island Association of			Request the advancement and restoration of commercial licenses and	Comment noted. The FEA
262-8	Aquarium Fishermen			allowing use of fine mesh net as soon as possible. Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEA
263-1	Joseph Genero Phil Shane	CA	4/30/2018	Been in fish business for 40 years; industry is proven to be sustainable, as fish reproduce and over compensate for any taken by fisherman.	are accurate. Comment noted. The FE/
				Ban has negatively impacted my Aquarium Store in Billings, MT; please don't close the most sustainable ornamental fishery and a gold standard among the industry.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
265-1	Crowell Cardneaux	MT	5/1/2018		

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required. Environmental and cultural n Section 5.0 (Environmental Consequences) of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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discussed in Section 1.2.3.1 of the Hawai'i FEA.

ve was added in the Hawai'i FEA that addresses concerns with Achilles alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 aquarium collection in the WHRFMA and imposing a 5/day bag limt for /HRFMA.

ditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.

ated in Section 5.5 of the FEAs, the DLNR will reevaluate the analysis on an annual basis prior to renewal or issuance of new commercial will assess if any new information exists warranting reevaluation of this

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection.

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Comment No.	Commontor	State/ Location	Date Received	Comment	Response
	commentor	Location		Aquariums teach people in landlocked states the importance of ocean conservation, local waterway conservation, and make people more aware of	Comment noted. The FEA
265-2	Crowell Cardneaux	МТ	5/1/2018	our global footprint.	are accurate.
266-1	Hunter Musser	ОК	5/1/2018	Comprehensive documents including all available scientific information and	Comment noted. The FEA The FEAs use the best ava are accurate.
	Hunter Musser	ОК	5/1/2018	Management and operation of HI's fishery sets standard for the rest of the	Comment noted. The FEA
266-3	Hunter Musser	ОК		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
267-1	David Mcree	NC	5/1/2018	There are tons of people who depend on this.	Comment noted. The FEA impact. Impacts to socioe
				Closing collections would hurt the aquarium industrying cutting off all Hawaiian fish collecting.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
268-1	Mike Bencik	IL	4/30/2018		Comment noted. The FEA
269-1	Jeff Larson	MI	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	The FEAs use the best ava are accurate.
270-1	Carl Jellings	н	4/30/2018	Have fished for 46 years full time and fully support the EA and professionalism; there is no way to overfish these types of fish.	Comment noted. The FEA
271-1	Leatrice Ramos	н	5/1/2018	Happy to hear that scientific opinion supports the HI fishery; Hawaiian people leaving island to make a living on the mainland because cost of living is so high; trying to support family by catching aquarium fish.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
271-2	Leatrice Ramos	н		People who want to shut down the aquarium fishery will next want to stop getting fish from the ocean, too.	Comment noted. The FEA
272-1	Janice Kopff	МО		Several environmental studies prove that the aquarium fishing in HI is probably the most controlled and best managed of any.	Comment noted. The FEA
272-2	Janice Kopff	мо	4/30/2018	Observed many other activities (examples given) that kill fish and destruct the reef, which are somehow considered ok.	Comment noted. The FEA Cumulative impacts from
272-3	Janice Kopff	МО	4/30/2018	People who collect fish for aquariums pay careful attention to preserving a healthy environment; no decline in tropical fish observed, except in areas overpopulated by dive charter boats.	Comment noted. The FEA Cumulative impacts, inclu
272-4	Janice Kopff	мо	4/30/2018	First visit to HI was because having seen colorful Hawaiian fish in an aquarium	Comment noted. The FEA The FEAs use the best ava are accurate.
	Audrey Dunleavy	NJ	5/1/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEA
273-2	Audrey Dunleavy	NJ	5/1/2018	If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEA
274-1	Sean Keller	VA	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
274-2	Sean Keller	VA	4/30/2018	Conclusions reached are well-supported and no indirect or cumulative impacts that were not adequately considered	Comment noted. The FEA The FEAs use the best ava are accurate.
274-3	Sean Keller	VA	4/30/2018	Management and operation of HI's fishery sets standard for the rest of the world; If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEA
275-1	Bill Chang	н	4/30/2018	EAs include all the best available scientific information on the effects of the HI aquarium fishery on the environment; reasonable and responsible conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
	Bill Chang	н		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA

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EAs conclude no significant impact from commercial aquarium collection. n other sources are discussed in Section 5.4.3 of both FEAs.

As conclude no significant impact from commercial aquarium collection. Iuding from tourism, are discussed in Section 5.4.3 of the FEAs.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
276-1	Seth Drago	LA	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii; conclusions are well-supported.	Comment noted. The FEA
	Seth Drago	LA		I quarantine all fish before putting them in my aquarium to ensure health and to prevent the spread of disease; also use hobbyist forums to teach others; please don't destroy our beloved hobby.	Comment noted. The FEA
277-1	Debra Holtz	FL	4/30/2018	Fisheries evaluation shows that there should be no resumption of aquarium fishing, while still following the conservative rules and limits.	Comment noted. The FEA
277-2	Debra Holtz	FL		Better control of pesticides and fertilizers would be helpful to protect the waters and animals in the Hawaiian ocean.	Comment noted. The FEA: environment.
278-1	David Ramos	н	4/30/2018	Earth justice and those who are backing them don't care about the sciene of sustainability.	Comment noted. The FEA
278-2	David Ramos	н	4/30/2018	The majority of local people support and depend on the aquarium trade; no have the new Missionary's here to show the localsthe error of their ways and take away more of the culture.	Comment noted. The FEA
279-1	Lauren Cardneaux	MT	5/1/2018	Educator with reef aquarium in classroom; educational value of having this aquarium in a place with no access to a public aquarium or ocean.	Comment noted. The FEA The FEAs use the best ava are accurate.
280-1	Corey Derrick	SC	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish	Comment noted. The FEAs
281-1	Angelle Sampey	LA	5/1/2018	Comprehensive documents including all the available scientific information; draw reasonable and responsible conclusions that are well-supported.	Comment noted. The FEA The FEAs use the best ava are accurate.
281-2	Angelle Sampey	LA		This is my family's livlihood; please don't take it away from us.	
282-1	Richard Bullard	SC		When managed appropriately and allowed for further scientific discovery, limited collection can be mutually beneficial for both aquatic and humankind.	Comment noted. The FEA
283-1	Sofia Lindgren	Czech Republic	4/30/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
284-1	Kapil Mandrekar	NY	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
284-2	Kapil Mandrekar	NY		Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
	Kapil Mandrekar	NY		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
				Sister has been conservationsist, animal rights activist, and fish collector on HI for over 20 years; ban threatens her livlihood.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
285-1	Sam Price		5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than	Comment noted. The FEA
285-2	Sam Price	LA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and	
285-3	Sam Price	LA	5/1/2018	the aquarium fishery is not adversely affecting these or other fish populations in Hawaii. DEAs demonstrate that aquarium fish populations are stable/growing, and	Comment noted. The FEA
286-1	Lewis Burks	sc	5/1/2018	the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
286-2	Lewis Burks	SC	5/1/2018	Conclusions are well-supported; no direct or cumulative impacts that were not adequately considered.	Comment noted. The FEA The FEAs use the best ava are accurate.
287-1	Kris Stone	NC	5/2/2018	Democrats are ruining this country.	Comment noted. The FEA
	Jack Rogers	PA	5/1/2018	Obvious that scientific evidence to keep the HI fishery open is clear.	Comment noted. The FEA The FEAs use the best ava are accurate.
288-2	Jack Rogers	PA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
289-1	Cody LeBert	LA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
289-2	Cody LeBert	LA	5/1/2018	Conclusions are well-supported; no direct or cumulative impacts that were not adequately considered; include all available scientific information.	Comment noted. The FEA The FEAs use the best ava are accurate.
290-1	Pete Basabe	н	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
290-2	Pete Basabe	н	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
	Pete Basabe	н		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
291-1	Tl Lasseter	н	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA
291-2	TI Lasseter	н	4/30/2018	Conclusions are well-supported and does not have any indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEA The FEAs use the best ava are accurate.
291-3	Tl Lasseter	н	4/30/2018	Please do not close this business; it is my livlihood and I need this job.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
	Kevin Sutowski	IN	5/1/2018	Please do an equivalent and thorough assessment of the fishing for food industry in comparison and look at the waste fish from that.	Comment noted. The FEA Cumulative impacts from discussed in Section 5.4.3
292-2	Kevin Sutowski	NJ	5/1/2018	Believe these study data on the aquarium trade fisheries will show they actually benefit the reefs sustainability.	Comment noted. The FEA
	Kris Cline	NC	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions	Comment noted. The FEA The FEAs use the best ava are accurate.
				Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
	Kris Cline Robert Miller	FL	5/1/2018	Targeting an entire industry is ridiculous, especially when ban is based on political correctness and not hard scientific facts.	Comment noted. The FEA collection.
	Robert Miller	FL		Only thing it will accomplish is more fish being collected from countries with looser regulations.	
	Shane Howard	MT		Many people around the world love fish keeping; if these fish are not around for the hobby, will have large impact on how people care for the ocean and its beauty.	Comment noted. The FEA The FEAs use the best ava are accurate.

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EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial (non-aquarium) fishing, are 1.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
296-2	Daniel Jeffery	FL	5/2/2018	Oceans under threat from many angles (acidification, pollution, commericial fishing); saltwater aquarists doing everything we can to breed many species in captivity (may ultimately prevent extinction).	Comment noted. The FEA Cumulative impacts from
296-3	Daniel Jeffery	FL		These animals are not pulled out and killed, they are members of our family and we take great care of them.	Comment noted. The FEA
296-4	Daniel Jeffery	FL		Imposing limits or seasons is fine, but please allow us to continue our Noah's Ark mission.	Comment noted. The FEA
297-1	Kevin Olivier	LA	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
297-2	Kevin Olivier	LA	5/1/2018	Comprehensive documents including all available scientific information and	Comment noted. The FEA The FEAs use the best ava are accurate.
297-3	Kevin Olivier	LA	5/1/2018	If there are species that are truly endangered by this practice, I believe in restricting the fishing of those species.	Comment noted. The FEA impact. The Hawai'i FEA c 12-month analysis period populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on available
298-1	Amber Moran	со		Please base decisions on scientific data; any fishing or hunting population that is properly managed can have positive benefits to wild populations, as well as economic benefits and create awareness of these valuable resources.	Comment noted. The FEA
299-1	Joe Naquin	LA		Great advances have been made on keeping marine animals alive for a sustainable length of time.	Comment noted. The FEA
299-2	Joe Naquin	LA	5/1/2018	Education is key to keeping marine animals alive; should be a web course required for all reef keepers.	Comment noted.
299-3	Joe Naquin	LA	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEA
300-1	Richard Pyle	Н	5/1/2018	Extremely impressed with how comprehensive, unbiased, and accurate the	Comment noted. The FEA The FEAs use the best ava are accurate.
300-2	Richard Pyle	НІ	5/1/2018	Dishonest distortions, or outright misrepresentations of facts, from people who claim to be concerned with protecting HI's reefs. In any industry, there are of course some "bad apples" who engage in incompresentate or illegal activities: frequency of such individuals and	Comment noted. The FEA reviewers confirm data ar Comment noted. The FEA
300-3	Richard Pyle	Н	5/1/2018	inappropriate or illegal activities; frequency of such individuals and instances within the marine aquarium trade in HI have been very few and far-between.	The applicant supports fu
300-4	Richard Pyle	HI	5/1/2018	The VAST majority of fishermen and others involved with the trade are far more responsive in their practices to recommendations by the research community than almost any other commercial enterprise that I'm familiar with; the largely self-imposed practices of HI's aquarium fish collectors are widely regarded as the international "gold standard" for how aquarium fishes should be collected.	Comment noted. The FEA collection.
300-5	Richard Pyle	HI	5/1/2018	Study after study has found that environmental impact of responsible commercial aquarium fish collecting is negligible compared with other kinds of commercial fishing or environmental resource exploitation.	Comment noted. The FEA impact.

EAs conclude no significant impact from commercial aquarium collection. m other sources are discussed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EA concludes that the Preferred Alternative will not have a significant A concludes the the collection of 37 of the 40 White List species during the od would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs use the best available data regarding species abundance. Peer are accurate.

EAs conclude no significant impact from commercial aquarium collection. full enforcement of all applicable regulations.

EAs both conclude no significant impacts from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
300-6	Richard Pyle	н	5/1/2018	Marine aquarium fish collectors have consulted researchers, self-regulated, etc. but are constantly forced to defend themselves and their industry.	Comment noted. The FEA
300-7	Richard Pyle	н	5/1/2018	Strongly urge to put actual scientific evidence above intense and largely uninformed passion in all aspects of the decision-making process moving forward on this issue.	Comment noted. The FEA collection.
301-1	Earl Bialeck	н	4/29/2018	taken on Oahu, Leaf Scorpionfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
201.2	Forl Dialock		4/20/2018	diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
301-2	Earl Bialeck Earl Bialeck	HI HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
301-3	Earl Bialeck	HI	4/29/2018	Whenenver money is involved in somebody's motivation you can be certain they do not have the interest of the greater good in mind; do the right thing and do the proper EA's.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th
301-5	Earl Bialeck	ні	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
302-1	Velvet Replogle	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

pplicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate. The best available scientific data ndance has been included in the FEAs. Peer reviewers confirm data are

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
302-2 302-3	Velvet Replogle Velvet Replogle	HI HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u.	Comment noted. The best included in the FEAs. The collection.
302-4	Velvet Replogle	н	4/27/2018	Over 30 years, seen slow but very significant reduction in the number of tropical fish on the west side of HI island.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island of be less than 5% of their of top 20 collected species d respective overall island of less than 8% of their over considered to be sustaina and Hodgson 2006).
	Velvet Replogle	н	4/27/2018	Need to find a way to enforce the rules put in place years ago.	Comment noted. The app in Section 4.7.7.1 of the H aquarium catch report val aquarium collectors.
302-6	Velvet Replogle	н	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
303-1	Jeffrey Iverslie	н	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE, the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
303-2	Jeffrey Iverslie	НІ	5/1/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data and

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant l aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the during the 12-month analysis period would be less than 1% of their of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

plicant supports full enforcement of all applicable regulations. As noted Hawai'i FEA, the DAR conlcuded that the 2010 and 2014 Hawai'i Island alidation did not indicate substantial underreporting of catch by

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

		State/	Date	Comment	Response
Comment No.	Commentor	Location	Received	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona,	Comment noted. The O'al
303-3	Jeffrey Iverslie	н	5/1/2018	Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward.	of the existing Waikiki ML aquarium fishers and othe
303-4	Jeffrey Iverslie	н		Reef ecosystems are already struggling with man made pollution and warming ocean temperatures; have witnessed firsthand the decline in reef fish over last 15 years.	Comment noted.The cum Section 5.4.3 of both FEAs
				Removing already plummeting population of reef fish is going to damage HI's ability to compete for global tourism dollars	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai Sections 4.1 and 5.2 of ea tourism industry achieved marking the fifth consecu- to the Hawaiian Islands in
303-5	Jeffrey Iverslie	HI	5/1/2018		
303-6	Jeffrey Iverslie	н	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
304-1	Christopher Kim	HI	4/30/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
	Christopher Kim	Н	4/30/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
	Christopher Kim	н	4/30/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Kauai	Comment noted. The best included in the FEAs. The collection.

o'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

imulative impacts of global warming and coral bleaching are discussed in Ass.

Hawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's red new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. Total spending by visitors increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
304-4	Christopher Kim	HI	4/30/2018	In last 30 years, many species have been significantly reduced; see few flame wrasse, yellow tangs, bandits.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island of be less than 5% of their or top 20 collected species d respective overall island of less than 8% of their over considered to be sustaina and Hodgson 2006). An additional alternative Yellow Tang are already re
304-5	Christopher Kim	HI	4/30/2018	Impact of tourism dollars and the care of our ocean environments should be the primary motivation.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017). As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collecti period would be less than of the remaining three sp concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ochar
304-6	Christopher Kim	н	4/30/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Karie Smart	HI		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

ve has been added to the O'ahu FEA imposing a bag limit on Flame Wrasse.
v regulated on both islands with bag limits and size limits.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
205 2	Kania Gazart		4/27/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
305-2 305-3	Karie Smart Karie Smart	н	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Kauai, North Kohala, Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.
305-4	Karie Smart	н	4/27/2018	For the past three years, the Hawaii Kona coast appears to be barren.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. This level of ta fish harvest based on avai
305-5	Karie Smart	н	4/27/2018	See visitors dipping for fish and throwing them in cooler to ship back home; amateur fish collector saying they just come back for more fish when they	Comment noted. The FEA aquarium collection is disc
305-6	Karie Smart	н	4/27/2018	Without the fish, the algae is taking over the reef and large marine life is suffering; if we don't take a stand, there will be nothing left to share with future generations outside of a zoo.	Comment noted. As noted O'ahu FEA, Tissot and Hal of collection versus areas
305-7	Karie Smart	н	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
306-1	Stone Willow	н	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
306-2	Stone Willow	н	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As evaluate the impacts of commercial aquarium collection. Recreational iscussed in Section 5.4.3.1 of both FEAs.

ed in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the allacher (2003) found no evidence that algal growth was higher in areas as without collection, despite differences in fish abundance.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
306-3	Stone Willow	н	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala.	Comment noted. The bes included in the FEAs. The collection.
306-4	Stone Willow	н	4/28/2018	Heard from several friends that they were disappointed with the poor numbers and lack of diversity of our fish along reefs compared to other places they've gone to.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on available
306-5	Stone Willow	н	4/28/2018	Not only the fishing for aquarium industry but also the local fishermen who flout the laws and use throw nets where it's prohibited.	Comment noted. The FEA Cumulative impacts from andtourism, are discussed of all applicable regulation
306-6	Stone Willow	н		Other stresses the reef and fish are exeperiencing across different areas of our islands.	Comment noted. Cumulat
306-7	Stone Willow	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
307-1	Sean Dyer	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail the FEAs comclude no sign biological resources (inclu- reef habitat, or species por reviewers confirm data ar
307-2	Sean Dyer	HI	4/27/2018		Comment noted. The bes
307-3	Sean Dyer	н	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	included in the FEAs. The collection.
307-4	Sean Dyer	НІ	4/27/2018	Reefs are under great strain.	Comment noted. The FEA Cumulative impacts from climate change, are discus

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing sed in Section 5.4.3 of both FEAs. The applicant supports full enforcement ions.

lative impacts from other sources are discussed in Section 5.4.3 of both

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing and cussed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Exporting the fish tourists come to see is depleting our natural resources; hard to find many species now.	Comment noted. The bes included in the FEAs. Peet the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodge
307-5	Sean Dyer	ні	4/27/2018		Sections 4.1 and 5.2 of eacomment. In regards to to spending and visitor arriv categories. Total spending \$15.91 billion (HDBEDT 2)
307-6	Sean Dyer	ні	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
308-1	Irene Newhouse	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
308-2	Irene Newhouse	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
308-3	Irene Newhouse	н	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai	Comment noted. The bes included in the FEAs. The collection.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% dgson 2006).

each FEA addresses Socioeconomics the various aspects of your tourism, Hawai'i's tourism industry achieved new records in total visitor rivals in 2016, marking the fifth consecutive year of record growth in both ing by visitors to the Hawaiian Islands increased 5.3% to a new high of 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
					Comment noted. The FEA The FEAs use the best ava are accurate.
				Human impact on the environment today is so immense, it makes no sense to allow unregulated harvesting of any natural portion of the environment.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
308-4	Irene Newhouse	н	4/28/2018		In addition, both FEAs dis collection. Both FEAs also
308-5	Irene Newhouse	н	4/28/2018	Makes more sense to breed aquarium fish, especially since a significant fraction of the fish they acquire probably die.	Comment noted. The act Because mortality post-c anticipated that this facto
308-6	Irene Newhouse	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE. impact therefore an envi
309-1	Matthew Gurewitsch	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por	
309-2	Matthew Gurewitsch		4/28/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
309-3	Matthew Gurewitsch	н	4/28/2018		included in the FEAs. The collection.
309-4	Matthew Gurewitsch	ні	1/20/2010	In past seven years, have witnessed disappearance of pennant butterflyfish, leaf scorpionfish, cleaner wrasse, and several other species from the South Kihei beaches.	Comment noted. Comme FEA.
505-4			4/20/2018		

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

discuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

ction being evaluated in the FEAs is commercial aquarium collection. -collection is not anticipated to change from current conditions, it is not ctor will alter the estimated collection numbers.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

nercial aquarium collection on the Island of Maui is not covered by either

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
309-5	Matthew Gurewitsch	н	4/28/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply unconscionable.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
309-6	Matthew Gurewitsch	н		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
310-1	Anne Allison	HI		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Moorish Idols, Angelfishes, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
310-2	Anne Allison	Н		Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Maui / Molokai / Lanai.	Comment noted. The bes included in the FEAs. The
310-3	Anne Allison	HI	4/29/2018	Over the years, the variety and numbers of fish have declined while the green turtles have increased.	collection. Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
310-5	Anne Allison	н	4/29/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply unconscionable.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava
310-6	Anne Allison	н	4/29/2018	The big money of the tourist trade would also benefit from healthier reefs and greater fish populations.	Comment noted. Section tourism, Hawaiʻi's tourism arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
310-7	Anne Allison	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
311-1	George Burnette	н	4/28/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
311-2	George Burnette	н	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
311-3	George Burnette	н	4/28/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
311-4	George Burnette	н	4/28/2018	Poor health of the reef and small amount of fish seen at Makena Landing.	Comment noted. The FE/ As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
311-5	George Burnette	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
312-1	Linda Sue	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
312-2	Linda Sue	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
312-3	Linda Sue	н		When looking into the harbor waters, shocked by how many tilapia are there and lack of diversity.	Comment noted.Invasive Hawai'i FEA.
				Pet supply aquarium trades' access to Hawaii's fish should be limited and HI's environmental laws should be strictly enforced and perhaps made	Comment noted. The FEA In addition, both FEAs dis collection. Both FEAs also
312-4	Linda Sue Linda Sue	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Bruce Lowrey	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Leaf Scorpionfish, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por
	Bruce Lowrey Bruce Lowrey	н	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai	Comment noted. The bes included in the FEAs. The collection.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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ve species are discussed in Section 4.4.9 of the O'ahu FEA and 4.4.6 of the

EAs conclude no significant impact from commercial aquarium collection. discuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
313-4	Bruce Lowrey	н	4/28/2018	Witnessed disappearance of pennant butterflyfish, leaf scorpionfish, cleaner wrasse and several other species from South Kihei beaches.	Comment noted. Comme FEA.
313-5	Bruce Lowrey	н	4/28/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply wrong; the greater good must prevail over individual, unsustainable exploitation of our common legacy.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
	Bruce Lowrey	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
314-1	Molly Ancona	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
314-2	Molly Ancona	н	4/29/2018		Teviewers commutata ar
314-3	Molly Ancona	н	4/29/2018	Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
314-4	Molly Ancona	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
315-1	Jeremy Bird	N/A	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

nercial aquarium collection on the island of Maui is not covered by either

lawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por
315-2	Jeremy Bird	N/A	4/27/2018		
315-3	Jeremy Bird	N/A	4/27/2018	the following Hawaii Island districts: Ka`u, North Kohala, Puna, Waikiki/Diamond Head, Hawaii Kai, Kaneobe/Windward, Ewa	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
315-4	Jeremy Bird	N/A	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
316-1	Hazel Churuilla	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
316-2	Hazel Churuilla	HI	4/28/2018	Specific concerns about these species: DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data an
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai,	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
316-3	Hazel Churuilla	HI	4/28/2018	No fishes should be taken out of their homes just to be relocated for people	Comment noted. The FEA
316-4 316-5	Hazel Churuilla Hazel Churuilla	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	environment. Comment noted. The FEA impact therefore an envir

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

o'ahu FEA includes a revised Preferred Alternative that includes expansion WLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs analyze the impact of comemrcial aquarium collection on the

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
317-1	Paul Friese	н	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection or population. The O'ahu FE the 12-month analysis pe populations. Collection or population. This level of t fish harvest based on ava
217.2	David Friend		4/20/2010	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
317-2	Paul Friese	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai.	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
	Paul Friese Paul Friese	ні	4/28/2018	Survivability in aquarium trade is under 50%; removing them from their environment creates dead zones hence your marine trophic cascade (proven in Indonesia by someone from HI).	Comment noted. The FEA
	Paul Friese	н	4/28/2018	The fish keep the reef clean from seaweed and algae suffocation.	Comment noted.As noted O'ahu FEA, Tissot and Hal of collection versus areas these sections, two stud program have concluded island's reefs.
317-6	Paul Friese	н	4/28/2018	Aquarium trade should have husbandry licenses to produce own for their trade; should also be required to replenish empty reefs.	Comment noted.
	Paul Friese	н	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
318-1	Linda Norrington	н	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection.

ted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the Hallacher (2003) found no evidence that algal growth was higher in areas as without collection, despite differences in fish abundance. Also noted in udies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring ed that commercial aquarium fishing has had no significant impact on the

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
210 2	Lindo Norrington		4/20/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
318-2	Linda Norrington Linda Norrington	н	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kaneohe/Windward, Leeward, Maui/Molokai/Lanai.	Comment noted. The bes included in the FEAs. The collection.
318-4	Linda Norrington	н	4/29/2018	Fewer small reef fish, with Hanama Bay being a prime example, over last 20 years.	Comment noted. The best included in the FEAs. Peer collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs
318-5	Linda Norrington	н	4/29/2018	With coral bleaching and effects of land runoff and sunscreen use, it is foolish to think the current numbers of fish taken can be sustained; limits must be set and enforced, or better yet, a moratorium should be held until all fish stocks can recover.	Comment noted. The FEA Cumulative impacts from
318-6	Linda Norrington	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
319-1	Steve Ward	н	5/1/2018	, sustain fairly high levels of continuous harvest": overuse of the word "likely"	Comment noted.The FEAs reviewers confirm data ar
319-2	Steve Ward	н	5/1/2018	As noted on page 91, the 2015 coral bleaching resulted in an average cover loss of 49.7%; should not allow the aquarium collection business to add more stress to our precious reefs.	As noted in Section 5.4.1. that from 2016 to 2017, a minimal change in coral c collection, compared to a difference was statisticall
319-3	Steve Ward	н	5/1/2018	DLNR should be doing everything possible to protect our reefs, a crucial economic resource to the entire community; according to page 93, \$1,354,054 is added to the economy by the aquarium fishery (much more added by tourist activities that depend on the reef).	As noted in Section 5.4.1. no significant impact on c available data do not sugg industry in Hawai'i. Hawa visitor arrivals in 2016, ma
319-4	Steve Ward	н	5/1/2018	Public sentiment is on the side of curtailing aquarium collectors and the issue is gaining traction every day as the word spreads.	Comment noted. Section with stakeholders prior to publication. Comments of preferred alternatives wit
320-1	Martin Selch	Germany		As a world aquarium exporter, Hawaiian fishes are spectactular in appearance and easy to keep.	Comment noted. The FEA
320-2	Martin Selch	Germany		Hawaiian fisheries have set the world highest standards to which the rest of the world's ornamental fisheries aspire; extremely low or no mortality from Hawaiian exporters.	Comment noted. The FEA

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EAs conclude no significant impact from commercial aquarium collection. m other sources are discussed in Section 5.4.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs use the best available data regarding species abundance. Peer are accurate.

.1.2.4 of the Hawai'i FEA, the long-term DAR coral monitorng concluded 7, approximately one year after coral post-bleaching mortality subsided, 1 cover was documented within areas open to commercial aquarium o a slight decline in mean coral cover in areas closed to collection, and this ally significant (p = 0.038).

.1.2.4 of te FEA, two studies have concluded that the aquarium fishery has n coral or the reef ecosystem. As noted in Section 5.2.2.2 of the FEA, aggest that commercial aquarium collection has impacted the tourism wai'i's tourism industry achieved new records in total visitor spending and marking the fifth consecutive year of record growth in both categories.

on 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
320-3	Martin Selch	Germany	5/1/2018	Almost 20 years of data shows how well managed the resources are in HI and how professional aquarium fish collection has been conducted.	Comment noted. The FEA The FEAs use the best ava are accurate.
320-4	Martin Selch	Germany	5/1/2018	Request to restore the permits, allow the aquarium trade to continue with the establised monitoring system, and to continue the good work of the Hawaiian Fisheries Department.	Comment noted. The FEA
321-1	PJBarba	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
322-1	Carren Solis	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
323-1	Fred Ong	N/A	4/30/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
324-1	Carl Harrison	ні	4/30/2018	For the Fishes hidden agenda has hidden agenda of abolishment of all marine species capture with the true intention to end all wild caught fish for aquariums; spread disinformation using emotion to gather donations and offiliate with the likes of PETA; infringe of our rights to capture fish and harrass commerical divers; have not disclosed their financial information as required by to operate as a nonprofit in the state of HI.	Comment noted.
325-1	Charles Wall	тх	4/27/2018	Have seen no noticeable decline in number of HI fish; please allow collectors to continue with small mesh nets.	Comment noted. The FEA The FEAs use the best ava are accurate.
326-1	Pedro Medina	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
327-1	Ron Tubbs	HI	4/28/2018	Suspect that the deeper reef replenishes the shallower reef with fish (links	Comment noted. Both th of several species collecte feet.
327-2	Ron Tubbs	ні	4/28/2018	but they can be found on reef ledges, finger corals, deep ledges, and deep	Comment noted. Addition added to Section 4.4.4.6 in
327-3	Ron Tubbs	н	4/28/2018	By rotating our good spots to prevent them from getting net wise, they are a very sustainable fish species; more information available upon request.	Comment noted. The FEA impact.
328-1	Mark Cao	н	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
329-1	Jack Cao	HI	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
330-1	Isaac-Paka Harp	HI	4/27/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii	The Hawai'i FEA concluder month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

the Hawai'l and Oahu FEA discuss the that the majority fo the population cted by commercial aquarium collectors are found at depths below 98

tional information regarding the deepwater habitat of Flame Wrasse were 6 in the O'ahu.

EA concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
330-2	Isaac-Paka Harp	HI	4/27/2018	Specific concerns about these species: Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
330-3	Isaac-Paka Harp	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai.	Comment noted. The bes included in the FEAs. The collection.
330-4	Isaac-Paka Harp	HI	4/27/2018	Clear that improvements in management are necessary.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of population. This level of to fish harvest based on available
330-5	Isaac-Paka Harp	HI	4/27/2018	The EA was not prepared by the DLNR but rather by Pet Industry Joint Advisory Council (which does not follow 343-5); Also states that a statement shall be required if the agency finds that the proposed action MAY have signficiant effect on the environment.	As noted in Section 1.2.2 agency actions and applic collection pursuant to per agency approval. Therefo the Preferred Alternative statement is not required
330-6	Isaac-Paka Harp	ні	4/27/2018	Request that the DLNR prepare an environmental impact statement that includes the required cultural impacts and the public review and comment process, as well as hold public hearings on all islands where aquarium fish collecting is permitted.	Comment noted. The FEA impact therefore an envir resources are discussed ir
330-7	Isaac-Paka Harp	ні	4/27/2018	Under Article 147 of the Fourth Geneva Convention, the occupying power is bound by humanitarian law not to utilize natural resources of the occupied nation for the purposes of its domestic population.	Comment noted. The app
331-1	Christina Nakamura	HI	4/27/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

.2 of the FEA, the HEPA process has two separate procedural tracks licant actions. The Supreme Court of Hawai'i concluded that aquarium permits issued under HRS § 188-31 is an applicant action that requires efore, an applicant prepared EA is appropriate. The FEA concludes that we will not have a significant impact therefore an environmental impact ed.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required. Impacts to cultural in Section 5.3 of both FEAs.

applicant supports full enforcement of all applicable regulations.

Common to No.	Common to a	State/	Date	Comment	Response
Comment No.	Commentor Christina Nakamura	Location	Received	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data an
331-3	Christina Nakamura	н	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Leeward.	Comment noted. The O'ah of the existing Waikiki ML aquarium fishers and othe
	Christina Nakamura	н	4/27/2018	Unrestrained fishing for aquariums is wasteful, harmful to reefs and fish, and downright cruel.	Comment noted. The FEA: The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Approve fo the EA because the DLNR and NOAA have proven that the	Comment noted. The FEA
	A Tropical Reef Katja Montaldos	N/A	5/1/2018	Sustainability does not justify capturing wild fish and putting them into aquariums; many fish die not long after being captured.	Comment noted. The FEAs The FEAs use the best ava are accurate. As noted in S studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of population. This level of ta fish harvest based on avai
		N/A		Greed for money clouds many people and has previously led to extinction of species.	Comment noted.The FEAs
	Katja Montaldos Pond Team	N/A		Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
335-1	Jennifer Wheeler	N/A		Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
	Sue E. Dean	со	5/1/2018	Polls have shown that about 90% of those asked support legislation to phase out the commercial aquarium collection industry.	Comment noted. Section 6 with stakeholders prior to publication. Comments or preferred alternatives with

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data n Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As conclude no significant impact from commercial aquarium collection.

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n 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new ith bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
336-2	Sue E. Dean	со	5/1/2018	Last session, the legislature passed SB-1240 to phase out commercial aquarium collection of reef wildlife but was vetoed by governor.	Comment noted. The FEA
336-3	Sue E. Dean	со	5/1/2018	Hawaii's Constitution makes it clear that public resources are for the public	Comment noted. The FEA
337-1	N/A	N/A		Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
338-1	Bonnie Good	N/A		DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEA The FEAs use the best ava are accurate.
338-2	Bonnie Good	N/A	4/30/2018	Conclusions are well-supported and no indirect or cumulative impacts were	Comment noted. The FEA The FEAs use the best ava are accurate.
338-3	Bonnie Good	N/A		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEA
339-1	Janiz Palacat	N/A		DEA provides the best known published scientific data available; data verifies that the management has resulted in increases in both populatio and density of most of all the collected species	Comment noted. The FEA The FEAs use the best ava are accurate.
339-2	Janiz Palacat	N/A	5/1/2018		Comment noted. The FEA
340-1	Meerwasser Center Menzel	Germany	5/2/2018	West HI Island Fishery is one of the best managed near shore fisheries in the world and used as a model around the globe.	Comment noted. The FEA
340-2	Meerwasser Center Menzel	Germany	5/2/2018	HEPA is intended to measure the impact of removal of these species from their habitat, so management requirements should apply to all extraction, regardless of end use (Kole and Achilles can be speared in any numbers).	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3.
340-3	Meerwasser Center Menzel	Germany		Since Act 306, population estimates of the three most collected fish have increased in both density and abundance.	Comment noted. The FEA
340-4	Meerwasser Center Menzel	Germany		No known published scientific information has been omitted in this document that should result in any alternate conclusion; assessments are thorough and comprehensive.	Comment noted. The FEA The FEAs use the best ava are accurate.
341-1	Scott Karsk	N/A		Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
341-2	Scott Karsk	N/A	4/28/2018	Fish tank used in classroom to learn about coral reefs, food chains, and	Comment noted. The FEA The FEAs use the best ava are accurate.
342-1	Jared Fernley	N/A		Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
343-1	Robin Kamakahi	N/A		No significant impact; collectors are responsible.	Comment noted. The FEA
343-2	Robin Kamakahi	N/A	5/1/2018	Would be unable to enjoy my hobby and others' livlihoods.	Comment noted. The FEA The FEAs use the best ava are accurate.
344-1	Tropical Marine Centre Ltd	United Kingdom	5/1/2018	Tropical aquarium trade is a proven, viable, and sustainable industry;	Comment noted. The FEA collection.
344-2	Tropical Marine Centre Ltd	United Kingdom		No other commercial fishing group is as closely regulated or has such stringent restrictions; oppose any ban that would deny us access and deprive our business of income and the impact of any ban on UK trade would be significant.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
		United	5/1/2018	Mortalities are typically less than 0.1-0.3% for transport to the LIK	Comment noted. The FEA
344-3	Tropical Marine Centre Ltd	Kingdom United Kingdom		Most of the opposition appears based less on the facts and more on an	Comment noted. The FEA
344-4	Tropical Marine Centre Ltd	Kingdom		emotional but irrational view. EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
345-1	Julia Manglallan	HI	N/A		

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As both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
346-1	James Cominella	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
347-1	Ted Kiesel	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
348-1	Brianne Higa	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
349-1	Kara Ching	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
350-1	Elise Fernley	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
351-1	Lito Raguindin Jr.	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
352-1	Glendalyn Barit	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
353-1	Darren Matsida	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
354-1	Miles K. Johnson	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
	Michael Inaba	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
356-1	Jase Goff	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
357-1	Janis E. Kurasaki	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
358-1	Lance K. Ikeda	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
359-1	Jacob L. Jensen	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
360-1	Edward Koch	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
361-1	Henry Tilly	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
362-1	Kirsten Jensen	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
363-1	Cory Helliangao	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
102-1	Cory Anthony Helliangao	H	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.

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365-1	David Pangugan	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
366-1	Stewart J. Silva	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
367-1	Steven Leons	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
368-1	Murray Armstrong	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
369-1	Mike Kapu	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
370-1	Suki DeRenne	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
371-1	Wylie Ball	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
372-1	Andrew Jerabek	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
373-1	LeAnna Jerabek	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
374-1	Kris Ludwig	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
375-1	Kayla Nelson	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
376-1	Mike Vericker	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
377-1	Luci Price	N/A	4/30/2018	Industry is sustainable and continues to work with DLNR.	Comment noted. The FEA
377-2	Luci Price	N/A	4/30/2018	Population estimates have increased.	Comment noted. The FEA
377-3	Luci Price	N/A	4/30/2018	HEPA law should apply across the spectrum, not just to the aquarium fish trade.	Comment noted. The FEA
377-4	Luci Price	N/A	4/30/2018	No scientific reason for continuing the ban or opposing the renewing of commerical aquarium permits.	Comment noted. The FEA
378-1	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Most sustainable, transparent, and traceable of all fishes in the world.	Comment noted. The FEA
378-2	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Management requirements should apply to all extraction, regardless of end	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3.
378-3		Netherlands		Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEA
378-4		Netherlands	5/1/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEA The FEAs use the best ava are accurate.
379-1	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Would be a loss for the aquarium trade if certain species wouldn't be available anymore.	Comment noted. The FEA
379-2	Steve Mertens, De Jong Marinelife		5/2/2018	Management requirements should apply to all extraction, regardless of end use.	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3.

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EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
379-3	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEA
379-4	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEA The FEAs use the best ava are accurate.
380-1	Milton Terazono	N/A	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
381-1	Kaipo Simpson	N/A	4/28/2018	Do not see a difference in collecting reef fish for the purpose of eating vs. selling into the aquarium trade.	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3.
201.0				EA supports this is a sustainable practice; follow science rather than emotion.	Comment noted. The FEA The FEAs use the best ava
381-2	Kaipo Simpson	N/A	4/28/2018	After seeing aquarium fisheries in other countries, the West HI Regional Fish	are accurate.
382-1	Ulla Carmiencke	ні	4/30/2018		Comment noted. The FEA
382-2	Ulla Carmiencke	ні	4/30/2018	Only occasionally receive a shipping report of mortality in excess of 1%; fishery depends on live, healthy fish.	Comment noted. The FEA
382-3	Ulla Carmiencke	н	4/30/2018	Difficult to understand why I'm out of work given the effort that DAR/DLNR has put into making the aquarium fishery a model one that provides jobs, contributes to a diversified economy and the state tax base.	Comment noted. The FEA Impacts to socioeconomic
383-1	Tamashiromarket	N/A	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have	Comment noted. The FEA collection.
384-1	Sean Terazono	N/A	5/1/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
384-2	Sean Terazono	N/A		With proper regulations and maintenance, this fishery can continue to be a sustainable fishery for generations to come.	Comment noted. The FEA
385-1	Rajesh Ramoutar	FL	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
385-2	Rajesh Ramoutar	FL	4/30/2018	Collection for the aquarium trade in HI and FL are some of the most ecologically friendly and sustainable practices in the US for our industry.	Comment noted. The FEA
386-1	The Pet Depot Hawaii	н	4/28/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
387-1	John Lim	N/A	4/29/2018	Approve of the tropical fish industry and believe it be sustainable.	Comment noted. The FEA
388-1	Mal Smith	N/A	5/2/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
388-1		N/A	5/2/2018	Support the aquarium trade and the fisherman who support their families in	
389-1	Timothy Ewing	ні	5/2/2018	this industry; fishery is sustainable and should be restored.	collection.
200.1	Tommy Your coulor		5/2/2018	Comprehensive documents that include all available scientific information; reasonable and responsible conclusions; If the decision to reopen the Hawaii fishery to aquarium fishers is a scientific, and not political, one, then these assessments certainly justify the reopening of the fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
390-1 390-2	Tommy Yannopoulos Tommy Yannopoulos	FL		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEA
391-1	Bertha Basabe	HI	5/2/2018	Opponents testify that there are no fish; maybe they snorkel where the reefs are damaged from inexperienced snorkelers and over use.	Comment noted. The FEA The FEAs use the best ava are accurate. Cumulative i 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing, are

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data ve impacts from other sources, including tourism, are discussed in Section

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
391-2	Bertha Basabe	н	5/2/2018	Lawsuit is extremely prejudicial towards our grow of aquarium fish collectors; no environmental impact statements needed for other ocean resource users and commercial fishing license holders.	Comment noted. The FEA
392-1	Lawrence Tirona	н	5/2/2018	Agree and support the above scientific assessments	Comment noted. The FEA
393-1	Dave & Judith Gentile	IL		People who oppose the industry are, for the most part, ignorant of the ocean and what it really is.	Comment noted. The FEA
393-2	Dave & Judith Gentile	11	5/2/2018	Tourist industry will stop at nothing to bring in revenue; have watched the ocean of Hawaii slowly die, thanks in part to the building up of Oahu as one of the top vacation destinations in the world	Comment noted. The cum
393-3	Dave & Judith Gentile	IL	5/2/2018	No way in the universe that such a small number of tropical fishermen and their families could have such a supposedly large effect on something the size of HI's ocean life; compare to the damage that any building on the land can do.	Comment noted. The FEA
394-1	Gary Beals	НІ	5/2/2018	Shutting down the fishery is based on emotions rather than what is right	Comment noted. The FEA
394-2	Gary Beals	HI	5/2/2018	Existing scientific evidence supports the fact that the reef stocks are well	Comment noted. The FEA The FEAs use the best ava are accurate.
395-1	Scott Folsom	ні	5/3/2018	Aquarium industry aligns itself with science, as opposed to emotion, which overwhelmingly demonstrates the sustainability of this industry.	Comment noted. The FEA The FEAs use the best ava are accurate.
395-2	Scott Folsom	н	5/3/2018	Have vested interest in protecting the ocean and its resources.	Comment noted. The FEA
396-1	Bradley Bollinger	н	5/3/2018	Support the aquarium trade and the fisherman who support their families in this industry; fishery is sustainable and should be restored.	Comment noted. The FEA collection.
397-1	Kevin Brunsen	НІ		Support the aquarium industry if of equal status statewide and well regulated for quantity of fish taken.	Comment noted. The FEA collection.
398-1	Michael Cross	ТХ		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
399-1	Arthur Reynolds	СА		DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI; conclusions are well-supported.	Comment noted. The FEA The FEAs use the best ava are accurate.
399-2	Arthur Reynolds	СА	5/2/2018	No indirect or sumulative impacts that were not adequately considered	Comment noted. The FEA
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
399-3	Arthur Reynolds	CA	5/2/2018	reopening. Support the aquarium trade and the fisherman who support their families in this industry; fishery is sustainable and should be restored.	Comment noted. The FEA collection.
400-1	Ray Kevis	HI		Support the aquarium trade and the fisherman who support their families in this industry.	
401-1	Angela Trevithick Jeffrey Slemp	OR		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	collection. Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

umulative impact of tourism is discussed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

EAs both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
403-1	Chris Noonan	LΝ	5/2/2018	Sustainability efforts are under way but more time is needed.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava
404-1	Travis Brandwood	NC		Comprehensive documents that include all available scientific information; reasonable and responsible conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
404-2	Travis Brandwood	NC		DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
	Mick Sowl	WA		DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
	Mick Sowl	WA	5/2/2018	Conclusions are well-supported; no indirect or cumulative impacts that	Comment noted. The FE/ The FEAs use the best ava are accurate.
406-1	Jamie Kawauchi	Н	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
406-2	Jamie Kawauchi	НІ	5/1/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	IC and nonulations (oller
406-3	Jamie Kawauchi	н	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Puna, Hilo, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward,	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
406-4	Jamie Kawauchi	HI	5/1/2018	Stop all commercial harvesting of reef fish; soon we will not be protected if the reef fish are not there to keep our island reefs clean and healthy.	Comment noted. As note studies (Tissot and Hallac concluded that commerci The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
406-5	Jamie Kawauchi	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
407-1	Gregg Rosenberg	FL		Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable; limits on size and quantities have proven to be very effective.	Comment noted. The FEA
408-1	Susan Burk	WA	5/2/2018	including those in the industry and responsible hobbyists	Comment noted. The FE
409-1	Cyrus Forell	WA	5/2/2018	Comprehensive documents that include all available scientific information; reasonable and responsible conclusions.	Comment noted. The FE/ The FEAs use the best ava are accurate.
409-2	Cyrus Forell	WA		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
409-3	Cyrus Forell	WA		DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
410-1	Cynthia DeLillo	ст	5/2/2018	No scientific data to support the need for a ban; fisheries are sustainable and offer a livlihood to many in HI.	Comment noted. The FE
	Dhillin Kritzman	N/ / A	E /2 /2010		Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collection period would be less thar of the remaining three sp concludes that collection period would be less thar the remaining two specie well below or within wha research (5% - 25%; Ocha
411-1	Phillip Kritzman	N/A	5/2/2018	Insist that the DLNR do a full assessment fo the trade's environmental,	Comment noted. The FE
411-2	Phillip Kritzman	N/A	5/2/2018	cultural, and ethical impacts.	impact therefore an envir
412-1	J. Kutcher	N/A	5/2/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
413-1	Edward Simon	н	5/2/2018		Comment noted. The FEA collection.
414-1	Louella, De Jong Marinelife	Netherlands	5/3/2018	Great success in importing fish from the big island; best fishes in the world with high standards and excellent quality.	Comment noted. The FEA

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
414-2	Louella, De Jong Marinelife	Netherlands	5/3/2018	Management requirements should apply to all extraction, regardless of end use.	Comment noted. Cumula FEAs. An additional alterr Achilles Tang. Specifically 10/day to 5 per day for co bag limt for other fisherie
414-2	Louella, De Jong Marinelife	Netherlands		Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEA
414-4	Louella, De Jong Marinelife	Netherlands	5/3/2018	Documents are thorough, comprehensive, and include the best available	Comment noted. The FEA The FEAs use the best ava are accurate.
415-1	Lisa Andrews	Н	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
415-2	Lisa Andrews	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, South Kohala, Waikiki/Diamond Head, Hawaii Kai,	Comment noted. The O'a of the existing Waikiki ML
415-3	Lisa Andrews Lisa Andrews	HI	5/1/2018	Kaneohe/Windward, Lanikai/Kailua. The fish/species population has declined and invasives have taken over (location examples given).	aquarium fishers and othe Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait Commercial aquarium col snappers in the WHRFMA FEA) and Bluestripe Snapp
			5, 2, 2010	Tourists say this is not the destination that is was for travelers.	Comment noted. Section tourism, Hawai'i's tourisn arrivals in 2016, marking t spending by visitors to the
415-5	Lisa Andrews	ні	5/1/2018		(HDBEDT 2017).

lative impacts from other fisheries are discussed in Section 5.4.3 of both ernative was added in the Hawai'i FEA that addresses concerns with ally, the alterantive proposes reducing the Achilles Tang bag limit form commercial aquarium collection in the WHRFMA and imposing a 5/day ries in the WHRFMA.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

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collection includes collection of invasive species, including bluestripe AA and Peacock Grouper in East Hawai'i (see Section 5.4.2.2 of the Hawai'i apper and Peacock Grouper in Oahu (see Section 5.4.2.2 of the O'ahu FEA).

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
					Comment noted. The FEA The FEAs use the best ava are accurate.
415-6	Lisa Andrews	н	5/1/2018		The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
415-7	Lisa Andrews	ні	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
416-1	Liz C.	HI	5/1/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
				Specific concerns about these species: Species abundance has been	Comment noted. The Hav during the 12-month anal Hawai'i populations. Collec overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
416-2	Liz C.	ні	5/1/2018		
416-3	Liz C.	н	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai.	Comment noted. The bes included in the FEAs. The collection.
416-4	Liz C.	н	5/1/2018	Caged, isolated creatures of any size are a travesty and unbalancing nature does not come out well for the human species.	Comment noted.
416-5	Liz C.	н	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
417-1	Carol Ann Davis	н	5/2/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Bandit Angelfish, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes economic value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
417-2	Carol Ann Davis	<u> </u>	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala, Waikiki/Diamond Head, Hawaii Kai, North Shore, Leeward,	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
417-3	Carol Ann Davis Carol Ann Davis	<u>ні</u>	5/2/2018	Kauai. Been swimming at Waiohai/Poipu Beach for 50 years - significantly less reef fish than there were before and the coral is almost gone; would like help making Poipu/Maiohai a fish preserve because Kauai is the only island with no fish preserve.	Comment noted. Commen
417-5	Carol Ann Davis	HI	5/2/2018	Fish and coral in Borneo are in much better shape.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
417-6	Carol Ann Davis	HI		Working on having people wear reef safe sun screen.	Comment noted.The FEAs
417-7	Carol Ann Davis	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
417-7	Cynthia Horton	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
418-2	Cynthia Horton	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
418-3	Cynthia Horton	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Kauai.	Comment noted. The best included in the FEAs. The collection.

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

ercial aquarium collection on the Island of Kauai is not included in either

As conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs.

As analyze the impacts of commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been le FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
418-4	Cynthia Horton	ні	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
419-1	Wayne Harvey	ME		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs
419-2	Wayne Harvey	ME	5/3/2018	Fish collectors of Hawaii have for decades demonstrated no harm to the fish population or it's industry; premit revocation has all the appearance of pre judicial restrictions on these local fish collectors.	Comment noted. The FEAs
420-1	Sharon Willeford	HI	5/2/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
				Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	fish harvest based on avail the FEAs comclude no sign
420-2	Sharon Willeford Sharon Willeford	HI HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneohe/Windward,	Comment noted. The O'ah of the existing Waikiki MLC aquarium fishers and othe
420-4	Sharon Willeford	н	5/2/2018	Deeply concerned about the status of our reefs, especially in Kona; sections along the Ie Kahaluu area are dead; save what we have left for future generations.	Comment noted. The FEAs As noted in Sections 5.4.1. Hallacher (2003)) and a lor commercial aquarium fishi
421-1	M. Healani Sonoda-Pale	HI	5/2/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wou populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection.

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des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ILCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs.

les the the collection of 37 of the 40 White List species during the 12yould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during eriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef ailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
421.2	M. Haslani Sanada Dala		F /2 /2019	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
421-2	M. Healani Sonoda-Pale M. Healani Sonoda-Pale	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, Hilo, Waikiki/Diamond Head,	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
421-4	M. Healani Sonoda-Pale	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	M. Healani Sonoda-Pale	н	5/2/2018	Reef Ohana is under assault from the aquarium trade, which is allowed to take marine life in limitless numbers without any regulation; are herbivores who are needed to keep our reef ecosystem healthy, clean, and vibrant.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish Section 5.4.1.2.4 of the Ha (2003) found no evidence collection, despite differe
421-5	Lanny Sinkin	N/A	5/1/2018	Concerned about the following species: All Top 20 species taken on Oahu, All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	Lanny Sinkin	N/A	5/1/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
422-2 422-3	Lanny Sinkin	N/A	5/1/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.
422-4	Lanny Sinkin	N/A	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. As noted in Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher ce that algal growth was higher in areas of collection versus areas without rences in fish abundance.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
422-5	Lanny Sinkin	N/A	5/1/2018	"Requirement" that respondents present comments that include indentification of specific impacts on specific species is an oveerreach; general comments cannot be barred.	Comment noted. All types there was no requirement
					Comment noted. The FEA The FEAs use the best ava are accurate. As noted in s studies (Tissot and Hallach concluded that commercia
				The abysmal ignorance of the role these fish play in keeping the reef healthy is typical of DLNR; the supposed guardian is working for those who destroy.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
422-6	Lanny Sinkin	N/A	5/1/2018		
423-1	Sharon Torbert	н	5/1/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
			5,1,2010	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sign
423-2	Sharon Torbert	ні	5/1/2018		
423-3	Sharon Torbert	н	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best included in the FEAs. The collection.
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
423-4	Sharon Torbert	HI	5/1/2018		

bes of comments were accepted as part of the public comment period, ent for specific impacts to be addressed.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
423-5	Sharon Torbert	н	5/1/2018	Valuable assets in HI that should not be sold off for profit, including our fish and reefs.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collecti period would be less than of the remaining three sp concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ocha
424-1	Natalie Santiago	н	5/2/2018	Concerned about the following species: Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sig
<u>424-2</u> 424-3	Natalie Santiago Natalie Santiago	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
424-4	Natalie Santiago	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
424-4	Natalie Santiago	н	5/2/2018	Degradation and devastation of our oceans must come to an end; financial gain, greed, and ego can no longer be accepted as the norm.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on available

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is that is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
Comment No.	Commentor	Location			
425-1	Cindi's Pet Center	FL	5/3/2018	Support the sustainable use of tropical fish in the aquarium industry; learn much from the aquarium hobbyist in the areas of breeding and aquaculture.	Comment noted. The FEA collection.
425-2	Cindi's Pet Center	E 1	E /2 /2019	Urge to support the sustainable harvesting of tropical fish for the aquarium	Comment noted. The FEA
425-2	Cindi's Pet Center	FL	5/3/2018	industry as defined by the NOAA and DLNR. Approve of the EA because the DLNR and NOAA have proven that the	
426-1	Aquatic Jewels	FL	5/1/2018	industry is sustainable.	Comment noted. The FEA
407 1	losso Tom	NI / A	F /1 /2019	HI tropical fish industry is sustainable and well managed, per DLNR studies	Comment noted. The FEA
427-1	Jesse Tom	N/A	5/1/2018	over the past 14 years; reasons to this ban are unfounded. Enjoy taking kids to ocean tide pools to catching things for fun; would hate	
427-2	Jesse Tom	N/A	5/1/2018	to loose this right.	Comment noted. The FEA
428-1	Alexander Dillard	FL	5/2/2018	Accept the EA and reject the ban on HI fishing; industry is sustainable and the state's management efforts are working.	Comment noted. The FEA
				Comprehensive documents that include all available scientific information on the effects of the HI aquarium fishery on the environment; resonable	Comment noted. The FEA
429-1	Seth Temko	IL	5/3/2018	and responsible conclusions that are well-supported.	
430-1	Kacie Terazono	N/A	5/4/2018	Support the tropical fish EA because DLNR has proven that this industry is sustainable.	Comment noted. The FEA: collection.
				Have been fishing for the past 30 years off west coast of HI, the fact is that	Comment noted. The FEA
431-1	Tyron Terazono	HI	5/4/2018	the EA has proven that the industry is sustainable. Scientific opinion supports the sustainability of the HI fishery;	
				comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEA
432-1	Sinclaire Tirona	CA	5/3/2018	well-supported conclusions.	
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a	
				scientific and not political one, then these assessments justify the	Comment noted. The FEA
432-2	Sinclaire Tirona	CA	5/3/2018	reopening.	
				As a livestock manager for 25 years for marine aquarium fish, have	
				personally observed how marine specimens from HI consistently show the highest quality, zero wastage, and top adaptability to aquarium conditions.	Comment noted. The FEA
433-1	Peter Yasuda	ні	5/3/2018		
433-2	Peter Yasuda	н	5/3/2018	Strong support the re-issuance of fishing licenses to collectors within the WHRMA.	Comment noted. The FEA: collection.
				Comprehensive documents that include all the available scientific	Comment noted. The FEA
121 1	Shyanna Hirata Eroitas			information on the effects of the HI aquarium fishery on the environment;	The FEAs use the best ava
434-1	Shyanne Hirata-Freitas	HI	5/5/2018	well-supported conclusions. Management and operation of HI's fishery is outstanding and sets the	are accurate.
				standard for the rest of the world; if the decision to reopen the fishery is a	Comment noted. The FEA
			- 1- 1	scientific and not political one, then these assessments justify the	Comment noted. The FEAS
434-2	Shyanne Hirata-Freitas	HI	5/3/2018	reopening. DEAs demonstrate both that the aquarium fish populations are	
				stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
434-3	Shyanne Hirata-Freitas	ні	5/3/2018	these or other fish populations in HI.	
				Aquarium fish industry is not harmful to the ocean environment; as a	Comment noted. The FEA
/25-1	Arnold Fujioka	н	5/1/2010	longtime diver, I have seen tropical fish migrate to remote areas where they cannot be caught.	
435-1			5/4/2018	Cannot be caught. Comprehensive documents that include all the available scientific	are accurate.
				information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEA
436-1	Chelsey Faavesi	н	5/4/2018	well-supported conclusions.	
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a	Comment noted. The FEA
				scientific and not political one, then these assessments justify the	The FEAs use the best ava
436-2	Chelsey Faavesi	ні	5/4/2018	reopening.	are accurate.
				DEAs demonstrate both that the aquarium fish populations are	
126.2	Chalcov Foover:		F /4/2040	stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
436-3	Chelsey Faavesi	ні	5/4/2018	these or other fish populations in HI.	

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
437-1	Jan Porter	VA	5/3/2018	Allow collecting of fish again; there is no evidence of any ill effects on the environment.	Comment noted. The FEA The FEAs use the best ava are accurate.
438-1	Adam Dugger	VA	5/3/2018	This ban has far reaching impacts both to business owners, employees, and hobbyists and enthusiasts around the world.	Comment noted. The FEA The FEAs use the best ava are accurate.
438-2	Adam Dugger	VA	5/3/2018	Please make sure that science rather than emotion and political agendas are the basis for your decisions regarding the HI fish trade.	Comment noted. The FEA
438-3	Adam Dugger	VA		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
438-4	Adam Dugger	VA	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
438-5	Adam Dugger	VA		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
439-1	Shansea Fujuhara	Н		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA
439-2	Shansea Fujuhara	ні	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA The FEAs use the best ava are accurate.
439-3	Shansea Fujuhara	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
440-1	Sharlene Decoito	н		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
440-2	Sharlene Decoito	HI		reopening. DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
	Sharlene Decoito	HI		these or other fish populations in HI. Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
441-1	Alex Fauth	AZ		reopening. DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
441-2	Alex Fauth Alex Fauth	AZ AZ	5/3/2018	these or other fish populations in HI. Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEA The FEAs use the best ava are accurate.
442-1	Dan Harmony	AZ		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA The FEAs use the best ava are accurate.
442-2	Dan Harmony	AZ	5/3/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEA The FEAs use the best ava are accurate.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Margaux Nelson	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
			5 (2 (2 2 2 2	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
443-2	Margaux Nelson	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes
443-3	Margaux Nelson	ні	5/2/2018	the following Hawaii Island districts: Maui/Molokai/Lanai, Kauai	included in the FEAs. The collection.
443-4	Margaux Nelson	н	5/2/2018	Reefs are already dying due to climate change, can't loose our fish to the aquarium trade.	Comment noted.The cum Section 5.4.3 of both FEAs
	Margaux Nelson	н	5/2/2018	Fish don't belong in tanks: disannointment in the world everyday	Comment noted. The FEA
	Margaux Nelson	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Mike Keating	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
444-2	Mike Keating	HI	5/3/2018	educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of to fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

imulative impacts of global warming and coral bleaching are discussed in EAs.

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
444-3	Mike Keating	н	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
444-4	Mike Keating	HI		Greed is killing the planet.	Comment noted.
444-5	Mike Keating	ні	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
445-1	Charlotte Beall	ні	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
445-2	Charlotte Beall			Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (inclue reef habitat, or species po reviewers confirm data are
445-3	Charlotte Beall	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The l collection.
445-4	Charlotte Beall	ні		Over last thirty years, have seen the amount of reef fish diminish in the Poipu Beach area of Kauai; money has become more important than the preservation of our environment.	Comment noted. Commer FEA.
445-5	Charlotte Beall	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
446-1	Susan Collins	HI	5/2/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ercial aquarium collection on the Island of Kauai is not included in either

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
446-2	Susan Collins	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, North Shore.	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
446-3	Susan Collins	н	5/2/2018	Have noticed a sharp decline in the reef cleaners and adult fish to provide fish for future generations; HI depends on these organisms to keep our oceans clean and beautiful.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
446-5 447-1	Susan Collins Francine Roby	н	5/2/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real	-
447-2	Francine Roby	н	5/2/2018		
447-3	Francine Roby	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

o'ahu FEA includes a revised Preferred Alternative that includes expansion WLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
447-4	Francine Roby	н	5/2/2018	Populations and diversity of fish have diminished over last three years since moving to HI/Maui.	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
	Francine Roby	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Joseph Culbertson	н	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
448-2	Joseph Culbertson	н	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Joseph Culbertson	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Puna, South Kohala, Kauai.	Comment noted. The bes included in the FEAs. The collection.
	Joseph Culbertson		5/2/2018	Marine bandits need to be stopped now.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Joseph Culbertson Joseph Culbertson	HI HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
449-1	Jeanettte Bonilla	н	5/2/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
449-2	Jeanettte Bonilla	Н	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
449-3	Jeanettte Bonilla	н	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai	Comment noted. The bes included in the FEAs. The collection.
449-4	Jeanettte Bonilla	н	5/2/2018	The natural beauty of our reefs need to be conserved for future generations to enjoy.	Comment noted. The FEA In addition, as noted in Se (Tissot and Hallacher (200 commercial aquarium fish
449-5	Jeanettte Bonilla	н	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE/ impact therefore an envir
450-1	lan Chun	н	5/3/2018	Support the aquarium trade and fishermen who support their families in this industry; true science, not conjecture and emotion, should be used in determining the long term sustainability of the fishery.	Comment noted. The FEA collection.
	William Derasin	н		Not aware of any additional scientific information that these document omit or do not fully consider; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
452-1	Phil Kwiatkowski	н	5/3/2018	Aquarium collectors have come up with some very important innovations in collecting techniques, techniques to improve survival rates of shipped fish and self imposed restrictions on where to fish and what to take.	Comment noted. The FEA
452-2	Phil Kwiatkowski	н	5/3/2018	Studies have shown that when collecting is done responsibly, there is no adverse effect to the ecology of the reef or fish populations over time.	Comment noted. The FEA impact.
453-1	Theodore Engels	СТ	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions. Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fichery on the environment:	Comment noted. The FEA The FEAs use the best ava are accurate. Comment noted. The FEA
454-1	Yvonne Ke	ні	5/3/2018	information on the effects of the HI aquarium fishery on the environment; well-supported conclusions. Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a	The FEAs use the best availare accurate.
454-2	Yvonne Ke	н	5/3/2018	scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies 2003)) and a long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

	Commenter	State/	Date	Comment	Response
Comment No.	Commentor	Location	Received	DEAs demonstrate both that the aquarium fish populations are	
				stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
454-3	Yvonne Ke	н	5/3/2018	these or other fish populations in HI.	
455-1	Robert Shain	MA	5/4/2018	Scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEA
455 1			5/4/2010		
				Our business relies on responsible fish and coral collection from marine environments around the world; hope HI wil reconsider opening the	Comment noted. The FEA The FEAs use the best ava
1				fisheries	are accurate. Socioeconor
456-1	Scott Groseclose	SC	5/4/2018		
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a	
				scientific and not political one, then these assessments justify the	Comment noted. The FEA
457-1	John Oosthuizen	FL	5/3/2018	reopening.	
				DEAs demonstrate both that the aquarium fish populations are	
				stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
457-2	John Oosthuizen	FL	5/3/2018	these or other fish populations in HI.	Commont noted The FEA
				Conclusions are well-supported; no indirect or cumulative impacts that	Comment noted. The FEA The FEAs use the best ava
457-3	John Oosthuizen	FL	5/3/2018	were not adequately addressed.	are accurate.
				Comprehensive documents that include all the available scientific	Comment noted. The FEA
				information on the effects of the HI aquarium fishery on the environment;	The FEAs use the best ava
458-1	Shannon Fujihara	НІ	5/4/2018	well-supported conclusions.	are accurate.
				Management and operation of HI's fishery is outstanding and sets the	
				standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
458-2	Shannon Fujihara	н	5/4/2018	reopening.	
				DEAs demonstrate both that the aquarium fish populations are	
				stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
458-3	Shannon Fujihara	НІ	5/4/2018	these or other fish populations in HI.	
				DEAs demonstrate both that the aquarium fish populations are	
459-1	Karen Oosthuizen	FL	5/3/2018	stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
435 1			5/5/2010		Comment noted. The FEA
				Conclusions are well-supported; no indirect or cumulative impacts that	The FEAs use the best ava
459-2	Karen Oosthuizen	FL	5/3/2018		are accurate.
				Management and operation of HI's fishery is outstanding and sets the	
l				standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
459-3	Karen Oosthuizen	FL	5/3/2018	reopening.	
100 0			3,3,2010	Management and operation of HI's fishery is outstanding and sets the	
				standard for the rest of the world; if the decision to reopen the fishery is a	Comment noted. The FEA
				scientific and not political one, then these assessments justify the	Comment noted. The FLA
460-1	Jesse Baker	FL	5/3/2018	reopening.	
				There is an extent how detailed you need and in depth you need to be until the point where you are wasting resources and endangering the livlihoods	Comment noted. The FEA
461-1	Mikolelehua Barrios	н	5/3/2018	of the people who depend on fishing.	collection.
			0,0,2010	Comprehensive documents that include all the available scientific	Comment noted. The FEA
				information on the effects of the HI aquarium fishery on the environment;	The FEAs use the best ava
461-2	Mikolelehua Barrios	н	5/3/2018	well-supported conclusions.	are accurate.
				DEAs demonstrate both that the aquarium fish populations are	
461-3	Mikolelehua Barrios	н	5/2/2010	stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
-101-2			3/3/2018	Comprehensive documents that include all the available scientific	Comment noted. The FEA
				information on the effects of the HI aquarium fishery on the environment;	The FEAs use the best ava
462-1	Elena Mello-Waiwaiole	ні	5/3/2018	well-supported conclusions.	are accurate.
				Management and operation of HI's fishery is outstanding and sets the	
				standard for the rest of the world; if the decision to reopen the fishery is a	Comment noted. The FEA
162-2	Elena Mello-Waiwaiole		E /2 /2010	scientific and not political one, then these assessments justify the	
462-2		Н	5/5/2018	reopening.	

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
462-3	Elena Mello-Waiwaiole	н	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
463-1	Joshua Schreiber	WI	5/4/2018	Unsupported arguments and dubious natures of some of the organizations pushing to keep this ban in place should be enough to show that this ban is absurd and ridiculous.	Comment noted. The FEA
463-2	Joshua Schreiber	WI	5/4/2018	Pray that these elected officials look at the raw data and peer reviewed scientific papers over the ramblings of PETA knockoff groups.	Comment noted. The FEA The FEAs use the best ava are accurate.
464-1	Luciano Perino	н	5/3/2018	Supprt the DEA; Dept. of Aquatic Resources current regulations, with regards to ornamental fish collection within West HI Regional Fisheries Management Area, includes comprehensive conservation measures aimed at safeguarding biodiversity and population sustainability showing less than 5% take.	Comment noted. The FEA
464-2	Luciano Perino	н		Several hundred of HI's marine animals are excluded since 2014 by the enactment of a White List comprised of forty approved species for the aquarium trade.	Comment noted. White Li
464-3	Luciano Perino	н	5/3/2018	Support the enhanced protection of Acanthurus achilles tang by enacting a bag limit of five achilles per day for all user group/fisheries.	An additional alternative Tang. Specifically, the alter per day for commercial ac other fisheries in the WHF
465-1	Misael Hernandez	N/A	5/3/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
466-1	Leslie Hutchinson	н	5/4/2018	The assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a
466-2	Leslie Hutchinson	н	5/4/2018	EAs do not include any new science or input from other stakeholders who care about preservation.	Comment noted. The FEA The FEAs use the best ava are accurate. Section 6.0 contacted, as well as the o response to public commo
466-3	Leslie Hutchinson	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture	Comment noted. The FEA Environmental and cultura
466-4	Leslie Hutchinson	н		Request EIS that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts and maintains current moratorium until complete.	Comment noted. The FEA impact therefore an envir
467-1	Richard Dangerman, De Jong Marinelife	Netherlands	5/4/2018	Very important to be able to continue importing from HI; most valued fishes	Comment noted. The FEA The FEAs use the best ava are accurate.
467-2	Richard Dangerman, De Jong Marinelife	Netherlands	5/4/2018	West HI Island Fishery is one of the best managed near shore fisheries in the world and used as a model around the globe.	Comment noted. The FEA
467-3	Richard Dangerman, De Jong Marinelife	Netherlands	5/4/2018	Aquarium trade has work with DLNR since the 1990s to insure that fishery can grow, evolve, and maintain its sustainability; management	Comment noted. The FEA
467-4	Richard Dangerman, De Jong Marinelife	Netherlands		Population and denisty estimates have increased since the implementation of the 2014 rules.	Comment noted. The FEA
467-5	Richard Dangerman, De Jong Marinelife	Netherlands	5/4/2018	Documents are thorough, comprehensive, and include the best available research	Comment noted. The FEA The FEAs use the best ava are accurate.

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

List species are discussed in Section 4.4.1 of the Hawai'i FEA.

ve was added in the Hawai'i FEA that addresses concerns with Achilles alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 aquarium collection in the WHRFMA and imposing a 5/day bag limt for /HRFMA.

EAs conclude no significant impact from commercial aquarium collection.

oplicant prepared the FEAs in accordance with state law. As noted in , the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency applicant prepared EA is appropriate.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data .0 in the FEAs outlines the organizations, agencies, and individuals he distribution of the draft EAs. In addition, the FEAs were updated in iments.

EAs conclude no significant impact from commercial aquarium collection. ural impacts are discussed in Section 5.0 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
468-1	Tony Nahacky	н	5/3/2018	Achille Tangs have experienced poor recruitment over the last decade in most areas of WHRFMA; are targeted by recreational food fisher, aquarium fishers, and commercial food fishers; need help of others to reverse current trends, since aquarium fishers are following bag limits and limiting fishing areas/times; support a more conservative limit of 5 Achilles per day per fisher for all fishers.	An additional alternative v Tang. Specifically, the alte per day for commercial ac other fisheries in the WHF
468-2	Tony Nahacky	н	5/3/2018	Analysis of the data in the DEA is more than adequate; DAR (WHAP) data is the best available data to utilize given the scope and length of the monitoring; the 5%-25% cited in the DEA was referenced from a study of sustainable aquarium fish take but actual take in HI County is well below 10% (At SPC, a maximum of 10% take of total stock of aquarium fish was utilized for evaluations).	Comment noted. The bes included in the FEAs. Pee
468-3	Tony Nahacky	н	5/3/2018	WHAP data is the best data to utilize for the WHRFMA, although it not applicable outside of the WHRFMA to prove sustainability in a particular area.	Comment noted. Both W However, due to the large CREP data were considere therefore serve as the prin
468-4	Tony Nahacky	н	5/3/2018	DLNR/DAR measures are already in place for monitoring and to assure a sustainable fishery in the WHRFMA and they are working efficiently.	Comment noted. The FEA
468-5	Tony Nahacky	н	5/3/2018	After 51 years, now unable to earn a living despite the data showing a sustainable fishery; please restore the permits as soon as possible; will provide detailed information if requested.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
469-1	Barrier Reef	N/A	5/2/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEA
470-1	Julie Klaz	н		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
470-2	Julie Klaz	н	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
470-3	Julie Klaz	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
471-1	Mary Watkins	СА	5/4/2018	The cattle boat dive shops damage the environment to a far greater extent	Comment noted. The FEA Cumulative impacts, inclu
471-2	Mary Watkins	CA		Can personally attest to the care with which the aquarium fishermen interact with the environment how concerned their industry as a whole is environmentally responsible.	Comment noted. The FEA
				Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
471-3	Mary Watkins	CA	5/4/2018	reopening. Comprehensive documents that include all the available scientific	Comment noted. The FEA
471-4	Mary Watkins	CA	5/4/2018	information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	The FEAs use the best ava are accurate.
472-1	Kim Koch	н	5/4/2018	The West Hawaii Regional Fishery Management Area has been studied and managed for decades and the EA proves what fishermen and scientists have claimed for years, its sustainable.	Comment noted. The FEA The FEAs use the best ava are accurate.
				Fully support opening the fishery and encourage the State to review this on a 5 year basis, but would suggest amending HEPA law so this fishery and others do not have it wrongfully applied in the future	Comment noted. The app
472-2	Kim Koch	ні	5/4/2018	others do not have it wrongfully applied in the future.	

e was added in the Hawai'i FEA that addresses concerns with Achilles Iternative proposes reducing the Achilles Tang bag limit form 10/day to 5 aquarium collection in the WHRFMA and imposing a 5/day bag limt for HRFMA.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate.

WHAP and CREP data sets are presented and analyzed in the Hawai'i FEA. ger spatial coverage and greater range of depths surveyed by the CREP, red to be a better estimator of island-wide fish populations, and rimary basis for the impact analysis found in Section 5.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Iuding from tourism, are discussed in Section 5.4.3 of both FEAs.

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

pplicant supports full enforcement of all applicable regulations.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
473-1	William Trufant	AL	5/4/2018	Scares me to see that a fishery as well regulatedand managed as the waters around HI would even have these issues; shows how much influence that well meaning but uninformed people can have.	Comment noted. The FEA
473-2	William Trufant	AL	5/4/2018	Fish from HI are a mainstay in our hobby.	Comment noted. The FEA
				Has been proven that these fish are sustainably taken from the wild and provide a source of income for many native Hawaiians.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
473-3	William Trufant	AL		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEA The FEAs use the best ava
474-1	Kaleo Mello Kaleo Mello	н		well-supported conclusions. Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	are accurate. Comment noted. The FEA
474-3	Kaleo Mello	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
475-1	Georgette Valliere	ME	5/4/2018	Support the aquarium trade and the fishermen who support their families in this industry; industry is sustainable and should be restored.	Comment noted. The FEA impact.
476.4			5 (1/2010	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA The FEAs use the best ava are accurate.
476-1	Chris Handegard Chris Handegard	WA WA		reopening. DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
476-3	Chris Handegard	WA		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA
477-1	Shavon Mello-Waiwaiole	н	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
477-2	Shavon Mello-Waiwaiole	ні	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
477-3	Shavon Mello-waiwaiole	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
478-1	Robert Valliere	ME	5/4/2018		Comment noted. The FEA impact.
479-1	Hayden Bishop	н		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
470.2	Heuden Diskers		F ///2000	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the	Comment noted. The FEA
479-2	Hayden Bishop			reopening. DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fich populations in HI	Comment noted. The FEA
479-3	Hayden Bishop Leah Mello-waiwaiole	н		these or other fish populations in HI. Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection.

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A concludes that the Preferred Alternative will not have a significant

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
480-2	Leah Mello-waiwaiole	н	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA The FEAs use the best ava are accurate.
				DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting	Comment noted. The FEA
480-3	Leah Mello-waiwaiole	HI	5/4/2018	these or other fish populations in HI. Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEA
481-1 481-2	Kapono Kahele-Bishop Kapono Kahele-Bishop	н		well-supported conclusions. Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA The FEAs use the best ava are accurate.
481-3	Kapono Kahele-Bishop	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
	David Krystal	н		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
	Akemi Krystal	н		DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
	Akemi Krystal	н	5/4/2018	Amount of data is impressive, and conclusions are well-supported; no	Comment noted. The FEA The FEAs use the best ava are accurate.
484-1	Vince Tirona	CA	5/5/2018	Fully support the aquarium fisherman; it's a sustainable industry and these fisherman work hard for their ohana.	Comment noted. The FEA
485-1	James Higgins	FL	5/5/2018	Scientific opinion certain supports the sustainability of the HI fishery; thorough review of the environmental assesments.	Comment noted. The FEA
486-1	Susan Basabe	WA	5/5/2018	As a skeptic and environmental protection advocate, I have been impressed with the aquarium trade divers who joined together to self regulate in order to insure that the harvest doesn't negatively effect the sustainability of the many species; found them to be honest about the trade and believe the industry is sustainable based on my observations and their accounts	Comment noted. The FEA
487-1	Glenn Kosaki	н	5/5/2018	An injustice to prevent them from providing an honest living for their families.	Comment noted. The FEA
487-2	Glenn Kosaki	н	5/5/2018	May be difficult for some to accept the peer-reviewed science since it does not reinforce their position and therefore must be flawed; science establishes the fishery as sustainable and it shouldbe rightfully restored.	Comment noted. The FEA
	Dominick Siconolfi	NJ	5/5/2018	Fully support and agree with the DEA findings: encose the HI fiching han	Comment noted. The FEA
489-1	Creighton Liu	HI	5/5/2018	Methods used in HI are environmentally friendly and allow our ocean species to remain sustainable; there is much misinformation about the inductry and the impact to the environment.	Comment noted. The FEA
489-2	Creighton Liu	н		Support the aquarium trade and fishermen who support their families in this industry.	Comment noted. The FEA collection.
490-1	Bill Knight	ID	5/5/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA
490-2	Bill Knight	ID	5/5/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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EAs both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
491-1	Nancy Sweatt	н	5/5/2018	Aware of the personal persecution by these particular environmentalists; no evidence to support them and in the face of years of records and studies showing this fishery to be sustainable.	Comment noted. The FEA
491-2	Nancy Sweatt	н	5/5/2018	Divers have no way of making a living and supporting their homes and families; however, divers in Oahu are allowed to dive, although they have no evidence to support them like the divers on the Island of HI do with the \$200,000 EIS that supports their sustainability.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconon
	Nancy Sweatt	н	5/5/2018	Are good people who care about the reefs, unlike the snorkeling companies that I have seen trample them.	Comment noted. The FEAs The impacts of tourism are
492-1	Christian Palaco	FL	5/6/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. As noted studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEAs
493-1	Chris Kose	AZ	5/6/2018	well-supported conclusions.	
493-2	Chris Kose	AZ	5/6/2018	Scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEA
494-1	Emi Holton	WA		Have personally observed how careful of fish, coral and the environment and how law-abiding to regulations and rules the tropical fish collectors have been and yet they've been discriminated against and are no longer allowed to fish.	Comment noted. The FEAs
	5 · · · · ·		5 /S /2010	There are charter boats filled with careless people who are contaminating the water with their suntan oils, garbage thrown overboared, etc. and yet	Comment noted. The FEAs The impacts of tourism are
	Emi Holton Emi Holton	WA WA		they are allowed to continue. Years of scientific studies show the tropical fish collectors have not caused a decrease in the fish populations.	
+J+-5			5/0/2018	Give the professional fish divers more credit; the people damaging	Comment noted. The FEAs
495-1	Tara Sweatt	н	5/6/2018	reefs/fish are the tourists.	The impacts of tourism are
495-2	Tara Sweatt	ні	5/6/2018	If anyone feels as if they are depleting fish or causing damage, then have an education certificate class givenby the State for them to take instead of taking more jobs away.	Comment noted. Impacts
496-1	David Foley	н	5/6/2018	Not aware of any additional scientific information that these document omit or do not fully consider; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEA
496-2	David Foley	Н		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
				Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment;	Comment noted. The FEA The FEAs use the best ava
497-1	Robert Homer	FL	5/6/2018	well-supported conclusions. People in local government continue to put commercial interests ahead of	are accurate.
498-1	Bonnie B. McMullen	ні	5/5/2018	the health of the environment.	Comment noted. The FEAs

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

As conclude no significant impact from commercial aquarium collection. are considered in Section 5.4.3.4 of the FEAs.

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have reial aquarium fishing has had no significant impact on the island's reefs. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection. are considered in Section 5.4.3.4 of the FEAs.

A concludes that the Preferred Alternative will not have a significant

As conclude no significant impact from commercial aquarium collection. are considered in Section 5.4.3.4 of the FEAs.

ts to reefs and fish populations are discussed in Section 5.4 of both FEAs

EAs conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
					Comment noted. The FEA Collection of green sea tu
				Alarming and shocking the rate at which species have disappeared; no longer see green sea turtles.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai impacts from other source
498-2	Bonnie B. McMullen	HI	5/5/2018		
499-1	Jason Carmichael	N/A	5/4/2018	Tropical Fish EA has proven that the tropical fish industry is sustainable; let's be guided by science and statistics, not emotions.	Comment noted. The FEA collection.
500-1	Joshua Telles	N/A	5/4/2018	Accept the EA study regarding the sustainability of collection activities and reject the ban on HI fishing.	Comment noted. The FEA
501-1	Roger Ma	CA		Ask that you accept the EA, as well as reject the ban on HI fishing.	Comment noted. The FEA
502-1	Private Oceans	FL		Urge you to not allow the international aquarium industry to continue exploiting living creatures for their profit.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
502-2	Private Oceans	FL	5/4/2018	From first hand experience, aquarium wholesalers do not waste any resources pretending to care for fish or coral they receive; tanks and fish in bad condition at some wholesalers (examples given and video attached).	Comment noted. Because conditions, it is not anticip
502-3	Private Oceans	FL		Speaking on behalf of a business in the aquarium industry, we implore you to makea responsible decision on behalf of the fish and corals that have zero control over their own destiny.	Comment noted. The FEA
503-1	Ms. Cris Yamabe	ні	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders who care about preservation.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a The FEAs have been revise DEA development, and the DEAs were fully considered
503-2	Ms. Cris Yamabe	HI		Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai impacts are discussed in S

EAs conclude no significant impact from commercial aquarium collection. turtles is not allowed under a commercial aquarium permit.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative arces, including climate change, are discussed in Section 4.5.3 of both FEAs.

As both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

se mortality post-collection is not anticipated to change from current icipated that this factor will alter the estimated collection numbers.

As conclude no significant impact from commercial aquarium collection.

oplicant prepared the FEAs in accordance with state law. As noted in , the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency applicant prepared EA is appropriate.

ised to describe the process used to engage with stakeholders prior to the broad distribution of the DEAs prior to publication. Comments on the red in developing the FEAs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Cultural n Section 5.3 of btoh FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Ms. Cris Yamabe	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultura, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
	Mike Jasmin	Canada	5/3/2018	As a marine fich hobbyist accent the EA and reject the ban on HI fishing	Comment noted. The FEA
		New		The robust rules applied through the HI administration, and the thinking deployed to make sure that social, economic, and cultural factors are considered to reach an appropriate decision on consideration of aquarium	Comment noted. The FEA collection.
505-1	Aude Chenet	Caledonia New Caledonia		fishing activities impressed me. Results are a clear demonstration of the fact that aquarium fishing in HI is	Comment noted. The FEA
505-2 505-3	Aude Chenet Aude Chenet	Caledonia New Caledonia		sustainable. The no action scenario, with no more permits issued, seemed in that sense very frightening, due to the absence of enhanced potential for fish replenishment vs. the los in economic revenue as well as the precariousness related fro all aquarium fishermen.	Comment noted. The FEA
505-4	Aude Chenet	New Caledonia	5/3/2018	One aspect not considered in DEA: benefit from having aquarium fishermen who contribute to research and scientific knowledge about marine life and who work with the highest quality standards.	Comment noted. The indi funding it provides to mor both FEAs.
	Aquarium Fish	New Caledonia		Our business is artisanal and has limited impact since we're targeting species that are low in food chain and have very high population dynamics; observed large schools of yellow tang and other species when diving with aquarium fish collectors in HI.	Comment noted. The FEA
	Aquarium Fish	New Caledonia		Quite a gap between what is being said over the news and what is going on underwater; people being overly emotional over this fishery, which in itself is highly regulated and sustainable.	Comment noted. The FEA
506-3	Aquarium Fish	New Caledonia	5/3/2018	Permits should be restored so that aquarium collectors can sustain their livlihoods and incomes; have immense knowledge and are fully concerned about the sustainability of their activity.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
507-1	Nicole Brodie	н	5/2/2018	We are the stewards of our resources and must not allow our reefs and oceans to be mined for profit and vanity.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collection period would be less than of the remaining three spe concludes that collection of period would be less than the remaining two species well below or within what research (5% - 25%; Ochaw
	Mrs. Gloria Pondela	н		Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issued approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives with

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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As both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

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ndirect socioeconomic impact of commercial aquarium collection, and the nonitoring reef fishes and their habitat, is described in Section 5.2.2 of

EAs conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. A.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA n of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of ies would be less than 8% of their overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available navillo and Hodgson 2006).

est available scientific data has been included in the FEAs. Peer reviewers te. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in , the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency applicant prepared EA is appropriate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
508-2	Mrs. Gloria Pondela	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
508-3	Mrs. Gloria Pondela	ні	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
509-1	Ms. Monica Takiguchi	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
509-2	Ms. Monica Takiguchi	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
303 2			37472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
509-3	Ms. Monica Takiguchi	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Ms. Kym Harris	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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510-2	Ms. Kym Harris	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
510-3	Ms. Kym Harris	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
511-1	Ms. Lynn Wilson	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
511-2	Ms. Lynn Wilson	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
511-2			5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
511-3	Ms. Lynn Wilson	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	, Ms. Judith Mick	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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513-2	Ms. Judith Mick	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
513-3	Ms. Judith Mick	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
514-1	Kathy Shimata	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
514-2	Kathy Shimata	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
				Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
514-3	Kathy Shimata	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Ms. Rose Bartley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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515-2	Ms. Rose Bartley	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
515-3	Ms. Rose Bartley	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
516-1	Ms. Valerie Weiss	Н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
516-2	Ms. Valerie Weiss	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
510 2			57472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
516-3	Ms. Valerie Weiss	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
517-1	Mr. Eli Sharp	ні	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
517-2	Mr. Eli Sharp	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait cultural resources are add
517-3	Mr. Eli Sharp	ні	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
518-1	Miss Alexandria Siwecki	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
518-2	Miss Alexandria Siwecki	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
510 2			57472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
518-3	Miss Alexandria Siwecki	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Mr. David Erickson	CA	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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519-2	Mr. David Erickson	CA	5/4/2018		Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
519-3	Mr. David Erickson	СА	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
520-1	Ms. Kendall Culler	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
520-2	Ms. Kendall Culler	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
520 2			37472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
520-3	Ms. Kendall Culler	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
521-1	Mrs. Terri Manabe	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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522-1	Ms. Rose Millard	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
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524-1	Mr. Michael Carver	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
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5272			57472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
524-3	Mr. Michael Carver	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
525-1	Mr. M. Moran	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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526-1	Mr. Sindhu Rumpler	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
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526-3	Mr. Sindhu Rumpler	ні	5/4/2018	statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
527-1	Gerry Lan	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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528-1	Mr. Michael Kaster	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
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533-1	Miss Jennifer Watabayashi	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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534-1	Ms. Ingrid Tillman	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
534-2	Ms. Ingrid Tillman	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
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535-1	Ms. Destry Segawa	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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535-3	Ms. Destry Segawa	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
536-1	Ms. Carmina Costello	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
536-2	Ms. Carmina Costello	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
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536-3	Ms. Carmina Costello	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
537-1	Ms. Erin Fitzgerald-Case	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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538-1	Mrs. Judith Kapohakimohewa	НІ	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
538-2	Mrs. Judith Kapohakimohewa	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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539-1	Ms. Stephanie McLaughlin	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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539-3	Ms. Stephanie McLaughlin	ні	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE/ impact therefore an envir
540-1	Ms. Michele Hondo	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
540-2	Ms. Michele Hondo	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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540-3	Ms. Michele Hondo	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
541-1	Mrs. Alison Asejo	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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542-1	Mr. Joshua Wright	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
542-2	Mr. Joshua Wright	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait cultural resources are add
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542-3	Mr. Joshua Wright	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
543-1	Mr. Rawil Ismail	Н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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544-1	Miss Katharine Low	Н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
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545-1	Ms. Juli Schwartzsmith	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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546-1	Ms. Pat Matsueda	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
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546-3	Ms. Pat Matsueda	н	5/5/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
547-1	Ms. Christine Bolis	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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548-1	Ms. Stella Tavares	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
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5102			5,5,2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
548-3	Ms. Stella Tavares	н	5/5/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Ms. Suyin Phillips	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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549-2	Ms. Suyin Phillips	HI	5/5/2018		Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
549-3	Ms. Suyin Phillips	н	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
550-1	Mrs. K G	Н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
550-2	Mrs. K G	н	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
550 2			3,3,2010	Urge you to reject the assessments and prepare environmental impact	Comment noted The FE
550-3	Mrs. K G	н	5/5/2018	statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
551-1	Ms. Terri Lo	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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551-3	Ms. Terri Lo	ні	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
552-1	Ms. Diane Kawamoto	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
552-2	Ms. Diane Kawamoto	н	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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552-3	Ms. Diane Kawamoto	HI	5/5/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
553-1	Miss H. Asumen	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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554-1	Mrs. Annette Burvick	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
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554-2	Mrs. Annette Burvick	н	5/5/2018		
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555-1	Mrs. Gail Stanley	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
	Mrs. Gail Stanley Mrs. Gail Stanley	н	5/5/2018	Our ocean and living creatures are important not only to our existence on	Comment noted. The FEA

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As conclude no significant impact from commercial aquarium collection.

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555-3	Mrs. Gail Stanley	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
555-4	Mrs. Gail Stanley	н	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
556-1	Ms. Geneva Jackson	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
556-2	Ms. Geneva Jackson	н	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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556-3	Ms. Geneva Jackson	н	5/5/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
557-1	Ms. Heidi Holloran	н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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558-1	Mrs. Loredana Raimonda	Italy	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
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558-3	Mrs. Loredana Raimonda	Italy	5/5/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
559-1	Ms. Anita Wintner	НІ	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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	Mrs. Jessica Woo	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
563-2	Ms. Lori Davidson	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
563-3	Ms. Lori Davidson	ні	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
564-1	Mrs. Maria Endler	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
564-2	Mrs. Maria Endler	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
			5,0,2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
564-3	Mrs. Maria Endler	н	5/6/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
565-1	Ms. Kimi Abbottjackson	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
565-2	Ms. Kimi Abbottjackson	н	5/6/2018		Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
565-3	Ms. Kimi Abbottjackson	н	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
566-1	Ms. Terry Akana	н	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
566-2	Ms. Terry Akana	н	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
	inor (ciry) ikana			Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
566-3	Ms. Terry Akana	ні	5/6/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Ms. Arianne Patterson	н	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
567-2	Ms. Arianne Patterson	HI	5/6/2018	Personally witnessed the sharp decline in local reef fish in last five years; first target the more beautiful fish; abundance of certain fish populations has plummeted, as well as the general biodiversity and the overall reef.	Comment noted. The best included in the FEAs. Peet impact from commercial a of the 40 White List speci respective overall island of be less than 5% of their of top 20 collected species of respective overall island of less than 8% of their over considered to be sustainal and Hodgson 2006).
567-3	Ms. Arianne Patterson	н	5/6/2018	Tourists often complain of lack of diversity and interesting fish; in time, the oceans will no longer hold the attraction for the tourist industry in HI.	Comment noted. Section tourism, Hawai'i's tourisn arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
567-4	Ms. Arianne Patterson	н	5/6/2018	Reefs systems being attacked by loss of fish from over zealous aquarium collection, commericial fishing, recreational fishing, water quality deterioration, coral trampling, coral bleaching and death, and more.	Comment noted. The FEA Cumulative impacts from climate change, are discu
	Ms. Arianne Patterson	н	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
567-5 567-6	Ms. Arianne Patterson	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
568-1	Mrs. Pam Elders	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor of the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing and cussed in Section 5.4.3 of both FEAs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to inddressed in Section 5.3 of both FEAs.

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568-3	Mrs. Pam Elders	н	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
569-1	Mrs. Ann Wilson	Н	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
569-2	Mrs. Ann Wilson	н	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
			5,0,2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
569-3	Mrs. Ann Wilson	н	5/6/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
570-1	Ms. Mary Markl	Н	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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570-2	Ms. Mary Markl	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
570-3	Ms. Mary Markl	н	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
571-1	Miss Claire Loridan	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
571-2	Miss Claire Loridan	Н	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
5712			3,772010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
571-3	Miss Claire Loridan	н	5/7/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Dr. V. Anderson	Н	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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572-2	Dr. V. Anderson	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
				Urge you to reject the assessments and prepare environmental impact	
572-3	Dr. V. Anderson	н	5/5/2018	statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
	Tomohisa Nishioka, Kamihata Fish			Support the aquarium trade in HI and hoping that permits should be	Comment noted. The FEA
573-1	Ind.	Tokyo	5/5/2018		collection.
574-1	Chris Lam	н	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
575-1	Ann R. Masaki		N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA collection.
575-1		HI	N/A	ecosystem. EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA collection.
576-1	Charly Micua	ні	N/A	ecosystem.	conection.
577-1	Brent Micua	ні	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
				EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA collection.
578-1	Charles Harvey	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
579-1	Tyler Alcoran	ні	N/A	ecosystem.	collection.
580-1	Syncler Rabang	н	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
504.4				NOAA have concluded that there is no adverse effects on the marine	collection.
581-1	Sara Westbrook	HI	N/A	ecosystem. EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
582-1	Tiana Alcoran	ні	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
583-1	Monica Rabang	ні	N/A	NOAA have concluded that there is no adverse effects on the marine ecosystem.	collection.
505 1				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA collection.
584-1	Esteban Rabang	ні	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
585-1	Alicia McCraw	ні	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
586-1	Mitch Miller	HI	N/A	ecosystem. EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
587-1	David Lum	ні	N/A	ecosystem.	collection.

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EAs both conclude no significant impacts from commercial aquarium

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comment No.	commentor	Location	Received	EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
588-1	Bryson Rabang	ні	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
589-1	Moira Rabang	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
590-1	Brent Oshin	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
591-1	Jerry Anchuta Jr.	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
592-1	Eric Hayes	н	N/A	ecosystem.	collection.
552-1		111	N/A	EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
593-1	Raymond J. Pruana	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
594-1	Michael K. Shimotsh	ні	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted The FEA
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA collection.
595-1	Jingo Saavedry	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
596-1	Glenn Meurata	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
507 4			NI (A	NOAA have concluded that there is no adverse effects on the marine	collection.
597-1	David Miller	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
598-1	Lyndell Schneider	н	N/A	ecosystem.	collection.
550 1				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
599-1	Kyle Yoshimoto	ні	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
600-1	Mel Mau	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
601-1	Oe Sim Fukuda	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
602-1	Lori Matsumura	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
603-1	Lea Matsumura			NOAA have concluded that there is no adverse effects on the marine	collection.
603-1	ועומנטווועומ	HI	N/A	ecosystem. EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
604-1	Tia Matsumura	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
605-1	Aileen Kajiwara	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
606-1	Glenn Fukuda	н	N/A	ecosystem.	collection.

EAs both conclude no significant impacts from commercial aquarium

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
607-1	Sun Chong	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
608-1	Brian Chong	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
609-1	Lisa Chong	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
640.4				NOAA have concluded that there is no adverse effects on the marine	collection.
610-1	Jus Chong	HI	N/A	ecosystem.	
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
611-1	Christine Chong	н	N/A	NOAA have concluded that there is no adverse effects on the marine ecosystem.	collection.
011-1			N/A	EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
612-1	Giovanni Sclarandis	н	N/A	ecosystem.	collection.
012 1				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
613-1	Stanford Wong	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	
				NOAA have concluded that there is no adverse effects on the marine	Comment noted. The FEA
614-1	Bronson Beyer	н	N/A	ecosystem.	collection.
				EA shows that the industry is sustainable and regulated; State agency and	Comment noted. The FEA
				NOAA have concluded that there is no adverse effects on the marine	collection.
615-1	Kevin Sokuda	Н	N/A	ecosystem.	
				Request in strongest possible terms to pass the EA; extensive research by	
				the tropical fish industry in HI has proven it to be sustainable through both	Comment noted. The FEA
616-1	G. A. Taylor Fernley	PA	5/3/2018	the DLNR and NOAA.	
616 2	C A Taylor Forplay	DA	5/3/2018	This action is warranted, justified, and in the best interests of all.	Comment noted. The FEA
616-2	G. A. Taylor Fernley	PA	5/5/2018	Scientific monitoring, enforced network of nine no-aquarium collection	collection.
				FRAs, comprehensive management, and multiple scientific peer reviewed	
				publications all objectively demonsstrate the trade's sustainability; HI	Comment noted. The FEA
				fishery is undeniably one of the most well-managed and regulated	
617-1	Colette Wabnitz	Canada	5/5/2018	aquarium fisheries in the world.	
				Recommendation: Fish populations can suffer high variability in recruitment	Comment noted. An addi
				rates, such as the low recruitment that the Achilles tang have suffered for a	with Achilles Tang. Specif
				number of years; removal of larger adults by the food fisheries contributes	form 10/day to 5 per day
				to diminished replenishment of populations; back a five Achilles bag limit for all fishers in the West HI Regional Fisheries Management Area.	5/day bag limt for other f
617-2	Colette Wabnitz	Canada	5/5/2018	ior all fishers in the west of Regional Fisheries Management Area.	
					Comment noted. The Hav
					during the 12-month anal
				Recommendation: Suggest considering a conservative maximum take of	Hawai'i populations. Colle
				10% - a reference point commonly used in assessment for aquarium	overall population. The O
				fisheries in the South Pacific.	during the 12-month anal
					O'ahu populations. Collec
					population. This level of t
617-3	Colette Wabnitz	Canada	E /E /2019		fish harvest based on avai
01/-3		Canada	5/5/2018		
				Recommendation: Data from DAR across the WHRFMA should not be used	Comment noted. Both W
				to inform management measures elsewhere, where differences in habitat,	However, due to the large
				environmental conditions and regulations will influence populations	CREP data were considere
				patterns and trends, yielding marked different results.	therefore serve as the pri

EAs both conclude no significant impacts from commercial aquarium

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EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

dditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.

lawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their e O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006).

WHAP and CREP data sets are presented and analyzed in the Hawai'i FEA. rger spatial coverage and greater range of depths surveyed by the CREP, ered to be a better estimator of island-wide fish populations, and primary basis for the impact analysis found in Section 5.

	State/	Date	Comment	Response
Commentor	Location	Received		
Caelly Shiraki	N/A	5/6/2018		Comment noted. The FEAs
Caelly Shiraki	N/A	5/6/2018	Opposition is misinformed and should look at all of the evidence.	Comment noted. The FEAs
Caelly Shiraki	N/A	5/6/2018	Ridiculous to cut-off commercial aquatic fisherman's livlihoods without thoroughly reviewing all of the data that the state has required the license holders to report	Comment noted. The FEA The FEAs use the best avai are accurate. Socioeconom
Lillemor Dahlgren	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
			Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O'a during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (include reef habitat, or species por reviewers confirm data are
Lillemor Dahlgren	N/A	5/3/2018		
Lillemor Dahlgren	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
Dan Vallentyne	N/A	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wou populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
			Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Collect overall population. The O'a during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (includ reef habitat, or species por reviewers confirm data are
	Caelly Shiraki Caelly Shiraki Caelly Shiraki Lillemor Dahlgren Lillemor Dahlgren Lillemor Dahlgren	Caelly Shiraki N/A Caelly Shiraki N/A Caelly Shiraki N/A Lillemor Dahlgren N/A	Caelly Shiraki N/A 5/6/2018 Caelly Shiraki N/A 5/6/2018 Caelly Shiraki N/A 5/6/2018 Lillemor Dahlgren N/A 5/3/2018 Lillemor Dahlgren N/A 5/3/2018 Lillemor Dahlgren N/A 5/3/2018 Lillemor Dahlgren N/A 5/3/2018	Commetor Location Received Caelly Shiraki N/A 5/6/2018 Deposition is misinformed and should look at all of the evidence. Caelly Shiraki N/A 5/6/2018 Opposition is misinformerial aquatic fisheman's livilinods without thoroughly reviewing all of the data that the state has required the license holders to report Caelly Shiraki N/A 5/6/2018 Concerned about the following species: Vellow Tangs, Butterflyfish, Cleaner Wraxses, All top 20 species taken on Cahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpolish, Shirony, Angeffishes, Dragon Fels, Hi Turkeyrish, Forcepsfish, Tobys/Putfers. Lillemor Dahigren N/A 5/3/2018 Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species 1 once encountered are missing. Communities of reef species have been deliver these species, DUNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate. Lillemor Dahigren N/A 5/3/2018 Urge DUNR to recognize the significant impacts, reject the EAs, and require Comprehensive Frivionmental and Cultural impact Statements. Lillemor Dahigren N/A 5/3/2018 Urge DUNR to recognize the significant impacts, reject the EAs, and require Comprehensive Frivionmental and Cultural impact Statements.

As conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

les the the collection of 37 of the 40 White List species during the 12yould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of lection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef ailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of gnificant adverse impacts to socioeconomics, cultural resources, or luding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
620-3	Dan Vallentyne	N/A	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
					Comment noted. The FEAs The FEAs use the best ava are accurate.
620-4	Dan Vallentyne	N/A	5/4/2018	HI's natural ocean ecosystems are the life of the islands, and HI should lead the way globally in conservation measures to protect them, as it is a trying time for our oceans and reef ecosystems; protect HI's fish in all the ways you can.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
621-1	Lois Leitch	N/A	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
621-2	Lois Leitch	N/A	5/4/2018	Specific concerns about these species: Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign biological resources (inclue reef habitat, or species po reviewers confirm data are
621-3	Lois Leitch	N/A		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro
622-1	Hana Ketley	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

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des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
622-2	Hana Ketley	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Hana Ketley Kaleb Matlack	N/A N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
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	Kaleb Matlack Kaleb Matlack	N/A N/A	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
623-4	Kaleb Matlack	N/A	5/3/2018	Without a large diversity and large/natural/undisturbed fish populations, the marine ecosystem is bound to disintegrate within a few years of human interaction; save our planet with small local actions like preventing anyone from stealing from your local waters or anyone's waters.	Comment noted. The FEAs The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	Kaleb Matlack	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

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ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
624-1	Joseph Benjamin	N/A	5/3/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
624-2	Joseph Benjamin	N/A	5/3/2018	40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
	Joseph Benjamin	N/A	5/3/2018	The ocean is a precious resource; once it is off balance, it take decades for it to recover; let people see these aquatic animals in their natural habitats and keep the reefs healthy.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai
624-4	Joseph Benjamin	N/A		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
625-1	Erin Goldman	IL	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
625-2	Erin Goldman	IL	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
625-3	Erin Goldman	IL	5/3/2018	Without certain species present, other species struggle as well as coral and marine plants, leading to an overall negative effect and possibly even leading to problems in water and food quality.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collecti period would be less than of the remaining three spe concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ochar
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
625-4	Erin Goldman Mariana Rosas	IL N/A		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
626-2	Mariana Rosas	N/A		Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	()'abu nonulations ('ollec
626-3	Mariana Rosas	N/A	5/3/2018	These magnificant places deserve our respect and protection.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
626-4	Mariana Rosas	N/A		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
627-1	Mei Liu	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
627-2	Mei Liu	HI	5/3/2018	educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
627-3	Mei Liu	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
627-4	Mei Liu	н		Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
628-1	Christian Phillips	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
628-2	Christian Phillips	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar

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'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
628-3	Christian Phillips	ні	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
628-4	Christian Phillips	HI	5/3/2018	Strict environmental laws set in place to ensure the sustainability and protection of our resources; DLNR has a public known reputation of not being pono.	Comment noted. The FEAs The FEAs use the best ava are accurate. As noted in S studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of population. This level of ta fish harvest based on avai
628-5	Christian Phillips	н	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
	Mark Koppel	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
			E /2 /2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
629-2 629-3	Mark Koppel	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Puna, Hilo, Hamakua,	Comment noted. The best included in the FEAs. The collection.
	Mark Koppel	HI		Hawaii Kai, Lanikai/Kailua, North Shore. Save our reefs and our fish; it is really that simple.	Comment noted. The FEA
	Mark Koppel Mark Koppel	HI HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro

'ahu FEA includes a revised Preferred Alternative that includes expansion /LCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data n Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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As conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
630-1	Laurel Podesta	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Hermit crabs, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
630-2	Laurel Podesta	N/A	5/3/2018	Specific concerns about these species: Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Laurel Podesta	N/A	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, Waikiki/Diamond Head, North Shore, Maui/Molokai/Lanai	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
630-4	Laurel Podesta	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
631-1	Gillian Bell	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
	Gillian Bell	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
	Gillian Bell	HI		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir

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D'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
632-1	Mrs. Julie Miller	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The a Section 1.2.2 of the FEA, and applicant actions. The pursuant to permits issue approval. Therefore, and Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments o preferred alternatives with
632-2	Mrs. Julie Miller	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
632-3	Mrs. Julie Miller	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE impact therefore an envi
633-1	James Elder	ні	5/4/2018	West HI divers have been singled out and banned from diving while the divers on Oahu are free to continue catching fish; renew their licenses and do not give into groups of self interest who have no scientific data backing them up.	Comment noted. The FEA An EA was developed for
633-2	James Elder	ні		An EIS was done on West HI and showed that the reef and the fish were in no danger or posed any negative impact to the ecosystem; DLNR has made sure the divers have followed the rules for decades.	Comment noted. The FEA
633-3	James Elder	ні	5/4/2018	Majority of the divers are close to retirement and need to finish their careers gracefully.	Comment noted. The FEA
634-1	Debbie DeLillo	N/A		No scientific data to support the need for a ban; going to negatively affect so many people and take away so many jobs.	Comment noted. The FEA
635-1	Ms. Jay Takane	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The applicant actions. The pursuant to permits issue approval. Therefore, and Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. or both the Island of Hawai'i as well as the Island of O'ahu.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
635-2	Ms. Jay Takane	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
635-3	Ms. Jay Takane	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
636-1	Ms. Lauren Spallino	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
636-2	Ms. Lauren Spallino	н		Have seen huge change in the number of coral reef fish since moving to HI in 1981; can only imagine how many fish are captured and how many fish die just due to handling and transport.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
636-3	Ms. Lauren Spallino	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
636-4	Ms. Lauren Spallino	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Mr. Gary Harrold	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
	Mr. Gary Harrold	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
				Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
637-3	Mr. Gany Harrold	ы	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Mr. Gary Harrold Mrs. Char Alvarez	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
628 2	Mrs. Char Alverez		F /4/2040	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
638-2	Mrs. Char Alvarez	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an envir
638-3	Mrs. Char Alvarez	ні	5/4/2018	until that analysis is complete.	

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
639-1	Ms. Ruth Pahinui	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments of preferred alternatives wit
639-2	Ms. Ruth Pahinui	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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639-3 640-1	Ms. Ruth Pahinui Mr. Ramiro Noguerol	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The besi confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
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640-2 640-3	Mr. Ramiro Noguerol Mr. Ramiro Noguerol	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir

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641-1	Ms. Renee Confair	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
641-2	Ms. Renee Confair	HI	5/4/2018	Aquiring HI's coral reef wildlife by aquarium collectors has led to missing species; HI has one of the highest counts of endangered and extinct animals in the world.	Comment noted. The FEA reviewers confirm data ar The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
	Ms. Renee Confair	HI		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
	Ms. Charmaine Pulgados	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
642-2	Ms. Charmaine Pulgados	HI	5/1/2010	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
	Ms. Charmaine Pulgados Ms. Charmaine Pulgados	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir

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EAs use the best available data regarding species abundance. Peer are accurate.

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	Ms. Lisa Dearmin	Н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments of preferred alternatives wit
643-2	Ms. Lisa Dearmin	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
			5/ 1/2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
				environmental, cultural, and ethical impacts; maintain current moratorium	impact therefore an envir
	Ms. Lisa Dearmin Mrs. Ginger Chock	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
644-2	Mrs. Ginger Chock	н	5/1/2019	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
	Mrs. Ginger Chock	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an envir
644-3	Mrs. Ginger Chock	HI	5/4/2018	until that analysis is complete.	

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	Mr. William Staley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments of preferred alternatives wit
	Mr. William Staley	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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645-3	Mr. William Staley	н	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
	Mrs. Cassandra Crawford	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
646-2	Mrs. Cassandra Crawford	HI	5/1/2019	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
646-2	Mrs. Cassandra Crawford	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA
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	Mr. Gilmer Borbo	Н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
	Mr. Gilmer Borbo	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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				statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an envir
	Mr. Gilmer Borbo Ms. Diane Cornish	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
648-2	Ms. Diane Cornish		5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Mrs. Roberta Williams	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
	Mrs. Roberta Williams	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
			0, 1,2020	Urge you to reject the assessments and prepare environmental impact	
				statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an envir
649-3	Mrs. Roberta Williams	HI	5/4/2018	until that analysis is complete.	
650-1	Mrs. Delia Almares	Н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
650.2	Mrs. Delia Almaros		5/4/2019	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail cultural resources are add
650-2	Mrs. Delia Almares	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA
650-3	Mrs. Delia Almares	ні	5/4/2018	until that analysis is complete.	

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
651-1	Mr. Alan Espiritu	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
651-2	Mr. Alan Espiritu	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
651-3	Mr. Alan Espiritu	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
652-1	Jay Lovell	N/A	5/4/2018	EA shows the fishery is sustainable.	Comment noted. The FEA collection.
652-2	Jay Lovell	N/A	5/4/2018	If 18 years of study's done by the state of HI is not good enough, what happens when the law is applied equally to all user groups who have zero data on their environment impact (dive charters, dolphin encounter, manta ray night dive, snorkel tours).	Comment noted. The FEA
652-3	Jay Lovell	N/A	5/4/2018	Tropical fish industry is not one of the problems in HI.	Comment noted. The FEA collection.
652-4	Jay Lovell	N/A	5/4/2018	Time to restart the most regulated fishery in the sate and let these fisherman and woman go back to work before they loose everything they worked their lives for.	Sections 4.1 and 5.2 of ea
653-1	The Coral Nusery	N/A	5/3/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable through extensive studies by both the DLNR and NOAA.	Comment noted. The FEA
654-1	Oahu Association of Aquarium Fishermen	н	5/8/2018	The DEA includes all available scientific information on the effects of the HI aquarium fishery on the environment; conclusions are well-supported.	Comment noted. The FEA The FEAs use the best ava are accurate.
654-2	Oahu Association of Aquarium Fishermen	н	5/8/2018	Flame Wrasse occur primarily below the survey depths of the CREP surveys (98 ft) and therefore the majority of the population goes undetected, leading to a significant underestimation of the population size; supprt for this is provided by Kane and Tissot (2017) (more specifics given); actual percentage of the population removed by aquarium collection is actually below 1%.	The O'ahu FEA has been r 4.4.4.6) and associated in Wrasse. The impact of co the O'ahu FEA to reflect th
654-3	Oahu Association of Aquarium Fishermen	н	5/8/2018	Yellow Tang collection results in the removal of 7% of the population, as stated in the DEA; population is readily replenished by large number of eggs produced by each female (more specifics given).	Comment noted. The high FEA and Section 5.4.1.2.6
654-4	Oahu Association of Aquarium Fishermen	н	5/8/2018	Voluntary conservation measure: limit catch of Flame Wrasse to 10 per day.	The O'ahu FEA includes a commercial aquarium coll

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

each FEA addresses Socioeconomics,

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

n revised to include the Kane and Tissot (2017) reference (see Section information regarding the estimated population size and density of Flame commercial aquarium collection has been revised in Section 5.4.1.2.1 of t that aquarium collection is likely less than 1% of the overall population.

igh fecundity of Yellow Tang is discussed in Section 5.4.1.2.5 of the Hawai'i 2.6 of the O'ahu FEA.

a new alternative that imposes a bag limit of 10 Flame Wrasse per day for collectors in O'ahu (see Section 3.3 of the O'ahu FEA).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
654-5	Oahu Association of Aquarium Fishermen	н	5/8/2018	Voluntary conservation measure: DLNR implement a closed area for Commercial Aquarium Fishing as illustrated on the map attached as Exhibit A; represents a cocession on the part of the fishing community and represents a good faith measure to work with DLNR.	The O'ahu FEA includes a by 740 acres (see Section
654-6	Oahu Association of Aquarium Fishermen	н		Recommendation: The review period for and further changes in bag limits coincide with the five year report to the legislature.	Comment noted. The app
654-7	Oahu Association of Aquarium Fishermen	н		Request the adoption of the Oahu EA and restoration of commercial licenses; ongoing financial iimpact is significant.	Comment noted. The FEA
655-1	Ms. Joy Silver	НІ	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
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655-2	Ms. Joy Silver	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
655-3	Ms. Joy Silver	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
656-1	Ms. Eva Davenport	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

a new alternative that includes expansion of the existing Waikiki MLCD on 3.3 oif the O'ahu FEA). See Figure 2 in the O'ahu FEA.

pplicant supports this comment.

EAs conclude no significant impact from commercial aquarium collection.

est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

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656-2	Ms. Eva Davenport	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
656-3	Ms. Eva Davenport	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE/ impact therefore an envir
657-1	Ms. Makena Smith	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
657-2	Ms. Makena Smith	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
0372			37472010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
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	Mr. David Sofio	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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658-3	Mr. David Sofio	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
659-1	Ms. Wanda Howley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
659-2	Ms. Wanda Howley	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
0552			5/4/2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
659-3	Ms. Wanda Howley	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
660-1	Ms. Michelle Nicotre	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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660-2	Ms. Michelle Nicotre	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are add
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661-1	Mr. Robert Wilcox	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
661-2	Mr. Robert Wilcox	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
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661-3	Mr. Robert Wilcox	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
662-1	Mrs. Elsa Baxter	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

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662-3	Mrs. Elsa Baxter	н	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
663-1	Mrs. RuthAnn Gianneschi	НІ	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
663-2	Mrs. RuthAnn Gianneschi	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
			5, 1, 2010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
663-3	Mrs. RuthAnn Gianneschi	ні	5/4/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
664-1	Mrs. Laurel Whillock	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to inddressed in Section 5.3 of both FEAs.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
664-2	Mrs. Laurel Whillock	н	5/4/2018	As a scuba diver, I've seen a definitive decrease in the diversity of fish life on the Big Island's reefs, except in areas that have been designated as MPA; entire reef system needs a long term break from collecting in order to return to a healthy and sustainable level.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
664-3	Mrs. Laurel Whillock	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
664-4	Mrs. Laurel Whillock	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
665-1	Ms. L. Cummings	н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
665-2	Ms. L. Cummings	н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
665-3	Ms. L. Cummings	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
666-1	Brandon Grimes	N/A		Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA

eest available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to addressed in Section 5.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to iddressed in Section 5.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
667-1	Midge Miller	Н	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments o preferred alternatives wit
667-2	Midge Miller	Н	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
667-3	Midge Miller	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
668-1	Hattie Gerrish	н	5/3/2018	Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
668-2	Hattie Gerrish			Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
668-2	Hattie Gerrish	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hamakua	Comment noted. The bes included in the FEAs. The
668-3	Hattie Gerrish	НІ	5/3/2018		collection.

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to iddressed in Section 5.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Need an independent, unbiased assessment.	Comment noted. The app Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a
668-4	Hattie Gerrish	н	5/3/2018		The FEAs use the best av are accurate.
668-5	Hattie Gerrish	н	5/3/2018	Concerned that with all the stress reef ecosystems are facing from global warming, aquarium fish harvesting just makes things worse and cannot be sustained; a large percentage of aquarium fish die shortly after being harvested, so it is therefore unsustainable and inhumane.	Comment noted. The cun FEAs.
	Hattie Gerrish	н	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir
669-1	James Lovell	н		Comments from the opposition will not be based on fact or science but, misinformation and false statements. Most troubling comments and responses below:	Comment noted. The FEA
669-2	James (Jim) Lovell	н		Collectors are under reporting their catch by 90% - Have never under reported my catch in the 40 years I have collected fish; comment just to portray fishermen in a negative manner.	Comment noted. As note and 2014 Hawai'i Island a underreporting of catch b
				Collecting hurts the tourism industry - Over 37% of the Kona coast has been shut down to collecting for 17-50 years, to guarantee the tourism industry will never be hurt by the aquarium fishermen.	Comment noted. Sections 4 comment. In regards to tour and visitor arrivals in 2016, r spending by visitors to the F In addition, the O'ahu FEA i Waikiki MLCD, which is antio
669-3	James (Jim) Lovell	<u> </u>	5/7/2018	There is no limit to the numbers of fishermen or the number of fish that they collect - Number of fish and collectors are regulated by the demand.	others (i.e., SCUBA divers, s Comment noted.The con- foreseeable. The DEAs us predict the reasonable ou
669-4 669-5	James (Jim) Lovell James (Jim) Lovell	<u>н</u>	5/7/2018	Collecting has decreased the number of yellow tangs - See as many yellow tangs on the reef that I saw 39 years ago (actual increase in number of fish per man hour).	Comment noted. Section populations between 199 Areas (see Table 9 of the was determined to be les
669-6	James (Jim) Lovell	н		There has not been enough time to see impact for the aquarium trade - Studies for over 40 years, while no other groups/industries have any studies to determine their impact; aquarium industry is the most studied and regulate ocean industry in HI.	Comment noted. The FEA impact. Cumulative impa is included in Section 5.4.
				Have seen major declines in fish while snorkeling in Maui - Maui, Molokai, and Lanai have never had an established aquarium industry, so we need to start looking at what the recreational diving and snorkeling industries are doing to cause these declines they are seeing	Comment noted.Commer either FEA. Cumulative im of btoh FEAs.
669-7	James (Jim) Lovell	<u> </u>	5/7/2018	Consider that on average, there are only 2-4 Kona aquarium fishermen in the ocean per day, covering over 140 miles of coastline, participating in an	Comment noted. The FEA
	James (Jim) Lovell Pablo Celedon	HI Chile	5/7/2018	Supprt the aquarium industry in HI; please accept the environmental study regarding the sustainability of collection activities and reject the ban on HI	Comment noted. The FEA collection.

pplicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency in applicant prepared EA is appropriate.

available data regarding species abundance. Peer reviewers confirm data

umulative effects of climate change are discussed inSection 5.4.3 of both

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 d aquarium catch report validation did not indicate substantial n by aquarium collectors.

s 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your burism, Hawai'i's tourism industry achieved new records in total visitor spending 6, marking the fifth consecutive year of record growth in both categories. Total e Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

A includes a revised Preferred Alternative that includes expansion of the existing nticipated to decrease user conflict between commercial aquarium fishers and , snorkelers, other tourists).

oncept of "unlimited" collection is speculative and not reasonably used the best available data (past commercial aquarium collection) to outcome of issuance of permits for an additional year.

on 5.4.1.2.1 of the Hawaii FEA inwhich shows an increase in Yellow Tang 999-2000 and 2016-2017 in all areas, including a 58% increase in Open ne Hawaii FEA). Impacts of commercial aquarium collection on Yellow Tang ess than significant in both FEAs.

EA concludes that the Preferred Alternative will not have a significant pacts from other sources, including commercial and recreational fishing, .4.3 of the FEAs.

nercial aquarium collection on these three islands was not covered by impacts from tourism on Hawai'ii and O'ahu is disucssed in Section 5.4.3

EAs conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
671-1	Tom Wallace	N/A	5/7/2018	The amount of revenue generated by the aquarium industry is relatively small compared to the tourist industry.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
671-2	Tom Wallace	N/A	5/7/2018	No question as to whether removing fish from the reefs results in less fish on the reefs; comparing the undersea life in the northern sanctuary islands vs. Oahu should make this very clear.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Please outlaw the aquarium trade and give our reefs a cance to become healthy again.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
671-3	Tom Wallace	N/A	5/7/2018	How can you believe an EA that was not done in all Hawaiian waters?	Comment noted. The FEA
672-1	Chris Atkinson Lucinda Harmony	AZ	N/A 5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	O'ahu. Comment noted. The FE/ The FEAs use the best ava are accurate.
673-2	Lucinda Harmony	AZ		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
673-3	Lucinda Harmony	AZ	E /7 /2019	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
674-1	Sally Trufant	AL		Science proves that the ornamental fish industry is sustainable and does not adversely affect the environment.	Comment noted. The FE/
674.2	Sally Trufant		E /7/2019	Collecting and selling ornamental fish from HI provides jobs not only in HI but all over the world.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioecono
674-2 674-3	Sally Trufant Sally Trufant	AL AL	5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEA The FEAs use the best ava are accurate.
674-4	Sally Trufant	AL		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEA
674-5	Sally Trufant	AL	5/7/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
675-1	Paul Trevithick	HI	5/7/2018	All tropical fish collecting fishermen I've known have been responsible practitioners of their trade who want nothing more than to continue working at the jobs they enjoy and providing for their families	Comment noted. The FEA
675-2	Paul Trevithick	HI		Have read many articles over the years that confirm reasonable and responsible controls on the collecting industry have maintained a healthy fish population.	Comment noted. The FEA
	-		, ,====0		

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor ng the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EAs conclude no significant impact from commercial aquarium collection. Ides the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EAs cover commercial aquarium collection on the islands of Hawai'i and

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
675-3	Paul Trevithick	ні	5/7/2018	Many of the opposition letters in the local paper and personal comments are coming from emotional appeals that have very little substantial evidence to back them up or from self interest and self serving groups that have competitive interests in the same waters.	Comment noted. The FEA
676-1	Cynthia Harmony	AZ		Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions. Comprehensive documents that include all the available scientific	Comment noted. The FEA The FEAs use the best ava are accurate. Comment noted. The FEA
677-1	Alexander Garcia	ні	5/7/2018	information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	The FEAs use the best ava are accurate.
677-2	Alexander Garcia	н	5/7/2018	Not aware of any additional scientific information that these document omit or do not fully consider.	Comment noted. The FEA The FEAs use the best ava are accurate.
678-1	Dante Harmony	AZ	5/7/2018	Impressed by the stature of the scientiists that peer-reviewed these environmental assessments and thoroughness with which they did so; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
679-1	Dane Harmony	AZ	5/7/2018	Facts matter; there isn't diminishing populations of fish due to collectors.	Comment noted. The FEA The FEAs use the best ava are accurate.
680-1	, Stockly's Aquariums	ні	5/8/2018	DEA includes all available scientific information on the effects of the Hawaii aquarium fishery on the environment; conclusion is well-supported.	Comment noted. The FEA The FEAs use the best ava are accurate.
680-2	Stockly's Aquariums	HI	5/8/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; DEA demonstrates that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEA
680-3	Stockly's Aquariums	ні	5/8/2018	The three main species of landed fish are harvested at a rate of 5% or less of the overall population, which has been determined to be on the low end of what published literature considers to be a sustainable harvest (Ochavillo and Hodgson 2006); the remaining permitted species are harvested at less than 1% of the overall population.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
		,		Comprehensive rules package (HAR 13-60.4) passed with layers of additional management, including: bag limits and/or size restrictions on the three most landed fish, establishment of a White List of approved species, expansion of the Pebble Beach FRA, creation of an additional required permit; indicators in the data compiled by the WHAP yielded positive results and the White List achieves a complete ban on the harvest of all invertebrates for aquarium purposes.	Comment noted. An addit with Achilles Tang. Specif form 10/day to 5 per day 5/day bag limt for other f O'ahu FEA. Specifically, th commercial aquarium coll
	Stockly's Aquariums	<u>HI</u>	5/8/2018	Further suggest and support that the HEPA reivew period should coincide with the five year report to the legislature, in the interest of cost effectiveness and practicality of labor involved, as well as the fact that some species experience highly variable recruitment between years (Dr. Walsh,	Comment noted. The app
	Stockly's Aquariums Stockly's Aquariums	ні		2010 Legislature Report). Request the advancement and restoration of commercial licenses and allowing use of fine mesh net as soon as possible.	Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

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lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Iditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA. An additional alternative was added in the , the alterantive proposes a Flame Wrasse bag limit of 10/day for collection in O'ahu and the expansion of the Waikiki MLCD.

pplicant supports this comment.

EAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
681-1	Stefani Specker-Cook	HI	5/5/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
681-2	Stefani Specker-Cook	HI	5/5/2018	by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
681-3	Stefani Specker-Cook	HI	5/5/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
681-4	Stefani Specker-Cook	HI	5/5/2018	Massive decline in marine biodiversity, rare to no schools of fish, entire reefs dead, and extremely rare finding of larger marine animals.	Comment noted. The bes included in the FEAs. Peer Preferred Alternative will collection of 37 of the 40 than 1% of their respectiv three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
681-5	Stefani Specker-Cook	н	5/5/2018	The sequences of over fishing, plastic pollution, bleaching, and species exploitation for aquariums are all factors that ocean cannot sustain; 60 million reef fish have been taken alone in HI for aquariums across the world.	Comment noted. The FEA other sources of cumulati
681-6	Stefani Specker-Cook	ні	5/5/2018	Eco-tourism brings in a revenue of about \$33 trillion every year; taking down ecosystems ultimately leads to a decline in tourism.	Comment noted. Sections In regards to tourism, Hav and visitor arrivals in 2010 categories. Total spending \$15.91 billion (HDBEDT 20
			5/5/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
681-7	Stefani Specker-Cook	HI	5/5/2018	1	l

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

best available scientific data concerning species abundance has been beer reviewers confirm data are accurate. The FEA concludes that the will not have a significant impact. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be less attive overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less attive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006)

EAs conclude no significant impact from commercial aquarium collection. ative impacts are discussed in Section 5.4.3 of both FEAs.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending D16, marking the fifth consecutive year of record growth in both ing by visitors to the Hawaiian Islands increased 5.3% to a new high of 2017).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
682-1	Anna Slomka	N/A	5/5/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avai
682-2	Anna Slomka	N/A	5/5/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	-
			5,5,2010	Some or all of the species identified above have been impacted on reefs in	Comment noted. The O'al
				the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa,	of the existing Waikiki ML aquarium fishers and othe
682-3	Anna Slomka	N/A	5/5/2018	Maui/Molokai/Lanai, Kauai. Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
682-4	Anna Slomka	N/A	5/5/2018	comprehensive Envrionmental and Cultural Impact Statements	impact therefore an envir
683-1	Marine Conservation Science	ні	4/30/2018	The marine aquarium fishery in HI has fallen victim to a well-orchestrated campaign of misinformation led by a special group that pays little attetion to the long-term monitoring data of this fishery.	Comment noted. The FEA
683-2	Marine Conservation Science Institute	ні	4/30/2018	monitoring and population data; DLNR has done an outstanding job of	Comment noted. The FEA The FEAs use the best ava are accurate.
683-3	Marine Conservation Science	н	4/30/2018	Actual concerns for coral reef health are global warning, nutrient runoff, removal of breeding adult fishes (hook-and-line and spearfishing); managing the aquairum fishery for Achilles tang take but not the food fishery is not a viable option for insuring both industries are sustainable.	Comment noted. An addit with Achilles Tang. Specif form 10/day to 5 per day 5/day bag limt for other fi other fishing (e.g., comme
683-4	Marine Conservation Science	н	4/30/2018	Recommend that funding be continued to monitor the populations of reef fishes, remembering that recruitment is stochastic.	Comment noted. The FEA Indirect impacts from the discussed in Section 5.2.2
683-5	Marine Conservation Science Institute	ні	4/30/2018	Suggest that all of HI adopt marine aquarium regulations similar to those nut in place in West HI	Comment noted. An addit alterantive proposes a Fla O'ahu and the expansion
684-1	Eunice Seet	ні	N/A	Stop the aquarium trade.	Comment noted. The FEA
685-1	Jean Jewell	н		resources has on our delicate environment; EA shows definite bias toward	Comment noted. The FEA The FEAs use the best ava are accurate.
685-2	Jean Jewell	н	5/5/2018	that was created in the 90s; have seen some stabilization but not return to	Comment noted. The FEA No currently closed zones alternative was added to

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

ditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA. Cumulative impacts from global warming and mercial, recreational) are discussed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. he commercial aquarium collection, inlcuding funding of monitoring, is 2.2 of both FEAs.

ditional alternative was added in the O'ahu FEA. Specifically, the Flame Wrasse bag limit of 10/day for commercial aquarium collection in on of the Waikiki MLCD.

As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Ivailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. les would be reopened to commercial aquarium collection. An additional to the O'ahu FEA that includes expansion of the existing Waikiki MLCD.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
685-3	Jean Jewell	HI		Don't really know how many fish are being taken; almost impossible to enforce laws; according ot the study, there are 158 permittees and only reports from 68 permittees.	Comment noted. As noted and 2014 Hawai'i Island a underreporting of catch b
685-4	Jean Jewell	ні	5/5/2018	Conflict of interest because the Pet Industry Joint Advisory Council represents pet stores, breeders, and suppliers.	Comment noted. The app Section 1.2.2 of the FEA, the and applicant actions. The pursuant to permits issue approval. Therefore, an a
685-5	Jean Jewell	ні	5/5/2018	Fish collecting accounts for \$1,818,500 in revenue and only 0.5% wholesale tax, while tourism brings in 10.7 million visitors, 10 billion dollars, and 200,000 jobs with 4% sales tax.	Comment noted. The imp discussion of tourism in F
	Jean Jewell	HI	5/5/2018	People are surprised by lack of fish, especially those that thave been here in previous years.	Comment noted. The Hay during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai
				Reefs are struggling to stay healthy - warmer waters, pollution from land and othe factors have strained them; Kona has a delicate ecosystem due to coral bleaching in 2015, and 90% of yellow tang were collected on HI island, mostly Kona.	Comment noted. Section note that two studies hav practices have no significa of the Hawaii FEA include Tang in West Hawaii with
685-8	Jean Jewell	HI	5/5/2018	Need to look to other countries that have made strict laws to protect their reefs (Central and South America, Philippines, etc.).	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of populations. Collection of population. This level of t fish harvest based on avai In addition, both FEAs dis collection. Both FEAs also
	Christine (Tina) Owens	HI	5/7/2018	The court ruling which lead to the requirement of an EA is a badly flawed decision and opens a pandora's box of problems for the state of HI; why only one industry is required to comply, when others have far more	Comment noted. The app
	Christine (Tina) Owens	HI		Law is being maliciously manipulated; people who initiated the lawsuit had publicly stated that the aim was not to study impact but to eliminate an industry out of personal animus.	Comment noted. The app
	Christine (Tina) Owens	н	5/7/2018	Strongly hope that the DLNR/DAR will accept the conclusion of no	Comment noted. The FEA collection.

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 d aquarium catch report validation did not indicate substantial n by aquarium collectors.

applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency in applicant prepared EA is appropriate.

npacts of aquarium fish collection on socioeconomics, as well as a n Hawai'l, is included in Section 5.2 of both FEAs.

Hawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

on 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA have concluded that the aquarium fishery and aquarium fish collection ficant impact on coral or the reef ecosystem. In addition, Section 5.4.1.2.1 des information from the DAR illustrating increasing populations of Yellow thin all areas, including open areas (see Table 10 and Figure 5).

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

discuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

applicant prepared the FEAs in accordance with state law.

applicant prepared the FEAs in accordance with state law.

As both conclude no significant impacts from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
687-1	Matt Pedersen	N/A	5/7/2018	Marine aquarium hobby and trade make for an easy scapegoat and on paper seem to be one of the reef stressors that could easily be done away with; however, science doesn't support any of the arguments against the marine aquarium fishery in HI; an outraged "moral" viewpoint is being used to disenfranchise another small group who are simply following the law and fishing in a sustainable manner.	Comment noted. The FEAs
	Matt Pedersen	N/A	5/7/2018	Fishery has been proven sustainable for years; recreational/sustenance fishery, which is orders of magnitude larger, not licensed, not subjected to any EA, and not the subject of scrutiny of these organizations; recreational fishermen will be subject to this same attention next	Comment noted. The FEA
	Matt Pedersen	N/A		DLNR/DAR measures are already in place to regulate the industry; an anti- aquarium activist who says otherwise is false; webiste links included in testimony (see document).	Comment noted. The FEAs
699.1	Stankon Chandlar	01/0	5 /7 /2010	Over fishing has been a huge issue and has caused the native fish populations to dwindle, which in turn affects other species; giving them time to repopulate will in the long run help the businesses because there will be more stock and the coastal systems can recover from years of abuse.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustainal and Hodgson 2006).
688-1	Stephen Chandler	N/A	5/7/2018	Fishery is one of the best managed fisheries in HI; proven to be sustainable	Comment noted. The FEAs
689-1	Sally Myers	N/A	5/7/2018	and has been regulated for years. The smallest, most regulated user group is being singled out; other user	Comment noted. The FEAs
689-2	Sally Myers	N/A	5/7/2018	groups are not being regulated or require an EA.	collection.
689-3	Sally Myers	N/A	5/7/2018	Allow these fishermen to go back to work and apply the law fairly to all user groups that are not being held accountable.	Comment noted. The FEAs
				Have seen the fishermen at work; have very little impact on the	Comment noted. The FEAs
690-1 690-2	Alisa Funke Alisa Funke	N/A N/A		environment. Support this industry and hope that legislators would take the science into consideration instead of false accusations brought forward by special interest groups.	Comment noted. The FEAs
691-1	Bryan Ehlers	FL	5/7/2018	EA's science is proof it is a sustainable industry; allow the collection of aquarium fish to continue.	Comment noted. The FEA The FEAs use the best ava are accurate.
691-2	Bryan Ehlers	FL	5/7/2018	to be collect that thrive in aquariums; leave the coral eating species in the sea unti new foods are available to them so that they can thrive in the aquarium.	Comment noted. An addit with Achilles Tang. Specifi form 10/day to 5 per day f 5/day bag limt for other fis O'ahu FEA. Specifically, th commercial aquarium colle
	G. Christopher Buerner	CA	N/A	Public opinion is increasingly shaped and influenced in part by the coordinated efforts of activists with a specific moral or political agenda without any scientific basis or support; if moral bias regarding the use of natural resources and living species wins out over science and data, we have reached the precipice of a very slippery slope.	Comment noted. The FEAs
	G. Christopher Buerner	СА	N/A	The past two decades of study and regulation have illustrated the harvest of target ornamental marine species appears to be very sustainable; if new information materializes in the future, then a science-based approach to catch limits, species catch restrictions, etc. should be considered.	Comment noted. The FEA impact. The FEAs explain (see Section 5.5 of both FE

As conclude no significant impact from commercial aquarium collection.

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est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant I aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their I of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the during the 12-month analysis period would be less than 1% of their do overall population. The O'ahu FEA concludes that collection of 18 of the during the 12-month analysis period would be less than 1% of their of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

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As both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

ditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alterantive proposes reducing the Achilles Tang bag limit y for commercial aquarium collection in the WHRFMA and imposing a fisheries in the WHRFMA. An additional alternative was added in the the alterantive proposes a Flame Wrasse bag limit of 10/day for collection in O'ahu and the expansion of the Waikiki MLCD.

As conclude no significant impact from commercial aquarium collection.

A concludes that the Preferred Alternative will not have a significant in how new information may be considered when it becomes available FEAs).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
692-3	G. Christopher Buerner	CA	N/A	Discriminatory to cripple an entire industry that is based on sustainable catch levels; primary concern lies with species on which there is significant pressure from far more than just the aquarium harvest; little benefit will come to the species as a result of precluding the catch of one type of fishery over another.	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3.
692-4	G. Christopher Buerner	CA	N/A	Suggesting an approach to manage both fishing activity and fish-stocks based on data for any species that are harvested for any purpose.	Comment noted. The FEA reviewers confirm data ar
692-5	G. Christopher Buerner	CA	N/A	The Marine Stewardship Council considers wild-harvest fisheries to be viable and sustainable with harvests at far greater percentages of standing stock than the Hawaiian aquarium industry's take.	Comment noted. The FEA impact.
693-1	John Ito	н		Evidence of a decline in Butterfly fish in HI waters; how can collectors still catch them.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be les collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs
694-1	Leila Ishiki	н		What is the trade doing to ensure reef fish survival in 20 years.	Comment noted. The FEA Cumulative impacts, inclu are discussed in Section 5
695-1	Thomas Carter	н	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments or preferred alternatives wit
				Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
695-2	Thomas Carter	<u>ні</u>		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an envir
695-3	Thomas Carter	HI	5/7/2018	until that analysis is complete.	

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing, are 3.

EAs use the best available data regarding species abundance. Peer are accurate.

EA concludes that the Preferred Alternative will not have a significant

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

EAs conclude no significant impact from commercial aquarium collection. cluding reasonably foreseeable aquarium fish collection in future years, n 5.4.3 of the FEAs.

est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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	Commentar	State/	Date	Comment	Response
<u>Comment No.</u> 696-1	Ms. Jo Corrigan	Location	Received	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments o preferred alternatives wit
696-2	Ms. Jo Corrigan	TN	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
696-3	Ms. Jo Corrigan	TN		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE/ impact therefore an envir
697-1	Ms. Cherie Beatty	TN	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The applicant actions. The and applicant actions. The pursuant to permits issue approval. Therefore, and Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives with
697-2	Ms. Cherie Beatty	TN		The rape of the environment largely because of the influence of commercial interests, relying on shoddy studies, intended to prove what best suits their own purposes, should concern us all	
697-3	Ms. Cherie Beatty	TN	5/7/2018	The government's responsibility to protect the environment; responsibility to the future generations and also to be respectful of the spirit of creation that imbues every living creature with purpose.	Comment noted. The bes confirm data are accurate significant impact. The ap
697-4	Ms. Cherie Beatty	TN	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

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EAs conclude no significant impact from commercial aquarium collection. Invailable data regarding species abundance. Peer reviewers confirm data

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Ms. Cherie Beatty	TN		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
698-1	Ms. Alice Saul	Н	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit
698-2	Ms. Alice Saul	HI	5/7/2018	Need to register my dismay with the continued ability of commercial depopulation of our essential ocean ecosystem; been allowed to go on for far too long.	Comment noted. The FEA The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	Ms. Alice Saul	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai cultural resources are add
050 5			5/7/2010	Urge you to reject the assessments and prepare environmental impact	
698-4	Ms. Alice Saul	н	5/7/2018	statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
699-1	Dr. Renee Boblette	CA	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. The pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives wit

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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has been revised to describe the process used to engage with A development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new vith bag limits for certain species in both FEAs.

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
699-2	Dr. Renee Boblette	CA	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
699-3	Dr. Renee Boblette	CA	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
700-1	Ms. Andree Joy	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
700-2	Ms. Andree Joy	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
				Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
700-3	Ms. Andree Joy	ні	5/7/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
701-1	Mrs. Kelly Clever	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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701-2	Mrs. Kelly Clever	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
	Mrs. Kelly Clever	ні		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
	Miss Nastassia Hill	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
702-2	Miss Nastassia Hill	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
	Miss Nastassia Hill	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
703-1	Rylee Brooke	HI	N/A	How will you protect the East Oahu Moorish Idols.	Comment noted. The O'al Section 1.2.3) and summa less than 0.01% of the tot sustainable reef fish harve 2006).
704-1	David Funke	N/A	5/7/2018	Over-regulation must also be prevented; the EAs show that aquarium fishermen are doing a good job harvesting these fish in a responsible way; allow science to prevail and fishermen to get back to work.	Comment noted. The FEA
	Alabama Aquarium and Pond Services	AL		Please accept the EA and reject the ban on collection for the ornamental fish industry; HI has been long known as an influential and important model for sustainable fisheries across the globe and is an important economic driver as well.	Comment noted. The FEA
	Nick Newgaard	N/A		Fishery has been proven sustainable and has been regulated for years, despite the opposition claims.	Comment noted. The FEA

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est available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency n applicant prepared EA is appropriate.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Vahu FEA describes regulations in place to protect Moorish Idol (see marized the impacts to the species in Table 9. Collection is estimated at total O'ahu population, which is well below what is considered to be rvest based on available research (5% - 25%; Ochavillo and Hodgson

EAs conclude no significant impact from commercial aquarium collection.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
706-2	Nick Newgaard	N/A		Have witnessed the fishermen at work with honesty and integrity; allow them to go back to work and apply the law fairly to all user groups that are not being held accountable.	Comment noted. The FEA
707-1	Everything Fish Inc.	HI	5/4/2018	Science is very clear that collecting aquarium fish is sustainable based on the data collected in West HI; make sure we follow science not feeling or prejudices about the moral aspects of keeping fish in aquariums; the controls that have been put in place have protected all the species and will allow the fishery to continue for may years.	Comment noted. The FEA
707-2	Everything Fish Inc.	н	5/4/2018	Aquariums connect us to the ocean and aquarists are some of the most ardent supporters of marine conservation.	Comment noted. The FEA
707-3	Everything Fish Inc.	н	5/4/2018	Next step will be to come after the commercial fichermen	Comment noted. The FEA
708-1	Deborah Wallace	N/A	5/5/2018	Noticed dramatic decrease in the amount of tropical fish over the last 15 years, in addition to coral damage, coral bleaching, and other environmental impacts.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their over top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006). As n two studies (Tissot and Ha concluded that commercia The DAR study also conclu- bleaching mortality subside to commercial aquarium of closed to collection, and t
708-2	Deborah Wallace	N/A	5/5/2018	Need our reefs for the health of our islands, tourism, and coral reefs.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish Sections 4.1 and 5.2 of ea industry achieved new rea fifth consecutive year of r Hawaiian Islands increase
708-3	Deborah Wallace	N/A	5/5/2018	Coral reefs are here for everyone to enjoy, and for some small group to be taking our precious resources of tropical fish is certainly not sustainable and is just wrong.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

As conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism records in total visitor spending and visitor arrivals in 2016, marking the f record growth in both categories. Total spending by visitors to the sed 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EAs conclude no significant impact from commercial aquarium collection. Invailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
709-1	Trung Diep	N/A		Please reissue fishing permits so those in the trade can support their families again; evidence present in the EA clearly does not support a need to close this fishery.	Comment noted. The FEA
710-1	Bill Walker	WA	5/8/2018	Through decades of visits, have seen our beloved reefs deteriorate; coral is dead or withering away and massive schools of fish just diappeared; health of the reef is related to development, sunscreen, runoff, chemicals, global warming, and aquarium fishery.	Comment noted. The FEAs Impacts from tourism and
					Comment noted. The FEAs The FEAs use the best avai are accurate.
				Shocking to see the virtual carte blanche the state of HI continues to give to the aquarium fishing industry; preparing to torpedo entire travel economy; stop taking aquarium industry's money and ban all aquarium fishery.	Both FEAs discuss the exis FEAs also include a new Pr Sections 4.1 and 5.2 of eac In regards to tourism, Haw and visitor arrivals in 2016 categories. Total spending \$15.91 billion (HDBEDT 20
710-2	Bill Walker	WA	5/8/2018		
711-1	Doug Perrine	НІ	5/5/2018	Have DEA commissioned by an interested part, rather than HI DLNR, results in two serious problems: 1) inherent pressure on the consultant to produce a document acceptable to the party which has hired them, and 2) as stated in section 3.0, "The HEPA recommends that applicants consider and objectively evaluate reasonable alternatives to the preferred alternativeAny alternative that would include more, or less, restrictive aquarium permit requirements is not feasible for the purposes of this DEA because the applicant has no legislative or regulatory authority" Thus, the applicant is unable to present reasonable alternatives as the DLNR could have presented if it had prepared the DEA itself, as it should have done.	quoted in the comment re additional alternative was Specifically, the alterantive day for commercial aquari fisheries in the WHRFMA.
711-2	Doug Perrine	HI	5/5/2018	Neither of the alternatives represents a reasonable management strategy because neither provides a regulatory framework to allow the aquarium fishery to continue collecting the abundant species which form the mainstay of its business, while protecting species for which there is inadequate data to manage them sustainably, including the flame wrasse, the longfin anthias, the psychedelic wrasse, Fisher's angelfish, and Tinker's butterflyfish (section numbers given for listings).	Developing a managemen 2.0 of both FEAs). Howeve addresses concerns with A Achilles Tang bag limit from WHRFMA and imposing a alternative was added in t the alterantive proposes a in O'ahu and the expansio Psychedelic Wrasse, Fische of both FEAs.
711-3	Doug Perrine	HI	5/5/2018	In Table 15, lists for 3 of these species, an estimated maximum percent of the HI populations of the reported catch. Figures are based on CREP data, which is unreliable without confirmation from the WHAP surveys, which were unable to produce estimates for these 3 species. The other 2 are listed in Table 14 as N/A because neither the CREP nor the WHAP surveys were able to produce population estimates	Both WHAP and CREP dat the larger spatial coverage considered to be a better primary basis for the impa Psychedelic Wrasse, Fische of both FEAs.
				On p. 77 under "Other White List Species," it is stated that "individuals collected would make up less than 10% of their overall population and less than 1% for most White List Species," which implies that management should be based on "most species" ignoring the unknown impacts to species that are inadequately surveyed and/or endemic and/or Species of Greatest Conservation Need	The statement referenced collection of aquarium fish SGCN are discussed in Sec
711-4	Doug Perrine	н	5/5/2018	Greatest Conservation Need	

EAs conclude no significant impact from commercial aquarium collection.

As conclude no significant impact from commercial aquarium collection. nd climate change are discussed in Section 5.4.3 of both FEAs.

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

xisting regulations that govern commercial aquarium fish collection. Both Preferred Alternative with additional regulations.

each FEA addresses Socioeconomics the various aspects of your comment. awai'i's tourism industry achieved new records in total visitor spending 16, marking the fifth consecutive year of record growth in both ng by visitors to the Hawaiian Islands increased 5.3% to a new high of 2017).

oplicant prepared the FEAs in accordance with state law. The language regarding alternative development has been revised, see Section 3.0. An as added in the Hawai'i FEA that addresses concerns with Achilles Tang. tive proposes reducing the Achilles Tang bag limit from 10/day to 5 per arium collection in the WHRFMA and imposing a 5/day bag limit for other A. An additional alternative was added in the O'Ahu FEA that addresses rasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of aquarium collection in O'ahu and the expansion of the Waikiki MLCD.

ent strategy was not part of the purpose and need of either FEA (Section ever, an additional alternative was added in the Hawai'i FEA that in Achilles Tang. Specifically, the alterantive proposes reducing the rom 10/day to 5 per day for commercial aquarium collection in the a 5/day bag limt for other fisheries in the WHRFMA. An additional in the O'Ahu FEA that addresses concerns with Flame Wrasse. Specifically, is a Flame Wrasse bag limit of 10/day for commercial aquarium collection sion of the Waikiki MLCD. Additional information on densities of cher's Angelfish, and Tinker's Butterflyfish were added in Section 5.4.1.2.3

lata sets are presented and analyzed in the Hawai'i FEA. However, due to ge and greater range of depths surveyed by the CREP, CREP data were er estimator of island-wide fish populations, and therefore serve as the pact analysis found in Section 5. Additional information on densities of cher's Angelfish, and Tinker's Butterflyfish were added in Section 5.4.1.2.3

ed in this comment is referring to collection in the WHRFMA, where ish is limited to the 40 White List species. White List species which are ection 5.4.1.2.3 of the Hawaii FEA.

		State/	Date	Comment	Response
<u>Comment No.</u> 711-5	Commentor Doug Perrine	Location	Received	With respect to the five species listed above, the document repeatedly makes poorly-supported assertions and implications that these species are "naturally" resident primarily in waters below safe scuba depths and that therefore collection of the small portions of the populatiosn available in shallower waters poses no problems; object to this because there are still consequences to depleting populations in shallower waters (examples given).	Additional information on Butterflyfish were added i Peer reviewers confirm th
711-6	Doug Perrine	н		Concern should be the DLNR's responsibility as steward of the environment to adopt the precautionary principle, especially in regards to endemic species; no collection should be allowed for species where survey data is inadequate.	Comment noted. The bes included in the FEAs. Peer
712-1	James M. Brown	HI	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
712.2			5 (4/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	-
712-2	James M. Brown James M. Brown	HI HI	5/4/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
712-4	James M. Brown	HI	5/4/2018	It defies logic that the taking of species has no impact on the species; have seen the reefs and fishes have decline signficantly in the last 30 years.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustainal and Hodgson 2006).

on densities of Psychedelic Wrasse, Fischer's Angelfish, and Tinker's d in Section 5.4.1.2.3 of both FEAs which support their deepwater habits. this information is accurate.

est available scientific data concerning species abundance has been er reviewers confirm data are accurate.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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ahu FEA includes a revised Preferred Alternative that includes expansion ILCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The FEAs conclude no significant I aquarium collection. The Hawai'i FEA concludes the the collection of 37 cies during the 12-month analysis period would be less than 1% of their I of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the of during the 12-month analysis period would be less than 1% of their I of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

Commont No	Commentor	State/ Location	Date Received	Comment	Response
Comment No.	Commentor	Location	Received		
				Entire reef ecosystem is vital to HI residents and visitors.	Comment noted. The FEA The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
					industry achieved new rec fifth consecutive year of re Hawaiian Islands increase
712-5	James M. Brown	ні	5/4/2018		
712-6	James M. Brown	ні	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
	Sarah Williams	н	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Frogfishes, Shrimps, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	Sarah Williams	н	5/4/2018	Specific concerns about these species: Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in	Comment noted. The O'al
713-3	Sarah Williams	н	5/4/2018	the following Hawaii Island districts: South Kona, Puna, Hilo, Waikiki/Diamond Head, Maui/Molokai/Lanai, Kauai.	of the existing Waikiki ML aquarium fishers and othe
	Sarah Williams	н	5/4/2018	Kopoho - Waiopai - in Puna offers world class snorkeling because it is a conservation area; is adversely impacted by poachers and sunscreens but still in much better shape than reefs that are not protected.	Comment noted. Sections Hawaiʻi's tourism industry 2016, marking the fifth co visitors to the Hawaiian Is Cumulative impacts from includes a revised Preferre which is anticipated to de (i.e., SCUBA divers, snorke

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism records in total visitor spending and visitor arrivals in 2016, marking the f record growth in both categories. Total spending by visitors to the sed 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

ns 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. rry achieved new records in total visitor spending and visitor arrivals in consecutive year of record growth in both categories. Total spending by Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

n tourism are discussed in Section 5.4.3 of both FEAs. The O'ahu FEA rred Alternative that includes expansion of the existing Waikiki MLCD, decrease user conflict between commercial aquarium fishers and others kelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
713-5	Sarah Williams	ні	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
714-1	Matthew Ross	н	5/7/2018	EA validates that the aquarium fishery is sustainable at current levels and does not harm the environment.	Comment noted. The FEA The FEAs use the best ava are accurate.
744.2				Hundreds of local residents depend on the fishery to earn a living, and the closure of the fishery has had serious implications for their livelihoods.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
714-2	Matthew Ross Matthew Ross	н	5/7/2018	Use of small mesh nets for aquarium fishing has very minimal impact; commercial fishing for food fish is of much greater concern; suspension of permits has forced fishermen to turn to other fishing methods and target species, which almost certainly increased fishing pressure for food fish, which is not good for the environment.	Comment noted. The FEA
715-1	Kealoha Pisciotta	N/A		Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
715-2	Kealoha Pisciotta	N/A		Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo, South Kohala, Waikiki/Diamond Head, Lanikai/Kailua, Maui/Molokai/Lanai,	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
715-3	Kealoha Pisciotta Kealoha Pisciotta	N/A N/A	5/6/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
715-5	Kealoha Pisciotta	N/A		Must be a priority to not frustrate the recovery or do anything that makes it difficult for the ocean's abundance to return to our reefs.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
715-6	Kealoha Pisciotta	N/A		Since there is no conclusive evidence demonstrating that the aquarium trade is not signficantly and cumulatively adversely impacting our cultural and natural reef ecosystem, the precautionary principle applies and EIS must be done.	The FEAs both conclude t therefore an environment
	Kealoha Pisciotta	N/A		There is no exception to the court order, as claimed by the State; administration continues to force the burden on the public to sue, which is burdening the tax paying public and the Constitution.	Comment noted.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data omic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

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ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
715-8	Kealoha Pisciotta	N/A	5/6/2018	The EA fails the HEPA and environmental review criteria on every level, violating HRS 343; State of HI has also allowed a North American pet trade group to control and hire a controversial consulting company is outrageous.	Comment noted. The FEA FEAs have been revised in FEAs and responses to cor
715-9	Kealoha Pisciotta	N/A	5/6/2018	The Cultural Impact Section is beyond inadequate and completely ignorant of the fact that many of the reef animals are our Ohana/family guardians and the excessive taking of them upsets the balance and harmony of the reef and our relationships and the creative forces that make life continue.	Comment noted. The impa Section 5.3 of both FEAs.
715-10	Kealoha Pisciotta	N/A		Call upon the State decision makers to invoke the Aloha Spirit Law under HRS 5-7.5.	Comment noted.
716-1	Kahealani Alapai	N/A	5/6/2018	Concerned about the following species: Snowflake Eels and other puhi, All top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
716-2	Kahealani Alapai	N/A	5/6/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail the FEAs comclude no sign
716-3	Kahealani Alapai	N/A		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, North Kohala, Puna, Hilo, North Shore, Kauai.	Comment noted. The best included in the FEAs. The l collection.
716-4	Kahealani Alapai	N/A		Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
716-5	Kahealani Alapai	N/A	5/6/2018	Respect, preserve, and protect should be our number one priority for the future of HI.	Comment noted. The FEA impact.
717-1	Sterling Kobrakajj	N/A	5/7/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EAs were developed consistent with applicable laws and regulations. The in response to comments as required by such regulations. Please refer to comments for a fuller description of these edits and changes.

npacts to cultural resources sections have been revised in the FEAs, see s.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
717-2	Sterling Kobrakajj	N/A	5/7/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avail the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
717-3	Sterling Kobrakajj Sterling Kobrakajj	N/A N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
717-5	Sterling Kobrakajj	N/A	5/7/2018	60% of world's coral reef is dying. Have fished in the HI aquarium fishery for 14 years and can say without a	Comment noted. As note studies (Tissot and Hallac concluded that commerci Comment noted. The FEA
718-1	Eric Koch	н	5/8/2018	doubt that it is sustainable; analysis within the HEPA document utilizes the best available science. Fishery is thriving because juvenile fish are targeted for capture and the	The FEAs use the best ava are accurate. Comment noted. The FEA
718-2	Eric Koch	н	5/8/2018	amazing reproductive capabilities of the reef fish, as well as the comprehensive WHRFMA management plan.	The FEAs use the best ava are accurate.
718-3	Eric Koch	н	5/8/2018	Fishery contributes much to the local residents in West HI, including many jobs.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
718-4	Eric Koch	н		Facts must lead the way when measuring impact and management; fishery is being scrutinized because of a small group of environmentalists, backed by their mainland activist groups, who base their arguments on morality and feelings.	Comment noted. The FEA
718-5	Eric Koch	н	5/8/2018	Suggestion: Reduction in the Achilles bag limit for the WHRFMA to five for any and all user groups.	Comment noted. An addit with Achilles Tang. Specif from 10/day to 5 per day 5/day bag limt for other fi
718-6	Eric Koch	н	5/8/2018	Suggestion: Make the HEPA review period five years at the very least; HEPA law should be changed via the legislature to exclude fisheries or water based activities because DAR/DLNR already oversee and manage the	Comment noted. The app
719-1	Senate Committee on Water and Land	н		Concerned that the draft EAs are unreasonably narrow in their approach and fail to meet the necessary standard (Chapter 343) because they examine the impact of the commercial aquarium collection on the two islands separately, limit the review to collection over a one-year period (instead of long-term), and consider only two outcomes; artificially constrain the analysis and ignore the larger context in which commercial collection occurs.	Comment noted. An addi analyzing conservation m

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

o'ahu FEA includes a revised Preferred Alternative that includes expansion WLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

ditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.

applicant supports this comment.

dditional alternative has been included in the FEAs for both documents measures proposed by commenters.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
719-2	Senate Committee on Water and Land	HI		Catch reports based on data submitted to the Department's Division of Aquatic Resources reflect continued collection of fish and other aquatic life for aquarium purposes at rates approaching half of the catch reported in months prior to the bag; the draft EAs do not discuss the effects of illegal and unreported commercial collecting on the fish and other aquatic life populations.	The No Action Alternative throughout Section 5.0) to methods allowed under a
719-3	Senate Committee on Water and Land	н	5/8/2018	Draft EAs propose the continued taking of public resources for personal profit without discussing any of the issues that led to the ban and the environmental review process no proposing alternatives to improve the system; Department should find that the proposed actions may have a significiant effect on the environment, thus triggering the preparation of an environmental impact statement.	The FEAs both conclude to an environmental impact Hawai'i FEA that addresse reducing the Achilles Tang in the WHRFMA and impo alternative was added in t the alterantive proposes a in O'ahu and the expansio
720-1	Daniel Coughlin	н		As a collector and shipper of HI reef fish since 1967, have seen the industry mature over the decades to become one of the best managed and regulated fisheries worldwide.	Comment noted. The FEA
720-2	Daniel Coughlin	н		Facts and studies concerning tropical reef fishing in HI shows it is a viable renewable and sustainable resource.	Comment noted. The FEA
720-3	Daniel Coughlin	Н		Urge you to reinstate aquarium fish permits as soon as possible, for the sake of the fishermen.	Comment noted. The FEA
721-1	Robert Wintner	н		Process is skewed and jaded to favor commercial interests over HI public reef trust; process of two separate impacts is disingenuous at best, crooked at least; aquarium trade has had its way and continues to do so through the commercial interest of PIJAC, not a stakeholder in HI natural resources nor a pono player.	The FEAs use the best ava
721-2	Robert Wintner	н		Any assessment finding no impact is patently wrong; the Ige Administration has gone against the legislature and the Supreme Court on this issue and should defer to the will of the people, not to prive commercial interests.	Comment noted. The FEA The FEAs use the best ava are accurate.
722-1	Western Pacific Regional Fishery Management Council	N/A	5/8/2018	The WPRFMC staff have concluded that the preferred alternative is	Comment noted. The FEA The FEAs use the best ava are accurate.
723-1	Moku Loa Sierra Club	н	5/8/2018	Support Alternative A and request a full EIS of the trade's environmental, cultural, and ethical impacts.	Comment noted. The FEA impact therefore an envir
723-2	Moku Loa Sierra Club	н	5/8/2018	Support Res. 308 requesting the State to ban commercial aquarium fish collection as step toward conserving our endemic reef ecosystem for its inherent value for future generations.	Comment noted. The FEA impact.
723-3	Moku Loa Sierra Club	н	5/8/2018	"Removal of large numbers of herbivores such as the yellow tang can cause reef areas to be overrun and smothered with algae. The removal of clearn fishes may result in a higher parasitic load on other reef fishes" (Citation given).	Given the conclusions in t impacting the populations collected species in O'ahu ecosystem. In addition, as the O'ahu FEA, Tissot and areas of collection versus
723-4	Moku Loa Sierra Club	н	5/8/2018	While harvesting and damaging coral in HI has been illegal for decades, no protections exist for the fishes and invertebrates essential to reef health and beauty; many of the benthic invertebrates collected involve destruction or alteration of live rock and coral to gain access to	Comment noted. Section note that two studies hav coral or the reef ecosyste

ive in the FEAs have been revised (Section 3.1 in both FEAs and) to reflect continued collection of fish and other aquatic life using legal r a CML.

e that the Preferred Alternative will not have a significant impact therefore of statement is not required. An additional alternative was added in the sses concerns with Achilles Tang. Specifically, the alterantive proposes ang bag limit from 10/day to 5 per day for commercial aquarium collection posing a 5/day bag limt for other fisheries in the WHRFMA. An additional in the O'Ahu FEA that addresses concerns with Flame Wrasse. Specifically, es a Flame Wrasse bag limit of 10/day for commercial aquarium collection sion of the Waikiki MLCD.

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EA concludes that the Preferred Alternative will not have a significant

n the FEAs that commercial aquarium collection is not significantly ons of any of the White List Species on the island of Hawai'i or the top 20 hu, the species are anticpated to continue to serve their functions in the as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of nd Hallacher (2003) found no evidence that algal growth was higher in us areas without collection, despite differences in fish abundance.

on 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA have concluded that the aquarium fishery has no significant impact on tem.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
					Comment noted. As noted and 2014 Hawai'i Island a underreporting of catch b
				Less than 50% of required collection reports are filed and none are verified; actual catch may have been 1.5 to 3.5 million per year, according to Dan Polhemus (Citation given); citations/information give for the following: Kihei reefs contribute \$8,000,000 to the State economy from the snorkeling and diving industry, aquarium fish collecting has caused populations to decline by 38-78% on the reefs they're taken from, fewer than 1% of fish surive	record growth in both cat includes expansion of the between commercial aqua
				more than a year in captivity, recently 600 yellow tang only made it as far as the garbage cans in Honohokau, inhumane fin and spine trimming continues.	As discussed in the Hawai (Yellow Tang and Kole) sh Achilles Tang, has shown Hawai'i FEA that addresse reducing the Achilles Tang in the WHRFMA and impo
723-5	Moku Loa Sierra Club	ні	5/8/2018		
723-6	Moku Loa Sierra Club	ні	F /9 /2019	Suggest that those making a living from the trade convert their endeavors to the marine tourism business or to carry out needed studies of the reef	Comment noted. Socioeco
723-7	Moku Loa Sierra Club			ecosystem. Pose the following questions/needed areas of study: long term effects on reef ecosystem from removal of hundred of thousands of fishes yearly; long term effects to coral reefs of increased parasitic load created by removing cleaner fishes/yellow tang; how are shrimp from anchialine ponds managed.	Comment noted. Long-ter discussed in Section 5.4.
		HI	5,6,2010		Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo
				Have seen how the harvested fish are treated as disposable; relatively valueless once harvested, but contribute to native ecosystems and bolster the tourism industry in nature.	populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
724-1	Malayna Oliver	N/A	5/8/2018		In addition, Sections 4.1 a Hawaiʻi's tourism industry 2016, marking the fifth co visitors to the Hawaiian Is
			5,6,2010		Comment noted. The best included in the FEAs. Peer impact from commercial a
				Many populations are stuggling to maintain the replacement level; protect them and leave something for future generations.	of the 40 White List specie respective overall island o be less than 5% of their ov top 20 collected species d respective overall island o less than 8% of their overa considered to be sustaina
724-2	Malayna Oliver	N/A	5/8/2018		and Hodgson 2006).

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 aquarium catch report validation did not indicate substantial by aquarium collectors.

2.2.2 of the FEA, available data do not suggest that commercial aquarium I the tourism industry in Hawai'i. Hawai'i's tourism industry achieved new spending and visitor arrivals in 2016, marking the fifth consecutive year of categories. The O'ahu FEA includes a revised Preferred Alternative that he existing Waikiki MLCD, which is anticipated to decrease user conflict quarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

vai'i FEA, population trends for two of the top three collected species show stable or increasing population trends. While the third species, in past decreases in population size, an alternative was added in the sses concerns with Achilles Tang. Specifically, the alterantive proposes ang bag limit from 10/day to 5 per day for commercial aquarium collection sposing a 5/day bag limt for other fisheries in the WHRFMA.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

term impacts are discussed in Section 5.4.3. Impacts to populations are I.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

1 and 5.2 of each FEA addresses Socioeconomics, including tourism. try achieved new records in total visitor spending and visitor arrivals in consecutive year of record growth in both categories. Total spending by Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be erall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
725-1	Caribbean Tropicals, Inc.	FL	5/8/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable through extensive studies by both the DLNR and NOAA.	Comment noted. The FEA The FEAs use the best ava are accurate.
				Observed a steady decline in certain types of reef fish; Yellow tang now only in pockets over their former range; Saddleback butterfly no longer spotted (recorded in dive logs).	Comment noted. The bes included in the FEAs. Pee impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
726-1	Mike Noll	N/A	5/8/2018		Yellow Tang are already r Section 5.4.1.2.1 of the H populations of Yellow Tar and Figure 5).
720-1			5/6/2010		Comment noted. The FEA
				Urge you to support and enforce limits on aquarium fishing.	In addition, both FEAs dis
726-2	Mike Noll	N/A	5/8/2018		collection. Both FEAs also
727-1	Benepets	N/A	5/8/2018	Fully support the aquarium industry in HI and urge you to accept the EA and reject the ban on HI fishing.	Comment noted. The FEA
				Protect the reefs and wildlife; limit the collection for aquariums.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava In addition, both FEAs dis
728-1	Marilyn Dougery	н	5/8/2018		collection. Both FEAs also
728-2	Marilyn Dougery	HI	5/8/2018	Change in Honokaope Bay is dramatic (fewer species, smaller schools, and dying coral).	Comment noted. The bes included in the FEAs. Pee the collection of 37 of the less than 1% of their resp three species would be le within what is considered 25%; Ochavillo and Hodg 5.4.1.2.5 (O'ahu) of the F monitoring program have impact on the island's ree
				HI fish are an important component in the success of my company, which supports myself and several employees, and this hobby.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioecono
729-1	Maurice Williams	N/A	5/7/2018		

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

regulated on both islands with bag limits and size limits. In addition, Hawaii FEA includes information from the DAR illustrating increasing ang in West Hawaii within all areas, including open areas (see Table 10

EAs conclude no significant impact from commercial aquarium collection. discuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

discuss the existing regulations that govern commercial aquarium fish so include a new Preferred Alternative with additional regulations.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% dgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral we concluded that commercial aquarium fishing has had no significant reefs.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
729-2	Maurice Williams	N/A	5/7/2018	Please accept the EA and reject the ban on HI fishing.	Comment noted. The FEA
730-1	Robert Culbertson	н		Reject any limitations by the Department's solicitation on exclusively 'scientific grounds' and call into question any implied authority to abet a practice that does not serve the public interest, nor accords with the legal and ethical mandate within the DLNR.	Comment noted. The app
				Critical overview of declining abundance and diminished ecological health of HI's reefs and marine ecosystems; large public opinion polls favor the termination of the destructive aquarium trade (recent survey is 84%).	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE/ the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
730-2	Robert Culbertson	ні	5/4/2018		Section 5.4.1.2.4 of the Ha studies have concluded th ecosystem.
730-3	Robert Culbertson	н	5/4/2018	State has grounds to ban the trade in accordinance with the Departments "hierarchy of uses" principle with the protecting resource from harm principle and public use and enjoyment priority coming first, followed by admitting commercial activities; case in point on p.54 of HI Island EA with the nullification of a conservation designation.	Comment noted. See resp are addressed in both FEA
730-4	Robert Culbertson	HI		A good and thorough accounting of economic impacts separately would measure the direct cumulative costs to the state (public) for administration, enforcement, and public participation, as well as the indirect costs to the public in terms of personal and subsistence uses and the unquantifiable loss of public trust, confidence, and support.	Comment noted. The eff FEAs. The socioeconomic
730-5	Robert Culbertson	н		A plea for the entrusted decision makes to take the only afforded opportunity to side with the courts, the legislature, the court of public opinion, the traditional ecological wisdom of island culture, the judgment of history, and the fish and select our preferred option of "no action."	Comment noted. The FEA impact.
731-1	Tammy Le	N/A	5/4/2018	Environmental review shows the aquarium fishery in HI is sustainable and therefore permits should be reinstated without further delay.	Comment noted. The FEA
732-1	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	н	5/8/2018	DEA and the scientific basis of a finding of no significant impact adequately protect the reef fish stocks for food resource use for the Island of HI.	Comment noted. The FEA The FEAs use the best ava are accurate.
	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	Support management and conservation of herbivore fish, especially uhu; monitoring and conservation of kole and pakuikui are important for food resource fishing.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai commercial aquarium coll
732-2	Hawai'i Fishermen's Alliance for			Aware that reef fish are harvested and consumd by the Native Hawaiian and	Comment noted. Sections significantly impacted by Preferred Alternative.
732-3	Conservation and Tradition, Inc.	HI	5/8/2018	permits.	

EAs conclude no significant impact from commercial aquarium collection.

pplicant prepared the FEAs in accordance with state law.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two I that the aquarium fishery has no significant impact on coral or the reef

esponses above. The effects of the aquarium fishery on the enviroment EAs.

effects of the aquarium fishery on the enviroment are addressed in both iic impacts are discussed in Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts of collection on subsistence fishing are discussed in Section 5.3 of both FEAs.

ons 5.3 of both FEAs conclude that subsistence fishing will not be by the continuation of commercial aquarium collection under the

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
733-1	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	н	5/8/2018	DEA and the scientific basis of a finding of no significant impact adequately protect the reef fish stocks for food resource use for the Island of Oahu.	Comment noted. The FEA The FEAs use the best ava are accurate.
733-2	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	н	5/8/2018	Support management and conservation of herbivore fish, especially uhu; monitoring and conservation of kole and pakuikui are important for food resource fishing.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai commercial aquarium coll
	Hawai'i Fishermen's Alliance for			Aware that reef fish are harvested and consumd by the Native Hawaiian and kama'aina community, and reef fish can be important cultural components; due to declining consumption, HFACT believe that sufficient stock of reef	Comment noted. Sections significantly impacted by Preferred Alternative.
733-3	Conservation and Tradition, Inc.	ні	5/8/2018	fish will exist with the reinstatement of commercial aquarium fishing permits.	Preferred Alternative.
734-1	Jessica Wooley		37072010	Would like more time to review the DEAs; 30 days is not enough.	Comment noted. The app
724.2			F /9 /2019	DEAs reflect how the State Executive Branch has failed the people of HI and all the reef wildlife; a complete environmental review is required by law; why has the State Executive Branch failed to ensure data it collects is peer reviewed by scientists, failed to consider the science of Native Hawaiian familes, refused to meet with animal cruelty groups while regularly meeting with commercial wildlife interests, failed to comply with HRS Chapter 343, failed to include public discourse, not prepare the environmental review documents themselves, failed to address the impact of the captures to any and all animals used by people for food.	Comment noted. The DE the effects of the propose provided in both FEAs, an NMFS, and WESPAC.
734-2	Jessica Wooley	ні	5/8/2018	Overall, would like to know how these DEAs comply with all statutory	
734-3	Jessica Wooley	ні	5/8/2018	provisions in the State of HI and the HI Constitution.	Comment noted. The FEA
734-4	Jessica Wooley	н	5/8/2018	Proposed action violates numerous provisions and should be withdrawn; State Executive should stop authorizing commercial collectors to continue to capture and sell HI reef wildlife in violation of the HI Supreme Court ruling and State Law.	Comment noted. See res
734-5	Jessica Wooley	н	5/8/2018		Comment noted. The FEA As described in the FEAs, science.
735-1	Satoru Yamamoto, Kamihata Fish Ind.	Japan	5/5/2018	Supprt the aquarium trade in HI and pray that permits are restored.	Comment noted. The FEA collection.
736-1	Quality Marine & Aquatropic	CA		Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEA
736-2	Quality Marine & Aquatropic	CA		The ban negatively affects the marine ornamental trade and puts many people out of work.	Comment noted. The FEA The FEAs use the best ava are accurate.
737-1	Aquatic Sealife	LA		Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEA

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

Hawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their e O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts of collection on subsistence fishing are discussed in Section 5.3 of both FEAs.

ons 5.3 of both FEAs conclude that subsistence fishing will not be by the continuation of commercial aquarium collection under the

pplicant prepared the FEAs in accordance with state law.

DEAs and FEAs were prepared in accordance with State law and disclose osed action on the environment. The results of this assessment is and has been independently peer reviewed, as well as reviewed by DLNR,

EAs contain the analysis that complies with applicable law.

esponses provided above.

EAs conclude no significant impact from commercial aquarium collection. As, this is based off of 18 years of collection data and the best available

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

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EAs conclude no significant impact from commercial aquarium collection.

Comment No	Commentor	State/	Date Beceived	Comment	Response
Comment No.	Commentor	Location	Received	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments o preferred alternatives wit
738-1	Candace Wade	TN	5/8/2018	Don't destroy our heritage areas; fragile ecosystem.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
738-3	Candace Wade	TN	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hay during the 12-month ana Hawai'i populations. Colle overall population. The C during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are add
738-4	Candace Wade	TN		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE/ impact therefore an envir
739-1	Ms. Penny Langley	TN	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments o preferred alternatives wit

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has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

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	Ms. Penny Langley	TN	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
	Ms. Penny Langley	TN		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE impact therefore an envir
739-4	Ms. Penny Langley	TN	5/8/2018	Being very shortsighted to allow the reefs to be decimated by the collection of these animals for pets; HI relies heavily on tourism and these resources should be saved so they can continue to be enjoyed for many years to come.	Comment noted. Section of your comment. In rega visitor spending and visito in both categories. Total s high of \$15.91 billion (HD In addition, as noted in S (Tissot and Hallacher (200 commercial aquarium fish concludes the the collecti period would be less than of the remaining three sp concludes that collection period would be less than the remaining two specie well below or within what research (5% - 25%; Ocha
740-1	Mr. Keith Dane	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The bes confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit
	Mr. Keith Dane	н	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects gards to tourism, Hawai'i's tourism industry achieved new records in total sitor arrivals in 2016, marking the fifth consecutive year of record growth al spending by visitors to the Hawaiian Islands increased 5.3% to a new HDBEDT 2017).

a Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies 2003)) and a long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of their spective overall island of O'ahu populations. Collection of their spective overall island of O'ahu populations. Collection of their sective overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
740-3	Mr. Keith Dane	н	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
741-1	Ms. Austen Stone	СО	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with
				Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail cultural resources are add
741-2	Ms. Austen Stone	со	5/8/2018		
741-3	Ms. Austen Stone	со	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
742-1	Ms. Melissa Lockyer	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with
742-2	Ms. Melissa Lockyer	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avail cultural resources are add

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
742-3	Ms. Melissa Lockyer	HI		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
743-1	Mrs. Vivian Toellner	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives with
				Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai cultural resources are add
743-2	Mrs. Vivian Toellner	н	5/8/2018		
743-3	Mrs. Vivian Toellner	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
743-4	Mrs. Vivian Toellner	н	5/8/2018	Conservation: the wise use of our natural resources; please protect what makes HI special.	Comment noted. The FEA
	Ms. Laurie Pottish	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with
744-2	Ms. Laurie Pottish	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai cultural resources are add

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awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to ddressed in Section 5.3 of both FEAs.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
744-3	Ms. Laurie Pottish	н		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an enviro
745-1	Ms. Jeanie Kilgour	н	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with
745-2	Ms. Jeanie Kilgour	н	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai cultural resources are add
				Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA impact therefore an enviro
745-3	Ms. Jeanie Kilgour Ms. Jeanie Kilgour	н	5/8/2018	until that analysis is complete. Dive logs show how sparse the fish populations have become in the past few years.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respec three species would be less collection of 18 of the top than 1% of their respective species would be less than within what is considered 25%; Ochavillo and Hodgs
, +J ⁻ +			5/6/2018	Shocked that HI has taken such as blasé attitude towards our reef creatures	Comment noted The FFA
745-5	Ms. Jeanie Kilgour	н	5/8/2018	and embarrassed to invite friends from the mainland to go diving on the Kona Coast.	Comment noted. The FEAs
	Mr. Murray Kilgour	Н	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate. significant impact. The ap Section 1.2.2 of the FEA, th and applicant actions. The pursuant to permits issued approval. Therefore, an ap Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with

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EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

est available scientific data concerning species abundance has been er reviewers confirm data are accurate. The Hawai'i FEA concludes the ne 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006).

As conclude no significant impact from commercial aquarium collection.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
746-2	Mr. Murray Kilgour	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
746-3	Mr. Murray Kilgour	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FE/ impact therefore an envir
747-1	Ms. Lorraine Garnier	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives wit
747-2	Ms. Lorraine Garnier	н	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai cultural resources are ado
1772			37072010	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all	Comment noted. The FEA
747-3	Ms. Lorraine Garnier	н	5/8/2018	environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	impact therefore an envir
748-1	Miss Narrissa Spies	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best confirm data are accurate significant impact. The ap Section 1.2.2 of the FEA, t and applicant actions. Th pursuant to permits issue approval. Therefore, an a Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments of preferred alternatives wit

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748-2	Miss Narrissa Spies	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava cultural resources are ado
746-2			57672018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium	Comment noted. The FEA
748-3	Miss Narrissa Spies	ні	5/8/2018	until that analysis is complete.	
749-1	Strictly Fish	N/A	5/6/2018	Shut down of a sustainable fishery has made introducing this wonderful hobby incredibly difficult; future generations should be able to enjoy the hobby as we have in the past.	Comment noted. The FEA
749-2	Strictly Fish	N/A	5/6/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEA collection.
750-1	Aqua Dreams	MA		Support the aquarium fisheries industry in HI; please accept the EA and reject the ban on HI fishing.	Comment noted. The FEA collection.
751-1	Cindy DeLillo	N/A	5/1/2019	Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEA
751-2	Cindy DeLillo	N/A	5/4/2018	Ban negatively affects the marine aquarium trade and puts a great deal of people out of work in HI.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
752-1	Troy	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
753-1	Sherwin Balais	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
754-1	Michael Bauma	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
755-1	Brianna K. Fujimoto	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
756-1	Brisan Kalahiki	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
757-1	Joanne Lee	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
758-1	Brenadette Murakami	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
759-1	Ben Soria	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
760-1	Giszale	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
761-1	Samson	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.

Hawai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their e O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to addressed in Section 5.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

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762-1	Jewelz	н	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
763-1	Bob Gregory	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
764-1	Anthony Abraham	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
765-1	Todd Muralcami	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
766-1	Victor Wade	ні	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEA collection.
767-1	Jason W F Beevers	ні		Fishery has proven to be sustainable for decades; please reinstate AQ licenses and restore our ability to fish in the waters of west HI.	Comment noted. The FEA
767-2	Jason W F Beevers	н	5/4/2018	Has provided it's fishermen a stable and reliable income; jobs are extremely difficult to find and maintain in rural areas of the state.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
768-1	Hunting Farming and Fishing Association	н	5/8/2018	Have consulted extensively with PIJAC during the development of these documents; applicant worked closely with the Senate, NOAA Fisheries, Independent Scientific Peer reviewers, and organizations such as HFFA in the review and development of these documents.	Comment noted. Section consulted. In addition, the
768-2	Hunting Farming and Fishing Association	н	5/8/2018	Find the DEAs to be both thorough and accurate as noted by the independent scientific peer reviewers	Comment noted. The FEA The FEAs use the best ava are accurate.
768-3	Hunting Farming and Fishing Association	ні	5/8/2018	Comments made by the Office of Hawaiian Affairs are baseless; disagree with OHA that these long-standing fisheries that many Native Hawaiians participate in will cause adverse cultural impacts; OHA has worked with the applicant during the development of these documents.	Comment noted. Cultural organizations, and individ provided in Section 6.0 of public comments recieved
768-4	Hunting Farming and Fishing Association	ні	5/8/2018	best available science in the management of our natural resources	Comment noted. The FEA
768-5	Hunting Farming and Fishing Association	н	5/8/2018	HFFA urges the DLNR to adopt the DEAs and to commence issuing commercial permits for the aquarium fishery; individuals in this fishery have been substantially harmed by the political and legal maneuvers of outside animal rights groups.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioeconor
769-1	Division of Aquatic Resources	н	N/A	Pg. 14 - Provide details on the process of a specific commitment by some entity to do an updated EA on an annual basis.	Comment noted. The app additional HEPA reviews in the analysis contained in t commercial aquarium per reevaluation of this analys
769-2	Division of Aquatic Resources	н	N/A	Section 4.4.1 - for all species with WHAP 2014 population estimates, the numbers represent the population only in the Open Areas.	Correct and revised. This is DEA also states that using underestimation.
769-3	Division of Aquatic Resources	н	N/A	Pg. 27, 4.4.1.1 - Number of Yellow Tang represent the population in the Open Areas (30'-60' depths), shown correctly in Table 5 (pg. 55) (more specifics given).	The Hawai'i FEA has been reflects only the open are
769-4	Division of Aquatic Resources	ні	N/A	Pg.28, 4.4.1.2 - Same error as above was made for Achilles Tang (more specifics given).	The Hawai'i FEA has been reflects only the open are
769-5	Division of Aquatic Resources	ні	N/A	Pg. 33, 4.4.1.13 - Specifics given on the overall Kole population.	The Hawai'i FEA has been 4.4.1.13 reflects only the
769-6	Division of Aquatic Resources	ні	N/A	Pg. 36, 4.4.4.19 - Black durgon are not broadcast spawners (citations and specifics given).	Section 4.4.1.19 of the Ha reproduction.

EAs both conclude no significant impacts from commercial aquarium

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As conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

on 6.0 of the FEAs outlines the agencies, organizations, and individuals the FEAs have been revised in response to public comment.

EAs conclude no significant impact from commercial aquarium collection. Ivailable data regarding species abundance. Peer reviewers confirm data

ral impacts are assessed in Section 5.3 of both FEAs. A list of agencies, viduals consulted with during the drafting of the DEAs and FEAS is of both FEAs. Both FEAs have been revised to relfect changes due to ved during the public comment period.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

pplicant supports full enforcement of all applicable regulations, including rs if needed. As stated in Section 5.5 of the FEAs, the DLNR will reevaluate in the FEAs on an annual basis prior to renewal or issuance of new permits, and will assess if any new information exists warranting alysis.

is is stated in other places, but is now also included in Section 4.4.1. The ing the Open area populations alone, also exaggerates the

en revised to reflect that the population estimate shown in Section 4.4.1.1 rea population.

en revised to reflect that the population estimate shown in Section 4.4.1.2 rea population.

en revised to reflect that the population estimate shown in Section ne open area population.

Hawai'l FEA has been revised to accurately reflect black durgon

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
769-7	Division of Aquatic Resources	HI	N/A	Pg. 61, 4.4.73 - Each of the 25 WHAP sites has four transects, thus 100 transects; benthic cover and habitat structural complexity are survey by WHAP as well as CREP.	Section 4.4.7.3 of the Haw transects total, and that b
769-8	Division of Aquatic Resources	ні	N/A	Pg. 73, 5.4.1.2.1 - Multiple comments regarding Achilles Tang abundance and aquarium fishery trends in West HI, based on attached document.	Comment noted. An addi with Achilles Tang. Specif from 10/day to 5 per day 5/day bag limt for other fi
769-9	Division of Aquatic Resources	ні	N/A	Pg. 76, Figure 7 - Updated version of this graph is available from DAR.	The Hawaii FEA has been
				Pg. 80, 5.4.1.2.4 - Note: no species of Rabbitfishes are found in HI, the	Section 5.4.1.2.4 in the Ha
769-10	Division of Aquatic Resources	HI	N/A	Hawaiian <i>Dascyllus</i> is not an herbivore.	Hawaii, and that the Hawa
769-11	Division of Aquatic Resources	HI	N/A	Pg. 81 - Bag limit specifications given. Pg. 89, 5.4.3.2 - Include reference to recently published paper on substantial reef fish catch by commercial and non-commercial fishers	Section 5.4.1.2.4 in the Ha Comment noted. This refe
769-12	Division of Aquatic Resources	HI	N/A	(citation given).	Section 5.4.3.4 in the Haw
769-13	Division of Aquatic Resources	ні	N/A	Pg. 91, 5.5.3.4 - Species name correction. Recommendations from the last DAR/DLNR report (Walsh 2014): 1)	name, Porites lobata .
769-14	Division of Aquatic Resources	н	N/A	obtaining legislative authority for the DLNR report for real time response to emerging resource issues, 2) a limited-entry aquarium fishery should be established in West Hawaii; 3) DLNR should prioritize the adoption of a Hawaiian Administrative Rule (HAR) to require marine dealer report, 4) an effective DOCARE enforcement "presence" on the water and along coastal areas.	Comment noted.
770-1	Office of Hawaiian Affairs	н	4/30/2018	DEA for Island of O'ahu is incomplete and does not adequately address potential significant environmental impacts; request a resubmission of a new DEA for review and public comment.	The O'ahu FEA concludes therefore another draft E/ what additional environm
770-2	Office of Hawaiian Affairs	HI	4/30/2018	OHA is concerned that the incorrect focus on the issuance of permits and not on the action of aquarium collection pursuant to permits issued under HRS § 188-31 may lead to an incomplete assessment of environmental effects; DEA does not consider the potential impacts it may have on the environment or the cumulative impacts it may have with other fishing and non-fishing activities; does not address the social or economic impacts on industries and activities other than commercial aquarium fishing	Comment noted. The effe FEAs have been peer revie scientific information. Exp upon which the analyses i
770.2	Office of Housilon Affaire		4/20/2010	A new assessment each year would not be feasible and would likely preclude proper identification of the entirety of the direct, indirect, and cumulative effects of the proposed action; limited timeframe ignores the requirements of assessing indirect and cumulative impacts.	Comment noted. The FEA
770-3	Office of Hawaiian Affairs Office of Hawaiian Affairs	HI HI	4/30/2018	The DEA describes and dicusses only the proposed action and a single, no action alternative (HAR § 11-200-10(6) cited); there are a range of potential alternatives that may be considered and that may have a less significant impact than the proposed action (various ideas given)	available (see Section 5.5 Comment noted. An addi analyzing conservation me
770-5	Office of Hawaiian Affairs	ні	4/30/2018	Enforceability and the potential effectiveness of compliance mechanisms must be evaluated as part of any alternatives analysis.	Comment noted.
770-6	Office of Hawaiian Affairs	HI	4/30/2018	Almost complete lack of analysis regarding the significant potential cultural impacts of the action; recommend that the applicant apply the OEQC's Guidelines for assessing cultural impacts and consults with traditional cultural practitioners and other knowledgeable informants and sources about cultural resources, cultural practices, and the proposed action's notential impacts (more examples given).	Comment noted. The FEA Sections 5.3 of both FEAs

awaii FEA has been revised to reflect the 4 transects per site, 100 t benthic cover and habitat structural complexity are all recorded.

dditional alternative was added in the Hawai'i FEA that addresses concerns ecifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.

en revised to include the updated Figure 7 provided by DAR.

Hawaii FEA has been revised to reflect that rabbitfish are not found in waiin *Dascyllus* is not an herbivore.

Hawaii FEA has been revised to include these bag limits.

eference and associated data were added to Section 5.4.3.2 in both FEAs.

awaii FEA has been revised to include the correct spelling of the species

des that the Preferred Alternative will not have a significant impact EA and comment period is not required. The commentor did not specify mmental impacts should have been evaluated.

effects of the fishery on the environment are described in the FEAs. The eviewed to insure the effects of these actions comport with avialble Expert agencies have reviewed the analyses, and provided information es is based.

EAs explain how new information may be considered when it becomes .5 of both FEAs).

dditional alternative has been included in the FEAs for both documents measures proposed by commenters.

EAs consider the cultural impacts of the action on the environment (see As).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
770-7	Office of Hawaiian Affairs	ні		OHA is concerned that the applicant's early consultation, which was limited to four agencies and only three organizations, was insufficient and incomplete; notifying the public of the availability of the DEA does not equate to consultation.	Comment noted, see resp prior to development of t OHA and other organizati carefully considered durir additional alternatives in
771-1	Office of Hawaiian Affairs	HI	4/30/2018	DEA for Island of Hawai'i is incomplete and does not adequately address potential significant environmental impacts; request a resubmission of a new DEA for review and public comment.	Comment noted. The FEA reviewed by independent
771-2	Office of Hawaiian Affairs	ні	4/30/2018	OHA is concerned that the incorrect focus on the issuance of permits and not on the action of aquarium collection pursuant to permits issued under HRS § 188-31 may lead to an incomplete assessment of environmental effects; DEA does not consider the potential impacts it may have on the environment or the cumulative impacts it may have with other fishing and non-fishing activities; does not address the social or economic impacts on industries and activities other than commercial aquarium fishing.	Comment noted. Cumula analysis has been updated
771-3	Office of Hawaiian Affairs	ні	4/30/2018	A new assessment each year would not be feasible and would likely preclude proper identification of the entirety of the direct, indirect, and cumulative effects of the proposed action; limited timeframe ignores the requirements of assessing indirect and cumulative impacts.	Comment noted. The FE/ available (see Section 5.5
771-4	Office of Hawaiian Affairs	HI	4/30/2018	The DEA describes and dicusses only the proposed action and a single, no action alternative (HAR § 11-200-10(6) cited); there are a range of potential alternatives that may be considered and that may have a less significant impact than the proposed action (various ideas given).	Comment noted. An add analyzing conservation m
771-5	Office of Hawaiian Affairs	н	4/30/2018	Enforceability and the potential effectiveness of compliance mechanisms must be evaluated as part of any alternatives analysis.	Comment noted.
771-6	Office of Hawaiian Affairs	HI		Almost complete lack of analysis regarding the significant potential cultural impacts of the action; recommend that the applicant apply the OEQC's Guidelines for assessing cultural impacts and consults with traditional cultural practitioners and other knowledgeable informants and sources about cultural resources, cultural practices, and the proposed action's potential impacts (more examples given).	Comment noted. The FEA Sections 5.3 of both FEAs
771-7	Office of Hawaiian Affairs	н		OHA is concerned that the applicant's early consultation, which was limited to four agencies and only three organizations, was insufficient and incomplete; notifying the public of the availability of the DEA does not equate to consultation.	Comment noted, see resp prior to development of t OHA and other organizati carefully considered durir additional alternatives in
772-1	Graham Paul Knopp	HI		This form of exploitation of a public resource benefits very few (aquarium fish collection provides about 0.015% of the total HI County Gross Product) but impacts a resource owned by all of the people of HI.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava and 5.2 of each FEA addre

esponses above. The applicant coordinated with multiple organizations of the DEAs (see Section 6.5 of both FEAs). The DEAs were provided to ations prior to the public comment period. Public comments were ring the devleopment of the FEAs, as evidenced by the inclusion of in the FEAs.

EAs evaluate the best available scientific information, and have been peer ent scientists and agencies.

ulative impacts are evaluated in both FEAs, and the cumualtive impact ted in response to public comments received.

EAs explain how new information may be considered when it becomes .5 of both FEAs).

dditional alternative has been included in the FEAs for both documents measures proposed by commenters.

EAs consider the cultural impacts of the action on the environment (see As).

esponses above. The applicant coordinated with multiple organizations of the DEAs (see Section 6.5 of both FEAs). The DEAs were provided to ations prior to the public comment period. Public comments were ring the devleopment of the FEAs, as evidenced by the inclusion of in the FEAs.

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Sections 4.1 dress Socioeconomics.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
772-2	Graham Paul Knopp	н	5/8/2018	Are comparing to pelagic fisheries (30% annual take is the norm), but this high take is not reasonable given the ecology of the reefs and the other pressures presently on reef ecosystems.	The FEAs do not use a sta considered to be sustaina Hodgson 2006). The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population.
772-3	Graham Paul Knopp	н	5/8/2018	Sincerely doubt a 15-year baseline, coupled with the variability of the population data, casts doubt on claims that there is any spcies recovery in general since the creation of the FRA; of the three species for which detailed population information is shown, see a marked depopulation in the Open Areas vs. the Fish Recovery Areas (discrepencies outlined in EA given).	The best available scientif Peer reviewers confirm da two of the top three colle population trends. While size,an alternative was ad Specifically, the alterantiv day for commercial aquar fisheries in the WHRFMA.
772-4	Graham Paul Knopp	н	5/8/2018	Alternatives section is inadequate; others should be discussed, such as the cultivation or captive breeding of some species, collection at other locations within the State of HI and outside the State of HI.	Additional alternatives we alternative was added in t the alterantive proposes i commercial aquarium coll fisheries in the WHRFMA. concerns with Flame Wra 10/day for commercial ad
772-5	Graham Paul Knopp	н	5/8/2018	Section 4.4.5 - Extremely brief summary of coral reef habitat; would be appropriate to discuss other stressors to coral reef ecosystems.	Other stressors to the cor both FEAs (see Section 5.4
772-6	Graham Paul Knopp	н	5/8/2018	Section 4.4.7, pg. 57 - Statement cited, which seems to imply that FRAs have no effect on Yellow Tang populations greater than 0.6 miles away;	As stated in Section 4.4.7, has not declined significat population of Yellow Tang and 2017.
772-7	Graham Paul Knopp	н	5/8/2018		An additional alternative Tang. Specifically, the alto per day for commercial ac other fisheries in the WHI
772-8	Graham Paul Knopp	н	5/8/2018	4.4.7 page 57 states "The total take of reef fish by commercial and non- commercial ('recreational') fishers on other Main Hawaii Islands greatly exceeds the numbers and biomass of the fish taken by aquarium collectors." Please provide data to substantiate both these claims, or remove this statement.	The source of this statem requested from the DAR.
772-9	Graham Paul Knopp	HI	5/8/2018	5.4.1.1 I take contention with the statement, "A minor, although, unquantifiable, population increase may occur in some species over the 12- month analysis period" First, this extremely short evaluation of the biological impacts of the No Action Alternative only examines short-term (i.e., 12-month) impacts relative to the Preferred Alternative. Second, for several species, including Yellow Tang, Kole, and Achilles Tang, this statement may be correct for the arbitrary 12-month period. But what about the long-term? For the long-term we can expect the No Action Alternative to produce positive impacts, and for Open area populations to recover to FRA levels and densities. Please revise this paragraph to include an evaluation of the long-term biological impacts of the No Action	The No Action Alternative throughout Section 5.0) . than one year in duration

standard of 30%. As stated throughout both FEAs, a take of 5% to 25% is nable reef fish harvest based on available research (Ochavillo and awai'i FEA concludes the the collection of 37 of the 40 White List species nalysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species nalysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall

ntific data concerning species abundance has been included in the FEAs. data are accurate. As discussed in the Hawai'i FEA, population trends for illected species (Yellow Tang and Kole) show stable or increasing le the third species, Achilles Tang, has shown past decreases in population added in the Hawai'i FEA that addresses concerns with Achilles Tang. tive proposes reducing the Achilles Tang bag limit from 10/day to 5 per narium collection in the WHRFMA and imposing a 5/day bag limt for other IA.

were added to the FEAs based on public comment. An additional in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, es reducing the Achilles Tang bag limit from 10/day to 5 per day for collection in the WHRFMA and imposing a 5/day bag limt for other IA. An additional alternative was added in the O'Ahu FEA that addresses trasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of aquarium collection in O'ahu and the expansion of the Waikiki MLCD.

coral reef ecosystems are discussed in the Cumulative Effects sections of 5.4.3 of both FEAs).

..7, the Yellow Tang population within the FRAs has increased 64.5% and cantly within the open areas. In addition, as stated in Section 5.4.1.2.1, the ang has increased by over 3 million within the open areas between 2014

ve was added in the Hawai'i FEA that addresses concerns with Achilles alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 aquarium collection in the WHRFMA and imposing a 5/day bag limt for /HRFMA.

ment is the DAR and is cited in the text. The actual data would need to be R.

ive in the FEAs have been revised (Section 3.1 in both FEAs and) . Under HRS 188-31, the DLNR may issue an Aquarium Permit not longer on; therefore, a temporal scope of one year is appropriate.

722-10 Graham Paul Knopp H 5/8/2018 Section 5.4, Page Publicity of the WHEFRA. The overous the scream of the scream of the WHEFRA. The overous the scream of the scream of the WHEFRA. The overous the scream of the scream of the WHEFRA. The overous the scream of the scream of the WHEFRA. The overous the scream of the	Comment No.	Commentor	State/ Location	Date Received	Comment	Response
772-11 Graham Paul Knopp H 5.4.1.2.1 Table 13 (page 77) shows the Total Populations (CREP data) and not estimates of population for tables compares carch in the same areas to the estimated populations in those areas thus, this Table is inconsistent and possibly misleading. Comment noted. East carch of "significance" week with respect to impacts to a population is troubles one shut used in different contexts in this DEA. Most important is the question of what constitutes significant population is coulded an assessment of ecological services performed by the White List species, it is nearly impossible to state what fraction of a species population is submitted and the consult of significant. It's my presonal judgement that removed of 1.2% of total species population is significant, the environd of 1.2% of total species populations is trubies to expect that there are profound ecological impacts due to the population of there are profound ecological impacts due to the population reductions of these the remaining three spectrom of the total species populations is trubies and proceeding of the population set on the total species in the conclusion from the species in the conclusion is species. 772-12 Graham Paul Knopp HI 5/8/2018 Section 5.4, Page 92, paragraph 1 states, "The extent and severity of impacts to White List species in the conservation of these species in the orse-reade future. If environmental fluctuations resulting from climate change. On other natural or pharman factor, change habit continue change have been ongoing for decades and are expected to increase in the forse-species nor corrarders and ref species are norsely. Show the List species and correspond to the state was in the state ment, it is car and store and an other natural and pharmental fluctuations resulting from climate change. On other natural or pharman fact					Yellow Tang had increased 64.5% in the FRAs while its abundance in the open areas (areas fished by commercial aquarium fishers had not declined significantly." This statement is problematic, as it implies that populations are recovering because of FRA creation. There is no such causality demonstrated for two reasons: (1) the data do not show this because the data begin after FRA creation. There is no baseline with which to compare post-FRA populations with pre-FRA populations. (2) Causality simply cannot be proved. In the sciences we have this truism, "Correlation does not prove causality." This means that there may be other factors involved in recovery, such as a change in collection techniques, new regulations, etc. A sound scientific approach would be to note that the positive trends are suggestive of recovery after creation of the FRAs, but that it cannot be proved given the available data.	The source of this stateme
The concept of "significance" viewed with respect to impacts to a population is troublesome and used in different contexts in this DEA. Most in protrain is the question of what constitues significant population is impacts? In general, because this assessment does not include an assessment of ecological services performed by the White List species, it is menting three species population is significant. It's my personal judgement that removal of 1-2% of a total species population is general, because this reasonable to expect that there are imposited to site what fraction of a species" population is deployed and ecological impacts are or in the WHRTMA. The obvious impacts to the populations of Yellow Tang, Kole, and Achilles Tang appear to be far beyond this level, and it is reasonable to expect that there are profound ecological impacts due to the population reductions of these or increase in the foreseeable future. If environmental fluctuations resulting from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate change have been ongoing for decades and are expected to increase in the roreseeable future. If environmental fluctuations resulting from climate change, not the natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List species and or reseable future. If environmental fluctuation of genetar constructs and and protection of reed species, not coralreeds and reed species are increasing. Thus this is an appropriate time to adopt a policy of greater construct and or routing applications. Collect to adopt a policy of greater construct and protection of reed species, not to allow their continued exploitation for a select few (c60 individuals). 772-13 Graham Paul Knopp Hi 5/8/2018 The Hawai'! FEA commontement ore service or ore climat					5.4.1.2.1 Table 13 (page 77) shows the Total Populations (CREP data) and not estimates of population for East Hawaii. However, Table 6 compares catch in the same areas to the estimated populations in those areas thus, this Table is inconsistent and possibly misleading.	Comment noted. East Hav Hawaii are not available b
Section 5.4, Page 92, paragraph 1 states, "The extent and severity of impacts to White List Species from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate changeor other natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List and non-White List species and SGCN."Comment noted. Other Effects sections of bo772-13Graham Paul KnoppHI5/8/2018Comment noted. Other environmental fluctuations resulting from climate changeor other natural or human factors, change habitat conditions, fishing mortality may present to adopt a policy of greater conservation and protection of reef species, not to allow their continued exploitation for a select few (<60 individuals).					The concept of "significance" viewed with respect to impacts to a population is troublesome and used in different contexts in this DEA. Most important is the question of what constitutes significant population impacts? In general, because this assessment does not include an assessment of ecological services performed by the White List species, it is nearly impossible to state what fraction of a species' population is significant. It's my personal judgement that removal of 1-2% of a total species population is significant, whether measure over the entire State or in the WHRFMA. The obvious impacts to the populations of Yellow Tang, Kole, and Achilles Tang appear to be far beyond this level, and it is reasonable to expect that there are profound ecological impacts due to the population reductions of these	As stated throughout both harvest based on available the the collection of 37 of be less than 1% of their re remaining three species w concludes that collection of period would be less than the remaining two species Given the conclusions in th impacting the populations collected species in O'ahu ecosystem.
month analysis perior populations. Collection section 5.5. Page 92, paragraph 2 states, "1. The Preferred Alternative does not involve an irrevolcable commitment or loss or destruction or cultural resource." This document has not made the case that this is a true statement. In fact, as I have pointed out, there is evidence to the contrary, that aquarium fish collection is causing ecological harm.	772-13	Graham Paul Knopp	н		Section 5.4, Page 92, paragraph 1 states, "The extent and severity of impacts to White List Species from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate changeor other natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List and non-White List species and SGCN." In spite of the conservative tone of this statement, it is clear that stressors on coralreefs and reef species are increasing. Thus this is an appropriate time to adopt a policy of greater conservation and protection of reef species, not to allow their continued exploitation for a select few (<60 individuals).	Comment noted. Other st Effects sections of both FE
Impacts to cultural re					Section 5.5. Page 92, paragraph 2 states, "1. The Preferred Alternative does not involve an irrevolcable commitment or loss or destruction or cultural resource." This document has not made the case that this is a true statement. In fact, as I have pointed out, there is evidence to the contrary,	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. s stated throu reef fish harvest based on Impacts to cultural resour

ment is the DAR and is cited in the text. In addition, population trends for FRAs and the open areas are shown on Figure 5 in the Hawaii FEA.

awaii population estimates similar to those provided in Table 6 for West because WHAP does not survey East Hawaii.

oth FEAs, a take of 5% to 25% is considered to be sustainable reef fish ble research (Ochavillo and Hodgson 2006). The Hawai'i FEA concludes of the 40 White List species during the 12-month analysis period would respective overall island of Hawai'i populations. Collection of the swould be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population.

n the FEAs that commercial aquarium collection is not significantly ons of any of the White List Species on the island of Hawai'i or the top 20 nu, the species are anticpated to continue to serve their functions in the

stressors to the coral reef ecosystems are discussed in the Cumulative FEAs (see Section 5.4.3 of both FEAs).

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall oughout both FEAs, a take of 5% to 25% is considered to be sustainable on available research (Ochavillo and Hodgson 2006).

urces are discussed in Section 5.3 of both FEAs, which conclude that no ld occur under the Preferred Alternative.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
772-15	Graham Paul Knopp	HI	5/8/2018	data sets only, and does not examine ecological impacts at all beyond these population numbers. Therefore, I contend that the Preferred Alternative may well involve an irrevocable commitment or loss or destruction of natural resources.	collection occurs) to indica
772-16	Graham Paul Knopp	н		Population data shown for Achilles Tang, Yellow Tang, and Kole show significant Open Area depletion relative to the FRA, so the preferred alternative would appear to curtail the range of beneficial uses of the environment for recreational ocean users.	As illustrated in Figures 5- FRAs and open areas occu density are due to factors
772-17	Graham Paul Knopp	ні	5/8/2018	DEA cites two studies in Significance Criterion 7; Tissot and Hallacher (2003) is limited utility because it examined four locations at one point in time; could not find DAR (2018c) citation and doubt it strengthens the argument.	The best available scientif aquarium collection were accurate.
772-18	Graham Paul Knopp	н	5/8/2018	Ocean fish are an important food resource for HI families, but pure resource exploitation is not an accepted cultural practice.	Impacts to cultural resour FEAs. Both FEAs conclude Alternative.
773-1	Carol Davies	Н	5/8/2018	DLNR/DAR are ignoring everyone, including the scientists and public opinion, just to serve the aquarium industry.	Comment noted. The FEA The FEAs use the best ava are accurate. Section 6.0 contacted, as well as the c response to public comme
773-2	Carol Davies	HI	5/8/2018	What happened to the Gold Coast where there was such an abundance of Yellow Tang?	Comment noted. Section S illustrating increasing pop areas (see Table 10 and Fi 5.4.1.2.5 of the Hawai'i FE significant impacts on Yell
	Inga Gibson	HI	5/8/2018	Questions: Where is the population and baseline data for each of the more than 250 species and for each island and coastal area? What specific areas are these animals currently being collected? Where is the data for each species seeding, spawing, and dispersal ranges and routes statewide? What groups, organizations, or individuals were consulted from the native Hawaiian community, as well as the animal welfare community, and what information was asked and what was the response? How much and how many are each of HI's fish and invertabrates sold for and who are they sold to? What bag and size limits are being proposed for each species and why/why not? Also asking for details on shipping and take for each species.	Comment noted. The anal are the only species allow occurs), and on the 20 mo in the past 18 years). As di collection (i.e., no collection Section 6.0 of the FEAs ha stakeholders prior to DEA publication. Comments or preferred alternatives with The total number of fish c Hawai'i FEA. Average colle 15 of the Hawai'i FEA. The of both FEAs.
	Bill Stockly	н		DEA includes all available scientific information on the effects of the Hawaii aquarium fishery on the environment; conclusion is well-supported.	Comment noted. The FEA The FEAs use the best ava are accurate.
	Bill Stockly	н		Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEAs

nced in this comment is specifically addressing impacts to reefs as a result in collection. Both references in this statement compared reef habitat d closed to aquarium fish collection (beyond fish population numbers). ere (Tissot and Hallacher 2003) concluded that there were no significant coral between control and collected sites (i.e., sites where aquarium icate the presence of destructive fishing practices. In addition, they found indance of macroalgae where the abundance of herbivores was reduced by

5-7 of the Hawaii FEA, the differences in population density between curred even prior to closure of the FRAs, indicating that the differences in rs other than commercial aquarium collection.

tific data concerning impacts to coral reefs as a result of commercial re used in development of the FEAs. Peer reviewers confirm data are

urces, including subsistence fishing, are evaluated in Section 5.3 of both de no significant impacts to subsistence fishing as a result of the Preferred

As conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data 0 in the FEAs outlines the organizations, agencies, and individuals e distribution of the draft EAs. In addition, the FEAs were updated in ments.

n 5.4.1.2.1 of the Hawaii FEA includes information from the DAR opulations of Yellow Tang in West Hawaii within all areas, including open Figure 5). The high fecundity of Yellow Tang is discussed in Section FEA and Section 5.4.1.2.6 of the O'ahu FEA. Both FEAs conclude no ellow Tang.

halysis in the FEAs focuses on the 40 White List species in Hawai'i (which wed to be collected in the WHRFMA, where the majority of collection most collected species in O'ahu (which make up 80% of all fish collected described in the FEAs, collection occurs within areas open to aquarium tion is allowed in certain areas, described in the FEAs).

has been revised to describe the process used to engage with EA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new vith bag limits for certain species in both FEAs.

collected is summarized in Table 3 in the O'ahu FEA and in Table 8 in the llection by species is summarized in Table 9 of the O'ahu FEA and Table The economics associated with this collection is summarized in Section 5.2

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

As conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
775-3	Bill Stockly	н	5/8/2018	The three main species of landed fish are harvested at a rate of 5% or less of the overall population, which has been determined to be on the low end of what published literature considers to be a sustainable harvest (Ochavillo and Hodgson 2006); the remaining permitted species are harvestedat less than 1% of overall population.	Comment noted. The FEA impact.
775-4	Bill Stockly	н	5/8/2018	Positive results shown since enactment of new regulations	Comment noted. Section
775-5	Bill Stockly	н	5/8/2018	Suggest that the HEPA review period coincide with the five year report to the legistlature.	Comment noted. The App
775-6	Bill Stockly	н	5/8/2018	Request the advancement and restoration of commercial licenses and allowing use of fine mesh net as soon as possible.	Comment noted. The FEA
776-1	Jennifer Valentine	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
	Jennifer Valentine	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on avai
776-2 776-3	Jennifer Valentine	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The l collection.
776-4	Jennifer Valentine	N/A	5/7/2018	The aquarium trade is a leading cause of reef devastation and it must be curtailed.	Comment noted. As noted studies (Tissot and Hallach concluded that commercia
776-5	Jennifer Valentine	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
777-1	Gina Bates	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

A concludes that the Preferred Alternative will not have a significant

n 5.4.1.2.1 of the Hawai'i FEA summarizes the results shown since ations in recent years.

oplicant agrees with this comment.

EAs conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species alysis period would be less than 1% of their respective overall island of llection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species alysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of ignificant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant ironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
777-2	Gina Bates	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
777-3	Gina Bates	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
777-4	Gina Bates	N/A	5/7/2018	Coral reefs are in serious danger due to climate issues and pollution; since 1976, over 60 million reef fish and creatures have been taken from HI; end this appalling assault on marine life and reefs.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish impacts from other sourc FEAs.
777-5	Gina Bates	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
778-1	Dave Kisor	н	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
778-2	Dave Kisor	Н	5/7/2018	Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Collec overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
			5/7/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The
778-3	Dave Kisor	HI	5/7/2018	2	collection.

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. Cumulative rches (including climate change) are addressed in Section 5.4.3 of both

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				All organisms help to maintain the reef; large percentage of fish do not make the journey alive.	Comment noted. As note studies (Tissot and Hallac concluded that commerci The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
778-4	Dave Kisor	ні	5/7/2018		
778-5	Dave Kisor	н	5/7/2018	People should go the digital route because digital fish don't die and require replacement.	Comment noted.The FEA conclude no significant in
778-6	Dave Kisor	ні	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
779-1	Timothy Mullen	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
779-2	Timothy Mullen	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data and
779-3	Timothy Mullen	N/A	5/7/2018	Citing environmental, cultural, and ethical concerns, 90% of HI residents want more restrictions on the trade and full 83% want it banned altogether.	Comment noted. Section with stakeholders prior to publication. Comments o preferred alternatives with
779-3	Timothy Mullen	N/A	5/7/2018	Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life for U.S. household	Comment noted. Socioec
779-5	Timothy Mullen	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE/ impact therefore an envir

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

on 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
780-1	Marilyn Evenson	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
780-2	Marilyn Evenson	N/A	5/8/2018	educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
	Marilyn Evenson	N/A	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
780-4	Marilyn Evenson	N/A	5/8/2018	Reefs are slowly but surely deteriorating; time is running out to fix oceans/coral reefs.	Comment noted. As noted studies (Tissot and Hallacl concluded that commerci
780-5	Marilyn Evenson	N/A	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
	Nina Monasevitch	HI	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
781-2	Nina Monasevitch	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have recial aquarium fishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
781-3	Nina Monasevitch	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Lanikai/Kailua, Leeward, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
781-4	Nina Monasevitch	HI	5/8/2018	Catastrophic decimation of ocean life since 1978; aquarium collecting having huge impact on the health of the reefs and marine ecosystem.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less that within what is considered 25%; Ochavillo and Hodgs 5.4.1.2.5 (O'ahu) of the FE monitoring program have impact on the island's ree
				Ethically wrong and without a healthy ocean, there are no healthy people, planet, or profits.	Comment noted. The FEA The FEAs use the best ava are accurate. The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA
781-5	Nina Monasevitch	н	5/8/2018		the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
781-6	Nina Monasevitch	н	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
781-0	Diane Ware	НІ		Concerned about the following species: Yellow Tangs, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Shrimps, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
782-1				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar

'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less trive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral we concluded that commercial aquarium fishing has had no significant reefs.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
782-3	Diane Ware	Н	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Hilo, South Kohala.	Comment noted. The bes included in the FEAs. The collection.
				Noticed decreasing numbers and diversity of fishes in early 2000's; where is the oversight and accountability when 600 tang are found dead in trash cans?	Comment noted. The bes included in the FEAs. Peer impact from commercial a of the 40 White List speci respective overall island o be less than 5% of their o top 20 collected species o respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
782-4	Diane Ware	н	5/8/2018		Yellow Tang are already r
782-5	Diane Ware	н	5/8/2018	This is rape and destruction for the benefit of a few with the collusion of DLNR and the State.	Comment noted. The FEA The FEAs use the best ava are accurate. As noted in studies (Tissot and Hallac concluded that commerci The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
782-5	Diane Ware	HI		Ban on collection and switch to cultivated reef fish.	Comment noted.
782-7	Diane Ware	н	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA
783-1	Tamara Paltin	Н	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

regulated on both islands with bag limits and size limits.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
783-2	Tamara Paltin	н	5/7/2018		
783-3	Tamara Paltin	н	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Ka'u, Puna, Hilo, Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.
783-4	Tamara Paltin	ні	5/7/2018	All of West Maui has lost the abundance and diversity of fish, limu, etc.	Comment noted. Commer FEA.
783-5	Tamara Paltin	н	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an enviro
784-1	Donna Knipp	N/A	5/7/2018	Concerned about the following species: Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, HI Turkeyfish.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
784-2	Donna Knipp	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data are
784-3	Donna Knipp	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
784-4	Donna Knipp	N/A	5/7/2018	Citing environmental, cultural, and ethical concerns, 90% of HI residents want more restrictions on the trade and full 83% want it banned altogether.	Comment noted. Section with stakeholders prior to publication. Comments or preferred alternatives wit
784-5	Donna Knipp	N/A	5/7/2018	Aquarium trade wants nothing more than to keep intact HI's positionasthe world's third largest supplier of wild marine life for U.S. household	Comment noted. Socioeco

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been e FEAs conclude no significant impact from commercial aquarium

ercial aquarium collection on the Island of Maui is not covered by either

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

n 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new vith bag limits for certain species in both FEAs.

conomics are discussed in Section 4.1 and Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
784-6	Donna Knipp	N/A	5/7/2018	If EAs are accepted, HI's marine life and coral reefs could be depleted and degraded to the point of no return.	Comment noted. The FEA
784-7	Donna Knipp	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
785-1	Angie Ali	Н		Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
705 2	Angia Ali		E /0 /2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
785-2	Angie Ali Angie Ali	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hilo	Comment noted. The best included in the FEAs. The collection.
785-4	Angie Ali	н	5/8/2018	Have seen reefs completely destroy in the last five years in Hilo's four mile area.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
785-5	Angie Ali	н		Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
786-1	Nancy Beavers	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been re FEAs conclude no significant impact from commercial aquarium

As conclude no significant impact from commercial aquarium collection. .1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that shing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
786-2	Nancy Beavers	N/A	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
700 2			5,6,2010	90% of HI residents want more restrictions on the trade and 83% want it banned.	Comment noted. Section with stakeholders prior to publication. Comments of preferred alternatives wit
786-3 786-4	Nancy Beavers Nancy Beavers	N/A N/A	5/8/2018	Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life.	
786-5	Nancy Beavers	N/A	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an enviro
787-1	Mary Jo Morrow	HI	5/8/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
787-2	Mary Jo Morrow	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
	Mary Jo Morrow	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Shore, Lanikai/Kailua.	Comment noted. The best included in the FEAs. The collection.
787-4	Mary Jo Morrow	н	5/8/2018	Sacrificing tourism economy; livelihood depends on the health of our oceans and reefs.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
787-5	, Mary Jo Morrow	ні	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

n 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new *i*th bag limits for certain species in both FEAs.

conomics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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est available scientific data concerning species abundance has been re FEAs conclude no significant impact from commercial aquarium

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
788-1	Tracy Marotta	N/A		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
788-2	Tracy Marotta	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avait the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
788-3 789-1	Tracy Marotta Kelly Henderson	N/A		Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on avai
789-2	Kelly Henderson	N/A		Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of the fish harvest based on avain the FEAs comclude no sign biological resources (inclur reef habitat, or species por reviewers confirm data ar
789-3	Kelly Henderson	N/A		Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
109-5		אויין	5/7/2018		1

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
790-1	Michael Schoenfeld	н	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Moorish Idols.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
790-2	Michael Schoenfeld	н	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The C during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data a
790-3	Michael Schoenfeld	н		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai, Kauai.	Comment noted. The bes included in the FEAs. The collection.
790-4	Michael Schoenfeld	н	5/8/2018	Have seen reefs decimated by the aquarium trade and recover when protected; most fish die in transit; not worth the profit of a few greedy aquarium trade collectors to ruin the future of HI's natural and treasured environment.	Comment noted. The FEA The FEAs use the best av are accurate. The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of f fish harvest based on ava
790-5	Michael Schoenfeld	н	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE impact therefore an envi
791-1	Amy Harlib	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Amy Harlib	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced healthy and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Amy Harlib	N/A	5/7/2018	Urgest to preserve and protect biodiversity of all ecosystems.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish concludes the the collection period would be less than of the remaining three spe concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ochaw
		N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
791-4 792-1	Amy Harlib Alma McGoldrick	HI	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
702.2			F /0 /2014	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
792-2 792-3	Alma McGoldrick Alma McGoldrick	HI HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Lanikai/Kailua, Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of the species would be less than 8% of their overall population. This level of take is nat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
792-4	Alma McGoldrick	HI	5/8/2018	Over 50 years, diminished fish populations; only areas that still have many fish are the reserves.	Comment noted. The best included in the FEAs. Pee impact from commercial of the 40 White List speci respective overall island of be less than 5% of their of top 20 collected species of respective overall island of less than 8% of their over considered to be sustain and Hodgson 2006).
792-5	Alma McGoldrick	HI	5/8/2018	Laws against taking coral, sand, sea cucumbers, etc, so why whould people be allowed to steal fish; reefs are suffering from warming and need the reef fish to clean them of algae.	Comment noted. The FEA As noted in Sections 5.4.2 Hallacher (2003)) and a lo commercial aquarium fish Section 5.4.1.2.4 of the H (2003) found no evidence collection, despite differe
792-6	Alma McGoldrick	Н	5/8/2018	Let the fishermen use their boats to take tourists to see the fish instead.	Comment noted. Socioec
792-7	Alma McGoldrick	н	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
793-1	Heather Mueller	HI	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
793-2	Heather Mueller	н	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	
				Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The
793-3	Heather Mueller	HI	5/7/2018	The reef and fish must be protected and stopping aquarium fishing is a	collection. Comment noted. The FEA
793-4 793-5	Heather Mueller Heather Mueller	н	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE/ impact therefore an envir

best available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the es during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be verall population. This level of take is well below or within what is inable reef fish harvest based on available research (5% - 25%; Ochavillo

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. As noted in Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher ice that algal growth was higher in areas of collection versus areas without erences in fish abundance.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
794-1	Sara S.	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
794-2	Sara S.	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
794-3	Sara S.	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and othe
794-4	Sara S.	N/A	5/7/2018	90% of HI residents want more restrictions on the trade and 83% want it banned.	Comment noted. Section with stakeholders prior to publication. Comments o preferred alternatives wit
794-5	Sara S.	N/A		Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life.	Comment noted. Socioec
794-6	Sara S.	N/A	5/7/2018	HI reef simply cannot sustain the current levels of tourism, diving, snorkeling, industrial damage, water runoff, and excessive fish trade.	Comment noted. The FEA Cumulative impacts from
794-7	Sara S.	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
795-1	A.L. Steiner	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

on 6.0 of the FEAs has been revised to describe the process used to engage to DEA development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EAs conclude no significant impacts from commercial aquarium collection. m other sources are discussed in Section 5.4.3 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
705.2	A.L. Steiner		5 /7 /2010	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
	A.L. Steiner	N/A N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Hilo, Kauai.	Comment noted. The best included in the FEAs. The collection.
	A.L. Steiner	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
796-1	Tessa Arguijo	HI	5/8/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
796-2	Tessa Arguijo	HI	5/8/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species por reviewers confirm data ar
796-3	Tessa Arguijo	ні	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hawaii Kai, Kaneohe/Windward, Maui/Molokai/Lanai.	Comment noted. The best included in the FEAs. The collection.
796-4	Tessa Arguijo	HI	5/8/2018	Been concerned for many years that the fish population of many areas has been more diminished; only areas that still have fish are the reserves.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

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des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the he 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% lgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
796-5	Tessa Arguijo	HI	5/8/2018	fish to clean them of algae.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish Section 5.4.1.2.4 of the Ha (2003) found no evidence collection, despite differe
796-6	Tessa Arguijo	н		People in the aquarium trade need to put their skills and resources to a different use that will benefit themselves and the natural resources; use boats to take tourists to see the fish.	Comment noted. Socioec
796-7	Tessa Arguijo	н	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
797-1	Carol Dencker	N/A	5/7/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
797-2	Carol Dencker	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
797-3	Carol Dencker	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
797-4	Carol Dencker	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
797-5	Carol Dencker	N/A		You know the right thing to do is care for our animals and plants and mother earth.	Comment noted. The FEA
798-1	Keomailani Van Gogh	N/A		Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. As noted in Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher ice that algal growth was higher in areas of collection versus areas without rences in fish abundance.

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
709.3	Kaamailani Van Cosh	N/A	E /7 /2018	generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sig
798-2 798-3	Keomailani Van Gogh Keomailani Van Gogh	N/A N/A		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo,	Comment noted. The best included in the FEAs. The collection.
798-4	Keomailani Van Gogh	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
798-5	Keomailani Van Gogh	N/A	5/7/2018	Additional assessment should include studying the full impact of the extinction of any one or more of the species of fish; also, the state should do the EA/EIS.	Comment noted.
798-6	Keomailani Van Gogh	N/A	5/7/2018	Cultural impacts of our reef and fish stated in EA are totally inadequate.	Impacts to cultural resour FEAs. Both FEAs conclude Alternative.
799-1	Jay Herrera	N/A		Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avai
	Jay Herrera	N/A	5/7/2018	generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sig
799-2 799-3	Jay Herrera	N/A		Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
				Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

urces, including subsistence fishing, are evaluated in Section 5.3 of both de no significant impacts to subsistence fishing as a result of the Preferred

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
799-5	Jay Herrera	N/A	5/7/2018	Bruce Anderson gave a speech in Kona about protecting coral by banning spearfishing and throw/lay nets used by locals to feed their families; many Kanaka Maoli live below or near the poverty line and supplement their diets; one could assume that the DLNR's mission is to protect corporate profits and to violate the rights of Native Hawaiians.	Comment noted. Section note that two studies hav practices have no significa fishing are discussed in Se
800-1	Jonathan Kaalekahi	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sign
800-2	Jonathan Kaalekahi	N/A	5/7/2018		
800-3	Jonathan Kaalekahi	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
800-4	Jonathan Kaalekahi	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
				Aquarium reef trade and commercial fishing will permanently impact our reefs ecosystems to a point beyond repair and need to be stopped immediately.	Comment noted. As note studies (Tissot and Hallach concluded that commercia The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of fish harvest based on avai Cumulative impacts of cor
800-5	Jonathan Kaalekahi	N/A	5/7/2018		

on 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA ave concluded that the aquarium fishery and aquarium fish collection ficant impact on coral or the reef ecosystem. Impacts on subsistence Section 5.3 of both FEAs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

D'ahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

commercial fishing are addressed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
801-1	Pono Hui	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of the fish harvest based on avail
801-2	Pono Hui	N/A	5/7/2018	have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	fish harvest based on avai the FEAs comclude no sig
001-2				Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
	Pono Hui	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Pono Hui Pono Hui	N/A	5/7/2018	Fish populations in our area have definitely been depleted, including the district of N. Kohala, specifically Kawaihae and Kawaihae'uka/Hoepa.	Comment noted. The best included in the FEAs. Peer the collection of 37 of the less than 1% of their respe three species would be less collection of 18 of the top than 1% of their respectiv species would be less than within what is considered 25%; Ochavillo and Hodgs
				Whole heartedly against any form of trop diving/aquarium fish collection in	Comment noted. The FEA
801-6	Pono Hui	N/A	5/7/2018	our areas and any other for that matter. Support the aquarium industry in HI; not damaging the oceans we're	Comment noted. The FEA
802-1	Jace Hilton	н	5/7/2018	collecting, and not nearly as much as commercial fisherman. HI model is an example of how sustainable aquarium fishing practices should be done; banning may incentivize other places to continue to over	collection. Comment noted. The FEA
	Alvaro Gonzalez Rivas Alvaro Gonzalez Rivas	Singapore Singapore	5/8/2018	exploit more reefs. Doubt that there's room for improvement, but hope you and your colleague reconsider your decision and allow the aquarium industry to continue to be	
	Marie Aguilar	HI	5/8/2018	With any resource being sold to an out of state buyer, we should have been obtaining the actual not estimated number of fish being sent; fish collectors give numbers that are never verified and the number of endangered species are never recorded or counted because its illegal	Comment noted. As noted and 2014 Hawai'i Island a underreporting of catch b

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

As conclude no significant impact from commercial aquarium collection.

EAs both conclude no significant impacts from commercial aquarium

As conclude no significant impact from commercial aquarium collection.

As both conclude no significant impacts from commercial aquarium

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 aquarium catch report validation did not indicate substantial by aquarium collectors.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
804-2	Marie Aguilar	н	5/5/2018	State of HI has an obligation to have an EIS; permits were given out improperly; study submitted has flaws and errors and should not be used, no information regarding the length of the study; recommend that there is non issuance of any permits until an EIS is conducted and the public is given the results - need protection for a four or five year period to recover.	Comment noted. The FE peer reviewed by indeper Alternative will not have a required.
804-3	Marie Aguilar	HI	5/5/2018	HI will turn into a place where visitors will travel to other oceanic global places that protect their natural resources.	Comment noted. Section tourism, Hawai'i's tourisn arrivals in 2016, marking t spending by visitors to the (HDBEDT 2017).
804-4	Marie Aguilar	HI	5/5/2018	Population of reef fish has declined 1988-2018; significant impact on fish population by fish collectors on Oahu and HI Island.	Comment noted. The best included in the FEAs. Peer impact from commercial a of the 40 White List specie respective overall island o be less than 5% of their or top 20 collected species d respective overall island o less than 8% of their over considered to be sustaina and Hodgson 2006).
804-5	Marie Aguilar	н		Fish collectors are capable of finding other means of employment; jobs are plentiful in tourism related areas.	Comment noted. Socioec
805-1	Penny Lane	N/A	5/7/2018	Given the limited population counts and study available, the Flame Wrasse and Bandit Angelfish need special urgent attention from DAR; depth range should not be a free pass for the collectors to whatever quantities and species they want to.	As stated in Section 1.2.3, An additional alternative Wrasse. Specifically, the a aquarium collection in O'a
	Penny Lane	N/A	5/7/2018	Oahu needs to implement a model of the West HI Regional Fishery Management Area to ensure sustainability of the fishery for the future.	An additional alternative Flame Wrasse bag limit of expansion of the Waikiki
805-3	Penny Lane	N/A	5/7/2018	Support any managed fisheries backed by science and would suggest the following points for Oahu: 35% of the coast shut down to the aquarium fishery, white list of allowable species (Table 4), permit requiring vessel and gear labeling and registration, ongoing studies of the white list species, no take on the aquarium species that do not have fish counts and surveys, evaluating catch limits on the Yellow Tang (21.1% is high), no take of invertebrates, sharks, eels and rays, prohibit night collecting.	Comment noted. An addit alterantive proposes a Fla O'ahu and the expansion
806-1	Phil Mosher	н	5/4/2018	Report did not indicate the total number of fish observed.	The FEAs did not include are referring to CREP data from these sites was the o
806-2	Phil Mosher	н	5/4/2018	Actual catch could be much higher, since only 68 permits reported their catch and the DLNR never check up on collector's catches.	Comment noted. As note and 2014 Hawai'i Island a underreporting of catch b
806-3	Phil Mosher	н	5/4/2018	A conflict of interest since the Pet Industry Joint Advisory Council's mission is to further the goals of fish collectors.	Comment noted. The app Section 1.2.2 of the FEA, the applicant actions. The pursuant to permits issue approval. Therefore, an approval.
000-0			5/4/2018	EA was not informative about the issue of fish death during collection and fish death after they are shipped.	Because mortality post-co anticipated that this facto
806-4	Phil Mosher	НІ	5/4/2018		

FEAs evaluate the best available scientific information, and have been bendent scientists and agencies. The FEA concludes that the Preferred re a significant impact therefore an environmental impact statement is not

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to ism industry achieved new records in total visitor spending and visitor ig the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The FEAs conclude no significant al aquarium collection. The Hawai'i FEA concludes the the collection of 37 ecies during the 12-month analysis period would be less than 1% of their d of Hawai'i populations. Collection of the remaining three species would r overall population. The O'ahu FEA concludes that collection of 18 of the s during the 12-month analysis period would be less than 1% of their d of O'ahu populations. Collection of the remaining two species would be rerall population. This level of take is well below or within what is nable reef fish harvest based on available research (5% - 25%; Ochavillo

economics are discussed in Section 4.1 and Section 5.2 of both FEAs.

..3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. we was added in the O'Ahu FEA that addresses concerns with Flame he alterantive proposes a Flame Wrasse bag limit of 10/day for commercial O'ahu and the expansion of the Waikiki MLCD.

ve was added in the O'Ahu FEA. Specifically, the alterantive proposes a of 10/day for commercial aquarium collection in O'ahu and the ki MLCD.

ditional alternative was added in the O'Ahu FEA. Specifically, the Flame Wrasse bag limit of 10/day for commercial aquarium collection in on of the Waikiki MLCD.

le study at the 228 sites on Oahu or the 256 sites on Hawaii. Those sites ata, and the only data the Applicant had available for analysis in the FEA e calcualted densities provided by CREP.

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 d aquarium catch report validation did not indicate substantial n by aquarium collectors.

applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency in applicant prepared EA is appropriate.

-collection is not anticipated to change from current conditions, it is not ctor will alter the estimated collection numbers.

	Commontor	State/	Date	Comment	Response
Comment No.		Location	Received	Kona, where most of the Yellow Tang are collected, has a delicate	Comment noted. The be
				ecosystem; was widespread coral bleaching incident in 2015 and have strain	
806-5	Phil Mosher	н	5/4/2018	on them from tourists and locals.	accurate.
				Comparing economics of aquarium fishing and tourist industry (numbers	Comment noted. The im
806-6	Phil Mosher	HI	5/4/2018	given).	discussion of tourism in H
806-7	Phil Mosher	HI	5/4/2018	Notable decline in fish populations since 1988.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period we populations. Collection o population. The O'ahu FE the 12-month analysis pe populations. Collection o population. This level of t fish harvest based on ava
				Please require an EIS to cover several years of data and consider more	The FEA concludes that t
				cultural impacts, as well as the effects of global warming, coral bleaching,	environmental impact sta
			_ / . /	etc	both FEAs. The cumulativ
806-8	Phil Mosher	HI	5/4/2018		Section 5.4.3 of both FEA
807-1	Eric Moreno	N/A	5/7/2018	Cannot support the EA conclusions, data, nor their "preferred alternative"; bias in preparation of the EAs.	Comment noted. The be confirm data are accurate significant impact. The a Section 1.2.2 of the FEA, and applicant actions. Th pursuant to permits issue approval. Therefore, an a
807-2	Eric Moreno	N/A	5/7/2018	Lack complete data and only calculate 25% take because of the lack of data doesn't allow for calculating a different higher percentage.	Comment noted. The be confirm data are accurate species during the 12-mo island of Hawai'i populat their overall population. species during the 12-mo island of O'ahu population their overall population. sustainable reef fish harv
					Comment noted. The app
				Must crack down on and recognize that a certain number of fish are being	in Section 4.7.7.1 of the I
807-3	Eric Moropo	N/A	E /7/2019	caught illegally.	aquarium catch report va
807-3	Eric Moreno	N/A	5/7/2018	It's possible that with tourists, pollution, environment factors, and ocean	aquarium collectors. Comment noted. The app
				climate change that these habitats are already under strain and is compounded by the fish collection; reefs could also be damaged by the	in Section 4.7.7.1 of the H aquarium catch report va
807-4	Eric Moreno	N/A	5/7/2018	illegal use of cyanide or other chemicals and the use of weights to be able to climb/walk over the reef.	•
807-4	Eric Moreno	N/A	5/7/2018	illegal use of cyanide or other chemicals and the use of weights to be able to climb/walk over the reef.	Section 5.4.3 of the FEAs
				illegal use of cyanide or other chemicals and the use of weights to be able to climb/walk over the reef.	Section 5.4.3 of the FEAs Comment noted. As state
<u>807-4</u> 807-5	Eric Moreno Eric Moreno	N/A N/A	5/7/2018	illegal use of cyanide or other chemicals and the use of weights to be able to climb/walk over the reef. My conservative calculations, based on this drafts estimates, would put the	aquarium collectors. Cum Section 5.4.3 of the FEAs Comment noted. As state sustainable reef fish harv Comment noted.The FEA

pest available scientific data concerning species abundance has been nese datasets predate the period at issue. Peer reviewers confirm data are

npacts of aquarium fish collection on socioeconomics, as well as a n Hawai'l, is included in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

the Preferred Alternative will not have a significant impact therefore an statement is not required. Cultural impacts are evaluated in Section 5.3 of tive impacts of global warming and coral bleaching are discussed in EAs.

best available scientific data has been included in the FEAs. Peer reviewers ate. The FEA concludes that the Preferred Alternative will not have a applicant prepared the FEAs in accordance with state law. As noted in A, the HEPA process has two separate procedural tracks - agency actions The Supreme Court of Hawai'i concluded that aquarium collection ued under HRS § 188-31 is an applicant action that requires agency m applicant prepared EA is appropriate.

best available scientific data has been included in the FEAs. Peer reviewers ate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List month analysis period would be less than 1% of their respective overall ations. Collection of the remaining three species would be less than 5% of n. The O'ahu FEA concludes that collection of 18 of the top 20 collected month analysis period would be less than 1% of their respective overall cions. Collection of the remaining two species would be less than 8% of n. This level of take is well below or within what is considered to be rvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)

pplicant supports full enforcement of all applicable regulations. As noted e Hawai'i FEA, the DAR conlcuded that the 2010 and 2014 Hawai'i Island validation did not indicate substantial underreporting of catch by

pplicant supports full enforcement of all applicable regulations. As noted e Hawai'i FEA, the DAR conlcuded that the 2010 and 2014 Hawai'i Island validation did not indicate substantial underreporting of catch by imulative impacts, including tourism and climate change, are discussed in As.

ated throughout both FEAs, a take of 5% to 25% is considered to be rvest based on available research (Ochavillo and Hodgson 2006).

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

Commont No	Commenter	State/	Date Bocoived	Comment	Response
Comment No.	Commentor	Location	Received	Consider the tourism industry; reef fish are natural resources for everyone	Comment noted. Sections In regards to tourism, Hav and visitor arrivals in 2016 categories. Total spending \$15.91 billion (HDBEDT 20 In addition, as noted in So (Tissot and Hallacher (200 commercial aquarium fish
807-7	Eric Moreno	N/A	5/7/2018	and should not be exploited nor carelessly gambled with.	concludes the the collecti period would be less than of the remaining three sp concludes that collection period would be less than the remaining two species well below or within what research (5% - 25%; Ocha
807-8	Eric Moreno	N/A	5/7/2018	If it is conluded that commercial reef fishing is sustainable, cap the number of fish per species and collect revenue from the permits to be earmarked for enforcement.	
	Karin Keckeis	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail
808-2	Karin Keckeis	NZA	E /0 /2010	altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10- 15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Karin Keckeis Karin Keckeis	N/A N/A	5/8/2018 5/8/2018	Some or all of the species identified above have been impacted on reefs in	Comment noted. The best included in the FEAs. The collection.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending D16, marking the fifth consecutive year of record growth in both ing by visitors to the Hawaiian Islands increased 5.3% to a new high of 2017).

a Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies 2003)) and a long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs. The Hawai'i FEA ction of 37 of the 40 White List species during the 12-month analysis an 1% of their respective overall island of Hawai'i populations. Collection species would be less than 5% of their overall population. The O'ahu FEA on of 18 of the top 20 collected species during the 12-month analysis an 1% of their respective overall island of O'ahu populations. Collection of cies would be less than 8% of their overall population. This level of take is hat is considered to be sustainable reef fish harvest based on available havillo and Hodgson 2006).

EAs conclude no significant impact from commercial aquarium collection. see existing regulations, including the White List and existing bag limits, in FEA discusses existing regulations, including bag and size limits, in Section ernative was added in the Hawai'i FEA that addresses concerns with illy, the alterantive proposes reducing the Achilles Tang bag limit form commercial aquarium collection in the WHRFMA and imposing a 5/day ries in the WHRFMA. An additional alternative was added in the O'Ahu cerns with Flame Wrasse. Specifically, the alterantive proposes a Flame day for commercial aquarium collection in O'ahu.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Second	Comment No.	Commentor	State/ Location	Date Received	Comment	Response
As a biologit, marker wildle admirer and Husch, law very concerning about the Horset So His yeek by the workbuilde again munturale; uninstruity diminished biodivenity and loss of species. month analysis period about the Horset So His yeek by the workbuilde again munturale; uninstruity diminished biodivenity and loss of species. month analysis period apoultation. Table Very Horset Doved Ho						Comment noted. The FEA The FEAs use the best ava are accurate.
NA Juge DLRR to recognize the significant impacts, reject the EAs, and require impact therefore an experimental and Cultural Impact Statements. Comment noted. The impact therefore an experimental and Cultural Impact Statements. 809-1 199799997 N/A 4/28/2018 Accessive studies by both the DLNR and NOA. Comment noted. The impact therefore an experimental and Cultural Impact Statements. 809-1 199799997 N/A 4/28/2018 Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii. The Hawaii F FA condit ment hawaii. 810-1 Mark Russell HI 4/29/2018 Concerns about these species: Natural beauty of coral refs is diminished, Species abundance has been significantly reduced, Marine ilie apoulation. This level his harvest based on the FEAs candud and who calculation. The real possibility that future generations in the reference ment on the FEAs candud and the following havaii Island districts: Waikit/Diamod Head, executed and the following havaii Island districts: Waikit/Diamod Head, executed and the following havaii Island districts: Waikit/Diamod Head, executed and executed and executed on refs in the following havaii Island districts: Waikit/Diamod Head, executed and executed and executed and executed on refs in the following havaii Island districts: Waikit/Diamod Head, executed and executed and executed and executed and resident with base additistical species. Conment noted. The included in the FEAs of the existing Waikit and additistical species waikit is during the species waikit is during the species waikit is during theastare of the existing Waikit Island districts: Waikit/Diamod Head	808-4	Karin Keckeis	N/A	5/8/2018	about the threats to HI's reefs by the worldwide aquarium trade: unnaturally diminished biodiversity and loss of species.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
Bits Please pass the EA; tropical fish industry in Hi proven sustainable thru Comment noted. The 809-1 199799997 N/A 4/28/2018 Concerned about the following species: All top 20 species taken on Oahu. The Hawa'i FEA cond month analysis period populations. Collection populations. The O'Ahu. 810-1 Mark Russell HI 4/29/2018 Concerned about the following species: Natural beauty of coral reefs is diminished. Species Taken in West Hawaii. Comment noted. The during the 12-month analysis period populations. This level fish industry is populations. This level fish industis conditions and industry is po					Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE
810-1 Mark Russell Hi 4/29/2018 The Hawa'i FEA concliment marks is period populations. Collection populations. The sevel lish harvest based on utility reduced, Marine life 810-2 Mark Russell Hi 4/29/2018 810-3 Mark Russell Hi 4/29/2018 810-4 Mark Russell Hi 4/29/2018 810-4 Mark Russell Hi 4/29/2018					Please pass the EA; tropical fish industry in HI proven sustainable thru	Comment noted. The FE
810-2Mark RussellHI4/29/2018Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikik/Diamond Head, Kaneohe/Windward, North Shore, Leeward.during the 12-month a or her populations. Th during the 12-month a Disappointed at the lack of marine life near North Shore.during the 12-month a or her population. Th during the 12-month a Disappointed at the lack of marine life near North Shore.during the 12-month a or her population. Th during the 12-month a Disappointed at the lack of marine life near North Shore.810-4Mark RussellHI4/29/2018					Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
810-3 Mark Russell HI 4/29/2018 Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, North Shore, Leeward. Comment noted. The of the existing Waikiki aquarium fishers and of the existing Waikiki aquarium fishers and of the collection of 37 of less than 1% of their respecies would be collection of 18 of the respecies would be less within what is conside 25%; Ochavillo and Ho 810-4 Mark Russell HI 4/29/2018	810-2	Mark Russell	HI	4/29/2018	diminished, Species abundance has been significantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data and
810-4 Mark Russell HI 4/29/2018 Comment noted. The included in the FEAs. Function of 37 of less than 1% of their respective sound be collection of 37 of less than 1% of their respective sound be collection of 18 of the than 1% of their respective sound be less within what is considered at the lack of mark Russell HI 4/29/2018 Comment noted. The included in the FEAs. Function of 37 of less than 1% of their respective sound be less than 1% of their respective sound be less within what is considered at the lack of mark Russell HI 4/29/2018 HI 4/29/2018 HI 4/29/2018 HI 4/29/2018 HI 4/29/2018 HI HI 4/29/2018 HI	810-3	Mark Russell	ы	4/29/2018	the following Hawaii Island districts: Waikiki/Diamond Head,	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
						Comment noted. The bes included in the FEAs. Pee the collection of 37 of the less than 1% of their resp three species would be le collection of 18 of the top than 1% of their respectiv species would be less tha within what is considered 25%; Ochavillo and Hodgs
					Would love to see a fishing license introduced and the money raised put	Comment noted. The soc reinvestment of license fe

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

est available scientific data concerning species abundance has been eer reviewers confirm data are accurate. The Hawai'i FEA concludes the the 40 White List species during the 12-month analysis period would be spective overall island of Hawai'i populations. Collection of the remaining less than 5% of their overall population. The O'ahu FEA concludes that top 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or red to be sustainable reef fish harvest based on available research (5% dgson 2006).

perioeconomic impacts of commercial aquarium fishing, including the fees, is discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
810-6	Mark Russell	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an environment of the second sec
811-1	Natalie Parra	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of ta fish harvest based on avai the FEAs comclude no sign biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Natalie Parra Natalie Parra	HI HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Ewa.	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
	Natalie Parra	н	4/29/2018	In awe of how barren HI is; fish population decline has become so bad that when ever I see a yellow tang I actually get excited because it's no longer that common.	Comment noted. Section s illustrating increasing pop areas (see Table 10 and Fi significant impact in both
	Natalie Parra	н		Also worried about HI's small and juvenile sharks, especially scalloped hammerhead shark (numerous citations given).	Comment noted. No shark these species are within the
811-6	Natalie Parra	HI	4/29/2018	Truly don't believe the quick profits of a small goup of people are worth endangering HI's reefs and economic income they provide from tourists.	Comment noted. The FEA: The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of population. This level of ta fish harvest based on avai Sections 4.1 and 5.2 of eac industry achieved new rec fifth consecutive year of re Hawaiian Islands increased
	Natalie Parra	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

n 5.4.1.2.1 of the Hawaii FEA includes information from the DAR opulations of Yellow Tang in West Hawaii within all areas, including open Figure 5). Collection of Yellow Tang was found to have a less than th FEAs.

ark species are on the White List in the WHRFMA. In addition, none of the top 20 collected species in O'ahu.

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism records in total visitor spending and visitor arrivals in 2016, marking the f record growth in both categories. Total spending by visitors to the sed 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
812-1	Paula Alcoseba	N/A	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
				Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	-
	Paula Alcoseba Paula Alcoseba	N/A	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai	Comment noted. The O'al of the existing Waikiki ML aquarium fishers and othe
				Resources are not infinite; disrupts the balance of the ecosystem; already vulnerable to climate change, pollution, habitat destruction, etc.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of the fish harvest based on availing the source
	Paula Alcoseba	N/A	4/29/2018	Need to do more research in breeding captive fish instead of taking them	Comment noted.The FEAs
	Paula Alcoseba Paula Alcoseba	N/A N/A	4/29/2018	from the wild Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	conclude no significant im Comment noted. The FEA impact therefore an envir
813-1	Rachel Silverman	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative arces, including climate change, are discussed in Section 4.5.3 of both FEAs.

EAs analyze the impacts of commercial aquarium collection. The FEAs impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
812.2	Da sh al Cilvaraan		4/20/2010	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data ar
813-2	Rachel Silverman Rachel Silverman	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Maui/Molokai/Lanai.	Comment noted. The O'a of the existing Waikiki MI aquarium fishers and oth
813-4	Rachel Silverman	н		Only a few people are making a meager salary from this and it is stealing resources from the majority of HI residents.	Comment noted. Socioec
813-5	Rachel Silverman	н	4/29/2018	Studies of no damage are inaccurate.	Comment noted. The FEA The FEAs use the best ava accurate.
813-6	Rachel Silverman	HI	4/29/2018	Trust you to be strong and faithful to all of HI, not just a few people who choose to be callous and selfish with our natural resources; against the collection of reef fish for aquariums.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period we populations. Collection of population. The O'ahu FE the 12-month analysis per populations. Collection of population. This level of t fish harvest based on ava
813-7	Rachel Silverman	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA
814-1	Jason Murray	н	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

ahu FEA includes a revised Preferred Alternative that includes expansion ALCD, which is anticipated to decrease user conflict between commercial hers (i.e., SCUBA divers, snorkelers, other tourists).

conomics are discussed in Section 4.1 and Section 5.2 of both FEAs.

As conclude no significant impact from commercial aquarium collection. vailable data regarding reef damage. Peer reviewers confirm data are

As conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
814-2	Jason Murray	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species por reviewers confirm data and
814-3	Jason Murray	н	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Puna, Hilo, South Kohala, Waikiki/Diamond Head, Maui/Molokai/Lanai	Comment noted. The O'a of the existing Waikiki ML aquarium fishers and oth
814-4	Jason Murray	н	4/29/2018	Fish belong to the ecosystem; ran an aquarium store for 10 years but never	Comment noted. The FEA
	Jason Murray	ні	4/29/2018	Poofs are having anough trouble with global warming	Comment noted.The cum Section 5.4.3 of both FEA
	Jason Murray	н	4/29/2018	HI makes its money from tourists seeking these fish.	Comment noted. Section tourism, Hawai'i's tourism arrivals in 2016, marking spending by visitors to th (HDBEDT 2017).
814-7	Jason Murray	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
815-1	Gael Norrington	N/A	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
815-2	Gael Norrington	N/A	4/29/2018	Specific concerns about these species: DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10 15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Yahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

As conclude no significant impact from commercial aquarium collection.

imulative impacts of global warming and coral bleaching are discussed in EAs.

ons 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to sm industry achieved new records in total visitor spending and visitor g the fifth consecutive year of record growth in both categories. Total the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
				As a former aquarium keeper, I know well that nearly all of the fish taken die within a short while; see the decline in the health of HI's reefs.	Comment noted. As note studies (Tissot and Hallac concluded that commerci The Hawai'i FEA conclude month analysis period wc populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t
815-3	Gael Norrington	N/A	4/29/2018		fish harvest based on ava
	Gael Norrington	N/A	4/29/2018	Hope it is possible to support reef ecology and to defend these wild populations against being sacrificed for human greed and entertainment.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
815-5	Gael Norrington	N/A	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA impact therefore an envir
816-1	Alison Asejo	HI	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
816-2	Alison Asejo	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hav during the 12-month anal Hawai'i populations. Colle overall population. The O during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
010-2			4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Puna, Hilo, Hamakua, Waikiki/Diamond	Comment noted. The O'a of the existing Waikiki ML
816-3	Alison Asejo	ні	4/29/2018	Head, Kaneohe/Windward, Lanikai/Kailua.	aquarium fishers and othe

oted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

lawai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of lection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of significant adverse impacts to socioeconomics, cultural resources, or cluding the White List species/top 20 collected species in O'ahu, SGCN, populations). The FEAs were prepared using the best available data. Peer are accurate.

Vahu FEA includes a revised Preferred Alternative that includes expansion MLCD, which is anticipated to decrease user conflict between commercial thers (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Alison Asejo	Н	4/29/2018	Have noticed a big difference in the fish over the last ten to fifteen years; also notice patches of reef that previously were bustling that are now barren.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail
	Alison Asejo	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir
	Jordan Waltz	N/A	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avai
	Jordan Waltz	N/A	4/29/2018	Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Haw during the 12-month anal Hawai'i populations. Colle overall population. The O' during the 12-month anal O'ahu populations. Collec population. This level of t fish harvest based on avai the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data ar
	Jordan Waltz	N/A	4/29/2018	Knowing how high the mortality rates are for marine fish during capture, transport, and acclimation, I ask you do not accept these questionable Eas.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. s stated throu reef fish harvest based on
	Jordan Waltz	N/A	4/29/2018	Preserving the reef and fish will kep tourism coming.	Comment noted. As note studies (Tissot and Hallac concluded that commerci Sections 4.1 and 5.2 of ea tourism industry achieved marking the fifth consecu to the Hawaiian Islands in
	Jordan Waltz	N/A	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FEA impact therefore an envir

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall roughout both FEAs, a take of 5% to 25% is considered to be sustainable on available research (Ochavillo and Hodgson 2006).

ted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two acher (2003)) and a long-term DAR coral monitoring program have rcial aquarium fishing has had no significant impact on the island's reefs. each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's ed new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. Total spending by visitors increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	Dallas Etzel	HI	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
818-2	Dallas Etzel	н	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been signficantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hav during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
	Dallas Etzel	н		Some or all of the species identified above have been impacted on reefs in	Comment noted. The bes included in the FEAs. The collection.
818-4	Dallas Etzel	н		Island of Oahu has been overfished for a long time; sunscreen and other things kill the reef, and we need more education and more fishing restrictions.	Comment noted. An addi with Flame Wrasse. Spec commercial aquarium col
818-5	Dallas Etzel	н	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FE
819-1	Alfred Wolf	н	4/30/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
	Alfred Wolf	н	4/30/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Haw during the 12-month ana Hawai'i populations. Colle overall population. The O during the 12-month ana O'ahu populations. Collec population. This level of t fish harvest based on ava the FEAs comclude no sig biological resources (inclu reef habitat, or species po reviewers confirm data an
	Alfred Wolf	HI		Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The bes included in the FEAs. The collection.

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

ditional alternative was added in the O'Ahu FEA that addresses concerns ecifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for collection in O'ahu and the expansion of the Waikiki MLCD.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

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est available scientific data concerning species abundance has been ne FEAs conclude no significant impact from commercial aquarium

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
819-4	Alfred Wolf	н	4/30/2018	Health of the reefs is far more important than the delights of an aquarium.	Comment noted. The FEA As noted in Sections 5.4.1 Hallacher (2003)) and a lo commercial aquarium fish
819-5	Alfred Wolf	н	4/30/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require	Comment noted. The FE impact therefore an envir
820-1	PJBarba	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FE
821-1	PJBarba	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FE
822-1	Kamihata Tokyo	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEA collection.
823-1	Kamihata Exotic Animal	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEA collection.
824-1	Kamihata Tokyo	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEA collection.
825-1	kawa4	N/A	4/23/2018	There are some great lawful abiding fisherman/aquarians doing the right thing for our oceans/waterways, for the the evironment, and inhabitants fo those waters.	Comment noted. The FEA collection.
826-1	Cynthia DeLillo	N/A	5/4/2018	Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEA
826-2	Cynthia DeLillo	N/A	5/4/2018	No scientific evidence to support the need for a fishing ban; ban negatively affects the marine trade and puts a great deal of people out of work in HI.	Comment noted. The FEA
827-1	Evelyn Tiong	N/A	4/30/2018	Science presented does not seem to give any basis for the closure of the fishery; current ban should be lifted and fishing permits should be issued	Comment noted. The FE
828-1	Sam Tiongco	N/A	4/29/2018	Studies show no detrimental impacts to the commonly collected fish and their habitat; certain species are even more abundant since closing a significant portion of West HI's coast to aquarium fishing	Comment noted. The FEA The FEAs use the best ava are accurate.
828-2	Sam Tiongco	N/A	4/29/2018	Encourage the same efforts be made with other types of fishing (sporkeling (swimming with marine animals	Comment noted. The FEA Cumulative impacts from andtourism, are discussed
828-3	Sam Tiongco	N/A	4/29/2018	Please allow aquarium fishing to resume by reinstating permits as soon as possible.	Comment noted. The FEA
829-1	Lee Ashford	н	4/29/2018	EA shows management is working quite well; don't believe there is any scientific data presented that supports closure of the aquarium trade in HI.	Comment noted. The FEA The FEAs use the best ava are accurate.
829-2	Lee Ashford	HI	4/29/2018	Would be nice to see the same studies done and attention given to all of the fisheries and ocean activities in HI; should hold all user groups to the standards of the HEPA law.	Comment noted. The FEA Cumulative impacts from included in Section 5.4.3
829-3	Lee Ashford	н	4/29/2018	Consider lifting the ban and reissuing permits to those who rely on tropical fishing to support their families and businesses.	Comment noted. The FEA The FEAs use the best ava are accurate. Socioecono
830-1	Sarah Leung	н	4/29/2018	Findings of EA indicate a healthy and sustainable fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
830-2	Sarah Leung	Н		Support the aquarium trade and the fishermen who have been disenfranchised throughout this process. The aquarium tropical fish industry in HI has been considered one of the	Comment noted. The FEA collection. Comment noted. The FEA
831-1	Jay Lovell	N/A	4/29/2018	highest regulated in the world with 18 years of peer evaluated data to prove it is sustainable.	The FEAs use the best ava are accurate.

EAs conclude no significant impact from commercial aquarium collection. 4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and long-term DAR coral monitoring program have concluded that ishing has had no significant impact on the island's reefs.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection.

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EAs both conclude no significant impacts from commercial aquarium

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EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing sed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. m other sources, including commercial and recreational fishing, are 3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data nomic impacts are discussed in Section 5.2 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

EAs both conclude no significant impacts from commercial aquarium

EAs conclude no significant impact from commercial aquarium collection. Available data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
831-2	Jay Lovell	N/A	4/29/2018	Beaches and reefs are regularly destroyed by tourists and snorkeling desinations, but the tropical fish collectors are blamed; they have done nothing wrong and have been vilified for years in the public eye.	Comment noted. The FEAs Cumulative impacts from o andtourism, are discussed
				Please pass the EA; tropical fish industry in HI proven sustainable thru	Comment noted. The FEA
<u>832-1</u> 833-1	ipex For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A N/A	5/8/2018	extensive studies by both the DLNR and NOAA. The HI DLNR DAR must reject both of these DEAs and ensure that PIJAC completes a comprehensive EIS before the Agecy decides whether and how to issue future aquarium collection permits.	Comment noted. The FEA impact therefore an enviro
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for			The DEAs are entirely inadequate under the HEPA and its implementing regulations. Most notable among the DEAs' flaws: fail to analyze the impacts of collection beyond one year; fail to analyze the cumulative impacts of unlimited collection of aquatic life; fail to analyze the cumulative impacts of commercial collection on the islands of Hawai'i and O'ahu along with collection in other parts of the State; fail to analyze the cumulative impacts of commercial collection along with recreational collection; fail to analyze impacts on cultural resources; fail to analyze reasonable alternatives; fail to analyze the impacts of harmful collection practices; rely on inaccurate, misleading, and incomplete data; fail to analyze mitigation measure; fail to incorporate input of Native Hawai'ian groups, experts, and affected citizens.	Comment noted. The FEAs future years in Section 5.4 Section 5.4.3.1. Impacts to An additional alternative v Tang. Specifically, the alte per day for commercial aq other fisheries in the WHR Specifically, the alterantive aquarium collection in O'a The best available scientifi accurate. Section 6.0 of the FEAs has stakeholders prior to DEA publication. Comments on preferred alternatives with
833-2 833-3	Hawai'i For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A N/A	5/8/2018	The Applicant unlawfully limited its analyses to the time period of a single year. PIJAC's reasoning for this is that each permit only lasts one year, and therefore a new EA would need to be completed on an annual basis. However, while Commenters agree that it is critical for the Agency to continue to monitor the impacts that aquarium collection is having over time, the relatively short time period of the activity itself does not nullify HEPA's clear requirement for considering the long-term effects of that activity (example given).	Comment noted. As noted Permit not longer than one appropriate. DLNR will ree renewal or issuance of cor exists warranting reevalua example cited in this comr to HEPA review in subsequ impacts that will be occurr
833-4	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Additionally, a 12-month timeframe that analyzes impacts is inadequate because the impact of fish removal will accumulate over time. Studies show that catch numbers from the commercial aquarium fishery in Hawai'i have significantly increased over the last few decades and are likely to increase even more	Comment noted. While it the 12-month analysis per and therefore it is not cert the Hawai'i FEA and Sectio lived, and as such produce noted throughout the FEA the adult broodstock. Lim of the uncertainty of futur data (from 2000 or after) t in regulations in 1999. Section 5.4.3.3 has been a of commercial aquarium ce

As conclude no significant impact from commercial aquarium collection. n other sources, including commercial and recreational fishing ed in Section 5.4.3 of both FEAs.

EAs conclude no significant impact from commercial aquarium collection.

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

As address the cumulative impact of foreseeable aquarium collection in 5.4.3.3. Cumulative impacts of recreational collection is discussed in to cultural resources are analyzed in Section 5.3.

e was added in the Hawai'i FEA that addresses concerns with Achilles Iterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 aquarium collection in the WHRFMA and imposing a 5/day bag limt for HRFMA. An additional alternative was added in the O'ahu FEA. ive proposes a Flame Wrasse bag limit of 10/day for commercial O'ahu and the expansion of the Waikiki MLCD.

tific data has been included in the FEAs. Peer reviewers confirm data are

has been revised to describe the process used to engage with A development, and the broad distribution of the DEAs prior to on the DEAs were fully considered in developing the FEAs, including new with bag limits for certain species in both FEAs.

ted in the FEAs, under HRS 188-31, the DLNR may issue an Aquarium one year in duration; therefore, a temporal scope of one year is reevaluate the analysis contained in the FEA on an annual basis prior to commercial Aquarium Permits and will assess if any new information uation of the analysis presented in the FEA. The comparisons made in the mment are not a direct comparison. The examples would not be subject equent years, whereas Aquarium Permits will be reviewed annually for the urring the following year.

it is correct that individuals are removed from the the population during eriod, it is also true that new individuals are added during that period, ertain losses will accumulate over time. As noted in Section 5.4.1.2.5 of tion 5.4.1.2.6 of the O'ahu FEA, reef fish have high fecundity and are long ce a large number of young each year over many years. In addition, as EAs, commercial aquarium collection targets juvenile fish leaving behind imiting the scope of the HEPA analysis to a single year also buffers some ure population trends. Likewise, the estimated harvest used more recent t) to capture recent trends, as well as to capture changes that were made

n added to both FEAs to address the cumulative impacts of multiple years n collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The number of commercial aquarium permits issued per year has significantly increased over the last 18 years for the Island of Hawai'i (at ~35% per year, p=0.01) and for O'ahu (at ~29% per year, p=0.02) (see Fig. 1, see Appendix 1 for linear model results). In fact these trends have been observed since the early 1980s. It is likely that the number of commercial aquarium permits issued on the Islands of Hawai'i and O'ahu will continue to increase in the coming years due to the high demand for aquarium reef fish and their increasing market value.	Comment noted. The nur actually collecting, nor is i the FEAs (Table 15 in the the average take from 200 time period.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs failed to take into account how increasing demand and increasing market value will affect already depleted targeted reef fish species in the coming years, thus result in significant environmental impact. For example, the market value of tropical reef fish (e.g., yellow tang) has increased and thus collection/fishing pressure is likely to increase in the near future. The commercial aquarium fishery in Hawai'i reports annual landings of over 579,000 organisms (fish and invertebrates combined. The number of aquarium fish caught on the island of Hawai'i since 1976 has substantially increased by 645%. Similarly, the adjusted value of the Hawai'i Island aquarium fishery increased by over 280% between 1976 and 2003. This relationship must be analyzed in the DEAs and permitting must be adjusted accordingly to account for populations declines.	Comment noted. As discu collected species (Yellow third species, Achilles Tan added in the Hawai'i FEA proposes reducing the Ac collection in the WHRFMA For the remaining species 2017 due to changes in re limits, etc.). The analysis p changes in fishing pressur
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	The DEAs also fail to consider other cumulative impacts. The Hawai'i DEA states that it only analyzes impacts that the aquarium permits issued for the island of Hawai'i will have; similarly, the O'ahu DEA states that it only analyzes the impacts that aquarium permits issued for O'ahu will have. Neither DEA considers the cumulative impacts that permits issued for either island will have cumulatively with permits issued for the other island with a DEA—let alone cumulatively with permits issued for islands for which PIJAC conducted no DEA (e.g., Kauai and the islands that make up the County of Maui). Coral reefs in Hawai'i are connected by ocean currents. Carried within these currents are the larvae of Hawai'i's reef fishes which typically settle downstream of the reefs where they originated. Most fishes on Hawai'i's reefs are the result of other fishes upstream of that reef. Fish removed from a reef can re-populate as long as the capacity of the upstream larval reservoir isn't exceeded. For example, the prevailing currents in Hawai'i mean that Hawai'i Island reefs "seed" the islands to the northwest—marine life spreads from the Hawai'i Island to the islands of Maui County and beyond. Reduced populations of reef fishes on Hawai'i Island can seriously impact reef fish abundance in the entire state.	Comment noted. As noted Hawaiian Archipelago is n four significant multi-spec species that appear capat population differentiation consensus genetic breaks island of Hawai'i and the n

umber of permits issued is not necessarily equal to the number of fishers s it necessarily indicative of the number of fish collected. The analysis in e Hawai'i FEA and Table 9 in the O'ahu FEA) evaluates the impact of both 000-2018, as well as the maximum take that occurred over that same

scussed in the Hawai'i FEA, population trends for two of the top three w Tang and Kole) show stable or increasing population trends. While the ang, has shown past decreases in population size, an alternative was A that addresses concerns with Achilles Tang. Specifically, the alterantive Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium MA and imposing a 5/day bag limt for other fisheries in the WHRFMA. . es, the data analysis in the FEAs were limited to collection data from 2000regulations that occurred in or after 1999 (i.e., creation of FRAs, bag s period of one year also means that it is unlikely there will be large ure compared to recent (2000-2017) years.

ted in Section 4.4 of both FEAs, Toonen et al. (2011) conclude that the not a single, well-mixed marine community, but rather there are at least eccies barriers to dispersal along the length of the island chain, and that able of extensive dispersal, such as Yellow Tang and Kole, show significant on within the Hawaiian Archipelago. In addition, there are significant ks that restrict gene flow between islands, include a barrier between the e rest of the Main Hawaiian Islands (MHI).

Comment No.	Communities.	State/	Date	Comment	Response
Comment No.	Commentor	Location	Received		
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Additionally, the DEAs fail to even properly address the true nature of what the Applicant is requesting in its Preferred Alternative. Under the Preferred Alternatives for both EAs, "DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31," and "DLNR would issue Aquarium Permits for the island of O'ahu under existing regulation set forth in HRS 188-31." In other words, PIJAC's Preferred Alternative is collection of an unlimited number of fish and other coral reef inhabitants—the limits of what regulation allows. Yet, the DEAs consider only very limited collection. HEPA requires that an EA assess the potential cumulative impacts of what State regulations allow, not just what some permittees may claim they intend to do with their permits. As the Hawai'i Supreme Court clearly stated, "the properly defined activity for the purposes of the HEPA analysis must encompass the outer limits of what the permits allow and not only the most restrictive hypothetical manner in which the permits may be used." Likewise, although the DEAs purport to analyze impacts cumulatively with those of recreational collection permits, the DEAs do not account for the fact that the Agency issues a permit for every application that is submitted, and therefore the take under recreational permits is potentially unlimited as well. And the DEAs admit that, as there is no required reporting for recreational permits, it is currently impossible to know how many of each species are taken under those permits. This lack of data precludes a FONSI.	of 1,825.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The analysis of cumulative impacts must include the impact of the commercial aquarium fishery, regardless of the gear used to capture the marine life, combined with non-aquarium commercial and recreational fisheries and other activities that impact population abundance. Commercial and recreational fishing combined with the aquarium fishery have a substantial impact on targeted species. The DEAs should determine cumulative impact of all fishing on target species. In addition, the DEAs must analyze indirect impacts from collection such as vessel traffic and accumulated reef damage due to vessel anchoring and collection practices. The DEAs must also evaluate the potential of cumulative impacts of climate change (warming and ocean acidification) on targeted fish species such as decline of coral coverage which have been demonstrated to influence reef fish species diversity and abundance.	Comment noted. The issu FEAs, including the Cumul 5.4.1.2.4 of the Hawai'i FE studies have concluded th ecosystem.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	It is clear from an analysis of cumulative impacts that many of HEPA's "significance criteria" apply. Most directly, the proposed actions will I likely have a significant effect on the environment due to at least: the loss or destruction of natural and cultural resources; curtailing the range of beneficial uses of the environment; substantial degradation of environmental quality; cumulative effects on the environment; and potentially substantially affecting rare, threatened or endangered species, or its habitat.	Comment noted. The FEA impact based on the signi

oncept of "unlimited" collection is speculative and not reasonably used the best available data (past commercial aquarium collection) to outcome of issuance of permits for an additional year. In addition, data is been added to Section 5.4.3.1, which found that recreational aquarium an average of 45 fish per year, well below the maximum allowable number

ssues mentioned in the comment are addressed in various sections of the nulative Impacts sections of both documents, direct impacts, and Section FEA and and Section 5.4.1.2.5 of the O'ahu FEA, which note that two that the aquarium fishery has no significant impact on coral or the reef

EAs conclude that the Preferred Alternative will not have a significant nificance criteria.

Commont No	Commenter	State/	Date Bacaivad	Comment	Response
Comment No.	Commentor	Location	Received		
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Environmental impacts from aquarium trade activities have been documented for over forty years. Under the Preferred Alternative, every fish and marine creature, other than corals and those associated with live rock, could be removed from one, or all, of the State of Hawai'i's reefs—with catastrophic effects. Collecting individual species in high numbers poses a significant threat to coral reef health. As explained herein, herbivorous species, such as Yellow Tangs and Goldring Surgeonfishes, are the most heavily targeted. Herbivorous fish are essential to avoid algal overgrowth of corals and concomitant degradation of the reef. Hermit crabs are also collected in large numbers despite being essential to ecosystem health. Other important functional groups include: planktivores (e.g. Hawai'ian Dascyllus), corallivores (e.g. Fourspot Butterflyfish, Multiband Butterflyfish), fish predators (e.g. Hawkfishes, Hawai'ian Lionfish) and cleaner fishes (e.g. Hawai'ian Cleaner Wrasse). The collection of large numbers of invertebrates including hermit crabs and shrimps that are grazers, scavengers, or cleaners, could potentially have serious ecosystem impacts including reduced resiliency to other threats.	Comment noted. The corr foreseeable. Unlimited ha use of fine mesh nets). Ar requires). The law require The FEAs used the best av reasonable outcome of iss It is understood that coral serve a function. However collection is not significan island of Hawai'i or the to to serve their functions in FEA and Section 5.4.1.2.5 algal growth was higher ir in fish abundance. This is not an irrevocable 3(1) if the department de aquatic life. In addition, fit The FEAs both conclude to species taken by the aqua conclude that the percent
000 44	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for		5/8/2018	The reduction of natural populations of species taken by the aquarium trade in any area (e.g. specific site, zone, coastline, island or statewide), and by any amount, whether one or one hundred percent, indicates an irrevocable commitment and loss of a natural and cultural resource. This very loss curtails the range of beneficial uses that would otherwise be provided by the natural abundance of these populations. As has been long recognized, "The impact of commercial aquarium fish collecting is a complicated issue. The fish community members are highly dependent on one another. There is a constant interaction between predators and competitors, as well as other members of the food web. There is a lot of variability in the system, even when it is not disturbed by man. Reefs seem to undergo natural cycles. At times they may be very abundant. There is also natural variation in the fish community at different locations." The DEAs and any discussion of "sustainable" must include the high aesthetic value of this beautiful marine life as well as impacts to the complex relationships inherent in coral reef ecosystems and impacts to overall coral reef health. "Animal communities" are included in the rule definition for "environment," however the DEAs exclude any mention of the impact to fish and invertebrate communities. The Hawai'i State Wildlife Action Plan (SWAP) states that "Excessive extractive use constitutes a threat to wildlife. Certain reef fishes are harvested for sale in the aquarium trade These activities are not sustainable on a large scale and impact native wildlife."	Comment noted. The cor foreseeable. Unlimited ha use of fine mesh nets). Ar requires). The law require The FEAs used the best av reasonable outcome of iss It is understood that cora serve a function. However collection is not significan island of Hawai'i or the to to serve their functions in FEA and Section 5.4.1.2.5 algal growth was higher ir in fish abundance. This is not an irrevocable 3(1) if the department de aquatic life. In addition, fit The FEAs both conclude th species taken by the aqua conclude that the percent

oncept of "unlimited" collection is speculative and not reasonably harvest is also possible under the no action alternative (just without the Analyzing extreme possibilities is not helpful (and not what the law res an assessment of the "expected consequences" of a proposed action. available data (past commercial aquarium collection) to predict the issuance of permits for an additional year.

ral reefs are a complcated ecosystem made up of many species that each ver, given the conclusions in the FEAs that commercial aquarium antly impacting the populations of any of the White List Species on the top 20 collected species in O'ahu, the species are anticpated to continue in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i ..5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that r in areas of collection versus areas without collection, despite differences

le action, as fish net permits may be suspended pursuant to HAR 13-74determines that it is necessary for the protection and conservation of , fish will continue to reproduce.

that there will be no significant reduction in the natural populations of uarium trade. In addition, regarding the aesthetic values of fish, the FEAs nt of each population collected would be imperceptible to observers.

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Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-12	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Hawai'i State Wildlife Action Plan (SWAP) states that "Excessive extractive use constitutes a threat to wildlife. Certain reef fishes are harvested for sale in the aquarium trade These activities are not sustainable on a large scale and impact native wildlife."	The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FE the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on ava
833-13	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The list of species of greatest conservation need includes at least 18 native fish species that are threatened by the aquarium trade and in need of conservation actions to reduce the risk of extinction (see Fig. 2).	The Appliant was not able FEAs conlcude no significa Section 5.4.1.2.3 in the Ha 5.4.1.2.3 in the O'ahu FEA
833-14	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Butterflyfishes are heavily targeted by the aquarium trade (Fourspot Butterflyfish, Longnose Butterflyfish, Teardrop Butterflyfish, Forcepsfish, Multiband/Copperband). Reported aquarium harvest of those same five species has since plummeted (see Fig. 5). The same is true for other heavily targeted butterflyfish species that have been among the top twenty aquarium fishes collected by the trade since 1976. This sharp decline in reported catch is not an indicator that these species are no longer in demand. Continuing demand is confirmed by several examples: • These species' inclusion in the West Hawai'i White List. • Their exclusion from the O'ahu rules (The O'ahu aquarium rule prohibits take of three butterflyfishes, citing their "coral diets" as the need for the restriction. Since 1999 total reported take of those three species was 50 fish. Zero restrictions were provided for three additional coral eating butterflyfishes, with total reported take of over 51,000 individuals since 1999.) • The Fourspot Butterflyfish catch increase that followed the 2014/2015 warming event and unprecedented fish bloom. Subsequently, catch of the Fourspot Butterflyfish declined to an all-time low.	Comment noted. Of the f FEAs conclude that comm population of the fourspo Table 15 in the Hawai'i FE teardrop butterflyfish are top 20 collected species in
833-15	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In nearly every encounter with commercial aquarium collectors on West Hawai'i reefs, snorkelers and divers have witnessed and documented destructive practices that harm corals, with the most damage coming from vessel anchors and chains. Sticks, buckets, nets, underwater propulsion devices (scooters) are laid in the corals and the fins, knees and legs of collectors often come in contact with the reef—in fact, they are typically described as "crawling across" or "standing" on the corals.	Comment noted. Section note that two studies hav practices have no significa

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall of take is well below or within what is considered to be sustainable reef available research (5% - 25%; Ochavillo and Hodgson 2006).

ble to find this statement or the referenced figure in the 2015 SWAP. The ficant impact to SGCN that are included on the White List in Hawai'I (see Hawai'i FEA) or in the top 20 collected species in O'ahu (see Section FEA).

he five butterflyfish species mentioned specifically in the comment, the nmercial aquarium collection is anticipated to take less than 1% of the spot butterflyfish, forcepfish, and multiband/copperband butterflyfish (see FEA and Table 9 in the O'ahu FEA). The longnose butterflyfish and are no longer able to be collected in West Hawai'i, and are not one of the is in O'ahu (i.e., collection less than 756 individuals per year).

on 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA nave concluded that the aquarium fishery and aquarium fish collection ficant impact on coral or the reef ecosystem.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-16	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to the impacts to biodiversity, ecosystem function, and other fisheries, aesthetic and other social values are also heavily impacted. Species experiencing the heaviest collection pressure, with a corresponding reduction in natural abundance, are Hawai'i's most beautiful, charismatic and iconic fishes. The diminished aesthetic value from the cumulative and substantial reductions in species such as Yellow Tangs, butterflyfishes and Moorish Idols, which are dominated by vibrant yellows and oranges and striking white and black patterns, cannot be overestimated (see Fig. 6). These colors are more than aesthetically pleasing, as our eyes are physiologically attuned to them. The frequencies and wavelengths of yellows, oranges and reds allow them to strike our eyes much faster than the other colors. By removing the species with prominent yellow, orange, red or white coloration and markings, the palette and very essence of what makes a coral reef beautiful to the human eye is diminished and degraded. It is impossible to decrease populations of a coral reef's beautiful wildlife without greatly decreasing the natural beauty of the place.	Comment noted. The FEA natural populations of spe values of fish, the FEAs co imperceptible to observer that commercial aquarium tourism industry achieved marking the fifth consecut revised Preferred Alternat anticipated to decrease us SCUBA divers, snorkelers,
833-17	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to address or even acknowledge the effects of the trade on the amenity/property values. Houses that are within a block or 100 meters of beautiful, clean and healthy coastlines, beaches and coral reefs are more valuable and sell for significantly higher prices than comparable properties elsewhere. The same is true for condos and hotels/hotel rooms which generally command higher room and occupancy rates. Healthy coral reefs are also more likely to prevent beach erosion and, therefore, add value as a form of coastal protection. One and a half percent of the sale price of these properties is attributable to the marine ecosystem. Hawai'i's reef-related property value in 2001 was calculated at \$40 million.	Comment noted. Both the 5.2.2.2. The average sale than the average sale price percent (HDBEDT 2016).
833-18	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to address or even acknowledge the effects of the trade on the recreational value of this marine life and their coral reef homes. The annual estimated expenditures related to marine life viewing (i.e. snorkeling and scuba) in Hawai'i is \$551 million. Reef-adjacent marine tourism expenditures (including hotel rooms) within 30 km of the coastline are an annual \$680 million. These amounts exclude the lost value from declining fish abundance which is captured in willingness to pay surveys and summarized below: Healthier reefs lead to substantial economic gains; Recreational users are willing to pay higher rates for a healthier marine environment; Snorkel/dive businesses benefit when there are more fish for their clients to see; One recent study showed divers were willing to pay \$93 to \$110 more to dive with abundant fish life; Without new regulations the potential for increasing losses is real; Inability to stem declining reef fish numbers could cause significant losses to dive tourism industry (i.e. reductions in willingness to pay); These consumer surplus losses could range from \$1.2 million to \$12.2 million annually; Areas with degraded reefs and low fish populations could also see significant losses from a decrease in their share of the global dive market; Anecdotal reports from long-time residents and visitors point to revenue loss already occurring from reduced abundance of beautiful fishes on Hawai'i reefs.	Comment noted. Both the 5.2.2.2. The Hawai'i FEA concludes month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. This level of ta fish harvest based on avai

EAs both conclude that there will be no significant reduction in the pecies taken by the aquarium trade. In addition, regarding the aesthetic conclude that the percent of each population collected would be ters. As noted in Section 5.2.2.2 of the FEA, available data do not suggest um collection has impacted the tourism industry in Hawai'i. Hawai'i's ed new records in total visitor spending and visitor arrivals in 2016, cutive year of record growth in both categories. The O'ahu FEA includes a native that includes expansion of the existing Waikiki MLCD, which is user conflict between commercial aquarium fishers and others (i.e., is, other tourists).

the Hawai'i and O'ahu FEAs address socioeconomic impacts in Section le price of homes in 2014 was \$594,440, which was 26.4 percent higher rice in 2011. In 2015, the total number of home sales increased by 9.3 .

he Hawai'i and O'ahu FEAs address socioeconomic impacts in Section

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006)

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-19	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	survey of U.S. households. The survey included a visual representation of an overfished and an abundant coral reef (see Fig. 7). The project determined that increased protections and restoration of degraded coral reefs in Hawai'i is worth about \$288 to the average U.S. household which aggregated over all U.S. households amounts to a \$34 billion annual passive use value for Hawai'i's coral reefs.58 This and other socio-economic values described here provide meaningful insights into the public's concerns and should be addressed in a comprehensive EIS.	population. The O'ahu FE
833-20	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A N/A	5/8/2018	The finding of no direct, indirect, or cumulative impacts on cultural resources is erroneous. Aquarium trade practices do, in fact, irrevocably commit natural resources, and this loss and harm equally applies to impacts to cultural resources, as well. The DEAs fail to acknowledge that Native Hawai'ians traditionally rely on species targeted by the trade for subsistence, such as pāku'iku'i (Achilles Tang) and kole (Gold Ring Surgeonfish), and this impact is not assessed.	Comment noted. This issu
833-21	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	In considering the impacts to cultural resources the DEAs also fail to take into account the Native Hawai'ian cultural and spiritual connections to the reef. For example, there is no consideration of the reef ecosystem and its associated gods and goddesses or their many kinolau (divine bodily forms). These gods and goddesses include, but are not limited to, the Goddess Hina and her form as Hina 'Opu Hala Ko'a who is the goddess of the coral and who gives birth to the reef itself; or, in her moon form which relates to coral spawning events. The Native Hawai'ian ceremonial practices associated with these types of cultural and religious beliefs are given no consideration in these DEAs. Likewise, many of the particular fish species favored by the aquarium trade also happen to be 'aumakua (family guardians). The taking of these species obviously adversely impacts Native Hawai'ian cultural and religious beliefs and practices. None of these aspects have been taken into account in these DEAs. "Malama aina involves asking permission prior to fishing, taking only what you need, sharing your catch with your extended 'ohana or community and having respect for the sacredness of the process. Clearly, harvesting live fish for economic gain and shipping them in a bag for a long, convoluted odyssey, potentially resulting in mortality and waste, violates the very core of these traditional values."	Comment noted. The imp Section 5.3 of both FEAs.

the Hawai'i and O'ahu FEAs address socioeconomic impacts in Section

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

ssue addressed in Section 5.3.1 of both the Hawai'i and O'ahu FEAs.

npacts to cultural resources sections have been revised in the FEAs, see

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-22 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	A major factor that drives the rates of collection is premature mortality rates in captivity. According to a long-time industry insider, most yellow tangs die with the first month in a hobbyist tank and fewer than 1% of those captured survive one year in captivity. A 2012 study determined that mistreatment in capture, handling, transport, and holding plays a larger factor in these premature deaths than hobbyist inexperience. The researchers also determined that each step in the supply chain significantly profits from customer purchases to replace fish that die prematurely, and that profits from replacement fish sales are so high, stores have no incentive to take action to reduce deaths.	Comment noted. Because conditions, it is not anticip In addition, the paper refe from the "Coral Triangle" and the Solomon Islands), dynamite to catch fish, wh These practices are not us
833-22 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	A number of practices frequently utilized as cost saving measures by the aquarium trade in Hawai'i are inhumane and significantly contribute to the stressors that accumulate and ultimately lead to premature deaths of captive marine life. They include rapid surfacing and subsequent use of a technique known as "fizzing" to mitigate the resulting barotrauma injury to swim bladders; starving fish for $2 - 10$ days prior to transport and spine cutting. Alternatives to these practices include slow surfacing, transport in larger volumes of water to dilute any waste produced by fishes during transport, and transport in hard plastic containers that cannot be punctured by fish spines. Every fish that dies early puts extra pressure on natural resources because of the take of replacements. There is a general consensus in many countries that it is not ethical to trade in live animals, unless their health and welfare are ensured. These unnecessary and early deaths have given the trade a poor image. A \$20 million, multi-stakeholder reform effort failed, in part, because of trade reluctance to address, and take steps to reduce, mortality rates. Fifty percent of species among Hawai'i's historical top 20 fish list are either not guaranteed to arrive alive or stay alive longer than $7 - 14$ days when purchased from online or "brick and mortar" retailers. Examples are found in Appendix 3.	Comment noted. Because conditions, it is not anticip In addition, the paper refe from the "Coral Triangle" and the Solomon Islands), dynamite to catch fish, wh These practices are not us

se mortality post-collection is not anticipated to change from current cipated that this factor will alter the estimated collection numbers.

eferenced here (Cartwright et al. 2012) is focused on marine ornamentals e" (Philippines, east Malaysia, Indonesia, Timor-Leste, Papua New Guinea, ls), where they commonly use harmful chemicals such as cyanide and which then leads to extremely high mortality rates in the supply chain. used in Hawaii.

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Comment No	Commentor	State/	Date Received	Comment	Response
	Commentor For the Fishes/The Humane Society of the United	State/ Location	Date Received	Comment Baseline fish population data from the 1970's at Honaunau in West Hawai'i were compared to data gathered in surveys conducted 1998 – 2001. The results indicated that nearly all small bodied surgeonfish, butterflyfish and angelfish (i.e. species targeted by the aquarium trade) declined in abundance. Commercial aquarium collecting was implicated in the decline (see Fig. 8). Similar results were found at Ke'ei where the site had been intermittently surveyed since 1979. "Of the 20 most collected aquarium species, 18 declined in abundance with the species facing the heaviest fishing pressure typically showing the greatest declines."	Response The Hawai'i FEA concludes the analysis period would be less the remaining three species that collection of 18 of the to 1% of their respective overal less than 8% of their overall sustainable reef fish harvest. As discussed in the Hawai'i Fand Kole) show stable or incorpast decreases in population Achilles Tang. Specifically, the period for commercial aqua fisheries in the WHRFMA. The paper referenced in the 2001, which coincides with the top three collected spectincreasing. The evidence surworking, and the Preferred AWAIsh (2007) also found decorport species), but these were dett group as aquarium fish (18 context).
833-23	States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018		in the text, half of the specie
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Another long-term study looked at reefs in South Kohala and determined that reef fish abundance was in "drastic decline" and reefs were in "dire straits". Populations of all of the top five most abundant fish families had declined since the original surveys conducted in 1979-1981 (see Fig. 9). Thirty-one of the thirty-five most abundant fish species had declined, including 19 species targeted by the aquarium trade. Most of the aquarium targeted species had declined by more than 50% and many were down by more than 80%.	The study cited in the con not typically targeted eith widespread factors are ad abundance." The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of populations. Collection of population. This level of ta fish harvest based on avai As discussed in the Hawai (Yellow Tang and Kole) sh was added in the Hawai'i alterantive proposes redu commercial aquarium coll fisheries in the WHRFMA.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The areas south of these reefs are subject to some of the most intense aquarium collecting pressure in the state. Aquarium take between Keahole Point and these reefs in South Kohala, in one year alone, exceeds the aquarium take from the entire Great Barrier Reef in Australia, which has a reef area that is 300 times larger than Hawai'i's. For example, in 2014 aquarium collectors reported taking 191,083 fish from this Hawai'i zone. By comparison, 2014 reported aquarium take from the Great Barrier Reef was 112,000.	Comment noted. The FEA The Hawai'i FEA conclude month analysis period wo populations. Collection of population. The O'ahu FEA the 12-month analysis pe populations. Collection of population. This level of t fish harvest based on avail

s the the collection of 37 of the 40 White List species during the 12-month less than 1% of their respective overall island of Hawai'i populations. Collection of es would be less than 5% of their overall population. The O'ahu FEA concludes e top 20 collected species during the 12-month analysis period would be less than erall island of O'ahu populations. Collection of the remaining two species would be all population. This level of take is well below or within what is considered to be est based on available research (5% - 25%; Ochavillo and Hodgson 2006).

'i FEA, population trends for two of the top three collected species (Yellow Tang ncreasing population trends. While the third species, Achilles Tang, has shown ion size, an alternative was added in the Hawai'i FEA that addresses concerns with t, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 quarium collection in the WHRFMA and imposing a 5/day bag limit for other

he comment was Williams and Walsh (2007). This study was conducted in 1998h the beginning of the FRAs, and as stated above, population trends for two of becies since implementation of more regulations in 1999 have been stable or suggests that the conservation measures put in place in 1999 and 2014 are ed Alternatives in both FEAs add additional conservation measures. Williams and declines in food fishes (17 of the 29 species) and other species (26 of the 47 determined to be non-significant because it wasn't as large of a proportion of the 8 of the 20 species). However, of the ten aquarium fish species that they evaluate ecces are not on the White List, and are thus no longer collected in West Hawaii.

omment also concluded that "the widespread declines in families of fish ither for food use or for the aquarium fishery suggest that other, more additionally contributing to the overall long term declines in fish

des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during period would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

vai'i FEA, population trends for two of the top three collected species show stable or increasing population trends.. In addition, an alternative i'i FEA that addresses concerns with Achilles Tang. Specifically, the ducing the Achilles Tang bag limit from 10/day to 5 per day for ollection in the WHRFMA and imposing a 5/day bag limt for other IA.

EAs conclude no significant impact from commercial aquarium collection. des the the collection of 37 of the 40 White List species during the 12would be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall FEA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

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	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Abundant populations of herbivorous fishes are critically important to coral reefs. They keep algae from overgrowing corals or preventing new corals from starting. Important families of herbivorous fishes in Hawai'i include surgeonfishes, damselfishes and parrotfishes. The vast majority of fishes taken by the aquarium trade are surgeonfishes. The Dire Straits study documented a 90% decline in herbivorous surgeonfish and damselfish populations, while parrotfish populations had actually increased over time. This aforementioned 90% decline in herbivores contributed to a 35% reduction in coral cover, a 64% reduction in coral building coralline algae, a 38% increase in algae at one site and a staggering 322% increase in algae at another. DLNR claims that parrotfishes are more important herbivores than surgeonfishes when it comes to keeping algae in check on coral reefs. On these South Kohala reefs, the increased parrotfish populations were not enough to offset the loss of surgeonfishes and damselfishes, and the algae still outcompeted the corals. The notion that surgeonfishes taken by the aquarium trade are not an important component to coral reef health is challenged by this study.	Given the conclusions in tl impacting the populations collected species in O'ahu, ecosystem. In addition, as the O'ahu FEA, Tissot and areas of collection versus a
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	, N/A	5/8/2018	Two peer reviewed studies documented the magnitude of the effect of aquarium collecting on natural populations of heavily targeted species by the aquarium trade. One, published in 2003 by Tissot and Hallacher, was conducted the two years prior to the establishment of the West Hawai'i Fish Replenishment Areas (i.e. aquarium no-take zones). The next study, by Tissot, et al., was conducted in 2000-2002, three years after those area closures. The results of each study showed that aquarium collectors have a significant effect on the abundance of targeted aquarium fishes (see Fig. 11). The U.S. Coral Reef Task Force described these results as follows: "Severe overfishing for aquarium trade occurs even in the United States: Aquarium fishes outside of reserves [in West Hawai'i] experience significant declines – from 14% to 97%." In a 2010 grant report to NOAA, DLNR documented that "a number of aquarium-targeted species have not responded to the increase in protected areas and have actually decreased in West Hawai'i since 1999" (see Fig. 11). Per DLNR aquarium catch reports, these species are also among the top 20 most harvested fishes. Nonetheless, all but two species, the Moorish Idol and the Hawai'ian Cleaner Wrasse, were included in the West Hawai'i 40 Species White List adopted in 2014. DLNR therefore calls for the continued harvesting of these species, despite knowing that their populations are in decline.	Comment noted. The FEAs reviewers confirm data are The Hawai'i FEA concludes month analysis period wor populations. Collection of population. The O'ahu FEA the 12-month analysis per populations. Collection of population. This level of ta fish harvest based on avail
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	Three species identified in the SWAP, the Bandit Angelfish, Bluestripe Butterflyfish, and Hawai'ian Turkeyfish Figure 4 (in gold outline) were included in a DLNR presentation on West Hawai'i Species of Special Concern (Fig. 2) where two were described as routinely seen in the 1970's and now very rare, and one was described as down by 99% in two different areas	Collection of these three s the White List. As discusse two fish per day is already Angelfish in O'ahu is discu
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In West Hawai'i the decline of butterflyfishes has been well-documented in both population surveys and aquarium catch data. A 2008 presentation on West Hawai'i aquarium species of special concern reported declines in butterflyfish abundance and diversity. Two species were particularly hard hit: the Bluestripe Butterflyfish and the Teardrop Butterflyfish, experienced population declines ranging from 89% - 100% in two West Hawai'i areas (see Fig. 12).	Comment noted. The Blue List, and cannot be legally

the FEAs that commercial aquarium collection is not significantly ons of any of the White List Species on the island of Hawai'i or the top 20 hu, the species are anticpated to continue to serve their functions in the as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of hd Hallacher (2003) found no evidence that algal growth was higher in us areas without collection, despite differences in fish abundance.

As use the best available data regarding species abundance. Peer are accurate.

des the the collection of 37 of the 40 White List species during the 12vould be less than 1% of their respective overall island of Hawai'i of the remaining three species would be less than 5% of their overall EA concludes that collection of 18 of the top 20 collected species during beriod would be less than 1% of their respective overall island of O'ahu of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

e species is not allowed in the WHRFMA, as none of these species are on ssed in Section 1.2.3 of the O'ahu FEA, a bag limit on Bandit Angelfish of dy in effect. Impacts of commercial aquarium collection on Bandit cussed in Section 5.4.1.2.2 of the O'ahu FEA.

uestripe Butterflyfish and the Teardrop Butterflyfish are not on the White lly collected n West Hawaii.

		State/	Date	Common t	Descreta
Comment No.	Commentor	Location	Received	Comment	Response
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bluestripe Butterflyfish is a highly unique, endemic Hawai'ian species that, having no sister species elsewhere in the Indo-Pacific, is also known as a relic (see Fig. 13). Until 1980, this species was among the top twenty fishes collected in West Hawai'i, with an annual average harvest of 347. By 2012, the last year this species appeared on West Hawai'i catch reports, reported harvest had dropped to a total of nine. This species was excluded from the West Hawai'i forty species White List which went into effect in 2014. The Bluestripe Butterflyfish is listed in the species of greatest conservation need in the 2015 Hawai'i State Wildlife Action Plan. Threatened by the aquarium trade, conservation actions include to "protect current populations, but also to establish further populations to reduce the risk of extinction."	Comment noted. The Blues collected n West Hawaii.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	of aquarium collecting on natural populations. They were, however, included in the surveys to test assumptions since they were similar to targeted species. The researchers encountered just one individual Teardrop Butterflyfish during the entire study and so they were excluded from further analysis. In 2011 a group of divers encountered an aquarium collector at a popular North Kohala dive site. They watched in horror as the collector scooped up the first Teardrop Butterflyfish they had seen in that area in years along with a number of yellow tangs and other fishes (Fig. 15).92 In 2013, the last year Teardrop Butterflyfish appeared on aquarium catch reports, reported take had dropped to a total of ninety, reflecting a 99% drop in annual catch since 1980.93 This species was excluded from the West Hawai'i forty species White List which went into effect in 2014.	Comment noted. The Tearc collected n West Hawaii.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	The aquarium fishery in West Hawai'i takes 1.8X more reef fish than recreational and other commercial fishing combined. Most of these fish are yellow tangs.	Comment noted. The state 2014 report to the legislatu stated if Yellow Tang, which other fishers, is excluded, o 3 times the number of reef (64,815/year).

Bluestripe Butterflyfish is not on the White List, and cannot be legally ii.

eardrop Butterflyfish is not on the White List, and cannot be legally

statement in the comment was included in the Hawai'i FEA from the DAR slature. As noted in Section 5.4.3.2 of the Hawai'i FEA, the DAR report also which is primarily collected at small sizes and generally not targeted by ed, on average the recreational and commercial fisheries combine to take reef fishes (194,674/year) caught annually by aquarium collectors

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	"Overall Yellow Tang abundance in 30'-60' hardbottom habitat in West Hawai'i increased by 355,758 individuals from 1999/2000 to 2010-2012 even though Yellow Tang abundance in the Open areas decreased by 21%. This decrease is attributable largely to an increase in the number of aquarium collectors and collected animals relative to the period when the FRAs were established." Over sixty percent of West Hawai'i reefs are open to the aquarium trade. On the reefs in those areas, the impact of the aquarium trade on natural populations of yellow tangs has been a significant reduction in the abundance. For example, natural populations were reduced by over 75% in 2007-2009 and in recent years, by 60% (see Fig. 16).	Comment noted. Section 5 referenced in the commen 2000 and 2016-2017 in all Hawaii FEA).
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Unlike West Hawai'i, no aquarium fish population data was gathered during the early years of aquarium trade operations on O'ahu reefs. More recent data has been gathered in a yet to be published study by Dr. Gail Grabowsky of Chaminade University and is summarized below. Dr. Grabowsky reached the same conclusions reached by Williams and Walsh in a 2007 report documenting declines in populations of certain fishes on two Hawai'i Island reef areas: commercial aquarium collecting is implicated in the declines; and, the greatest declines are seen in the species that have faced the heaviest fishing pressure. Using the same methods described in earlier research on Hawai'i Island documenting the magnitude of the effect of aquarium collecting on natural populations of heavily targeted species, Dr. Grabowski and her team quantified the abundance of aquarium collected fish at over 20 sites around O'ahu from 2008- 2010. Surveyed species included Yellow tangs, Forcepsfish, the Hawai'ian "Domino" Damselfish, as well as additional butterflyfishes, surgeonfishes, and other fishes targeted by the aquarium trade are ten times more abundant at Hanauma Bay, Hawai'i's first marine life conservation district, protected since 1967, than they are on other O'ahu survey sites.	
833-34 (Part	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	As with the Hawai'i Island studies conducted by Tissot and others, uncollected sites were selected as controls and served as a proxy for estimating natural abundance. The data also showed that aquarium fish are rare at Pupukea and Coconut Island in Kaneohe Bay, both of which are protected similarly to Hanauma Bay, but unlike Hanauma Bay, are easily accessed by poachers. There were no juvenile fish smaller than a silver dollar at Hanauma Bay, which led Dr. Grabowsky to surmise that it may be "that the fish are so depleted on O'ahu that those we see are the "living dead" who cannot effectively maintain a population due to their rarity. This is called the Allee effect and has been documented in other rare species."	that the 2010 and 2014 Ha substantial underreporting collection of 18 of the top than 1% of their respective species would be less than

n 5.4.1.2.1 of the Hawaii FEA includes more recent data than that ient, which shows an increase in Yellow Tang populations between 1999all areas, including a 58% increase in Open Areas (see Table 9 of the

est available scientific data chas been included in the FEAs. Peer reviewers te.Unpublished data from Dr. Grabowski was not available for analysis in achers, as noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded Hawai'i Island aquarium catch report validation did not indicate ing of catch by aquarium collectors. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less tive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006).

est available scientific data chas been included in the FEAs. Peer reviewers te.Unpublished data from Dr. Grabowski was not available for analysis in achers, as noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded Hawai'i Island aquarium catch report validation did not indicate ing of catch by aquarium collectors. The O'ahu FEA concludes that op 20 collected species during the 12-month analysis period would be less cive overall island of O'ahu populations. Collection of the remaining two han 8% of their overall population. This level of take is well below or ed to be sustainable reef fish harvest based on available research (5% gson 2006).

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833-35	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to population surveys, catch data can provide an important view into the status of populations of targeted fishes. As explained elsewhere in these comments, using catch data to estimate the proportion of fishing mortality to total population is highly problematic since catch reports are unverified and both underreporting and non-reporting are highly likely.	Comment noted. As state 2010 and 2014 Hawai'i Isl underreporting of catch b
833-36	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	However, where baseline population data are absent, and where consumer demand exists for a particular species or family group, it is highly likely that substantial declines of reported catch reflect reduced abundance of the target sizes—juveniles in most cases—of those species or families Hawai'i's reefs. In fact, historical catch reports have been used to document the collapse of the aquarium fishery on southwest O'ahu reefs after hurricane Iwa hit Hawai'i in 1982 and damaged many reefs. Per anecdotal reports from a number of aquarium collectors, the storm destroyed important habitat for yellow tangs and other targeted species. This resulted in the migration of many fishes to undamaged coral reef areas. Aquarium collectors then concentrated their efforts on these sites and within a few short years, populations of species targeted by the trade completely collapsed. Referring to these data, researchers noted that since yellow tangs are in high demand, these declines reflect the situation on these reefs (i.e. reduced abundance of the small yellow tangs targeted by the trade) (Walsh et al. 2004). Catch reports from 2016 confirm that yellow tang populations have yet to recover (see Fig. 17, 18).	Comment noted. The FEA Yellow Tang is less than si
833-37	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bluestripe Butterflyfish (see Fig. 13) was among the top fifteen aquarium fishes captured on O'ahu through the five-year period that ended in 1995. As of the five-year period that ended in 2015, reported catch had declined by 79% from the five-year period that ended in 1980. In 2016, reported catch dropped an additional 15% (see Fig. 19). As previously noted, the Bluestripe Butterflyfish is listed among the species of greatest conservation need in the 2015 Hawai'i SWAP. Despite this listing and the alarming decline in reported catch, no take limits were placed on this species in the O'abu Aquarium Bule	Comment noted. Bluestrip cannot be collected there However, between 2000 a collected each year on O'a 59,769 Bluestripe Butterfl sustainable for reef fish ha
833-38	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Reported catch of the Teardrop Butterflyfish has also experienced drastic declines on O'ahu reefs (see Fig. 19). During the ten-year period 1976-1985, the Teardrop Butterflyfish was among the top ten fishes collected on O'ahu with an average annual harvest of 2,558 individuals (see Fig. 19). During the following five years, the harvest rate dropped, but it was still among the top twenty species collected. As of the five-year period that ended in 2015, reported catch had declined by 94% from the five-year period that ended in 1980. In 2016, reported catch dropped an additional point (see Fig. 19).	However between 2000 2
833-39	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bandit Angelfish is another beautiful and highly unique, endemic Hawai'ian species with a color pattern unlike that of any other angelfish on Earth (see Fig. 20). The Bandit Angelfish has been among the top twenty aquarium fishes captured on O'ahu on and off since 1976, most recently in During the five-year period 1976-1980, annual reported catch averaged 1,380 individuals (see Fig. 19). After that, annual reported catch rarely exceeded 600 individuals and from 1996-2005 the average was less than 100. As of the five-year period that ended in 2015, reported catch had declined by 64% from the 1976-1980 high (see Fig. 19).	As stated in Section 1.2.3, Impacts to the Bandit Ang

ated in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the Island aquarium catch report validation did not indicate substantial on by aquarium collectors.

EA concludes that the impact of commercial aquarium collection on a significant.

tripe butterflyfish are not on the White List in the WHRFMA and thus ere. On O'ahu, they are not included in the top 20 fish species collected.

00 and 2017, and average of 340 Bluestripe Butterflyfish have been O'ahu. This represents 0.6% of the 2017 CREP population estimate of erflyfish on O'ahu, which is well below what is considered to be n harvest (5% - 25%; Ochavillo and Hodgson 2006).

rop Butterflyfish are not on the White List in the WHRFMA and thus ere. On O'ahu, they are not included in the top 20 fish species collected.

00 and 2017, an average of 223 Teardrop Butterflyfish have been collected his represents 0.2% of the 2017 CREP population estimate of 102,031 on O'ahu, which is well below what is considered to be sustainable for reef Ochavillo and Hodgson 2006).

2.3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. Angelfish are discussed in Section 5.4.1.2.2 of the O'ahu FEA.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Catch reports also indicate increasing consumer demand for this precious species in the landed value data. From 1976-2003 the average landed value for a Bandit Angelfish was \$10. By 2004 it had jumped to \$54 and in recent years has skyrocketed to \$137 each. A similar pattern was noted for Bandit Angelfishes captured in West Hawai'i and prompted University of Hawai'i (UH) and DAR researchers to point out that decreasing catch combined with increasing value signals a real population decline. Not surprisingly, the Bandit Angelfish is also listed among the species of greatest conservation need in the 2015 Hawai'i State Wildlife Action Plan. Threatened by the aquarium trade, conservation actions include to "protect current populations, but also to establish further populations to reduce the risk of extinction." The O'ahu aquarium rule established a daily bag limit of two Bandit Angelfishes greater than 5.5 inches in length. Commercial data does not capture fish sizes so the impact of this size limit cannot be determined.	As stated in Section 1.2.3, Impacts to the Bandit Ang
833-41 (Part	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A		Rules governing the take of certain aquarium species on O'ahu were adopted in 2014. The development and adoption of these rules was highly controversial because they were not scientifically sound and did not address the concerns of stakeholders outside the aquarium trade. Over 4,000 testimonies were received by DAR, and 98% of the comments preferred that aquarium collecting should end altogether or in the very least should include limits on the number of permits issued, and scientific and community- based limits on species and take levels. Many comments noted that the so-called "limits" allowed take that far exceeded the number of animals historically taken by the trade, and in fact, allowed limitless catch because they included no restrictions on input (i.e. permit limits), and no meaningful restrictions on output (species or take limits). Among those opposed to the rules was coral reef and marine fisheries biologist, Frazer McGilvray, who was the DAR Administrator at the time. Mr. McGilvray opposed the rules because they were neither based on science, nor were they developed under a multi-stakeholder approach. The written and oral testimony Mr. McGilvray presented to the board governing DLNR included the following: "All stakeholders should be consulted and everyone's opinion should be taken into account. There appears to be no scientific basis for the proposed bag limits for each species. The proposed take limits were akin to setting a speed limit at 400 MPH. These rules do not address the take of undersize, sexually immature fish. The majority of yellow tang allowed to be taken under this rule are immature and have not contributed to the future of the species. These rules, driven by the demands of the trade, are contrary to good natural resource management.	Comment noted.

2.3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. Angelfish are discussed in Section 5.4.1.2.2 of the O'ahu FEA.

Comment No.	Commentor	-	Date Received	Comment	Response
comment No.	commentor	Location	Received		
833-41 (Part	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A		The take of juveniles is generally prohibited in other fisheries, but not by the aquarium trade. The take of adults is allowed, but only where good management practices govern the take in other fisheries, but not by the aquarium trade. The taking of 100 immature yellow tang per person per day is not consistent with good natural resource management when there are more than 50 licensed aquarium collectors on O'ahu. It is my belief that these rules require further work and are not yet ready for adoption." The DLNR submittal to the board conceded that the proposed limits were not intended to reduce take, but were, instead, based on animal welfare. This statement does not stand up to scrutiny since no animal welfare experts or groups familiar with the aquarium trade were consulted, and in fact, the concerns of several of these groups were dismissed outright. Bag limits for certain sizes of three species were also imposed: a minimum and maximum (i.e. slot) limit for yellow tangs and maximum size limits for kole (bag limits of two of each size) and Bandit Angelfishes (bag limit of two). While there has been some discussion was documented for the larger sizes. Finally, because aquarium catch reports do not capture fish sizes, it is impossible to determine or even estimate the impact of a size limit in the aquarium fishery." However, catch reports do show that despite the combined catch, size and vessel limits, yellow tang catch in 2015 and 2016 exceeded historical reported catch. This was due to an unprecedented warm water event that bleached and killed many corals, but also brought large numbers of young fishes to Hawai'i's reefs during 2014 and 2015.	Comment noted.
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A		The O'ahu DEA's discussion of other regulated species describes the Achilles Tang, Bandit Angelfish, and Hawai'ian Cleaner Wrasse as "not collected to the level of the top twenty collected species." However, according to both historical and recent catch data, this is inaccurate. These three species have historically, and recently in one case, been among the top twenty collected species on O'ahu as follows: Achilles Tang was among the top twenty during the five-year period that ended in 1985; Bandit Angelfish was among the top twenty during the five-year period that ended in 1980 and again in 2014, 2015 and 2016; Hawai'ian Cleaner Wrasse among the top twenty during the five-year period that ended in 1980. Bandit Angelfish have been described earlier, and Achilles Tangs are both a culturally important food source and an important herbivore on the reef. The Hawai'ian Cleaner Wrasse plays a particularly critical role in the reef ecosystem by feeding on parasites, dead tissue and mucus of reef and other fishes (see Fig. 21). In 2008 the West Hawai'i aquarium trade included the Hawai'ian Cleaner Wrasse in its list of Species of Special Concern that should not be captured, citing the key role the play in maintaining the "health of the reef population, as the doctors of the sea". Obviously this species plays a similar role on reefs throughout Hawai'i. This is another clear example of how the dictates of the North American aquarium trade are driving extremely poor management decisions. The cumulative impact of long term sustained heavy collecting pressure on these and other species must be assessed.	

e FEA defines the top 20 collected species as the top 20 species collected 700 individuals collected between 2000 and 2017, rather than within any e of the three species mentioned in the comment (Achilles Tang, Bandit an Cleaner Wrasse) met this criteria. However, impacts to these three species tion 4.4.5 and Section 5.4.1.2.2 of the O'ahu FEA.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-43	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to fishes, marine invertebrates such as hermit crabs, Feather Duster Worms, sea stars and snails, are taken in very high numbers by commercial aquarium collectors. These invertebrates play a key role in the coral reef environment, and their overharvesting may have serious ecological consequences. Though they are captured by hand rather than fine mesh nets, and so have not been assessed in this DEA, the very large numbers that are taken and the impact should be assessed.	Impacts to invertebrates a Hawaii, invertebrates are Section 5.4.1.2.2 of the FE
833-44 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Both DEAs are based on the premise that fish collection is considered sustainable if only removes less than 5% to 25% of the entire population (annually), but the reasoning behind this threshold is flawed. The DEAs stated that "research suggests that collection between 5% and 25% of a reef fish population is sustainable for various reef fish species in the Philippines that are similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, and triggerfish)" based on a Reef Check report by Ochavillo and Hodgson (2006). However, the DEAs should not use these thresholds because: These thresholds for sustainable ornamental fish collection are species—specific based on estimated natural mortality rates (M) and fishing mortality at maximum sustainable yield (FMSY) or year-per-recruit analysis. Natural mortality rates for reef fishes are based on growth rates and length and thus are also area-specific. Mortality is based on catch data. Yield-per-recruit analysis should be derived from several annual surveys. Thus, these parameters should be specifically calculated for Hawai'ian reef fish targeted by the aquarium industry as highlighted in Ochavillo & Hodgson (2006); The 5%-25% threshold indicates "a good rule-of-thumb of collection limit" for coral reef fishes in the Philippines. This does not mean it is a good rule of thumb for collecting reef fishes in Hawai'i; Most ornamental fish species in the Ochavillo and Hodgson (2006) are species different from those on the White list.	

es are discussed in Section 5.4.1.2.4 of the O'ahu FEA. On the island of ire only collected in East Hawaii, and those impacts are discussed in e FEA.

using the best available scientific data. Peer reviewers confirm data are

C	Commenter		Date Date	Comment	Response
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	<u>Location</u>	<u>Received</u>	Only a few species share the same genus or species (butterflyfish, a couple of wrasses, one angelfish, a couple of damselfish, one tan and one triggerfish). Thus, it is questionable whether this fairly wide threshold (5%-25%) is representative and applicable to Hawai'ian species; Finally, this report is not peer-reviewed research, it is a field manual: Marine Aquarium Trade for Coral Reef Monitoring Protocol with a Data Analysis and Interpretation Manual. This field manual was designed in part to: "provide a scientific basis for recommending sustainable levels of collection." The DEAs assume that current fish abundance for target species is the baseline, and thus 1% to 5% of individuals remove from the population would be considered sustainable. But this is wrong. The DEAs do not acknowledge that current population abundance of most of these fish species is already depleted due to in part to exploitation and habitat degradation. The total allowable collection/catch for each species must be calculated based on information on natural mortality rates and the available and limited information on collection/catch records, specific to the Islands of Hawai'i and O'ahu.	
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	The Coral Reef Ecosystem Program (CREP) data used in the DEAs for the entire Islands of Hawai'i and O'ahu (based on 2010-2016 surveys) are not representative of regional population abundance such as in East Hawai'i and the West Hawai'i Regional Fishery Management Area (WHRFMA), and should not be used to estimate regional proportions of fish catch. Population abundance estimates for fish species for the entire island of Hawai'i are not representative of regional fish abundances such as East Hawai'i and WHRFMA. The CREP data collect fish data from 257 stationary point count locations around Hawai'i between depths of 0-98 feet. In contrast, the West Hawai'i Aquarium Project (WHAP) collected data from 25 transect survey sites from WHRFMA area between depths of 30-60 feet. It is well established that population abundances of reef fish species in Hawai'i, especially relatively small-size species that are targeted by the aquarium industry, are highly variable in space depending on reef complexity, depth and wave exposure, and in time (within and among years) depending on the season, mortality, recruitment to the population, and environmental factors. The relative proportion abundance of fish species taken annually by the aquarium industry should be based on regional total abundances and regional catch records (e.g., aligned with the aquarium fish trip report zones; or, as in Hawai'i DEA, Table 6). Allowable levels of take should be determined in conjunction with the wishes of Hawai'i residents and visitors who strongly desire that fish populations are restored to their naturally occurring (i.e. unfished) levels of abundance on the majority of Hawai'i reefs.	The FEAs were prepared accurate.

ed using the best available scientific data. Peer reviewers confirm data are ed using the best available scientific data. Peer reviewers confirm data are

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-46	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Hawai'i DEA assumes that current island-wide and regional targeted fish population estimates are healthy and not impacted and this represents a shifting in baselines. Population abundance of most of these fish species has declined over the past decades due to overexploitation and habitat degradation and thus they cannot be considered baselines. Strong scientific evidence shows that coral reefs of the main Hawai'ian Islands, especially near higher human population densities (where exploitation pressure is the highest), have significantly less abundance and biomass of reef fish species than more isolated islands due to overfishing.	The FEAs were prepared u accurate.
833-47	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A	5/8/2018	The allowable number of individuals that could be collected from aquarium fish populations must be substantially less than those stated by the DEA because most of these species are already depleted. Fishing effort has substantially increased for aquarium fish species on the Island of Hawai'i and prime-targeted species have significantly declined due to overharvesting. For example, population abundance of one of the most heavily exploited species, yellow tang (Zebrasoma flavescens), on the west coast of the Big Island of Hawai'i (West Hawai'i) declined 45% due to exploitation in areas open to fishing/collection from 1999 to 2007. Even when including marine managed areas (MMAs) such as fish replenishment areas (FRA), where collection is prohibited and abundances are five times higher than in open areas, the population abundance of yellow tangs on West Hawai'i is substantially less than historical levels. The established networks of MMAs have definitely worked to increase yellow tangs and some other fish species in the West Hawai'i FRAs, but not all species have responded positively, and some have actually decreased overall since the FRAs were established. Given the relative long life-span of yellow tangs (>40 yrs) and increasing fishing intensity, these MMAs are just becoming sources for the aquarium fishing industry. The recovery of this species to past levels is unlikely if fishing/collection intensity continues or increases in the future.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai As summarized in Section exclusively within the Ope also affecting the populati the Hawaii FEA includes m increase in Yellow Tang po 58% increase in Open Area
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for		5/8/2018	As mentioned above, there is no requirement for recreational aquarium collectors to report catch. For commercial collectors, while reports are required, catch report compliance is substantially low on the Islands of Hawai'i and O'ahu and thus catch records grossly underestimate the real impact of the aquarium fishery. The number of permits reporting catch in the islands of Hawai'i and O'ahu was approximately half of the number of commercial aquarium permits issue annually from 2000 to 2017. On average, 47% (40 out 85) of commercial aquarium permit holders reported their catch between 2000 and 2017 in O'ahu. Similarly, on average, 56% (33 out 59) of commercial permit holders in the Island of Hawai'i (WFRFMA and East Hawai'i combined) reported their catch during the past 18 years (see Table 3 in the DEA of Island of Hawai'i). Although commercial aquarium fish catch report, the compliance is clearly significantly low.	Comment noted. As stated 2010 and 2014 Hawai'i Isla underreporting of catch by

using the best available scientific data. Peer reviewers confirm data are

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

on 4.4.7.1 of the Hawaii FEA, only one White List species has declined open Areas, indicating that factors other than aquariupm collecting were lations of any other species which had shown declines. Section 5.4.1.2.1 of s more recent data than that referenced in the comment, which shows an populations between 1999-2000 and 2016-2017 in all areas, including a streas (see Table 9 of the Hawaii FEA).

ted in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the Island aquarium catch report validation did not indicate substantial by aquarium collectors.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-48 (Part	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	This is a systemic problem that undermines the evaluation of the real impact that the aquarium fishery has on target species, the coral reef ecosystem, and the people that depend on them in Hawai'i. As such the impact of the aquarium fishing industry is likely larger than is reported, which has been discussed in the scientific literature. As a former DLNR employee succinctly wrote regarding aquarium catch reports: "The reliability of the data depends upon the sincerity of the permittees." This all stems from the lack of a license requirement for marine dealers and/or exporters. Currently there is a requirement for dealers (i.e. those who buy directly from aquarium collectors) to report their purchases, but without a requirement for these businesses to have licenses, many operate beneath the radar and serve as a conduit for moving unreported catch out of the state. Establishing a marine dealer/exporter license has long been a priority for those within DLNR concerned about Hawai'i's marine resources, because it would enable the department to verify catch reports, identify unlicensed collectors (and all commercial fishers), identify dealers and helped with generating economic data about the fisheries. Without this information DLNR/DAR has no accurate data on health of fish populations. According to a former DAR Commercial Fisheries manager, Karl Brookins, the process of establishing the license was abandoned due to lack of funding.	Comment noted. As state 2010 and 2014 Hawai'i Is underreporting of catch b
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	and the WHRFMA annually from 2005-2017 was 392,006 individuals instead of 355,381 (see Fig. 22). This updated estimate, which accounts for 36,625 more individuals, along with a value representing underreporting, should be used as the reference point for the DEA of Hawai'i to calculate proportion of the population that is being taken by the fishery.	
	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for	N/A		The DEAs fail to incorporate data that is necessary in order to reach a finding of no significant impact. As discussed above, there is no reliable data on how many fish and other species are actually taken pursuant to aquarium permits in any given year. The DEAs repeatedly refer to a lack of data for numerous species. For example: "Because specific species of hermit crabs are not reported on aquarium permits reporting forms, it is not possible to know which species are collected, with the exception of zebra hermit crabs"; "Due to this underestimation, it is not possible to know the exact proportion of Flame Wrasse population that would be collected"; For Psychadelic (Redtail) Wrasse, Tinker's Butterflyfish, Longfin Anthias, Flame Wrasse, Fisher's Angelfish, and Eyestripe Surgeonfish (Palani), open area populations and catch as a percent of the open area populations are not available, because species "occur[] in habitats not adequately surveyed by transects." Furthermore, the Agency must conduct stock assessments of species before it is able to determine a sustainable rate of take. Clearly the Agency has not done so, as DLNR personnel have stated that to do so would take over a decade.	Comment noted. The bes peer reviewers were inclu

ated in Section 4.7.7.1 of the Hawai'i FEA, the DAR conlcuded that the Island aquarium catch report validation did not indicate substantial h by aquarium collectors.

lawaii FEA has been updated to exclude any years without data in the raii data.

7.7.1 of the Hawai'i FEA, the DAR conlcuded that the 2010 and 2014 n catch report validation did not indicate substantial underreporting of ectors.

best availabe scientific information provided by knowledgable experts and Included in both FEAs. The FEAs have been updated to include such data.

•		State/	Date	Comment	Response
Comment No.	Commentor For the Fishes/The Humane	Location	Received		
833-51	Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A		HEPA also requires EAs to consider mitigation measures. Such a discussion is plainly absent from both DEAs.	Comment noted. The FEA measures proposed by co 5.5 in both the Hawai'i an
833-52	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A		PIJAC additionally failed to conduct the required early consultations prior to submitting its DEAs. HEPA requires that the application must "at the earliest practicable time, consult with those citizen groups and individuals which the approving agency reasonably believes to be affected." In this case, it is clear from the long history of litigation that Commenters, at the very least, should have been consulted. PIJAC should also have consulted Native Hawai'ian groups and experts such as Gail Grabowsky. As a result of this failure to abide by HEPA's mandate of early consultation, the DEAs do not analyze all impacts, and are skewed toward a favorable result for industry.	
834-1	Elsa Baxter	N/A		Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The FEA: The FEAs use the best ava are accurate. Section 6.0 contacted, as well as the c response to public comme
834-2	Elsa Baxter	N/A	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Haw during the 12-month analy Hawai'i populations. Colle overall population. The O' during the 12-month analy O'ahu populations. Collect population. This level of ta fish harvest based on avai
834-3	Elsa Baxter	N/A		Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA impact therefore an envir
835-1	Alton Miyasaka	N/A		Approach taken in the DEA for the Island of Oahu has merit and is a simple and logical method to better understand the risk of harm to the resources; regardless of the method chosen, they would all conclude that the current level of collection in this fishery is not posing a risk to the resources.	Comment noted. The FEA The FEAs use the best ava are accurate.
835-2	Alton Miyasaka	N/A	5/8/2018	DAR data collected in 2017 supports that recreational aquarium collectors actually collect only a small fraction of the theoretical maximum of five animals per day (stats given).	Comment noted. The FEA The FEAs use the best ava are accurate.
835-3	Alton Miyasaka	N/A		Disagree that the DEAs should be updated annually, as the State has the authority to regulate individual species, as necessary.	Comment noted. DLNR wi to renewal or issuance of exists warranting reevalua
835-4	Alton Miyasaka	N/A		The impact of the aquarium fishery on the flame wrasse population on Oahu are likely negligible; citations given showing evidence that the majority of the population largely occurs in depths beyond the CREP	Comment noted. The FEA impact. The O'ahu FEA in per day for commercial aq Additional information on O'ahu FEA in Sections 4.4.

EAs have been revised to include an alternative based on conservation comments. A statement regarding mitigation has been added to Section and O'ahu FEA.

above. PIJAC engaged with interested parties prior to publication of the n the Hawai'i and Pahu FEA). The DEAs were widely distributed to a range cation. Public comments on both DEAs were fully considered during the Ns.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data .0 in the FEAs outlines the organizations, agencies, and individuals e distribution of the draft EAs. In addition, the FEAs were updated in ments.

awai'i FEA concludes the the collection of 37 of the 40 White List species halysis period would be less than 1% of their respective overall island of ollection of the remaining three species would be less than 5% of their O'ahu FEA concludes that collection of 18 of the top 20 collected species halysis period would be less than 1% of their respective overall island of ection of the remaining two species would be less than 8% of their overall f take is well below or within what is considered to be sustainable reef vailable research (5% - 25%; Ochavillo and Hodgson 2006).

EA concludes that the Preferred Alternative will not have a significant vironmental impact statement is not required.

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

will reevaluate the analysis contained in the FEA on an annual basis prior of commercial Aquarium Permits and will assess if any new information uation of the analysis presented in the FEA.

EA concludes that the Preferred Alternative will not have a significant includes a new alternative that imposes a bag limit of 10 Flame Wrasse aquarium collectors in O'ahu (see Section 3.3 of the O'ahu FEA). on Flame Wrasse densities at lower water depths has been added to the .4.4.6 and 5.4.1.2.1.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
835-5	Alton Miyasaka	N/A		The impact of the aquarium fishery on the yellow tang population on Oahu are likely negligible; the species has the same fedundity and ability to reproduce at a high rate; continues to be one of the most commonly collected fish species over the history of this fishery of over 40 years.	Comment noted. The FEA impact.
835-6	Alton Miyasaka	N/A		The DEA provides an adequate analysis of the status of the Oahu aquarium fishery. I am unclear what is meant by the term "vulnerable" species as there is no criteria for what constitutes vulnerable, such as vulnerable to what. The same vagueness holds for "replenishment rates." Assuming that replenishment is occurring, whatever that rate is appears to be more than the removal rate, with the net result being a stability in the top 20 species over the history of the fishery. If removal exceeded replenishment, one would logically see a shifting of the species. Replenishment rate may be synonymous with recruit survival, which is highly variable from year to year. Good survival during one year does not necessarily mean good survival the following year. Therefore, knowing a replenishment rate and using this year's replenishment rate as a predictor of next year's rate, and subsequently the harvest, would be risky.	Comment noted. The FEA impact. The best availabl FEAs. Peer reviewers conf
835-7	Alton Miyasaka	N/A	5/8/2018	Regarding the use of the 5-25% range, these numbers are from the Ochavillo and Hogdson 2006, Data Analysis & Interpretation Manual. These numbers were calculated using marine fish species from the Philippines, taking into account, natural mortality rates and a yield-per-recruit model that appears to be a reasonable application of this methodology. Despite the different species and environmental conditions between the Philippines and Hawaii, the utility of the method should still be valid. Hawaii and the Philippines share similar tropical environments and some of the same fish genera. As such, it is difficult to tell if Hawaii species would fall within this same range, but there are enough similarities between the two locations (Hawaii vs Philippines) that the ranges should be comparable.	Comment noted. The FEA The FEAs use the best ava are accurate.
835-8	Alton Miyasaka	N/A	5/8/2018	The differences in the range in the suggested collection levels in the Ochavillo analysis may, in part, be due to the differences in the reproductive potential and new recruit survival of each species. For example, a species that has high fecundity (ability to produce large numbers of eggs) should have the potential to quickly replace individuals lost during any one year with sufficient recruits the following year. Recruit survival is partially affected by the presence/absence of predators and habitat shelter. In all natural ecosystems, some species are common and some are rare. Their abundance is not determined by fishing pressure but by yet unknown environmental influences. Those same dynamics exist in Hawaii, as well as, the Philippines. Rarer species may likely be in the lower end of the range (the 5% side) due to the uncertainty of the species to replace those individuals lost to the fishing mortality within a year time period.	Comment noted. The FE/ The FEAs use the best ava are accurate.
835-9	Alton Miyasaka	N/A		The use of a threshold of 25% as an upper limit of estimated population is therefore reasonable given the analysis focuses on the top 20 species of the fishery. These species are consistently in this top 20 group throughout the span of the fishery, suggesting that despite the numbers taken annually, such take hasn't dropped the species from this grouping. Given that these species are commonly collected because they are abundant, this would argue for the use of the 25% rather than the 5% side of the range.	Comment noted. The FEA The FEAs use the best ava are accurate.

EA concludes that the Preferred Alternative will not have a significant EA concludes that the Preferred Alternative will not have a significant able scientific data concerning species abundance has been included in the onfirm data are accurate. FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
835-10	Alton Miyasaka	N/A	5/8/2018	The DEA provides a reasonable interpretation of the Oahu data. The Oahu aquarium fishery data appears to be derived from the commercial aquarium catch data collected from licensed commercial aquarium collectors and are not from the West Hawaii Aquarium Project data.	Comment noted. The FEA The FEAs use the best ava are accurate.
835-11	Alton Miyasaka	N/A	5/8/2018	The "all or nothing" option presented appears to be the most logical approach. Alternatives such as, sector fishing (issuing only recreational permits), spatial permitting (island permits), ortemporal permitting (collecting every other year), would unnecessarily complicate this fishery. It does not appear that this fishery is at risk so exploring other alternatives seems academic.Specific regulations on yellow tangs on Oahu already exist and other measures are not needed for this fishery.	Comment noted. The FEA
836-1	Alton Miyasaka	N/A	5/8/2018	Approach taken in the DEA for the Island of Hawaii has merit and is a simple and logical method to better understand the risk of harm to the resources; regardless of the method chosen, they would all conclude that the current level of collection in this fishery is not posing a risk to the resources.	Comment noted. The FEA The FEAs use the best ava are accurate.
836-2	Alton Miyasaka	N/A	5/8/2018	DAR data collected in 2017 supports that recreational aquarium collectors actually collect only a small fraction of the theoretical maximum of five animals per day (stats given).	Comment noted. The FEA The FEAs use the best ava are accurate. In addition, of found that recreational ac below the maximum allow
836-3	Alton Miyasaka	N/A	5/8/2018	Disagree that the DEAs should be updated annually, as the State has the authority to regulate individual species, as necessary.	Comment noted. DLNR wi to renewal or issuance of exists warranting reevalua
	Alton Miyasaka	N/A	5/8/2018	The impact of the aquarium fishery on the Achilles tang population on Hawaii Island are likely negligible but are difficult to separate from the food fish take. Of all 40 species, the DEA seems to point out the Achilles tang as perhaps warranting further review. It should be noted that the aquarium collecting of Achilles is likely minor when compared to the overall food fish take of the species. There is typically very little overlap between the species that are taken for food and those taken for the aquarium. The Achilles is one exception.	Comment noted. An addit with Achilles Tang. Specif form 10/day to 5 per day f 5/day bag limt for other fi
836-5	Alton Miyasaka	N/A		The DEA also speculates that the reduced populations of Achilles may be due to a recent period of poor recruitment but did not indicate a cause. Indirect indicators of negligible impacts are the facts that the Achilles tang continues to be one of the most commonly collected fish species over the history of this fishery. The species would not be able to sustain this position for the long time series of the fishery if they were not able to continually supply new individuals each year.	Comment noted. An addit with Achilles Tang. Specif form 10/day to 5 per day f 5/day bag limt for other fi

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

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EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. vailable data regarding species abundance. Peer reviewers confirm data n, data from Harding (2017) has been added to Section 5.4.3.1, which aquarium permit holders collect an average of 45 fish per year, well pwable number of 1,825.

will reevaluate the analysis contained in the FEA on an annual basis prior of commercial Aquarium Permits and will assess if any new information luation of the analysis presented in the FEA.

ditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alternative proposes reducing the Achilles Tang bag limit by for commercial aquarium collection in the WHRFMA and imposing a fisheries in the WHRFMA.

ditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alternative proposes reducing the Achilles Tang bag limit by for commercial aquarium collection in the WHRFMA and imposing a fisheries in the WHRFMA.

Commont No.	Commenter	State/	Date Bossiwod	Comment	Response
Comment No.	Commentor	Location	Received		
836-6	Alton Miyasaka	N/A	5/8/2018	In my opinion, the DEA provides an adequate analysis of the status of the Hawaii Island aquarium fishery. I am unclear what is meant by the term "vulnerable" species as there is no criteria for what constitutes vulnerable, such as vulnerable to what. The same vagueness holds for "replenishment rates." Assuming that replenishment is occurring, whatever that rate is appears to be more than the removal rate, with the net result being a stable 40 white list species. If removal exceeded eplenishment, one would logically see a shifting of the species. Replenishment rate may be synonymous with recruit survival, which is highly variable from year to year. Good survival during one year does not necessarily mean good survival the following year. Therefore, knowing a replenishment rate and using this year's replenishment rate as a predictor of next year's rate, and subsequently the harvest, would be risky.	
			5,0,2010		
836-7	Alton Miyasaka	N/A	5/8/2018	Regarding the use of the 5-25% range, these numbers are from the Ochavillo and Hogdson 2006, Data Analysis & Interpretation Manual. These numbers were calculated using marine fish species from the Philippines, taking into account, natural mortality rates and a yield-per-recruit model that appears to be a reasonable application of this methodology. Despite the different species and environmental conditions between the Philippines and Hawaii, the utility of the method should still be valid. Hawaii and the Philippines share similar tropical environments and some of the same fish genera. As such, it is difficult to tell if Hawaii species would fall within this same range, but there are enough similarities between the two locations (Hawaii vs Philippines) that the ranges should be comparable.	Comment noted. The FEA The FEAs use the best ava are accurate.
836-8	Alton Miyasaka	N/A	5/8/2018	The differences in the range in the suggested collection levels in the Ochavillo analysis may, in part, be due to the differences in the reproductive potential and new recruit survival of each species. For example, a species that has high fecundity (ability to produce large numbers of eggs) should have the potential to quickly replace individuals lost during any one year with sufficient recruits the following year. Recruit survival is affected by many factors, including the presence/absence of predators and habitat shelter. In all natural ecosystems, some species are common and some are rare. Their abundance is not determined by fishing pressure but by yet unknown environmental influences. Those same dynamics exist in Hawaii, as well as, the Philippines. Rarer species may likely be in the lower end of the range (the 5% side) due to the uncertainty of the species to replace 8 those individuals lost to the fishing mortality within a year time period.	Comment noted. As state sustainable reef fish harve Hawai'i FEA concludes the analysis period would be Collection of the remainin O'ahu FEA concludes that analysis period would be Collection of the remainin most take is at the lower
836-9	Alton Miyasaka	N/A		The use of a threshold of 25% as an upper limit of estimated population is therefore reasonable given the analysis focuses on the top 4 species of the Hawaii Island fishery. The top 4 species are consistently in this group throughout the analysis, suggesting that despite the numbers taken annually, such take hasn't dropped the species from this grouping. Given that these species are commonly collected because they are abundant, this would argue for the use of the 25% rather than the 5% side of the range.	Comment noted. The FEA The FEAs use the best ava are accurate.

FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

ated throughout both FEAs, a take of 5% to 25% is considered to be arvest based on available research (Ochavillo and Hodgson 2006). The the the collection of 37 of the 40 White List species during the 12-month be less than 1% of their respective overall island of Hawai'i populations. ning three species would be less than 5% of their overall population. The nat collection of 18 of the top 20 collected species during the 12-month be less than 1% of their respective overall island of O'ahu populations. ning two species would be less than 8% of their overall population. Thus, er end of the range (the 5% side) or less.

FEAs conclude no significant impact from commercial aquarium collection. available data regarding species abundance. Peer reviewers confirm data

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
836-10	Alton Miyasaka	N/A		The DEA provides a reasonable interpretation of the Hawaii Island data. The approach taken in the Hawaii DEA is the same as the Oahu DEA. There is a slight difference for the Hawaii DEA in that the WHAP data is also available so the side-by-side analysis is informative. It appears that the use of the CREP data as a more robust data source to base this analysis, compared to the WHAP data, is valid. For the reasons explained in the DEA, the CREP data is statistically more robust for an island-wide population estimate, compared to the WHAP data, so I would agree with this logic.	Comment noted. The FEA The FEAs use the best ava are accurate.
836-11	Alton Miyasaka	N/A		The "all or nothing" options presented appear to be the most logical approach. Alternatives such as, sector fishing (issuing only recreational permits), spatial permitting (island permits), or temporal permitting (collecting every other year), would unnecessarily complicate this fishery. It does not appear that this fishery is at risk so exploring other alternatives seems academic. There is no evidence that intermediate measures are needed for this fishery.	Comment noted. The FEA The FEAs use the best ava are accurate.
836-12	Alton Miyasaka	N/A	5/8/2018	As the catch of the non-commercial food fishery for the Achilles tang is thought to be substantial, should any measures be implemented to regulate their catch, such measure should apply to all fishers rather than only the aquarium collector. Also, because the aquarium collectors target the smaller animals and the food fishers target the larger animals, if the concern is recruitment overfishing, then specific regulations protecting the larger animals would be advised.	Comment noted. An add with Achilles Tang. Specif from 10/day to 5 per day 5/day bag limt for other f

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

EAs conclude no significant impact from commercial aquarium collection. wailable data regarding species abundance. Peer reviewers confirm data

dditional alternative was added in the Hawai'i FEA that addresses concerns cifically, the alterantive proposes reducing the Achilles Tang bag limit ay for commercial aquarium collection in the WHRFMA and imposing a r fisheries in the WHRFMA.



DEA Transmittal Emails and Letter

Pursuant to the Hawai'i Environmental Protection Act, attached is a Draft Environmental Assessment (DEA) for the Issuance of Commercial Aquarium Fishery Permits for the Island of Hawai'i. This document has been submitted to the Hawai'i Office of Environmental Quality Control (OEQC) for publication on or about April 8, 2018. There will be a 30-day public comment period on the DEA. Please refer to the OEQC website for more information and to provide comments on the document.

Jim Lynch On Behalf of PIJAC 206.370.6587



April 6, 2018

James M. Lynch jim.lynch@klgates.com

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By FedEx

Hawaii Documents Center- Hawaii & Pacific Section Hawaii State Library 478 South King St. Honolulu, HI 96813

Re: Draft Environmental Assessment Documents - Publication date April 8, 2018 - 30-day public comment period

Enclosed please find copies of the following documents, which we are providing to you for the publication date of April 8, 2018 for a 30-day public comment period.

- 1. March 13, 2018 Draft Environmental Assessment Issuance of Commercial Aquarium Permits for the Island of Hawaii. Applicant: Pet Industry Joint Advisory Council (PIJAC)
- State of Hawaii, March 27, 2018, DLNR transmittal letter no significant impact (DEA-AFONSI) for the Commercial Aquarium Fishery in the Puna, South Hilo, North Hilo, Ka'ū, Hāmākua, South Kona, North Kona, South Kohala, and North Kohala Judicial Districts on the island of Hawai'l for publication in next available edition of the Environmental Notice
- 3. March 13, 2018 Draft Environmental Assessment Issuance of Commercial Aquarium Permits for the Island of O'ahu. Applicant: Pet Industry Joint Advisory Council (PIJAC)
- 4. State of Hawaii, March 27, 2018, DLNR transmittal letter no significant impact (DEA-AFONSI) for the Commercial Aquarium Fishery in the Honolulu, Ewa, Wai'anae, Waialua, Ko'olauloa, and Ko'olaupoko Judicial Districts on the Island of O'ahu for publication in next available edition of the Environmental Notice

Very truly yours,

James M. Lynch

Enclosures

Cc: Department of Education, Hawaii State Library, Hilo Regional Library Department of Education, Hawaii State Library, Pearl City Regional Library



Applicant Response to DLNR Comment Request

DLNR Request for Public Comment on Hawai'i EA

Specific requests for comment included in the DNLR letter are provided below in **bold** along with a response.

The effects of the Commercial Aquarium Fishery on Achilles Tang (Acanthurus achilles), and its sustainability given its life history characteristics, current population trends, and harvest by other fisheries.

The DEA concludes that based on CREP population estimates, an annual commercial aquarium fish collection over a 12-month period would result in the collection of 1.28% to 5.44% of the overall island of Hawai'i Achilles Tang population. As stated in the DEA, research (Ochavillo and Hodgson 2006) suggests collection of between 5%-25% is sustainable for various reef species similar to those found in Hawai'i (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). However, given that a bag limit of 10 Achilles Tang per day was imposed in 2014, the more likely scenario is that collection over the 12-month period would average 5,600 Achilles Tang (the average amount collected since the bag limit was imposed), which represents 2.4% of the overall Hawai'i population.

While the DAR has suggested decreasing population trends for the Achilles Tang, at the same time, WHAP data have estimated that the Achilles Tang population has increased by 11,506 animals since 2014 (when the bag limit of 10 fish per day was imposed) in the 30-60 ft range within the WHRFMA. The DEA demonstrates that the WHAP surveys are not located in prime Achilles Tang habitat, do not survey in areas of Hawai'i where large portions of the Achilles Tang population (43%) occur, and do not survey where the majority of the Achilles Tang collection (56%) occurs. Therefore, the CREP data are considered to be a better estimator of island-wide Achilles Tang population size and are the best available data for evaluating impacts of aquarium collection.

Harvest by other fisheries (i.e., recreational aquarium permits, recreational fishers, commercial fishers) is not subject to the bag limit of 10 Achilles Tang per day, and not all fisheries are required to report catch to the DLNR. In terms of reef fish biomass caught by the different fisheries in the WHRFMA, the DAR in 2014 concluded that more biomass is taken by the combined recreational and commercial fisheries than the commercial aquarium fishery. In addition, unlike the aquarium fishery which targets mostly immature fish, the commercial and recreational fisheries selectively target the larger breeding portion of the population which has profound implications for the sustainable usage of the resource. These data indicate that the other commercial (nonaquarium) and recreational fisheries are likely having a far larger impact on the sustainability of Achilles Tang because they generally target the breeding stock (large fish). These impacts cannot be quantified because the other fisheries are not required to report in the same manner as aquarium fishers (e.g., recreational fishers and recreational aquarium collectors are not required to report at all).

The adequacy of the analysis presented in this DEA, including but not limited to removal and replenishment rates for vulnerable species; specifically, how is the estimated sustainable range of 5% to 25% annual take of the estimated total population arrived at, and should the threshold be 5% or 25%.

Most reef species are long-lived and highly productive, and due to the combination of a high fecundity (e.g., an average Yellow Tang female can produce 1,055,628 eggs each year) and long life-span (e.g., Yellow Tang may live up to 40 years), reef fish can likely sustain fairly high levels of continuous harvest. The estimated sustainable range for annual take presented in the DEA (5%-25%) is taken from published literature (Ochavillo and Hodgson 2006), which suggests collection of between 5% and 25% is sustainable for various reef species in the Philippines that are similar to those collected in Hawai'i (e.g.,

tang, wrasse, butterflyfish, angelfish, triggerfish). We are not aware of other published literature that provides other sustainable collection estimates for aquarium fish. Nevertheless, if the average catch (based on the past 18 years of data) were to occur over the 12-month analysis period, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population.

The interpretation of data presented in this DEA, including the analysis of NOAA NMFS Coral Reef Ecosystem Project (CREP) data versus DLNR Division of Aquatic Resources West Hawai'i Aquarium Project (WHAP) data.

CREP staff was consulted during preparation of the DEA on the use and interpretation of the CREP data. CREP staff reviewed the DEA and indicated that interpretation of the data as presented in the DEA is correct. As stated in the DEA, both the WHAP and CREP collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey (e.g., depth range), and for analysis of the impact of fish collection under Aquarium Permits. Both data sets are presented and analyzed in the DEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP (257 stationary point count locations located around the island of Hawai'i, with the exception of collection zone 107, from depths of 0-98 feet vs 25 transect survey sites located only within the WHRFMA between depths of 30-60 feet for WHAP), CREP data are considered to be a better estimator of island-wide fish population size, are the best available data, and therefore are appropriate for the analysis.

Conservation measures to minimize or avoid impacts to target species, and specifically, whether other alternatives might be proposed to minimize or avoid impacts other than the two presented of no action, with no aquarium permits issued, and the preferred alternative of programmatic issuance of aquarium permits for the Island of Hawai'i - such as consideration of specific management measures for Achilles tang and other species.

Please refer to the comment letter from dated April 26, 2018, from the Big Island Aquarium Association of Fishers for specific conservation measures for the Island of Hawai'i.

From:	VanDeWalle, Terry
To:	VanDeWalle, Terry
Subject:	FW: Comments on Aquarium fishing Environmental Assessment
Date:	Monday, May 14, 2018 7:16:57 PM

-----Original Message-----From: Richard Pyle [<u>mailto:pylediver@gmail.com</u>] On Behalf Of Richard Pyle Sent: Wednesday, May 02, 2018 12:20 PM To: Lynch, James M. Subject: RE: Comments on Aquarium fishing Environmental Assessment

Hi Jim,

Thanks again for sharing the draft responses to DLNR comments on the aquarium fish EA.

Overall, I think your responses are excellent, and correct with respect to the existing available scientific evidence (as well as consistent with my own personal observations, when applicable).

I hope these are useful, and please don't hesitate to let me know if you would like me to elaborate on anything.

Aloha, Rich