

From: rtubbs@hawaii.rr.com
To: [DLNR.BLNR.Testimony](#)
Subject: [EXTERNAL] Testimony In support of M. 9.
Date: Monday, February 6, 2023 9:29:58 AM

Testimony in Support M. 9.

Revocable Permit for Warehouse Space to a Licensed Live Tropical Fish Import/Export Business and a Wholesale Made-In-Hawaii Products Distribution Business, Hawaiian Sealife, Inc., Daniel K. Inouye International Airport, Tax May Key: (1) 1-1-004: 021 (Portion).

Oral Testimony via Zoom Requested.

Aloha Land Board Members,

Ron Tubbs B.S.N.D. UHM Aquaculture Fisheries Researcher

I have no business with Hawaiian Sealife Or Made in Hawaii Products but you should know that **selling aquarium fish is legal in Hawaii if you are reselling legally imported fish or selling Hawaii tank raised fish**. The aquarium fishery does not condone any illegal fishing and has turned in marine law violators.

The opposition lies about this and when we fulfilled a special activity permit in West Hawaii a few months back for ornamental aquaculture under State of Hawaii DAR enforcement observations we received lots of harassment for our legal aquarium fish permit collection.

Those in opposition need to be called out for their misinformation and forceful objections. They oppose aquarium fish due to the fact they own or work for Ocean businesses that make money off shutting aquarium fish down. You must pay them to see the pretty fish and they make million on the fish with their tours.

They say it is ok to kill fish, but god forbid you keep one alive and lovingly Healthy. The fishery opposers are immoral and in humane in their mistreatment of aquarium fishers. They have called aquarium fishers worse than "child molesters". Snorkel Bob has published anti aquarium books with this quote! This is clearly slander! They are just zealots that rely on made up facts for their fallacies. Their lawsuits and biased testimony have led to tens of

millions of dollars in costs to the state of Hawaii and put all BLNR and DLNR permits at risk of HEPA lawsuits based not in fact, but fiction created by them.

The truth about the Hawaii Aquarium Fishery **from the World's leading unbiased marine scientists:**

My Turn: We expect better

By William Walsh Ph.D., Ivor Williams Ph.D., Brian Tissot Ph.D.; Leon Hallacher Ph.D.; Bruce Carlson Ph.D.; Charles Birkeland Ph.D.; Jeremy Claisse Ph.D.; Mark Christie Ph.D.; Richard Pyle Ph.D.; Leighton Taylor Ph.D.; Randy Kosaki Ph.D.; Cynthia Hunter Ph.D.; Brian Bowen Ph.D.; Brian Zgliczynski Ph.D.; Jeff Ebel Ph.D.; Alan Friedlander Ph.D.; Kosta Stamoulis Ph.D.; Delisse Ortiz Ph.D.; Jan Dierking Ph.D.; Rob Toonen Ph.D.; and Jim Beets Ph.D. My Turn | Thursday, June 25, 2020, 12:05 a.m.

Last month, the Board of Land and Natural Resources (BLNR) unanimously rejected the Final Environmental Impact Statement (FEIS) on aquarium collecting in West Hawaii. What is particularly distressing and demoralizing about the BLNR decision was that it clearly was not based on the best available science and relevant monitoring data. Other than a single preliminary question, neither the chairperson nor board members asked any questions or solicited any input from the four Division of Aquatic Resources (DAR) staff members, including three aquatic biologists, who attended the meeting. The DAR staff certainly could have provided science-based information and background on the issues being discussed and used as rationale for the FEIS denial. (the West Hawaii Fishery has since then passed their HEPA).

14. The Hawai'i Department of Land and Natural Resources (DLNR) pursuant to State law, submits a report every five years to the legislature entitled "Relating to the West Hawaii Regional Fishery Management Area." The 2015 and 2020 Report found that the "The Hawaii marine aquarium fishery is currently the most economically valuable commercial inshore fishery in the State with FY 2014 reported landings greater than \$2.3 million." 15. This actually understates the overall economic impact of the aquarium trade, as it includes only the sales of the fish themselves. It does not account for the sales of boats, equipment, fuel, packaging or the related services such as repairs cargo handling, inspectors, or shipping associated with aquarium fish collection.

Misinformation about the Environmental Impact of Aquarium Fish Collection

16. There is a great deal of public misinformation about the effects of the aquarium fishery in Hawai'i. In support of and as part of the public record of the Governor's veto this summer of SB 1240, twelve PhD fisheries scientists signed the letter attached as Exhibit 1 to my declaration. Rather than rely on anecdotal reports of citizens who feel like fish populations have declined, they cited to peer-reviewed scientific reports demonstrating:

- Data collected from 1999 to date from over 6,700 underwater surveys show that populations of the most heavily collected aquarium fish species (yellow tang and DECLARATION OF MICHAEL F. BOBER IN SUPPORT OF INTERVENTION-5 kole) are increasing, not declining. This clearly indicates that the fishery is sustainable;
 - Adult populations of these species are *no different* in fished areas than they are in reserve areas (adult fish are not collected). Adult female yellow tang produce up to 20,000 eggs in each of multiple spawning events during the year, ensuring a sustainable fishery. Yearly one pair produces 1.14 million fry.
 - The data and scientific reports show so no significant differences in the health of the coral systems in collection areas as opposed to the system of protected Fish Replenishment Areas where no collection is allowed.
17. The signatories to this letter are some of the most respected fisheries scientists in Hawai'i and on the mainland. They are:
- Brian Bowen, Ph.D., Research Professor, Hawai'i Institute of Marine Biology, U.H.
 - Bruce Carlson, Ph.D., former Director, Waikiki Aquarium (retired)
 - Michael Domeier, Ph.D., Director, Marine Conservation Science Institute (Kona)
 - Cynthia Hunter, Ph.D., Director, Marine Option Program & Assoc. Prof., Dept. of Biology, U.H.
 - Randall Kosaki, Ph.D., Hawai'i Coral Reef Biologist
 - Richard Pyle, Ph.D. Associate Zoologist, Bernice P. Bishop Museum
 - John E. Randall, Ph.D., Senior Ichthyologist, Bernice P. Bishop Museum (retired)
 - Andrew Rossiter, Ph.D., Director, Waikiki Aquarium, U.H.
 - Andrew Rhyne, Ph.D., Assoc. Professor, Roger Williams University

· Leighton Taylor, Ph.D., former Director, Waikiki Aquarium (retired)

DECLARATION OF MICHAEL F. BOBER

IN SUPPORT OF INTERVENTION- 6

· Brian Tissot, Ph.D., Director & Professor, Marine Biology Laboratory,
Humboldt
State University

· Rob Toonen, Ph.D., Professor, Hawai'i Institute of Marine Biology, U.H.

The Potential For Irreparable Harm to Fishers and the Fishing Industry 18. PIJAC and its members would be greatly harmed by injunctive relief that prevented them from fishing pending the environmental review the Supreme Court ordered in this case. Any harm would be unwarranted given the environmental review will confirm what the science shows: This fishery is sustainable and should be continued. PIJAC and its members should be heard and allowed to participate in this case as this Court fashions the temporary remedy the Supreme Court has ordered and further until the conclusion of the case. I declare under penalty of perjury under the laws of the State of Hawai'i that the foregoing is true and correct.

DATED this 12th day of September, 2017 at Alexandria, Virginia.

Michael F. Bober

EXHIBIT 1

FOR IMMEDIATE RELEASE - JUNE 28, 2017

The Aquarium Fishery, especially in West Hawai'i, is an example of community involvement working with government to create a fishery management system that is a model for other fisheries. Regretfully, this opportunity to engage other fisheries in Hawai'i could be jeopardized if HB505 is signed into law, as it will effectively end commercial aquarium fish collecting in Hawai'i. This issue of aquarium fishing was largely resolved through the passage of Act 306 in 1998. Following this legislative mandate, concerned members of the West Hawai'i community, fishermen, and DLNR biologists worked together to create a network of protected areas on the Kona coast, along with monitoring and management protocols. These agreements, rules, and regulations operated well until recently, when individuals and groups not involved in the yearslong partnerships began a campaign to reignite this issue.

We are concerned with **the level of false information and lack of data these individuals have used to support their assertions**, and the **havoc they have created over a well-managed fishery** that has benefited from the aforementioned good-will partnerships. It is not possible to provide a detailed analysis of all the scientific methods, data, and conclusions available on this issue in this brief letter, but these peer-reviewed findings have been independently checked by researchers at multiple Universities across the country and have subsequently been supported by additional independent surveys performed by the Coral Reef Ecosystem Division of the federal National Oceanic and Atmospheric Administration (NOAA).

Here are several key aspects of the fishery summarized from research papers listed at the end of this letter:

1. The dataset collected by the Hawai'i Department of Aquatic Resources (DLNR) is remarkable for the time-span that it covers (1999 - present), and the resources required to conduct over 6,700 underwater surveys. These data clearly show the populations of yellow tang and kole (the two most heavily collected species) are not declining, and in recent years have increased. This is a clear indication that collecting is sustainable at the current level of fishing and in the present environmental conditions.
2. These data also show no significant differences in the adult population of yellow tang in fished areas versus closed areas. This is important because these large individuals represent the broodstock. Adult fish are not valued in the aquarium trade and are not collected. As of 2015, the total population of yellow tang on the Kona coast increased by 64.5% and is estimated to number 3.6 million fish, while the adult population is estimated to be greater than 2.5 million fish. Each female yellow tang can produce up to 20,000+ eggs per spawning event, and spawning occurs multiple times throughout the year. The large population of adults, coupled with their prodigious reproductive output is one important biological factor that makes this fishery possible.
3. Proponents of aquarium fishery closure claim that because the fish species collected are herbivores, removal of these fishes will cause environmental harm. This is a reasonable hypothesis, but it is not a conclusion supported by current evidence. Drs. Tissot and Hallacher (2003) set out to test this

hypothesis by comparing protected reefs with nearby fished reefs.

They concluded:

There were no significant differences in damaged coral between control and collected sites to indicate the presence of destructive fishing practices. In addition, there were no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting. DLNR has more recent data showing no significant differences in herbivore biomass or macroalgal cover between Fish Replenishment Areas and open areas.

The DLNR Report on the Findings and Recommendations of Effectiveness of the West Hawai'i Regional Fishery Management Area states:

- *The Hawai'i marine aquarium fishery is currently the most economically valuable commercial inshore fishery in the State with FY 2014 reported landings greater than \$2.3 million.*
- *Biological and fishery results to date indicate the FRAs (fish replenishment areas) are clearly working and are expected to increase in importance as time progresses*
- *The effectiveness of the West Hawai'i FRAs for aquarium fish suggests it would be prudent to establish MPAs (marine protected areas) for other resource species throughout Hawai'i as a precautionary measure against overfishing and for restoration of marine resources. Currently, less than 1% of the Main Hawaiian Islands is fully protected by MPAs.*

Tourist conflict jeopardizes the livelihoods of many local fishermen across the State, and it could ultimately be counter-productive for the conservation of other Hawai'i fisheries if this well managed fishery is regulated out of existence. We urge policymakers to carefully evaluate arguments and testimonies on the basis of verifiable data, as well as consideration of the impact on jobs and the economy. Based on the best science and data available, we ask that you support the aquarium fishery in West Hawaii.

Mahalo,

Brian Bowen, Ph.D., Research Professor, Hawaii Institute of Marine Biology,
U.H.

Bruce Carlson, Ph.D., former Director, Waikiki Aquarium (retired)

Michael Domeier, Ph.D., Director, Marine Conservation Science Institute
(Kona)

Hunter, Cynthia, Ph.D., Director, Marine Option Program & Assoc. Prof., Dept.
of Biology, U.H.

Randall Kosaki, Ph.D., Hawai'i Coral Reef Biologist

Richard Pyle, Ph.D. Associate Zoologist, Bernice P. Bishop Museum

John E. Randall, Ph.D., Senior Ichthyologist, Bernice P. Bishop Museum
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Brian Tissot, Ph.D., Director & Professor, Marine Biology Laboratory, Humboldt
State University

Rob Toonen, Ph.D., Professor, Hawai'i Institute of Marine Biology, U.H.

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