2023 Annual Report



Hawai'i Fisheries Extension Program

Prepared by Alex Filardo

Overview of Position

The Hawai'i Fisheries Extension Agent (HFEA), Alex Filardo, acts as a liaison between the fishing community and scientists and resource managers. The HFEA is a source of accurate and neutral information regarding local fisheries science and management while building and fostering positive relationships with individuals and key stakeholders in the fishing community. One of the primary goals is to promote pono (responsible) fishing practices and help explain the importance of coral reef resource conservation.

The HFEA is critical for advancing fishery management actions to protect coral reefs and coral reef resources. It has been shown that communicating in small groups or in one-on-one interactions is more effective with the fishing community than large, formal meetings. The HFEA conducts various projects that engage the fishing community in different aspects of outreach and education.

The HFEA is responsible for hosting regular Scientist and Fishermen Exchange (S.A.F.E.) meetings, attending fishing club meetings and tournaments, serving as a member for fisheries and education related groups, developing and assisting with fisheries related projects, and assisting with projects to mitigate interactions with protected species.

The HFEA works directly with NOAA Fisheries, Hawai'i's Department of Land and Natural Resources Division of Aquatic Resources (DAR), University of Hawai'i, Hawai'i Pacific University, and other governmental, non-governmental, and private organizations.

The Hawai'i Fisheries Extension Program (HFEP) is housed in the National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO) Habitat Conservation Division (HCD) and is funded by the National Oceanic and Atmospheric Administration (NOAA) Coral Reef Conservation Program (CRCP). In fiscal year 2023 (FY 23), the HFEA's activities helped advance the NOAA CRCP Strategic Plan goals, objectives, and targets for the Fisheries (F) Pillar. These targets are identified throughout this report.

Find the full HFEA activity log here.

Outreach Activities



Ohana Shoreline Fishing Tournament

FISHING TOURNAMENTS

- Attended 8 fishing tournaments in FY 23
- Interacted with ~1,233 anglers
- Shared information, educational resources, tournament prizes (via Barbless Circle Hook (BCH) Project), learning opportunities, etc.
- Conducted tournament outreach on Oahu, Hawai'i Island, and Kauai



Hawai'i Conservation Conference

COMMUNITY EVENTS

- Attended 11 community outreach events partnering with NOAA Fisheries Communication Team, Hawai'i Department of Land and Natural Resources Division of Aquatic Resources (DAR), and other non-governmental organizations
- Interacted with ~1,737 individuals
- Promoted NOAA Fisheries, pono/responsible fishing practices, and ocean stewardship



SCIENTIST AND FISHER EXCHANGE (S.A.F.E.)

- Hosted three S.A.F.E. Meetings in FY 23
- Topics included: The Science Behind Marine Managed Areas, Fisheries Management Techniques, and Water Quality and the Marine Ecosystem
- Lively discussions allowed insights to be shared among anglers, scientists, and resource managers
- Approximately 79 people participated



Angler Engagement

Tournaments

Fishing tournaments and other fishing events such as fishing club meetings, fishing conferences, and fishing gear expos are a great way to interact with a large number of anglers in a short period of time. Alex attended eight fishing tournaments and one fishing expo in FY 23 and interacted with over 1,200 anglers. Outreach at fishing tournaments were often in collaboration with other divisions within NOAA Fisheries and DAR.

Outreach at these events included promoting pono/responsible fishing practices, use of barbless circle hooks, explanation of the role of NOAA Fisheries in fisheries management, as well as advertising local fisheries projects such as the NOAA Fisheries Mahi Mahi Diet Study and the Center for Marine Debris Research Derelict Fishing Gear Bounty.

CRCP Target F1.4: By 2026, 50 percent of Coral Program fisheries research projects include engagement, participation, and cooperation with local stakeholders in development and implementation.

Public Outreach

During FY 23, the HFEA, Alex Filardo, often received input from the fishing and ocean-user community that there is not enough enforcement and public education on the beach and at popular fishing spots. While the HFEA is not responsible for fishing regulation enforcement, Alex does provide targeted education and outreach to the fishing community. This is most frequently done at popular shore fishing locations or at harbors as boats come in from fishing.

Alex interacted with approximately 1,038 individuals on 75 occasions. Conversations are typically started by offering some type of outreach material such as a DAR regulation booklet, Hawai'i Fish Measurement Guide, or some type of decal. From there conversations build depending on the angler's interests or type of fishing they are doing. On many occasions, the angler would recognize or remember Alex from past conversations and ask for updates on things talked about in the past or follow up questions based on previous conversations.

CRCP Target F1.4: By 2026, 50 percent of Coral Program fisheries research projects include engagement, participation, and cooperation with local stakeholders in development and implementation.



Scientist and Fishermen Exchange (S.A.F.E)

Scientist and Fishermen Exchange (S.A.F.E.) meetings provide opportunities for regular discussion and exchange of accurate information among scientists, resource managers, and the fishing community. These meetings are designed to increase awareness and knowledge of nearshore fisheries and create opportunities for collaboration and increased communication.

The Science Behind Marine Management Areas | November 2022

• 30 anglers, scientists, and marine managers engaged in discussion around the goal of marine management areas, type of marine management areas, and other factors that may play a role such as tourism, land based sources of pollution, and artificial reefs.

CRCP Target F1.2: By 2024, 75 percent of key MPAs have baseline and performance assessments completed. CRCP Target F1.5: By 2026, 75 percent of key MPAs have various tools and products developed from biological and socioeconomic assessments and disseminated to relevant stakeholders.

The Effectiveness of Fishery Management Techniques | March 2023

• 22 participants discussed the advantages and disadvantages of different fisheries management techniques.

CRCP Target F2.2: By 2026, 50 percent of domestic and/or foreign partner agencies have adopted or implemented a new or improved approach to strengthen enforcement and compliance.

CRCP Target R1.2: By 2024, algal cover is reduced and maintained at predetermined levels at key reef sites.

Water Quality and How it Affects the Marine Environment | June 2023

• 27 participants discussed the current water quality monitoring efforts and how the fishing community can help increase understanding of water conditions

CRCP Target F2.3/F1.6: By 2029, Coral Reef Conservation Program data and technical assistance have informed regulations relevant to key coral reef fisheries taxa in 100 percent of jurisdictions and councils.

CRCP Target L1.1: By 2024, 100 percent of the key watersheds have watershed management plans that address EPA's A-I criteria.

CRCP Target L1 Watershed Management Plan & L2 Sustaining watershed Management Capacity





Community Outreach Events

In addition to angler specific outreach, the HFEA is responsible for educating and promoting sustainable fishing practices to the future generation of anglers. These community outreach events may include hosting a booth at an ocean related event or teaching in a classroom setting. In total, Alex attended 10 community outreach events and interacted with over 1,700 people.

At these events, Alex often informed the public about the responsibilities of NOAA Fisheries, fish life history, why we must manage our fisheries, the importance of biodiversity in the ocean, and how to fish sustainably.

Community Outreach Events:

- City and County of Honolulu Seafood Month
- Kalihi YMCA Sea Food Month
- Kalihi YMCA Spring Break
- Hoakea at Pokai Bay
- Pilina Kanaloia Ocean Day
- Bishop Museum Science and Sustainability Festival
- Nanakuli Intermediate and High School Makai Education Field Trip
- Waimanalo Summer Fun
- Hawai'i Conservation Conference
- Conservation International Ocean Festival



Community Outreach Event



Hawai'i Conservation Conference



Community Outreach Event



| Highlighted | Projects

Barbless Circle Hook Project

The Barbless Circle Hook Project is a collaboration between NOAA Fisheries and DAR to promote the use of barbless circle hooks in order to minimize fishing's impact to the nearshore resources and protected species. As part of this collaboration, Alex hosted, attended, and assisted with Barbless Circle Hook Project events; created barbless circle hook education and outreach materials including decals, flyers, signs, and magazine articles; and distributed free barbless circle hooks throughout the state.

CRCP Target F1.4: By 2026, 50 percent of Coral Program fisheries research projects include engagement, participation, and cooperation with local stakeholders in development and implementation.

PIFSC Mahi Mahi Diet Study

The Pacific Islands Fisheries Science Center (PIFSC) Mahi Mahi Diet Study relies on stomach samples donated by the fishing community. In FY 23, Alex collected approximately 100 stomach samples distributed throughout Oahu. This year, the project added a Stomach Collection Punch Card Program where anglers can earn a gift card to a local fishing supply store in return for a certain number of stomachs donated. This program increased angler interest and participation and allowed the study to maintain scientifically significant sample sizes. This project allowed Alex to connect with a new demographic of the fishing community to answer their questions and hear their concerns regarding resource management.

CRCP Target F1.4: By 2026, 50 percent of Coral Program fisheries research projects include engagement, participation, and cooperation with local stakeholders in development and implementation.



Mahi Mahi Diet Study Infographic



Barbless Circle Hook Project Weigh-In



Mahi Mahi Diet Study Infographic



| Highlighted | Projects

Educational Development

In FY 23, Alex developed and assisted with various education and outreach materials, articles, and guidance documents for fisheries related issues.

In terms of education and outreach materials, Alex produced and distributed classroom board games and worksheets for students to learn about local Hawai'i fish and the importance of fisheries management. In addition, Alex worked with the NOAA Fisheries PIRO Communications Team to develop a landing page on the NOAA Fisheries website along with educational decals for the fishing community. These decals have a QR code that goes to the corresponding landing page which provides resources for the fishing community.

Alex worked with DAR and PIFSC staff to produce fishing magazine articles that promoted the Barbless Circle Hook Project and the PIFSC Mahi Mahi Diet Study. These articles were used to promote these projects and increase angler participation.

During the legislative session, Alex developed a legislative tracking sheet that focused on marine issues and allowed members of the fishing community to track and support legislation they supported. As a source of neutral information, Alex never lobbied for any specific legislature, however providing the information was helpful for members of the community as they took part in the legislative process.







Educational Decals

Legislative Tracking Sheet



HFEA Year End Review

After the first full year as the HFEA, Alex significantly improved the relationships and increased the number of interactions with the fishing community. Throughout FY 23, Alex interacted with over 4,000 individuals, which included anglers, students, tourists, and other members of the community. The HFEA serves as a bridge between the fishing community and the scientist and resource managers of NOAA Fisheries and DAR.

Alex supported a number of fisheries related projects, some of which were highlighted in this annual report. The HFEA focuses on advancing the CRCP Strategic Plan.



Future Goals

While Alex was able to connect and interact with a large number of anglers, students, and community members, there is always room for improvement. Over the next year, Alex will focus efforts on:

- Updating the Hawai'i Fish Measurement Guide
- Developing a fishing ruler decal
- Increasing outreach supporting the reduction of fishing related marine debris
- Increasing participation of fishing with Barbless Circle Hooks
- Conducting outreach on Kauai
- Assisting DAR with communicating accurate and neutral information around Holomua
- Developing further education and outreach materials including interactive games and activities
- Coordinating with DAR and other partners to avoid duplicate efforts
- Create a bridge between fishing, coral reef resources, and climate change



Mahi Mahi



Fishing Tournament Outreach



Fishing Tournament Outreach



Barbed and Barbless Hooks