

CONSERVATION INTERNATIONAL HAWAII

IMPACT REPORT

2018



HO'I I KE KAI MOMONA

Conservation International works to return Hawai'i's ocean to abundance, ensuring that a healthy environment will continue to benefit Hawai'i, now and into the future.

CONSERVATION
INTERNATIONAL



Hawai'i



The future of Hawai'i's oceans
relies on our ability to make swift
management decisions informed by both
contemporary science and Native Hawaiian
knowledge.

**We must work together to care for the
ocean that benefits us all.**

CI Hawai'i in 2018:

In 2018, we worked to strengthen our historic initiatives
and launched some new exciting programs.

We continued to:

- assist communities to achieve their resource management goals.
- work with a wide range of partners to address tough management issues.
- and deepen the understanding of fisheries in Hawai'i.

We also launched 5 innovative pilot programs to:

- perpetuate cultural practices.
- bridge the gap between cultural knowledge and contemporary management.
- and better prepare future decision makers for the challenges that lay ahead.

TRACKING OCEAN HEALTH

CREATING A 'FITBIT' FOR OCEAN SUSTAINABILITY

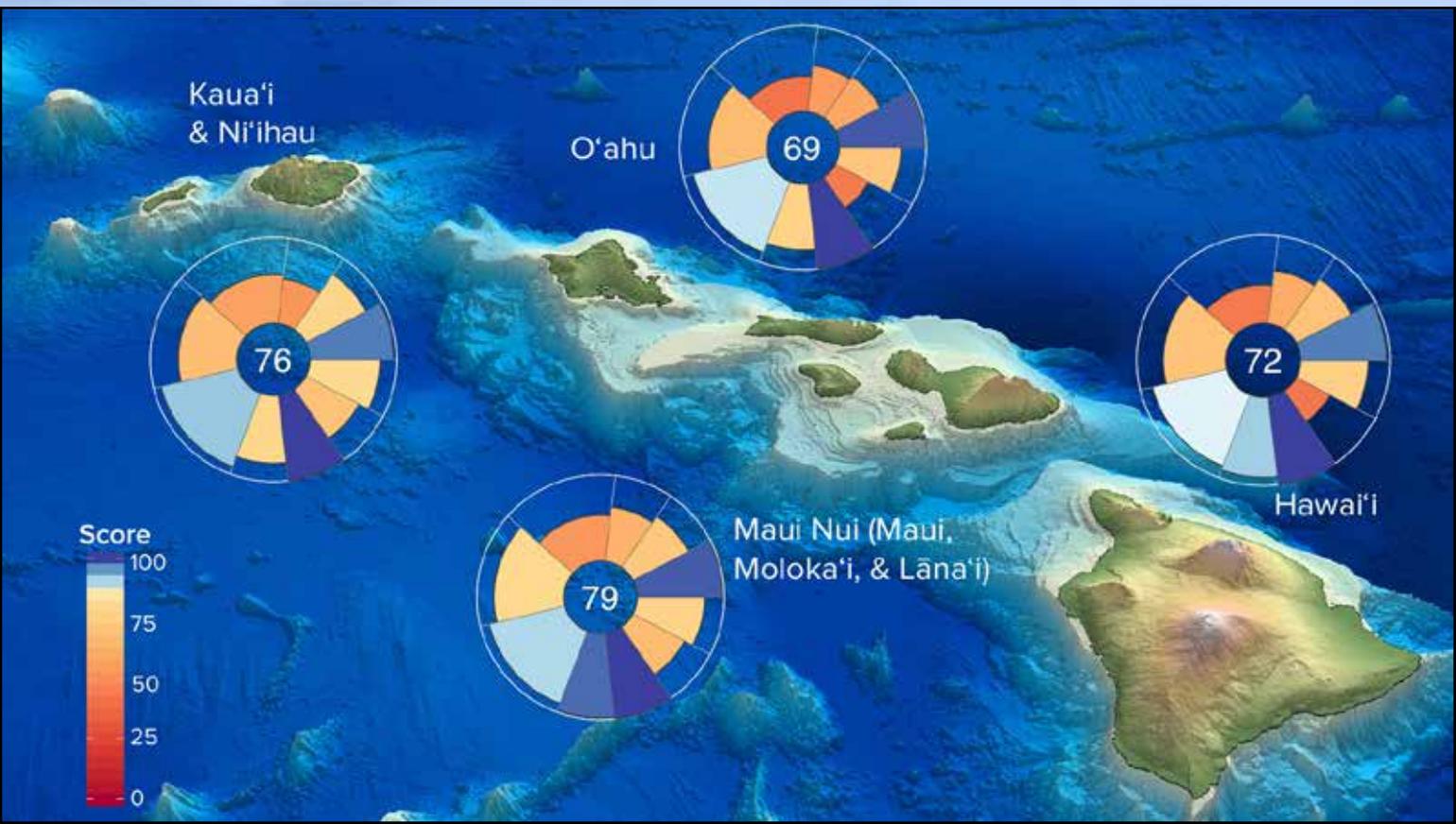
74

Hawai'i's combined OHI score from the Main Hawaiian Islands

On World Ocean's Day (June 2018), CI Hawai'i launched the Hawai'i Ocean Health Index (OHI). Described by Leonardo DiCaprio as the "Fitbit for the Ocean," the OHI measures actions and tracks the sustainability of ocean resources and better equips managers and citizens to manage by measuring how well our ocean supports people.

This index was developed with the support of local stakeholders and tracks factors such as fisheries, biodiversity, the condition of coastal habitat, and the economic contributions of ocean related jobs. 107 data layers were created and are available to support management and policy.

Overall, Hawai'i scored 74 out of a possible 100. Maui Nui scored highest (79) followed by Kaua'i & Ni'i'hau (76), Hawai'i Island (72), and O'ahu (69). Regional scores varied based on differences in local economic, social, and ecological indicators that underpin the index. Goals that scored the lowest are coastal protection (49) and biodiversity (56). The index highlights Hawai'i's reliance on a healthy ocean to provide seafood, jobs, coastal protection, recreational opportunities, and social wellbeing. For more information see the website www.OHI-science.org/mhi.



100%
Native Hawaiian
Participation in the Mohala
Nā Konohiki Program

BRINGING THE FISH BACK

REVITALIZING CULTURAL FISHING PRACTICES



For over a millennium, Hawaiians implemented cultural resource management practices that sustained a large population without imported goods. These practices hold the key to sustainability; however, many have been lost.

In 2018, CI Hawai'i worked with one of the few remaining Konohiki (headman of an ahupua'a land division), Uncle Mac Poepoe, to document and share traditional Hawaiian resource monitoring and management practices with trainees from Mo'omomi, Miloli'i, Hōnaunau, and Kāwā.

Mohala Nā Konohiki was given to signify the blossoming, or unfolding of our remaining Konohiki in Hawai'i so this program can perpetuate these important practices and continue Uncle Mac's legacy.

“

I have committed to monitoring the marine life through managing what I harvest and what I see others harvest. Mohala Nā Konohiki has awakened my love to seeing and being a part of solutions to issues that can be resolved if we all continue to work together

”

says Darrell Lopez, 2018 Mohala Nā Konohiki participant.



>2500

Number of Lawai'a 'Ohana Camp participants across Hawai'i since 2010.

YOUTH RETURN TO LEAD

LAWAI'A 'OHANA CAMPS INSPIRE MULTI-GENERATIONS TO MĀLAMA 'ĀINA



Held in Miloli'i, one of Hawai'i's last traditional fishing villages, families with children of all ages participated in the Lawai'a 'Ohana Camp (Family Fishing Camp) to perpetuate Hawaiian cultural values and practices. Hukilau net weaving, fish preparation, and gonad dissections were a few of the many practices that the kupuna taught. In its 8th year, this camp is now coordinated by young adults who attended the camp as youth.



“

Being part of the Lawai'a Camp as a participant now as an Alaka'i (leader) gives me a sense of place. I've learned the importance of my community and our 'āina in many different aspects. Before I just looked at the ocean as somewhere we would go swim and not really appreciated everything else it provides. Now I look at it as a resource not just for me but for all the families in Miloli'i. I've gained more knowledge of the importance of the ocean and how everything affects it by having the Lawai'a Camp every summer. The information that is shared with the kids of Miloli'i and south Kona through this camp can't be found scrolling through Instagram or on any Snapchat stories. It is one of a kind.

”

says Kailee Llanes-Kelekolio, a 2018 Lawai'a 'Ohana Camp akala'i.

LOCAL KNOWLEDGE + SCIENCE

SUPPORTING TRADITIONAL FISHING VILLAGES

350

Scuba and intertidal
transects in Miloli'i
(South Kona).



Supporting local communities in their conservation efforts is a long-standing focus of CI's Hawai'i program. Our program supports knowledge sharing, co-development of monitoring tools, and capacity-building activities that focus on combining contemporary science and traditional ecological knowledge.

In South Kona, Hawai'i Island, CI Hawai'i worked with 3 traditional fishing villages to revitalize declining fisheries and traditional fishing practices.

Miloli'i:

CI Hawai'i supported resource assessments and facilitated community discussions on how to better manage marine resources working toward creation of a management plan for the area.

“

Mahalo to our kupuna (elders) who continue to guide us, teach us and empower us to take care of Miloli'i. We have gained valuable knowledge as we participated in a week long nearshore intertidal monitoring counting 'opihi (limpets), 'a'ama (crabs) and hā'uke'uke (urchins) at the same time we hope to give back to a place that has given us so much

”

says Ka'imi Kaupiko, Director of Kalanihale Foundation.



'Ōpelu (mackerel scad) an iconic culturally and economically important staple fish.

224

'Ōpelu (mackerel scad) analyzed to understand spawning seasons.

Ho'okena:

CI Hawai'i partnered with the Ho'okena community to perpetuate traditional management of 'ōpelu (mackerel scad) an iconic culturally and economically important staple fish. This included supporting 'ōpelu hānai (traditional feeding at aggregation sites), data collection on 'ōpelu abundance and behavior, and 'ōpelu gonad dissections to understand the spawning season.

Throughout the year, 72 days of catch data were collected and 224 opelu were dissected adding to the life history information critical to informing management decisions.

Hōnaunau:

CI Hawai'i collaborated with Hōnaunau-based community group Hua 'Āina 'O Hōnaunau to contribute to coastal vegetation restoration and marine resource monitoring goals. CI Hawai'i staff also supported education efforts, incorporating indigenous knowledge and Hawaiian resource management principles, and secured funding for exciting new restoration efforts in 2019.



4

interns hosted by CI Hawai'i in 2018 with interests in biology, finance, marine plastics, & law, launching what we hope will be a growing program to involve Hawai'i's young and diverse generation in conservation.

INVESTING IN HAWAI'I'S FUTURE DECISION MAKERS

BROADENING INTERNSHIP + MENTORING OPPORTUNITIES

In 2018, CI Hawai'i broadened efforts to engage talented young people in conservation. Two new initiatives include the Legal Mentorship Program and the Undergraduate Internship Program.

Legal Mentorship Program:

CI Hawai'i successfully piloted a mentorship program for Hawai'i-based law students to prepare the next generation of attorneys to contribute to conservation solutions. In partnership with the University of Hawai'i at Mānoa's William S. Richardson School of Law, this program exposed law students to real world issues giving them valuable insight into the challenges that impact conservation efforts.

“
I was given the opportunity to learn about the many ways the law intersects conservation and how it can be an important tool in conservation efforts.

”

says Rachel Ray, a University of Hawai'i law student who completed CI Hawai'i's new mentorship program in the Summer of 2018.

Undergraduate Internship Partnership:

In partnership with the University of Hawai'i at Hilo's Pacific Internship Programs for Exploring Science (PIPES) CI Hawai'i hosted an undergraduate student who explored community-driven conservation and resource management efforts on Hawai'i island. The intern analyzed 414 photoquads of coral cover data collected in Miloli'i, South Kona to assess the health of coral impacted by the dramatic bleaching events of 2015-2016. She received valuable hands on technical training on collecting and analyzing data as well as exposure to Hawai'i's unique resource management challenges.

“
Mālama kai with the Miloli'i 'ohana was a growth spurt in both my personal and educational realms. My mentors spent time to teach me about marine life so I could further relay that to the families in Miloli'i.

”

says Hi'ilani Pai, a current undergraduate student at Hawai'i Community College who completed the internship in 2018.

MORE PARTICIPATION, BETTER RESULTS

CREATING NEW OPPORTUNITIES FOR PUBLIC INVOLVEMENT

1%

Only 1% of the State budget is dedicated to natural resource management in Hawai'i



Recognizing that government is underfunded, CI Hawai'i empowers fishers and other ocean users with knowledge and opportunities to become involved in decision making processes and foster collective action.

Fishing Leaders Unite to Raise Awareness on Non-Commercial Fishing Challenges in Hawai'i:

Almost two years after CI Hawai'i and fishing leaders released a feasibility study on a potential regulatory system for non-commercial marine fishing in Hawai'i, the study contributors toured the state in 2018 to discuss it with the public.

In these interactive workshops, the study group took no collective position as to whether Hawai'i should pursue a mandatory non-commercial fishing registry, permit or license (RPL) system. The 17 workshops spread across 6 islands focused on the exchange of knowledge around this issue and provided an opportunity for fishers to give direct input for fisheries managers and Hawai'i decision makers to consider, making both local and national headlines.

This unique process and the resulting report have empowered fishers across many communities to participate in decision-making on whether or not to create a regulatory system for non-commercial fishers in Hawai'i.

A Collaborative Group for Community-Based Marine Monitoring:

Hawai'i has tremendous diversity in its coastline and population therefore there is no standard method that all communities can utilize to track and assess the health of the resources that they are interested in protecting. This results in many different citizen science-based methods which create a wealth of knowledge but are often not formally recognized or utilized in ocean management.

In 2018, CI Hawai'i convened a new group of scientists and community organizations to analyze different monitoring methods. Moving forward, the group will work with government managers to review the feasibility of each method and develop a guidance document simplifying the decision making process for communities who wish to become more involved with resource stewardship.

INCENTIVIZING SUSTAINABILITY FROM HOOK TO PLATE

**HIGHLIGHTING THE IMPORTANCE
OF HAWAI'I'S FISHERIES**

~589K

meals provided on average per year by a seafood wholesaler on Hawai'i Island with the majority of these meals staying on island or within the state.



Fishing is integral to the way of life in Hawai'i. To restore the health of our fisheries we need to better understand the supply and demand for seafood in the State. In 2018, CI Hawai'i partnered with businesses, communities, and government to identify the value and demand for local seafood and continued to develop initiatives to help ensure healthy, abundant fish populations for the future.

Supporting Local Seafood Through Partnerships:

In partnership with local seafood company, Suisan, we created a system to track the impact seafood wholesalers have on the local fishing community and economy, illustrating contributions such as the number of meals distributed to local communities across the state. A seafood traceability program with Suisan was also started to improve transparency, minimize waste, and improve operational efficiencies through the distribution chain.

Emphasizing the Importance of Our Reef Fishery:

Published in 2018, a new peer-review article by CI, NOAA, and UH found that people catching fish for cultural, subsistence and recreational reasons, catch more than 5 times the amount of fish as commercial fisheries. They also make up 84 percent of the nearshore catch. With this new information, managers can explore how to manage non-commercial fishing.

UNDERSTANDING OUR NATIVE FISH

MERGING TRADITIONAL KNOWLEDGE WITH MODERN AQUACULTURE TO ADVANCE SEAFOOD SECURITY



'Ama'ama (Striped Mullet) is a significant and historically important species for feeding Hawai'i's people.



These 'ama'ama eggs were sampled using non-lethal methods to identify spawning seasons.

In collaboration with loko i'a (fishpond) partners and Uncle Buddy Keala, a respected ki'ai loko (fishpond practitioner), CI Hawai'i created critical opportunities to explore and develop placed-based and site-specific rearing systems for pua 'ama (native mullet fingerling).

These traditional rearing systems are being stocked with fingerlings produced in a modern aquaculture facility by our partners at Oceanic Institute.

By combining contemporary aquaculture techniques with indigenous and local knowledge, new integrated solutions are being developed and tested to address modern challenges that currently hinder natural recruitment.

Successful Non-Lethal Trials

CI Hawai'i also worked with our partners to translate modern non-lethal testing methods into community-based methods that can be implemented by a fishpond practitioner without the use of a lab or chemicals. These new field-based sampling techniques can be used to determine fish maturation and spawning readiness without the need to harvest and remove the valuable fish.

ON THE HORIZON

In 2019, CI Hawai'i will continue to build on our successful programs as well as launch several exciting new initiatives.

In collaboration with local educators, we will be expanding the scope of our Lawai'a 'Ohana Camp approach to bring lessons into classrooms and connect students to the ocean.

We will secure non-traditional pathways to expose young decision makers from diverse backgrounds to conservation issues in Hawai'i.

In partnership with the hospitality industry, we will use creative market-based mechanisms to promote responsible seafood choices by consumers.

We will leverage global finance and policy solutions to support local stewardship efforts.

BE PART OF THE SOLUTION

**Your financial support helps us
create a healthy, productive and
prosperous Hawai'i,
now and into the future.**

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Hawai'i



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