



'ŌLELO NO'EAU

Pa'a 'ia iho i ka hoe uli
i 'ole e ikā i ke ko'a.

*Grasp the steering
paddle lest [we]
strike the coral head.*

This 'ōlelo no'eau speaks to the power of excellent leadership and a supportive crew to steer the wa'a (canoe) in a direction that will help everyone arrive safely to their destination.



Image: Polynesian Voyaging Society



Pressed holotype specimen of *Croisettea kalaukapuae*, the standard of the new species, deposited in Bishop Museum (BISH 780911). Image: Feresia Corazon P. Cabrera, University of Hawai'i.

Mahalo nui!

Aloha no kākou:

By the time you read this article I will have joined the ranks of the many, many folks who have worked tirelessly to protect and conserve Papahānaumokuākea and then moved on to other horizons and new journeys. There are too many to recognize them all but it has been an honor to serve and to build lasting pilina (relationship to people and place). After 25 years of working to protect Papahānaumokuākea, it is time for me to pass the steering blade on to the next generation of navigators and stewards of this sacred realm. I leave proud of what we have all collectively accomplished and the list of 'firsts' is also a long one. We have gained global recognition, we have created something special in redefining co-management at scale, we have discovered and given Hawaiian names to many new species, we have forged many new partnerships and continued to use new technologies to map, characterize and assess these important biocultural resources, and we will continue to innovate and inspire into the future. Our mentoring programs have helped to grow a new generation of natural resource managers who bring new skills and ways of thinking into the 'ohana. I can only say mahalo nui to you all and that I will still be here to mentor, cajole, encourage and support from a different horizon. A hui hou a mālama pono.

Athline Clark, former NOAA superintendent



Image: NOAA

New species of limu named for "Aunty Laura"



Image: Andy Collins/NOAA

A team of international scientists recently published the scientific description of a new species of red algae from Papahānaumokuākea Marine National Monument. The new

alga, *Croisettea kalaukapuae*, was named after "Aunty Laura", highly respected community and conservation leader Laura Kalaukapu Thompson, who passed away in August 2020 at the age of 95. Kalaukapu, "the sacred leaf," was Aunty Laura's Hawaiian middle name bestowed upon her by her grandmother.

Thompson was a founding member of the Reserve Advisory Council. She was a strong supporter of using Papahānaumokuākea as a place for the perpetuation of Native Hawaiian cultural practices, and an advocate for protecting all of the natural and cultural resources of Hawai'i. [Read more](#) on the Monument website.



Kenyan K. Beals
Community Robotics
Center grand opening
ceremony. Image:
Andy Collins/NOAA

Record Crowds Visit Mokupāpapa Discovery Center

The Papahānaumokuākea Mokupāpapa Discovery Center reopened in June of 2022, and over 16,000 visitors have enjoyed refreshed and new attractions after two years of being closed. A new Kenyan K. Beals Community Robotics Center was dedicated in August, and since Mokupāpapa reopened over 2,500 people have participated in robotics programs, with a dozen new robotics team coaches trained. Over \$100,000 of external funding has been invested in Mokupāpapa by the Robotics Center and a new cooperative partnership with the Multiscale Environmental Graphics Laboratory (MEGA) Lab at University of Hawai‘i, Hilo. The MEGA Lab developed a space within the Center to highlight their cutting edge technology used to study and conserve coral reefs. Both the Robotics Center and the MEGA Lab are providing career pathway examples, and local mentors, to Hawai‘i Island students to inspire them to follow pathways in marine science and related fields. A partnership with three other Downtown Hilo museums, called Museum Square, was also formed which includes the Pacific Tsunami Museum, East Hawai‘i Cultural Center, and the Hawai‘i Science and Technology Museum. This new partnership provides an interpretive trail through downtown Hilo, quarterly community events, and culturally based activities for families. Every third Thursday of the month, Mokupāpapa presents informative and innovative presentations on research, new discoveries, and conservation and management success stories. Check the [website](#) for information about Third Thursday webinars to be held at noon on October 20, November 17, December

15, and January 19. Mokupāpapa Discovery Center in Hilo is open Tuesday through Saturday from 9:00 am to 4:00 pm.

National Marine Sanctuary System Celebrates 50 Years

NOAA’s National Marine Sanctuary System is celebrating 50 years this fall! On October 23, 1972, in response to several environmental disasters, Congress passed the Marine Protection, Research and Sanctuaries Act which established the National Marine Sanctuary System. Three years later, the underwater resting place of the shipwrecked Civil War ironclad USS *Monitor* became the first national marine sanctuary in the United States. Today, NOAA’s Office of National Marine Sanctuaries serves as the trustee for a network of ocean parks encompassing more than 620,000 square miles of marine and Great Lakes waters, an area nearly the size of Alaska. The network includes a system of 15 national marine sanctuaries and two marine national monuments, including Papahānaumokuākea, that conserve areas with special ecological, cultural, and historical significance. The National Marine Sanctuary System supports coastal communities and drives local economies by providing jobs and opportunities for people to discover, recreate, and form lifelong connections with these spectacular places. Sanctuaries connect people and communities through science, education, and stewardship. We rely on these networks to inspire community-based solutions that help us understand and protect our nation’s most spectacular underwater habitats, wildlife, archaeological wonders, and cultural seascapes.



Image: Nicole Evans/NOAA

Reserve Advisory Council New Members

The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council welcomed five new council members this summer to fill primary and alternate seats to represent research, conservation, and Native Hawaiian interests. The new members will serve a three year role as liaisons between their constituents and communities to keep the Office of National Marine Sanctuaries informed of issues and concerns, as well as perform outreach to their respective communities on behalf of the reserve or potential sanctuary.

The new council members include Pelika Andrade (Native Hawaiian Primary), Nakoa Goo (Native Hawaiian Alternate), Sam Gon (Conservation Primary), Haunani Kane (Research Primary), and Kammie Dominique Tavares (Citizen-At-Large Alternate).

The council draws on the expertise of its members, alternates, and other sources in order to provide advice to the ONMS PMNM superintendent. These seats will be crucial in representing diverse groups throughout the RAC’s advisory role.

[Read more](#) about the Reserve Advisory Council and members.



Nuisance Alga in the Monument

Coral head with overgrowth of *Chondria*. Image: Brian Hauk/NOAA

Researchers returned from an expedition to Kuaihelani (Midway Atoll) in Papahānaumokuākea after collecting data related to a nuisance seaweed, *Chondria tumulosa*. The mission was a collaborative effort among scientists from NOAA, the University of Hawai‘i, the College of Charleston, and U.S. Fish and Wildlife Service (USFWS) at Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial.

Chondria had been observed around Kuaihelani in 2021 by teams targeting marine debris removal. Thick mats of it were documented in 2019 and 2021 at Manawai (Pearl and Hermes Atoll), overgrowing and smothering native corals and algae. The origin of this alga is a mystery and very little is known about its ecology, physiology, or potential biological drivers. It was identified as a species new to science

in 2020, and to date is only known from these two atolls globally.

Researchers and managers are concerned about the potential spread of *Chondria* to other locations in the Hawaiian Archipelago. As a preventative measure, scientists conducted experiments to determine the lethal parameters required to kill algal fragments. Early detection and rapid response are also important to preventing the spread of a nuisance species.

The research expedition was supported by NOAA’s Office of National Marine Sanctuaries and USFWS, and was partially funded through grants and cooperative agreements from the National Fish and Wildlife Foundation, USFWS, and Robert F. Orr Foundation. [Read more.](#)

Get Into Your Sanctuary Day Celebrated in Rural Native Hawaiian Community

PMNM staff, along with Ko Olina Resort and other community partners, hosted a Get Into Your Sanctuary Day celebration at Mā‘ili Beach Park in Wai‘anae on August 6, 2022. More than 150 community members participated in the beach cleanup, marine debris art show, and outreach. The event celebrated the 50th Anniversary of the National Marine Sanctuary System and the Year of the Limu. Get Into Your Sanctuary Day raises awareness about the natural and cultural importance of our national marine sanctuaries and marine national monuments and ways we can

protect these spectacular places. Several local organizations provided activities including Papahānaumokuākea Marine Debris Project, Boys and Girls Clubs of Wai‘anae and Nānākuli, ‘Ewa Limu Project, Waimanalo Limu Hui, Kua‘āina Ulu ‘Auamo, Keiki O Ka ‘Āina, Kuleana Coral, Parley for the Oceans, and 808 Cleanups. The art show featured artists Susan Scott, Mark Cunningham, and PMNM staff member Kahi Fujii exhibiting unique art made from marine debris, much like that collected during the beach cleanup. More than 200



Students from the Wai‘anae coast participate in beach and park clean-up. Image: Allison Yamakawa/NOAA

pounds of debris was collected from the coastline. The ‘ōlelo no‘eau (Hawaiian proverb) “‘A‘ohe hana nui ke alu ‘ia” translates to “No task is too big when done together by all.” We can all make a difference collectively to mālama (care for) our environments. For more information contact kahi.fujii@noaa.gov.



Considering National Marine Sanctuary Designation for Papahānaumokuākea

NOAA's Office of National Marine Sanctuaries is moving forward with a process to consider designating marine portions of Papahānaumokuākea Marine National Monument as a national marine sanctuary under the National Marine Sanctuaries Act.

Sanctuary designation would add the conservation benefits and permanency of a national marine

sanctuary to safeguard resources in the marine portions of the monument. It will provide another layer of protection to continue honoring this place and will not diminish any existing protections.

Following a series of public scoping meetings, NOAA's Office of National Marine Sanctuaries, along with our co-management partners, is now working on a series

Native Hawaiian kūpuna (esteemed elders) have strongly advocated for the long-term lasting protection of Papahānaumokuākea. Hanohano Nā 'Āina Kūpuna is a tribute to Papahānaumokuākea as a sacred ancestral place to kanaka 'ōiwi (Native Hawaiians) who honor this extensive seascape as an area where all life emerged and evolved from, and to which spirits return to after death. Image: Ruben Carrillo

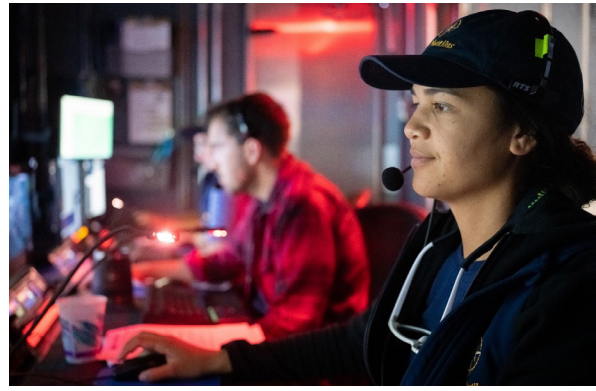
of documents to include a Draft Sanctuary Management Plan, Draft Environmental Impact Statement, and proposed sanctuary regulations. NOAA's Office of National Marine Sanctuaries is also working closely with the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council, the Office of Hawaiian Affairs Cultural Working Group, and the Western Pacific Regional Fishery Management Council. These draft documents will be available to the public later in 2023.

For more information about the process, [visit the Monument website](#).

Productive Partnership Provides a Firm Foundation for Equity and Inclusion

Within the past two years, members of the Papahānaumokuākea Native Hawaiian Cultural Working Group (CWG) and the Ocean Exploration Trust team have been growing an equitable and inclusive partnership honoring 'Ōiwi (Native Hawaiian) knowledge systems and providing opportunities for 'Ōiwi to participate on expeditions. During the last two E/V *Nautilus* expeditions into Papahānaumokuākea Marine National Monument (PMNM) in April and August 2022, Kānaka 'Ōiwi were represented as Science & Engineering interns, Mapping interns, Science Communication Fellows, and Cultural Liaisons. The cultural liaison seat provided by OET represents their commitment to recognize their responsibility to enter this sacred place with a mindset of openness,

humility, and learning. Increasing indigenous participation is critical to encouraging the next generation to pursue careers in STEAM, ocean sciences, and maritime careers, where they are severely under-represented. This partnership has led to the creation of [Hawaiian names](#) for each expedition, promotional [videos](#) in 'Ōlelo Hawai'i (Hawaiian language) for live ship-to-shore interactions with kula kaiapuni (Hawaiian immersion schools), and the development of a Hawaiian language [terminology list](#) for technical terms used during the expeditions. A recent NOAA webinar drew over 500 registered participants as three Native Hawaiian CWG members shared their experiences and highlights of the productive partnership. In addition, a project to develop culturally-grounded



Kanaka 'Ōiwi educator Malanai Kāne Kuahiwinui interned as a Science Communications Fellow during the April expedition into PMNM. A total of ten Native Hawaiians have participated in the growing partnership with the OET *Nautilus*. Image: OET *Nautilus*

ocean science curricula in 'Ōlelo Hawai'i is currently underway with funding provided by the National Marine Sanctuary Foundation. These collective efforts are laying a foundation for continued collaboration that equally values Indigenous science and Western methodologies and diversifies participation in multi-disciplinary research of biocultural deep sea ecosystems within PMNM.

Connect with Us    papahanaumokuakea.gov

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Papahānaumokuākea is co-managed by the National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, State of Hawai'i, and Office of Hawaiian Affairs. This newsletter highlights some of the initiatives of the NOAA Office of National Marine Sanctuaries and partners.