

'ŌLELO NO'EAU

Hanohano wale ka
'āina kūpuna, 'o nā
moku lē'ia

Honored of the land
of my ancestors, the
abundant islands

This 'ōlelo no'ēau, or Hawaiian proverb, is an excerpt from Mele no Papahānaumokuākea, the name song for Papahānaumokuākea. It was written and composed by Kainani Kahaunaele and Halealoha Ayau and gifted to the monument in 2007. This honorific expression acknowledges the Kūpuna Islands (Elder or Ancestral Islands), a name of endearment for the oldest islands within the genealogy of the Hawaiian archipelago.

Image: Greg McFall/NOAA

The National Marine Sanctuary System is celebrating 50 years in 2022!

Stay tuned for information on the anniversary events on the [National Marine Sanctuaries website](#).

Office of National Marine Sanctuaries Summer Research Expeditions



A diverse assemblage of fish on the reefs at Kuaihelani. Image: Kimberly Jeffries/NOAA



Large *Acropora* table corals that survived Hurricane Walaka in the inner lagoon serve as valuable habitat for remaining fishes, like this bigeye (*Priacanthus meeki*). Image: Kimberly Jeffries/NOAA

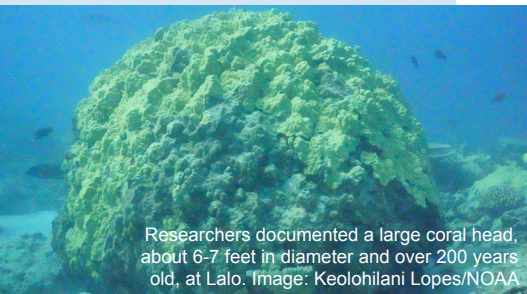
Two Office of National Marine Sanctuaries (ONMS) research expeditions were completed in Papahānaumokuākea Marine National Monument (PMNM) this summer on the charter vessel M/V *Imua*, conducting coral reef monitoring, damage assessments, and expanding knowledge of limu (algae). Scientists reported signs of recovery from hurricane damage at Lalo (French Frigate Shoals,) and saw no sign of the nuisance alga *Chondria tumulosa* at Hōlanikū (Kure), after previously being found on the reefs at Manawai (Pearl and Hermes Atoll).

One of the primary objectives of these missions was to increase understanding of *Chondria tumulosa*, and its distribution, biology, and protocols for controlling any future spread of the alga. Collaborators from many institutions, including the University of Hawai'i system, the College of Charleston, and others, were successful in securing over \$500,000 in grants to help PMNM better

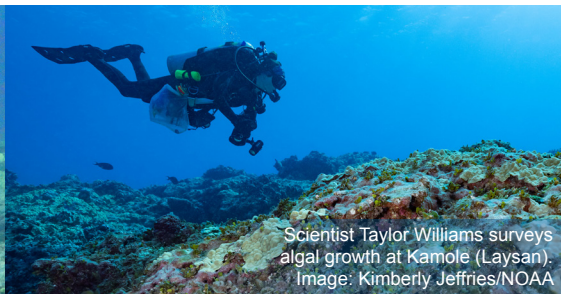
understand the causes and consequences of the algal outbreak at Manawai.

Additional research was conducted to expand baseline knowledge of biodiversity throughout the monument, limu samples were collected from multiple sites at each atoll visited: Lalo (French Frigate Shoals), Kamole (Laysan Island), Kapou (Lisianski Island), Hōlanikū (Kure Atoll) and Kuaihelani (Midway Atoll). Researchers collected species at Kuaihelani that may be new to science.

The researchers found that coral reefs that were previously damaged by a major hurricane, a buoy grounding, and a significant bleaching event are slowly making a comeback and positive outlooks of the overall health of the reefs were observed. The re-establishing of long-term reef monitoring and 3-D photogrammetry modeling will allow for the detection of any shifts in the coral reef communities which is crucial to the future management of PMNM.



Researchers documented a large coral head, about 6-7 feet in diameter and over 200 years old, at Lalo. Image: Keolohilani Lopes/NOAA



Scientist Taylor Williams surveys algal growth at Kamole (Laysan). Image: Kimberly Jeffries/NOAA



Anchor from shipwreck at Lalo. Image: Kimberly Jeffries/NOAA



Image: Brad Ka'aleleo Wong/OHA

Monument Management Plan Review and National Marine Sanctuary Designation

This fall, the monument will begin reviewing and revising its management plan, finalized in 2008. The management plan describes goals and objectives, informs management decisions, and guides future activities. The plan requires updating to reflect changes that have taken place at the monument since 2008, such as boundary expansion and the addition of the Office of Hawaiian Affairs (OHA) as a co-trustee along with NOAA, USFWS, and the State of Hawai'i.

Revision of the management plan coincides with the

process to designate a national marine sanctuary within Papahānaumokuākea Marine National Monument. **Sanctuary designation** would not change the monument designation, but would add a layer of protection and permanency to safeguard resources in the marine portion of the monument. The co-management structure that is a hallmark of the monument will continue.

Hawaiian culture is a foundational element of the management of Papahānaumokuākea. We will continue to honor and perpetuate

spiritual and cultural relationships with this special place. As a part of this process we will also be initiating the Section 106 consultation process under the National Historic Preservation Act.

Management plan review and sanctuary designation are both public processes, and there will be many ways for the public to participate and comment.

Look for more information on the initiation of this public process later this fall. Visit our [website](#) to keep abreast of the latest news.

Mai Ka Pō Mai: Integrating Hawaiian Culture into the Management of PMNM

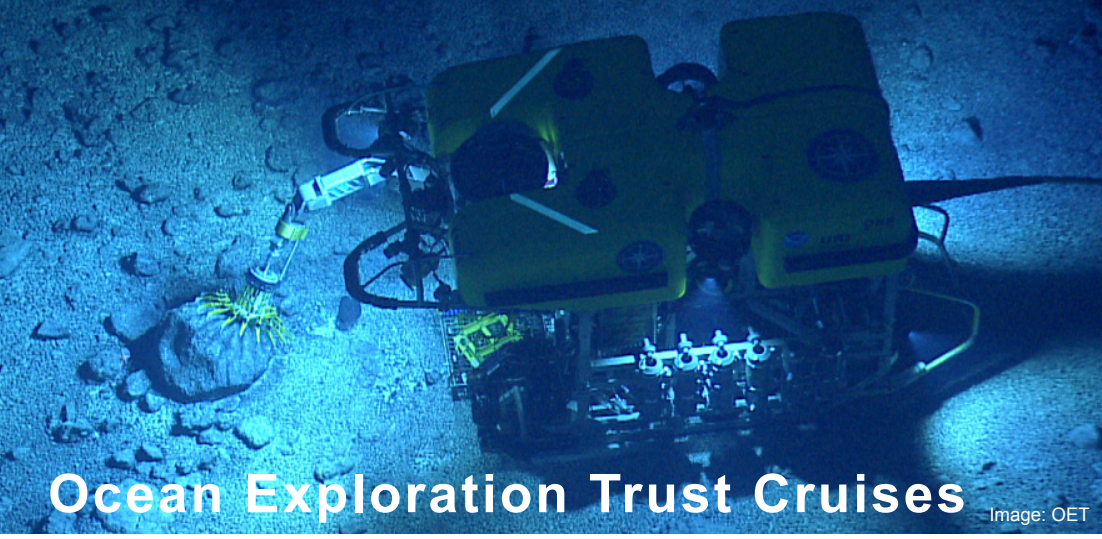
On the summer solstice, June 21, when the sun reached Mokumanamana located on the Tropic of Cancer in Papahānaumokuākea, the Co-Trustees of PMNM released Mai Ka Pō Mai, a historic guidance document that will help federal and state agencies further integrate Native Hawaiian culture into all areas of management for Papahānaumokuākea. The document is the culmination of over 10 years of collaboration with Native Hawaiian community members throughout Hawai'i. The Papahānaumokuākea Native Hawaiian Cultural Working Group

(CWG) and the PMNM state and federal co-managing agencies worked closely to incorporate and elevate community input in a way that is appropriate and just for Native Hawaiians, and compliments the various federal and state agency mandates and missions. Based on conceptual components of Hawaiian cosmology and worldview, Mai Ka Pō Mai articulates values and principles that will guide 20 strategies within five management areas that align with Native Hawaiian culture and contemporary Hawaiian stewardship and management. Papahānaumokuākea and Mai Ka Pō Mai demonstrate that



including Native Hawaiians has led to successful stewardship of natural and cultural resources which can be a model for other places in Hawai'i and throughout the world. Looking forward, Mai Ka Pō Mai will inform multiple initiatives including the sanctuary designation process for PMNM and revising the Monument Management Plan while helping us to undergo the next leg of the journey together.

To read and download Mai Ka Pō Mai visit: www.oha.org/maikapomai.



Ocean Exploration Trust Cruises

Image: OET

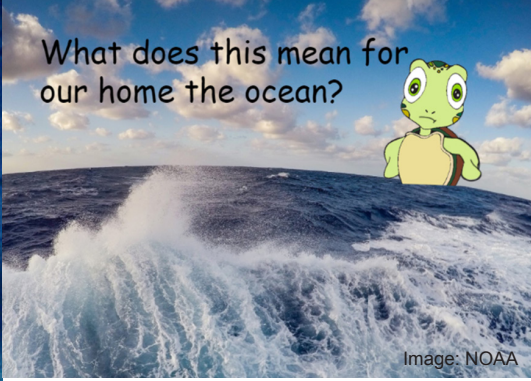


Image: NOAA

Virtual Voyage of Discovery Lessons Now Available!

A unique collaboration between Native Hawaiian educators, Ocean Exploration Trust (OET), and ONMS aims to integrate Hawaiian language and culture on upcoming research expeditions into Papahānaumokuākea during 2021-2022. The initiative includes naming the three expeditions with Hawaiian names and providing Hawaiian language translation for outreach materials and during live Ship to Shore interactions linking Native Hawaiian students to the scientists, educators, and engineers aboard the E/V *Nautilus*. In addition, the Native Hawaiian educators are working with OET media specialists

to develop video and media content grounded in Hawaiian cultural perspectives that will include Hawaiian language voiceovers and captioning. As the *Nautilus* explores the depths of Papahānaumokuākea, the Hawaiian language and culture will be an integral component of the expeditions.

- » Mapping Lili’uokalani Seamounts in Papahānaumokuākea: **October 20 – November 13, 2021**
- » Ancient Volcanoes in Papahānaumokuākea: **November 15 – December 6, 2021**

Follow along on www.nautiluslive.org.

Mokupāpapa Discovery Center educators are ready to embark on interactive learning journeys with your class. Choose from a selection of five lessons exploring such topics as reef fish adaptations, coral reefs, the Hawaiian practice of kilo (holistic observation), climate change, and coral bleaching. Lessons are one hour and can be conducted on your platform of choice. [Visit our website](#) to learn more and reserve your spot!

Upcoming Webinars



Image: Matthew Chauvin of PMDP under NOAA/NMFS Permit No. 22677. 05-April-2021

The highly successful monthly webinar series continues with a presentation on the incredible work the Papahānaumokuakea Marine Debris Project (PMDP) led cruises

completed this past summer, and a presentation on the 30 x 30 initiative by the State of Hawai’i. In the past year over 7,000 people have registered for these presentations with more than half attending the talks and many more watching the recordings archived on the Office of National Marine Sanctuaries [webpage](#).

With all the great presenters over the past year, on topics ranging from deep-sea exploration, to seabirds, to biodiversity, you could practically take a formal course in Papahānaumokuākea by watching them all. We look forward to seeing you on the upcoming talks.

October 21 at 12 PM HST: Ilana Nimz from Oikonos Ecosystem Knowledge. Diving into the barf! New insights into ‘Ao’ū (Christmas Shearwater) foraging ecology from Hōlanikū. [Register for webinar](#)

November 18 at 12 PM HST: Kevin O’Brien from PMDP about 2021 marine debris removal missions. [Register for webinar](#)

December 16: No webinar in December.

January 20, 2022 at 12 PM HST: Luna Kekoa from Division of Aquatic Resources about State of Hawai’i Holomua: Marine 30x30 Initiative. [Register for webinar](#)



Image: PVS

Voyaging Canoe Hōkūleʻa Sails to Nihoa Using Traditional Non-Instrument Navigation

On June 27, traditional Hawaiian voyaging canoes Hōkūleʻa and Hikianalia returned from a ten day sail to PMNM to train young navigators in traditional Hawaiian non-instrument celestial wayfinding. Using only the stars, wind, and swell as navigational tools, the navigators successfully navigated across 125 miles of open ocean to the tiny target of Nihoa Island. Total cross-track error was only 1.25 degrees, making this the most accurate non-instrument navigational feat on this route in modern history. The non-profit Polynesian Voyaging Society (PVS) has maintained and operated the Hōkūleʻa since its maiden voyage to Tahiti using non-instrument navigation in 1976. PVS is interested in pursuing a long-term relationship with ONMS to use PMNM as a training ground for traditional navigators, as well as to support a variety of projects that include both the perpetuation of Native Hawaiian culture, and the research goals of NOAA and PMNM. PMNM research coordinator Randy Kosaki served as a science advisor, resource monitor, and Hōkūleʻa crew member on the voyage.

Stories and activities of Papahānaumokuākea

Each year, the Papahānaumokuākea Marine National Monument Management Board prepares a Summary of Activities Permitted [report](#) and [story map](#) to provide stakeholders with an annual overview of the projects permitted within PMNM, and to highlight the activities and accomplishments of the co-managing partners and other monument permittees. This is the third year the report is available through an [online story map](#), which is intended to interest the general public and serve as a creative resource to learn more about PMNM. Monument Management Board members include NOAA’s Office of National Marine Sanctuaries, NOAA Fisheries, the U.S. Fish and Wildlife Service, the State of Hawaiʻi, the Department of Land and Natural Resources, and the Office of Hawaiian Affairs. All co-management partners provide content and use the report to brief their leadership and key constituencies.

To view story map, [click here](#).



Image: Wayne Levin



Image: NOAA

First Sargassum frogfish ever recorded from PMNM

Pictured is the first sargassum frogfish (*Histrio histrio*) ever recorded from PMNM. These frogfish usually live perfectly camouflaged among floating, open-ocean mats of *Sargassum* seaweed (after which its namesake, the Sargasso Sea, was named). The sargassum frogfish was assumed to be absent from the Pacific Plate. It had never been found here in over a hundred years of western scientific exploration, and the central Pacific is completely lacking in its natural habitat, floating sargassum mats. In the 1990s, however, a few specimens turned up off Hawaiʻi Island, all using a novel substitute for sargassum as habitat... floating marine debris! This artificial habitat has recently been made available in abundance by the most destructive species on the planet, *Homo sapiens*, or humans. This fine specimen was captured in floating marine debris, photographed for the scientific record, and released on the recent PMNM cruise to Lalo (French Frigate Shoals). PMNM scientists are currently writing up this new geographic record for publication in a biogeographic journal.

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 Hawaiʻi, and Office of Hawaiian Affairs. This newsletter highlights some of the initiatives of the NOAA Office of National Marine Sanctuaries and partners.