KA HAʻILONO - NEWS
PEPELUALI - FEBRUARY 2021

NATIONAL MARINE SANCTUARIES
PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT

ʻŌLELO NOʻEAU

Ka wā ma mua, ka wā ma hope

The time in front, the time in back

"Ka wā ma mua, ka wā ma hope" conveys the manaʻo of reflecting and celebrating where we've come from so that we can fix our gaze and intentions upon realizing future visions and goals.

While the term "ka wā ma mua" means "the past," it literally means "the time in front," implying the future. Similarly, ka wā ma hope means "the future," but literally means "the time behind."

Kanaka Maoli historian Lilikalā Kameʻeleihiwa states, "It is as if the Hawaiian stands firmly in the present, with his back to the future, and his eyes fixed upon the past, seeking historical answers for present-day dilemmas. Such an orientation is to the Hawaiian an eminently practical one, for the future is always unknown, whereas the past is rich in glory and knowledge."*

*Kameʻeleihiwa, Lilikalā. Native Lands and Foreign Desires: Pehea La e Pono aiʔ Honolulu: Bishop Museum Press, 1992, p. 22

Image: Brad Kaʻaleleo Wong/OHA

2021: Celebrating Monumental Milestones

Image: Jamie Makasobe

It's a monumental year for celebrating Papahānaumokuākea Marine National Monument and UNESCO World Heritage Site.

Recently, we marked 20 years since the establishment of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, creating the single largest nature preserve in the United States at the time. This bold action is a milestone in protection, leading to the 2006 designation of the monument and the 2016 expansion.

The establishment of the reserve was the catalyst for the creation of the Reserve Advisory Council in 2001, with representatives from a variety of local user groups and the Native Hawaiian community. This year, we celebrate 20 years of the council, providing advice and recommendations to NOAA's Office of National Marine Sanctuaries (ONMS). To honor their commitment and contribution, we highlight their stories with past and present council member profiles.

The Reserve Advisory Council contributed greatly to the draft management plan for a national marine sanctuary, called for in the designation of the reserve. A draft management plan became the basis for the marine national monument established by President George W. Bush under the Antiquities Act in June, 2006. With expansion in 2016, Papahānaumokuākea Marine National Monument is the largest contiguous fully protected conservation area under the U.S. flag, and one of the largest marine conservation areas in the world. It encompasses 582,578 square miles (1,508,870 square kilometers) of the Pacific Ocean.

June, 2021 will mark the monument's 15th anniversary. We will be celebrating 15 years of accomplishments made in cooperative conservation and co-management, restoration, and discovery, recognizing the role of Hawaiʻi in ushering in the birth of large-scale ocean management. Watch for news about the anniversary in June!

Visit Papahānaumokuākea virtually via our webcam at Mokupāpapa

During the temporary pandemic closure of Mokupāpapa Discovery Center in Hilo, staff have been maintaining the beautiful 3,500 gallon saltwater aquarium with its unique fish species from Papahānaumokuākea. While you cannot currently visit them in person, you can enjoy the exhibit virtually through a new high definition webcam installed in partnership with our National Marine Sanctuary Foundation. The live feed has come in handy for our virtual lesson where students try to identify reef fish adaptations. You can even watch the tank at night when some of the nocturnal fish are more active, like the bright red soldierfish, or ʻaweoweo. Several of the fish were collected during research expeditions to the monument, including a *Prognathodes basabei* or orange-margin butterflyfish, that only recently received a scientific name. See if you can find it! In the coming weeks we will be adding short video commentaries from our aquarist, Michael Caban, stay tuned. Enjoy!

» View webcam

Mokupāpapa's Virtual Voyage of Discovery

As teacher requests for virtual live lessons increase, Mokupāpapa Discovery Center staff are adapting and designing science and culture based classes to meet the current needs of students and teachers. As we expand our virtual presence, our goal is to engage students through experiential learning activities that foster respect and stewardship of our natural and cultural environments. Initial offerings include:

Hānau ka ʻukukoʻakoʻa: Born is the Coral Polyp
For ages K-4th grade. Students learn about Hawaiian cosmogony and the natural history of the Hawaiian archipelago through the Kumulipo– the Hawaiian Creation Chant. Students also learn the importance of corals and some of the marine organisms that depend on them. Student supplied materials will be required.

Adaptations on the Reef
For ages 4-6th grades. Students learn about the Kumulipo and how it reflects the practice of kilo, or deep observation to build a body of knowledge. Students will practice kilo using our live aquarium feed, focused on observing possible fish adaptations that help them survive on the reef.

All About Albatross: A Virtual Albatross Bolus Dissection
Adaptable for 3rd-12th grades. Students learn about the importance of Papahānaumokuākea as nesting grounds for the Laysan and black-footed albatross. They virtually help us dissect a real bolus (dried regurgitation) as we identify our human impacts on these amazing birds and discuss positive actions to protect them.

Lessons will be hosted on Thursdays and Fridays. Please contact Justin Umholtz at justin.umholtz@noaa.gov for more information and to reserve a time.

Learn more about PMNM with our new Science on a Sphere Explorer Tour

Image: NOAA SOS

The Mokupāpapa Discovery Center obtained a Science on a Sphere Explorer (SOSx) exhibit in 2020 and were inspired to create a custom tour called "The Life Cycle of a Hawaiian Island." After nine months of efforts and great technical support from the NOAA SOS team, the tour will soon be available to anyone who downloads SOSx Mobile, a free app that puts amazing information about the Earth and space at your fingertips. The tour will also be available across the nation at all SOSx exhibit locations. The interactive tour takes participants on a journey from island formation at the Hawaiian hotspot through the transformation to coral atolls, sharing the story of the creation of the Hawaiian archipelago. The tour draws on videos, animations, and global data visualizations such as earthquakes, volcanoes, and seafloor age to highlight basic plate tectonics and the importance of the Northwestern Hawaiian Islands. Participants can use the SOSx tools to measure distances, explore tectonic plate boundaries, and see earthquake magnitude and frequencies across time. For more information, contact Justin Umholtz at justin.umholtz@noaa.gov.

Hanauma Bay Reserve Webinar Series

for Mahina ʻŌlelo Hawaiʻi - Hawaiian Language Month

February, every Thursday from 6:30pm-7:30pm

Hanauma Bay Education Program partners with organizations across Hawaiʻi to showcase educational talks with leading researchers, environmental leaders, natural resource managers, and cultural practitioners.

For the month of February, in celebration of Mahina ʻŌlelo Hawaiʻi - Hawaiian Language Month, the NOAA Office of National Marine Sanctuaries - Papahānaumokuākea Marine National Monument through NOAA's Office of National Marine Sanctuaries will co-host the weekly webinar series in partnership with Hale Kuamoʻo Hawaiian Language Center at the University of Hawaiʻi at Hilo. All talks will highlight the importance of historical Hawaiian language literature and the innovative applications of ʻŌlelo Hawaiʻi to mālama natural and cultural resources of Papahānaumokuākea and Hawaiʻi nei.

February 4, 2021: Ola ka Inoa - Examining the Legacies of Inoa ʻĀina for Papahānaumokuākea

- Kekuewa Kikiloi, Director, Kamakūokalani Center for Hawaiian Studies, University of Hawaiʻi at Mānoa; Nohopapa Hawaiʻi; Huliauapaʻa
- Kepoʻo Keliʻipaʻakaua, Nohopapa Hawaiʻi; Huliauapaʻa
- Kama Kaʻaikaula, Nohopapa Hawaiʻi; Huliauapaʻa

View webinar

February 11, 2021: Nunulu i ka lani - Profound reverberations for Hawaiian naming processes and Papahānaumokuākea

- Hōkūokahalelani Pihana, Papahānaumokuākea Native Hawaiian Cultural Working Group
- Hōkū Cody, Papahānaumokuākea Native Hawaiian Cultural Working Group

Register for webinar

February 18, 2020: Nānā i ke kumu - Exploring cultural dimensions of marine species in the Hawaiian Archipelago

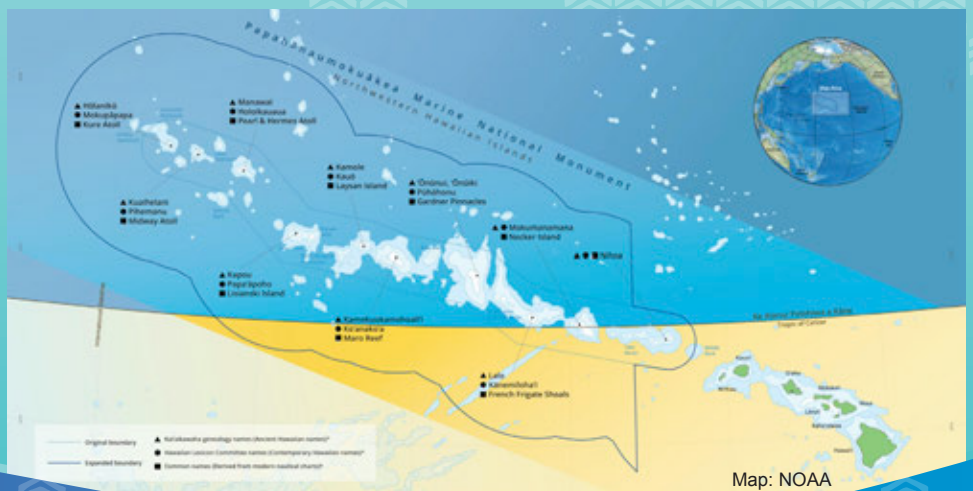
- Sheldon Rosa, NOAA Education Partnership Program with Minority-Serving Institutions Scholar 2019
- Arielle Blacklow, NOAA Hollings Scholar 2019

Register for webinar

February 25, 2020: Ola ka ʻŌlelo Hawaiʻi - Revitalizing and normalizing Hawaiian language through collaborative development of education and outreach resources for Papahānaumokuākea

- Kamalani Johnson, Hawaiian Language Curriculum Specialist, Hale Kuamoʻo Hawaiian Language Center, University of Hawaiʻi at Hilo
- Kalani Quiocho, Native Hawaiian Program Specialist, PMNM

Register for webinar



Map: NOAA

Wave glider uses sound to document humpbacks in the monument

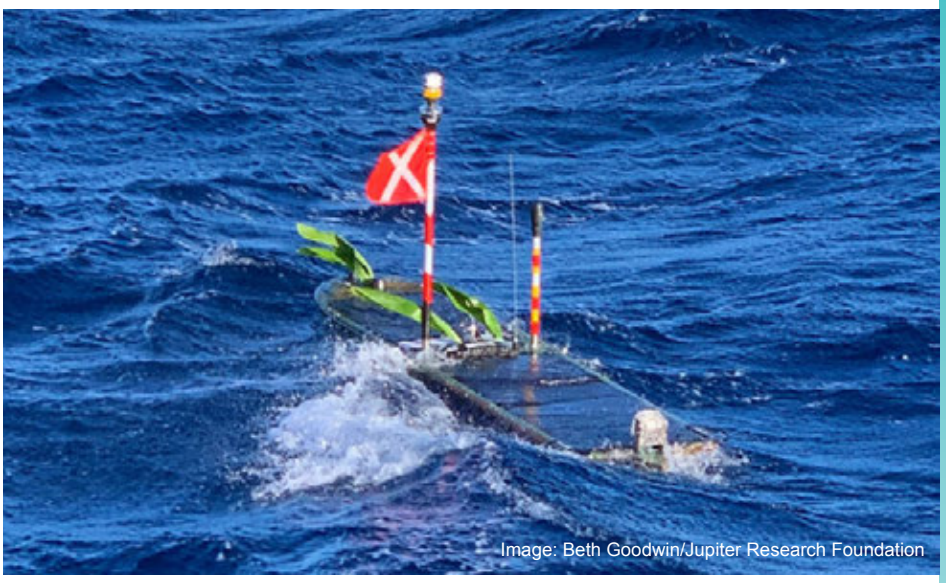


Image: Beth Goodwin/Jupiter Research Foundation

From January through March 2020, Jupiter Research Foundation conducted a passive acoustic survey of the waters of Papahānaumokuākea using the autonomous wave glider "Europa." The study listened for whales in the monument to better understand their presence and activity, particularly in locations understudied in the winter season.

Europa traveled more than 2,500 nautical miles, and collected acoustic recordings, weather, and oceanographic data throughout the survey. Multiple marine mammal species were detected by sound, including at locations not previously documented during the winter. Humpback whale song was recorded to help answer the question, "Where in the monument do humpback whales occur?"

Analysis of the data shows that humpback whale song was present at nearly every bank or shoal the glider visited. The results suggest a broad but clustered distribution of humpback whales across the monument during the survey period.

These results provide evidence that humpback whales occur throughout the monument and that it is likely an important breeding habitat for the population.

Image: Ed Lyman/NOAA Permit 782-1719

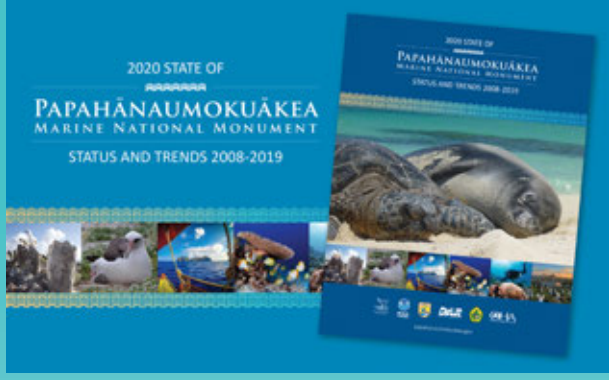


Image: NOAA

State of the Monument Webinars

Last year over 4,700 viewers from around the world attended webinars hosted by Papahānaumokuākea and the National Marine Sanctuary Foundation as part of Mokupāpapa Discovery Center's Third Thursday by the Bay and the ONMS Webinar Series. They learned about fascinating research being conducted in the monument and efforts to inspire the next generation of conservation leaders. With the release of the State of the Monument Report last October on the status and trends from 2008 to 2019, we will focus upcoming webinars on the findings from the report and future research and management efforts. Please join us for these upcoming talks:

February 18 at 12 PM HST: PMNM Research Coordinator Dr. Randy Kosaki will give a talk on Understanding Marine Biodiversity in Papahānaumokuākea Marine National Monument. **Register for webinar**

March 18 at 12 PM HST: JIMAR Resource Protection Manager for PMNM Brian Hauk will give a talk on Aliens in Papahānaumokuākea Marine National Monument; Some are Green, but None are Friendly. **Register for webinar**

April 15 at 12 PM HST: Supervisory Marine Biologist for the Hawaiian Monk Seal Program Thea Johanos will give a talk on Hawaiian monk seal population update: signs of a fragile recovery. **Register for webinar**

May 20 at 12 PM HST: Supervisory Biologist for the U.S. Fish and Wildlife Service Refuges Program will give a talk on the status of seabirds of Papahānaumokuākea Marine National Monument. **Register for webinar**

Connect with Us papahanaumokuakea.gov

Papahānaumokuākea Marine National Monument
NOAA/Daniel K. Inouye Regional Center
1845 Wasp Blvd, Building 176
Honolulu, Hawai'i 96818 | Phone: 808-725-5800

Mokupāpapa Discovery Center
76 Kamehameha Avenue
Hilo, Hawai'i 96720
Phone: 808-498-4709

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.