



Creating the Next Generation of Engineers

The Kenyan K. Beals Community Robotics Center (KKBRC) at Papahānaumokuākea National Marine Sanctuary's Mokupāpapa Discovery Center (MDC) has been open since August of 2022 with nearly 14,000 visitors participating in public robotics events.

The center has also trained over 200 robotics coaches, mentors, and teachers, and has held training classes in programming, robot engineering, and electronics. Several elementary, high school, and home school robotics teams train at the facility, and prepare for competitions like VEX Robotics. Two teams recently placed in the state competitions on O'ahu, including a freshman all girls team.

Over 1,000 students have participated in guided programs and training. The technical, teamwork, and leadership skills learned at the center help to develop the next generation of engineers, explorers, and project managers. With the frontier of ocean exploration in the deep sea, and driven by robotics and other advanced technologies, the skills gained at KKBRC will be in demand. The popular Saturday community robotics events have introduced thousands of island residents to the world of robotics, and members of the robotics teams that train at the center volunteer their time to host the events and interact with the public.

KKBRC is a partnership between MDC and the Hawai'i Science and Technology Museum (HSTM). MDC provides the facility space and HSTM, through external grants of over \$150,000, provides the staff, equipment, materials, coaching, travel to competitions, and coordination. We have also collaborated on 17 educational field trips to MDC with robotics components that engaged 1,277 students. It has been a superb collaboration requiring minimal extra effort from MDC staff and facilities, yet tremendous reward in terms of STEAM programs on an island where limited opportunities exist.



Christian Wong, Shane Molina, and Clayton Watkins celebrate the opening of the Kenyan K. Beals Community Robotics Center. Photo: Andy Collins

Upcoming Events

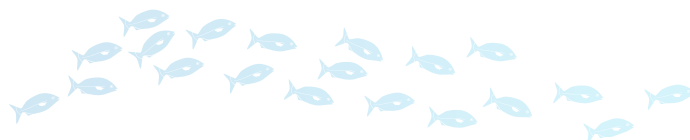
Join us on May 10th from 4pm-8pm at the **Pacific Islands Ocean Exploration Center** for Hawai'i Pacific University's 4th Annual Night Market and Military Appreciation Night, **Aloha Tower Promenade!** All military and civilian community members are welcome!

Special discounts for all Military ID Holders who RSVP in Advance (while supplies last). For Special Discounts:



- Scan the QR code or visit hpu.edu/mahalo to RSVP in advance
- Military ID required upon check-in

Come and enjoy the sunset and beautiful view at HPU's Aloha Tower campus overlooking Honolulu Harbor.



The Before and After Work of a Successful Field Season: Processing Data, Maintaining Equipment

The Papahānaumokuākea National Marine Sanctuary (PNMS) Field and Research Team conducts one or two research expeditions per year aboard NOAA or contracted vessels. These expeditions play a crucial role in preserving and understanding the monument's unique marine environment. Daily operations at sea include launching small boats to conduct in-water surveys to gather valuable data about the monument's marine ecosystems. But what does the rest of the year look like for the PNMS Field and Research Team after returning from sea?

Once an expedition concludes, the team shifts focus to servicing their small boats and field equipment to ensure they are in peak condition for future missions. A required annual inspection takes place on the boats and their support equipment such as the lifting straps, trailers, flare kits, and personal flotation devices. All of the boat, dive, and science equipment is thoroughly examined and tested for proper operation to identify deficiencies which will then be remedied by the team to ensure safety and reliability during the next expedition.

Maintaining dive skills is another essential component of the team's offseason routine. NOAA divers are required to complete a minimum of three dives per quarter to remain proficient. To meet this requirement, the team schedules regular dive proficiency days, where they practice critical skills needed for expeditions such as safe dive communications, diver rescue procedures, fish identification and sizing, and underwater photography. The team also conducts dive operations to support resource protection activities such as hull inspections and alien species surveys.



(Left) PNMS Field Team members conduct an engine deep clean as a part of its end of year service schedule. Photo: Alexa Gonzalez. (Right) PNMS Field Team conducts an annual lift test to test the structural integrity of the small boat hull, lifting points, and lifting straps. Photo: Jennifer McCullough.



The Hōkūle'a entering the Pu'uloa channel, escorted by a PNMS small boat. Photo: Noriko Shoji

In addition to these preparations for the next expedition, the team is busy organizing and processing data, and streamlining their data management for the next season. They analyze research and monitoring data for patterns and share information through meetings, presentations, and publications. The team also supports local small boat and dive ops needs when possible to strengthen key partnerships. For example, the team supported the Hōkūle'a's journey in and out of Pu'uloa, and they are part of O'ahu's Large Whale Entanglement Response Team.



The soft opening of Pacific Islands Ocean Exploration Center at Aloha Tower Marketplace. Photo: Eric Roberts.

Pacific Islands Ocean Exploration Center Opens to the Public in Honolulu

The National Marine Sanctuaries Foundation opened a multi-use community and interpretive center at Aloha Tower in downtown Honolulu, a location uniquely situated to support whale watching tours, cruise ship visits, an on-site luau,

and a public-private partnership with a local university. The 1,643 sq ft facility introduces visitors to ONMS' Pacific Islands region and the sanctuaries it contains. Beautiful interpretive panels, imagery and video let visitors explore the natural, cultural and historic features of this vast region, while a meeting area allows for partner use and special programs. This is the program's first public visitor facility to open on O'ahu and expands the network of four visitor facilities across the region, from the Tauese P.F. Sunia Ocean Center in American Samoa to Mokupāpapa Discovery Center in Hilo, Hawai'i. It is also the first visitor center to have a regional focus. These public facilities are the windows to the incredible sanctuary sites in the Pacific. The Ocean Exploration Center is typically open to the public Monday through Friday, 10 a.m. - 5 p.m., and is free. We are also looking for volunteers to help with staffing the facility. If you want to get involved please email pioec.manager@noaa.gov

Superintendent's Corner

I want to start by wishing all of you a belated hau'oli makahiki hou, Happy New Year. The Office of National Marine Sanctuaries staff started the year off with a bang in the publishing of the final rule to designate Papahānaumokuākea as the 18th national marine sanctuary on January 16, 2025. Consistent with the National Marine Sanctuaries Act, the designation and supporting regulations will become effective on March 3, 2025. I'd like to congratulate each and every one of you for over two decades of dedicated support in bringing this milestone to fruition. From the designation of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve in 2000, our community has supported a designation as a national marine sanctuary, and that time has finally come. This is an exciting time for the Office of National Marine Sanctuaries and Papahānaumokuākea, and I'm extremely proud of our dedicated staff and all of our community members that played an important role in this milestone. Speaking of our dedicated staff, I want to recognize and thank three of our staff that recently moved on. Mahalo to Dr. Randy Kosaki for serving as our Research Ecologist, Malia Evans for serving as our Native Hawaiian Education Specialist at Mokupāpapa Discovery Center and later as our O'ahu Education and Outreach Specialist, and Clayton Watkins for serving as our Events Coordinator at Mokupāpapa Discovery Center. A hui hou to all of you, it was an honor to serve alongside you as a member of our Papahānaumokuākea 'ohana. Mahalo and imua Papahānaumokuākea!

Eric Roberts

Alexa Gonzalez

Meet The Staff



What is your role and how long have you worked at the Office of National Marine Sanctuaries (ONMS)?

I started my role as the Senior Marine Research Technician for the ONMS Field Team in March 2024. I am a small boat operator, scientific diver, and I maintain our two 19' small boats that are used to conduct dive operations during our research cruises.

What is your background prior to working at ONMS?

In 2019, I took my first trip to Papahānaumokuākea when I participated as a field camp volunteer for the Pacific Island Fisheries Science Center's (PIFSC) Hawaiian Monk Research Program. I spent 4 months at Manawai (Pearl and Hermes Atoll) collecting population assessment data for Hawaiian monk seals. From 2020-2024, I was a Biological Science Technician for PIFSC where I was assigned to PIFSC research cruises to fulfill various roles. In that position, I sailed on 11 research cruises in the Pacific Islands Region as a small boat operator, scientific diver, cetacean acoustician, and logistics lead.

What are you working on now?

Currently, I am focused on preparing our small boats for our 2025 field operations, which involves conducting inspections on our boats, trailers and safety equipment. I am also working alongside Sydney Luitgaarden to use Structure from Motion techniques to build 3D models of reef sites we surveyed in 2024.

What do you enjoy about working at ONMS?

I love the hands-on aspect of my job and I am very grateful that I have the opportunity to visit and collect valuable data in Papahānaumokuākea that directly contributes to ONMS's mission of protecting these pristine ecosystems.

What is your hope for Papahānaumokuākea in the future?

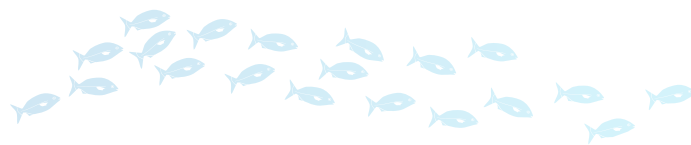
I hope Papahānaumokuākea continues to become more well known across Hawai'i and the continental U.S. to show folks the importance of managing and protecting our marine resources. I hope it inspires people to want to support ONMS's mission and protect marine resources in other parts of the world as well.

James Morioka

Conservation (Alternate)

Served since: 2024

RAC Member Highlight



What is your background?

I am the Executive Director and Co-Founder of the nonprofit Papahānaumokuākea Marine Debris Project (PMDP). Our mission is to protect and preserve the wildlife and habitats of the islands and atolls of Papahānaumokuākea by removing marine debris through annual large-scale cleanups. Over the past four years, we've removed more than 1 million pounds of marine debris and rescued countless entangled animals. Before PMDP, I co-managed and co-led this project for NOAA's Pacific Islands Fisheries Science Center.

What first sparked your interest in marine conservation and/or Papahānaumokuākea?

As Executive Director of PMDP, I lead our team in large-scale coral reef cleanups, removing derelict fishing nets using freediving techniques. I also train and mentor the next generation of marine conservation stewards, providing small boat operation and in-water training each year. Beyond that, I have the unique opportunity to connect people with Papahānaumokuākea, engaging them in meaningful, purpose-driven 'āina-based conservation efforts.

Why is it important to you to serve on the RAC?

I serve on the RAC because I have a firsthand perspective on the ever-changing ecosystems of Papahānaumokuākea. Over the past 14 years, I have spent more than 500 days across its islands and atolls – both in-water and on-island – conducting marine debris cleanups, scientific diving on coral reef ecosystems, and Hawaiian monk seal research. Witnessing these changes firsthand, I am passionate about contributing to meaningful conservation and research efforts that help inform better management of Papahānaumokuākea.

In what ways do you engage with or involve your community in supporting the efforts of Papahānaumokuākea?

Papahānaumokuākea has inspired my lifelong dedication to marine conservation. I am committed to protecting and preserving it for the people of Hawai'i and future generations. As a father to daughters and a Native Hawaiian, I strive to teach my children the importance of standing up for what you believe in and working with the community to make our home and world a better place.

What is your hope for Papahānaumokuākea in the future?

My hope for the future of Papahānaumokuākea is that it remains protected and preserved for future generations. It holds immense cultural significance and stands as a remarkable example of a pristine environment with thriving biodiversity. Through our work at PMDP, I aim to inspire others to care for what they love and create positive change, ensuring that Papahānaumokuākea becomes the standard for how protection can preserve both its cultural and natural value.

Reserve Advisory Council News

- The Reserve Advisory Council (RAC) looks forward to transitioning to a Sanctuary Advisory Council (SAC) this year. The council will be revising their charter and workplan, to be effective in the summer of 2025.
- **New Members seated December 2024.**
 - Lurline McGregor: Education (Primary)
 - Alisha Chauhan: Ocean Related Tourism (Alternate)
- **Scheduled 2025 RAC Meetings:**
 - March 3rd
 - June 12th
 - September 17th
 - December 9th
- **Recent Actions:**
 - [Comment on Navy Hawaii-California Training and Testing DEIS - February 2025](#)

CONNECT WITH US    sanctuaries.noaa.gov/papahanaumokuakea

Papahānaumokuākea National Marine Sanctuary
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

Pacific Islands Ocean Exploration Center
Aloha Tower Marketplace
1 Aloha Tower Drive, Suite 1101
Honolulu, Hawai'i 96813 | Phone: 808-600-5552

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