



PAPA HĀNAUMOKUĀKEA
Marine National Monument



Hō'okāhi wai o ka like
All of one color; harmonious or in unity



SUMMARY OF
ACTIVITIES PERMITTED
IN 2022



2022 Activities

In 2022, a diverse range of activities were conducted within Papahānaumokuākea Marine National Monument (Monument), the largest marine protected area in the United States. A total of 14 applications were received and nine were issued. Of the permits that were issued, seven were for activities solely within the original monument boundaries and two were for activities within both the original monument boundaries and Monument Expansion Area. Of the remaining permit applications, four were withdrawn and one was denied. To support permitted activities, authorized individuals may either enter the monument on permitted vessels or aircraft to Midway Atoll. There were a total of 28 permitted flights to Midway and 22 vessel entrances from nine permitted vessels. A common theme of the activities conducted in the monument this year was captured in the Hawaiian proverb “Ho’okāhi wai o ka like” which translates to “all of one color; harmonious or in unity”. The following summaries illustrate harmonious efforts by separate entities to work towards Papahānaumokuākea vision to forever protect and perpetuate ecosystem health and diversity and Native Hawaiian cultural significance.

Researchers collect data on nuisance red alga at Kuaihelani

In 2022, a collaborative team of scientists from NOAA, the University of Hawai‘i, the College of Charleston, and U.S. Fish and Wildlife Service completed an expedition to Kuaihelani (Midway Atoll) to investigate the ecology and physiology of the nuisance alga *Chondria tumulosa*, and to examine oceanographic conditions that might be fueling its growth. The origin of this alga remains 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 is only known to occur in the northernmost atolls within the Monument.

Seafloor Mapping in Papahānaumokuākea

Ocean Exploration Trust returned to the Monument in 2022 to conduct high-resolution mapping of deep waters in the Monument using ship-based mapping surveys and uncrewed surface vessel DriX for nearshore mapping. Acquiring this data will equip resource managers with a better understanding of the formation of the Northwestern Hawaiian Islands, map habitats protected within the monument and assist in the national and international priority to build high-resolution maps of the seafloor, especially in areas needing protection.



Papahānaumokuākea Marine Debris Project team alongside recovered marine debris. Photo: Papahānaumokuākea Marine Debris Project

101 Tons of Marine Debris Removed from Papahānaumokuākea

A team from the Papahānaumokuākea Marine Debris Project (PMDP), a Hawai‘i-based non-profit organization, returned to Monument in 2022 to conduct large-scale marine debris cleanup over the course of two 30-day cruises resulting in a cumulative total of 202,950 pounds marine debris removed from the Monument. This most recent effort brings PMDP’s total to a half-million pounds since they began large scale cleanups two years ago. These annual cleanup expeditions are critical for reducing entanglement risk for many species of protected wildlife, mitigating coral reef damage, and minimizing the risk of plastic ingestion for seabirds.

Papahānaumokuākea featured on Our Planet II

In 2022, a natural history series called “Our Planet II” became available on Netflix featuring Papahānaumokuākea. Filming focused on the movements, migration, and life-cycle of the mōli (Laysan albatross, *Phoebastria immutabilis*), ka’upu (black-footed albatross, *Phoebastria nigripes*), and niuhi (tiger shark, *Galeocerdo cuvier*). All filming was authorized under a special ocean use permit and supervised by a designated resource monitor from the Monument to ensure no adverse impact on Monument resources during the filming operations.



Left Photo: Chondria Research team posed in front of the Midway Atoll Refuge office with Deputy Refuge Manager Eldridge Naboa. NOAA affiliate staff members (left to right) Brian Hauk and Keolohilani Lopes Jr., Taylor Williams and Mario Kaluhiokalani. Photo: US Fish and Wildlife Service. Right Photo: DriX used for nearshore mapping. Photo: Ocean Exploration Trust



Fledgling ka’upu (black-footed albatross, *Phoebastria nigripes*), and niuhi (tiger shark, *Galeocerdo cuvier*) on shore and nearby niuhi. Photo: NOAA

For more information on these stories, visit www.papahanaumokuakea.gov





Papahānaumokuākea Marine National Monument is administered jointly by four co-trustees – the Department of Commerce, the Department of the Interior, the State of Hawai‘i, and the Office of Hawaiian Affairs. The day-to-day management of the monument is overseen by a seven-member management board: NOAA’s Office of National Marine Sanctuaries, NOAA Fisheries, U.S. Fish and Wildlife Service National Wildlife Refuges and Ecological Services, State of Hawai‘i Division of Aquatic Resources and Division of Forestry and Wildlife, and the Office of Hawaiian Affairs. Co-management takes all agencies working together, and all have unique expertise to bring to the table. Papahānaumokuākea celebrated 10 years as the first mixed (natural and cultural) UNESCO World Heritage Site in the United States in July 2020.

For more information about the stories and activities of Papahānaumokuākea, please visit www.papahanaumokuakea.gov.

Front cover photo by John Burns/NOAA and back cover photo by Andrew Gray/NOAA.