



## Who We Are

Papahānaumokuākea Marine National Monument was designated in June 2006. The Monument encompasses the Northwestern Hawaiian Islands and is administered jointly by three co-trustees – the Department of Commerce through the National Oceanic and Atmospheric Administration's Office of National Marine Sanctuaries and National Marine Fisheries Service Pacific Islands Regional Office; Department of the Interior through the U.S. Fish and Wildlife Service's Pacific Region National Wildlife Refuge System and Pacific Islands Fish and Wildlife Office; and the State of Hawai'i through the Department of Land and Natural Resources' Division of Aquatic Resources and Division of Forestry and Wildlife.

Co-trustee agencies, in cooperation with the Office of Hawaiian Affairs, manage the Monument together to protect the entire ecosystem from remote sub-tropical islands to the deep sea. For more information, please go to

[www.papahanaumokuakea.gov](http://www.papahanaumokuakea.gov)



## GET INVOLVED

Wondering how to learn more about Papahānaumokuākea?

### CLICK

Go to our website at [www.papahanaumokuakea.gov](http://www.papahanaumokuakea.gov) to sign up for our listserve and learn more about the latest news.

### VISIT

**Mokupāpapa Discovery Center** in Hilo, Hawai'i to learn about the Northwestern Hawaiian Islands. Small groups of visitors can also access Midway Atoll on a limited basis. To learn about current opportunities and permitted tour operators, see our website.

### INSPIRE

Work in your own community and take action to care for the environment around you! Clean up a beach, or participate in a fish or bird count.

### SUPPORT

Support marine conservation efforts and connect with organizations that support the Monument such as the National Marine Sanctuary Foundation ([www.nmsfocan.org](http://www.nmsfocan.org)) and the Friends of Midway Atoll ([www.friendsofmidway.org](http://www.friendsofmidway.org)).



# PAPAHĀNAUMOKUĀKEA Marine National Monument



## Our Name

The name Papahānaumokuākea (pronounced Pa-pa-hah-now-mo-koo-ah-keh-ah) comes from an ancient Hawaiian tradition concerning the genealogy and formation of the Hawaiian Islands, and an honoring of the dualisms of life.

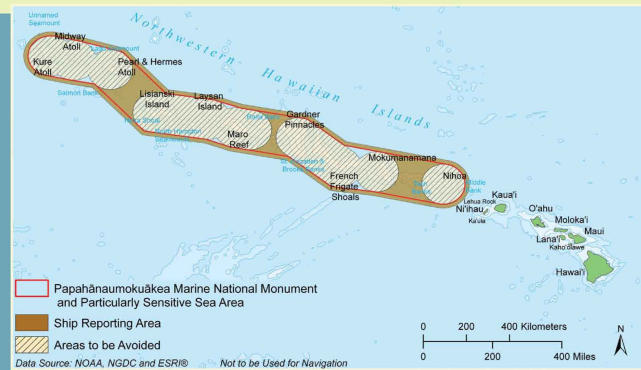
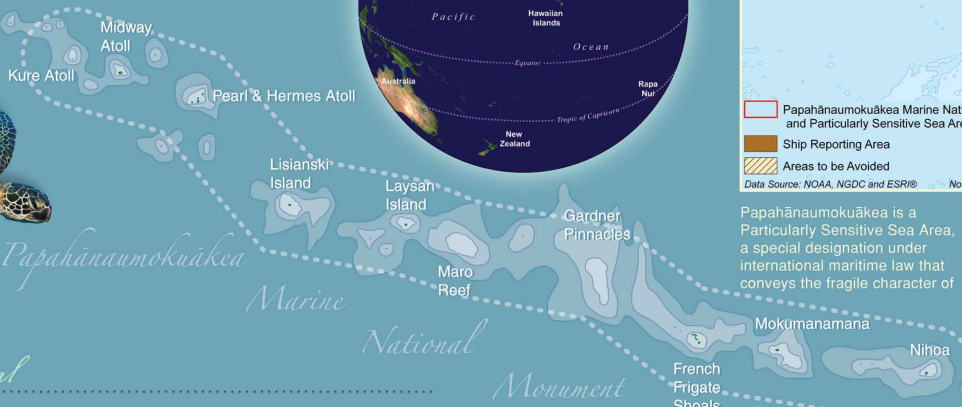
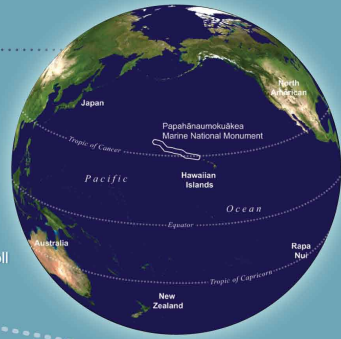
Papahānaumoku is a mother figure personified by the earth, and Wākea is a father figure personified by the expansive sky; the two are revered as the ancestors of Native Hawaiian people. Their union resulted in the creation, or birthing, of the entire Hawaiian archipelago—thus the naming of the Monument is to honor and preserve these names, to strengthen Hawai'i's cultural foundation and to ground Hawaiians to an important part of their history.

Taken apart, "Papa" (earth mother), "hānau" (birth), "moku" (small island or large land division), and "ākea" (wide) suggest a fertile woman giving birth to a wide stretch of islands beneath a benevolent sky. Taken as one long name, Papahānaumokuākea can be seen as a symbol of hope and regeneration for the Northwestern Hawaiian Islands and the main Hawaiian Islands.



## Where We Are

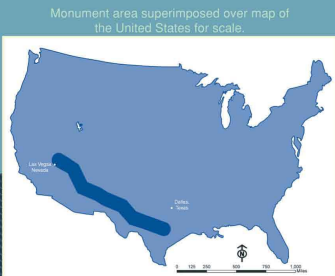
The geographic center point for Papahānaumokuākea is:  
N 25°20'56.652" W 170°8'44.952"



## Why It's Special

Located in the central North Pacific, roughly 3,000 miles from continental land masses, Papahānaumokuākea is part of the most remote island archipelago in the world. This isolation has led to the evolution of many unique plants

and animals. In the northern three atolls, half of all fish observed are Hawaiian endemics found nowhere else on Earth. Isolation has also granted protection for many species, ancient cultural sites, historic shipwrecks, and terrestrial and marine habitats.



## Monument Facts

**4,500** square miles of coral reef are among the healthiest reefs in the world

**90** percent of Hawaiian green turtles nest on Monument islets

**3.4** inches per year is the speed the islands are drifting to the northwest atop the Pacific Plate

**60** shipwreck sites are currently known to exist within the Monument, the earliest dating back to 1822

**28.7** million years old is the age of Midway Atoll



# PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT

## A Global Treasure



### *Aina Momona - A Place of Abundance*

Papahānaumokuākea is considered a sacred area from which Native Hawaiians believe life springs and to which spirits return after death. It is also a place for Native Hawaiian cultural practitioners of today to deepen their lineal ties to their ancestors and gods, who they understand are manifested in nature. The Hawaiian god Kanaloa, for example, is embodied in the vast expansive ocean, and can take nearly every form of life within it. This Hawaiian connection and belief passes to each generation the kuleana (right and responsibility) to sustain their ancestral rights, and reminds Native Hawaiians—and all of us—of our role as stewards to mālama (care for) the natural and cultural resources in Papahānaumokuākea.

In recent years, Native Hawaiians, in their continuing journey to perpetuate their tradition

and cultural practices, have voyaged to Papahānaumokuākea to honor their ancestors. Native Hawaiian practitioners consider Papahānaumokuākea to be one of Hawai'i's last-remaining 'āina momona—a deep well of knowledge and spiritual inspiration.



### *Terrestrial Environments*

Despite the small amount of land in the Northwestern Hawaiian Islands, terrestrial life abounds. Over 14 million seabirds representing 22 species breed and nest on less than six square miles of land. This incredible abundance is a product of the islands'

isolation, lack of predators, early protections, and habitat restoration efforts. The Monument is one of the last, best places for many of these vulnerable seabirds.



Papahānaumokuākea is home to four species of birds found nowhere else in the world, including the world's most endangered duck, the Laysan duck. The island of Nihoa, at 171 acres, is smaller than the United States Capitol and grounds, and encompasses the only habitat for two endangered land birds. It is one of the most biologically pristine islands in the Pacific, and probably most closely represents island appearance and native species found before humans arrived in the Hawaiian Islands. At least six endangered species of land plants are found here.



### *Predator-Dominated Coral Reefs*

Often called the "rainforests" of the sea, coral reefs are vital to maintain the biological diversity of our oceans. They are highly complex, productive ecosystems composed of countless millions of plants and animals dependent upon one another to survive. The Monument's remote location ensures that naturally occurring arrival of new species is rare. Before the arrival of humans, it is estimated that new species became established in Hawai'i once every 70,000 years. Approximately 25 percent of all marine species in the Monument are unique to the Hawaiian archipelago—one of the highest rates of marine endemism in the world.

The Monument protects one of the world's last apex predator-dominated coral reef ecosystems. More than half the weight (biomass) of all fish on its coral reefs consists of apex predators like sharks and jacks. This contrasts sharply to similar habitats in the populated main Hawaiian Islands where only three percent of fish biomass is made up by these top predators. Apex predators are critical to maintaining healthy reefs, and depletion of these animals through over fishing and habitat destruction has degraded coral reefs worldwide.



### *Threats*

The most significant threats to Monument habitats and wildlife arise from human activities beyond its boundaries. Issues such as global climate change, sea level rise, ocean acidification, wildlife/fishery interactions, and marine debris are major concerns. On land, impacts from the introduction of alien species represent the most immediate threat.

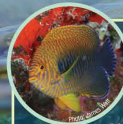
The greatest threat to Monument wildlife comes from human-accelerated climate change and related effects. Increases in sea surface temperature impact nearly all habitats in this ocean realm and have been linked to disease outbreaks in marine organisms. In 2002 and 2004, unusually warm seawater caused a coral bleaching event in the northern atolls. Fortunately, the majority of reefs recovered. Rising sea levels also endanger the limited nesting habitats of threatened green turtles and seabirds, and pupping areas for endangered Hawaiian monk seals.

Every year, over 50 tons of marine debris arrive in Monument waters. On otherwise pristine and unpopulated beaches, television tubes, bottles, shoes, and every kind of plastic material can be found from countries surrounding the North Pacific. Derelict fishing nets, dozens of feet long, scour fragile coral reefs and entangle marine life. The wide ranging Laysan albatross bring plastic pieces, along with digested squid and fish eggs, back to hungry chicks who eagerly consume the entire meal, plastic and all.



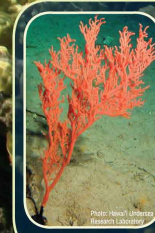
Efforts to remove debris, 586 tons between 1996 and 2008, have hardly kept pace, and only increasing awareness of the issue and individual action by all will bring relief.

PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT encompasses approximately **139,797 square miles** of Pacific Ocean an area larger than all of the country's national parks combined



### *Strong Protection*

Over the last hundred years the Northwestern Hawaiian Islands have seen increasing protections from federal and state governments. The Monument area includes the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, Northwestern Hawaiian Islands State Marine Refuge, Hawaiian Islands National Wildlife Refuge, Midway Atoll National Wildlife Refuge/ Battle of Midway National Memorial, and Kure Atoll Seabird Sanctuary. Stringent access and permit requirements help to limit activities in the Monument to those that provide benefit to its natural and cultural resources and which cannot be conducted elsewhere. Monitoring, tracking and reporting of activities help managers to evaluate and mitigate cumulative impacts. The vision is to forever protect and perpetuate ecosystem health and diversity and Native Hawaiian cultural significance for Papahānaumokuākea.



### *Deep Sea Habitats*

Over 90 percent of the Monument's area is deep sea—depths greater than 3,000 feet. Hawaiian monk seals descend into this permanent night, more than a thousand feet beneath the surface, to hunt for prey among the branches of precious gold and bamboo corals. Some of these corals are over 4,000 years old. Deeper still, odd animals such as sleeper sharks, hagfish, crabs,

and large shrimp scavenge in complete darkness for organic material fallen from above. Scientists are just beginning to understand these habitats that are reachable only by submersibles, remotely operated vehicles and time-lapse drop cameras. This is the next great frontier for exploration of our planet, and new species are regularly discovered.

### *A Moment in Time*

Midway Atoll and its surrounding waters played a pivotal role in World War II and is the most recognized area in the Monument, however the Northwestern Hawaiian Islands had an important role in the Pacific long before that. The first signs of human presence may date back as early as 1000 A.D., when early Hawaiians settled on Nihoa and visited Mokumanamana, leaving behind the highest concentration of ritual sites in Hawai'i.

The 1800s brought increased international trade, commerce, and overexploitation of resources. Guano miners destroyed island ecosystems, and seabirds were targeted for their feathers and eggs. Whaling vessels were lost on poorly charted and treacherous reefs—many providing modern names for the islands, as was the case at Pearl and Hermes Atoll.

During the next century, the islands were used as a connection to the rest of the world. In 1903,



Midway Atoll became a "stepping stone across the Pacific," making a critical link in worldwide cable communications. Later, Midway's tourism industry began when it was included as an early transpacific stop for the Pan American Clippers. This century also began a tradition of protection—in 1909 President Theodore Roosevelt created the Hawaiian Islands Reservation (now the Hawaiian Islands National Wildlife Refuge), ultimately leading in the 21st century to the creation of the Monument.