

Learn about some of the unique creatures that inhabit Papahānaumokuākea Marine National Monument, the largest permanent fully-protected conservation area on the planet!

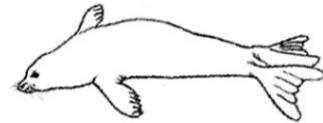
PAPAHĀNAUMOKUĀKEA Marine National Monument

www.papahanaumokuakea.gov



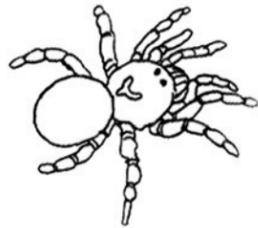
Hawaiian Monk Seal • 'Ilio-holo-i-ka-uaua • *Neomonachus schauinslandi*

The Hawaiian monk seal is Hawaii's official state mammal and is endemic to the Hawaiian Islands. Hawaiian monk seals are one of the most endangered animal species in the world. Only about 1,400 seals are left in the wild -- about 1,100 seals in the Northwestern Hawaiian Islands and 300 in the main Hawaiian Islands. 2017 has been declared the "Year of the Monk Seal" to celebrate a new, positive trend for the species: an increase in numbers by 3% after more than six decades of decline.



Nihoa trapdoor spider • *Nihoa mahina*

The Nihoa trapdoor spider, or *Nihoa mahina*, is endemic to the island of Nihoa in the Northwestern Hawaiian Islands. These spiders are hunters that dig a hole near rocks and then cover it with a concealed 'trapdoor.' The spider excavates these burrows completely with its jaw! When prey approaches or falls in, the spider pounces on it. Then it uses its abnormally large pedipalps (appendages kind of like pinchers) to take food into its mouth.



Nihoa fan palm • Loulu • *Pritchardia remota*

The Nihoa fan palm, or Loulu, is a species of palm endemic to the island of Nihoa in the Northwestern Hawaiian Islands, and later transplanted to Laysan Island. It is smaller than most other species of *Pritchardia*, typically reaching only 13–16 feet tall and with a trunk diameter of less than 6 inches. The only type of tree on the island, the Loulu used to be abundant until 1885, when a wildfire ravaged the island, destroying most of the palms. Only about 700 of these endangered trees remain. However, numbers are slowly increasing. There are 19 endemic Loulu species found throughout the Hawaiian Archipelago. Each of the main Hawaiian Islands has at least one distinct species and some islands have distinct forms limited to individual valleys or mountains.



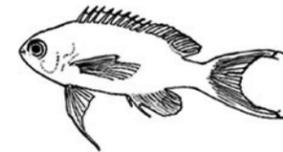
'Casper' Octopus

Discovered in 2016 during the first dive of the *Okeanos Explorer* deep-sea expedition to the Northwestern Hawaiian Islands, this octopus confused scientists who had never seen anything like it. This ghostlike octopod is almost certainly an undescribed species and may not belong to any yet-described genus. Affectionately nicknamed 'Casper' after the friendly cartoon character, the octopus was found haunting the seafloor near Mokumanamana as scientists explored at over 4,000 meters deep - that's about half as tall as Mount Everest.



Pete Basabe's Butterflyfish • *Prognathodes basabei*

This species was first observed in video taken from manned submersibles more than 20 years ago, at depths as great as 600 feet. More recently, the new butterflyfish has been encountered regularly on deep exploratory dives up to 330 feet on NOAA expeditions within Papahānaumokuākea. The butterflyfish, *Prognathodes basabei*, is named after Pete Basabe, a veteran local diver from Kona who over the years has assisted with the collection of reef fishes for numerous scientific studies and educational displays. Basabe, an experienced deep diver himself, was instrumental in providing support for the dives that produced the first specimen of the fish that now bears his name. The fish are now on display at Bishop Museum in Honolulu and at the Mokupāpapa Discovery Center in Hilo. An additional specimen is on display in the Deep Reef exhibit at the Waikiki Aquarium.



Obama Fish • *Tosanoides obama*

This small pink and yellow fish is a kind of basslet and is the only known species of coral reef fish endemic to the Monument. All other reef fish species found within Papahānaumokuākea also occur either in the main Hawaiian Islands or Japan. The new fish was first seen and collected on a dive to 300 feet at Kure Atoll, 1200 miles northwest of Honolulu. Kure Atoll is the northernmost emergent land mass of the Hawaiian Islands, and is the highest latitude coral atoll in the world. Deep coral reefs at depths of 150 to 500 feet, also known as mesophotic coral ecosystems or the "coral reef twilight zone," are among the most poorly explored of all marine ecosystems. Deeper than divers using conventional scuba gear can safely venture, these reefs represent a new frontier for coral-reef research.

Laysan Duck • *Anas laysanensis*

Laysan ducks once occurred across the entire Hawaiian Archipelago, but disappeared from the main Hawaiian Islands with the arrival of invasive Polynesian rats around 800 years ago. They were restricted to Laysan Island in the Northwestern Hawaiian Islands for about 150 years until they were successfully reintroduced to Midway Atoll in 2004 and to Kure Atoll in 2015. The endangered Laysan duck is the rarest duck in the Northern Hemisphere and has the smallest geographic range of any duck species in the world. The species continues to be threatened by avian disease, severe storms and sea level rise.



World's Largest Sponge

A sponge the size of a minivan was found during the summer of 2016 during a deep-sea expedition in Papahānaumokuākea Marine National Monument. Scientists aboard NOAA ship *Okeanos Explorer* used remotely operated vehicles to explore some of the deepest areas of the monument and came across the sponge during a dive at a depth of 7,000 feet. The massive sponge was captured on high-definition video and is close to 12 feet long and seven feet wide. It is the largest sponge in the world known to date. Based on a microscopic examination of the sponge's spicules, that specimen was identified as belonging to the hexactinellid family Rossellidae and subfamily Lanuginellinae.



World's Tallest Gorgonian • *Iridogorgia bella*

The largest known gorgonian coral in the world, this *Iridogorgia bella* (a type of octocoral) was discovered at a depth of 4,482 feet in 2015 near Mokumanamana in Papahānaumokuākea Marine National Monument. Nearly 20 feet in height, this gorgonian is the size of an adult giraffe.



World's Oldest Marine Animal • *Leiopathes annosa*

In 2015, scientists described and named a new species of deep-water black coral found at depths of 1,000-1,600 feet throughout the Hawaiian Islands. Much like terrestrial trees, deep-water corals form growth rings that can be used to determine their age. Scientists use high-resolution radiocarbon measurements on such growth rings to determine a coral's age. This coral can live up to 4,500 years, making it the longest-lived marine organism known to date. The name *Leiopathes annosa* is derived from the Latin name 'annosa' meaning long-lived.

