

Facts about Hawaiian Monk Seals

History: The Hawaiian monk seal is a native species found only in Hawai'i. There are no historical records of this species of monk seal living anywhere else in the Pacific. Traditional Hawaiian names for the Hawaiian monk seal include `ilioholoikauaua, nā mea hulu, and `ilio o ke kai.

Range: The majority of Hawaiian monk seals (~900) reside in the Northwestern Hawaiian Islands (NWHI), which are part of the Papahānaumokuākea Marine National Monument. A smaller but growing population of approximately 150 to 200 seals inhabits the main Hawaiian Islands (MHI). While the MHI and NWHI subpopulations were once thought to be isolated, recent analysis of sighting records shows that some seals do in fact move between the two regions.

Lifespan: Hawaiian monk seals live to a maximum of 25-30 years. Female seals reach reproductive age around 5 years; females generally give birth to one pup per year once they are of reproductive age, but may not pup every year.

Size: Hawaiian monk seal pups are 3 feet long at birth and grow to reach about 7 feet in length at maturity. Pups weigh about 35 pounds at birth and wean at approximately 6-7 weeks. Full grown seals weigh between 375 -450 pounds.

Diet: Monk seals are general foragers targeting fish, cephalopods, and crustaceans that live on or near the ocean floor. They feed on prey in habitats ranging from shallow coral reefs down to depths of over 1500 feet. Monk seals typically eat 3%-8% of their body weight per day (depending on age and prey type).

Behavior: Monk seals are largely solitary animals (hence the name monk seal); they do not form rookeries or colonies like many other seal species. Monk seals naturally avoid human interaction and can become aggressive when they feel threatened. Monk seals breed, birth and haul-out on beaches, corals and volcanic rocks; they are often seen resting on beaches during the day.

Threats: Over the past 50 years, the Hawaiian monk seal population has experienced a severe decline of 60%, and now numbers slightly more than 1,000 individuals. At the current rate of decline (about 4% per year), the population will slip below 1,000 animals in the next few years. A number of changing factors has contributed to the decline including: human hunting of the species to near extinction in the mid-1800s; entanglement in marine debris; unintentional hooking and entanglement in fishing gear; loss of habitat for pupping or resting; competition for food in the NWHI; aggression by males that kill females or pups; and shark predation at one atoll in the NWHI.

Protection Status: Hawaiian monk seals are protected by both the Marine Mammal Protection Act and the Endangered Species Act. The intentional harming or killing of a monk seal may result in a federal fine of up to \$50,000 and one year in jail. The State of Hawai'i considers the intentional harming or killing of a seal a third-degree felony under state law.

Conservation Program: A recovery plan for the seal was issued in 1983, and revised in 2007 by NOAA Fisheries. The plan calls for actions to reduce threats and enhance survival of young seals, especially females. The long term goal is to recover the seal population to 3,400 animals, of which 500 would be in the MHI. However, reaching this ambitious goal hinges on a number of factors and recovery activities that must come together over the next 10 years. Hawaii's Department of Land and Natural Resources (DLNR) oversees state efforts to protect and recover the seal which are coordinated with the federal program.



Current Controversies over Hawaiian Monk Seals

Hawaiian Monk Seals are Native to Hawai'i

Archival and archaeological evidence demonstrates that monk seals were present in the MHI prior to human settlement. Monk seals are present in multiple origin stories, including the Kumulipo (as `iole holo i ka uaua) and Kumu Honua genealogy (as ka`ilio holo i ka uaua a Lono). Archaeological remains of monk seals have been found on Hawai'i and Mau'i islands. Additionally, numerous oral stories about monk seals have been collected from kūpuna throughout Hawai'i. While evidence also demonstrates that monk seals were not as culturally significant or prevalent as other species, such as the manō (shark), pueo (owl) or honu (sea turtle), the evidence suggests the seal was present in the MHI thousands of years ago.

Hawaiian Monk Seals are Expanding Naturally in the Main Hawaiian Islands

By the early to mid-1800s, seals were almost completely displaced from the MHI due to human colonization and seal hunting. The remaining population lived in relative safety in the NWHI until it too was nearly extirpated in the late 1800's due to sealing. More recently, seals have been showing up in increasing numbers in the MHI due to natural reproduction and some immigration from the NWHI. Research shows that seals in the MHI reproduce at an earlier age, grow faster, and survive at higher rates (~80%) than seals in the NWHI (~20%). The estimated growth rate of the MHI population is 6-7% annually.

In an attempt to reduce male monk seal aggression towards females and pups in the NWHI, 21 adult male monk seals were relocated by the federal government to the MHI in 1994. These seals were released at the following sites: Hawai'i – 6, Mau'i – 4, Moloka'i – 5, Kaho'olawe – 2, O'ahu – 2, and Kaua'i – 2. However, moving these males alone could not have affected population growth in the MHI. Many of the relocated male seals have died of old age; and only a few of the relocated seals have been observed and reported recently. **NOAA has not brought any other seals to the MHI since 1994.**

Hawaiian Monk Seals are Varied in both their Diet and their Foraging Strategies

Hawaiian monk seals are opportunistic feeders, with a diet that ranges from shallow water reef fish to deep-water fish, eels and invertebrates. Their feeding strategy also changes throughout their lifetime and as prey are available. Recent work on the blubber stores of NWHI seals shows a preference (~80%) for slope fish, with up to a quarter of those fish taken from depths of more than 300 meters. Given the seal's flexible feeding strategy and wide foraging range, the impact of monk seal predation on fish and shellfish is diffuse, and does not permanently impact any single species or habitat area.

Contrary to some perceptions, the monk seal's diet does not have a large amount of overlap with commercial and recreational fisheries. Approximately 95% of reported commercial catch and 80% of reported recreational catch consists of large pelagic species, such as tuna, mahi, and billfish, none of which are part of the monk seal diet. Furthermore, only about 1/3 of the remaining commercial and recreational landings are comprised of fish species that are also consumed by monk seals. Preferred monk seal prey items include triggerfishes, eels, wrasses, and other benthic species, many of which are not prized by sport, subsistence or commercial fisherman.

Regarding ecosystem impacts, it is estimated that each year commercial and recreational fisheries remove at least 40 times more biomass from the marine environment than monk seals. Monk seals likely serve an ecological role similar to other large marine predators such as sharks and jacks, which consume at least 70 times more biomass than seals do each year. It is estimated that monk seals only consume .0024% of the estimated biomass available in the marine environment around the MHI.

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