



## Marine Mammals

# Īlio-holo-i-ka-uaua or Hawaiian monk seal

*Neomonachus schauinslandi*

### SPECIES STATUS:

Federally Listed as Endangered

State Listed as Endangered

State Recognized as Indigenous and Endemic

IUCN Red List – Critically Endangered

**SPECIES INFORMATION:** Īlio-holo-i-ka-uaua, or Hawaiian monk seals, are benthic feeders and feed on reef fishes, octopus, squid, and lobsters over many substrates up to depths of 305 meters (1,000 feet). Juveniles feed on a higher proportion of nocturnal fish species. Food seems to be a limiting factor for population growth. They are usually solitary, except on preferred beaches when they occur in close proximity and interact. Mating occurs in the spring and early summer. Gestation is approximately one year. Pupping occurs in late winter and spring. Weaning lasts five to six weeks, in late spring, and pups and mothers stay ashore until pups are weaned. Foster parenting occurs. Most females breed every other year, but about one-third breed in consecutive years. Sexual maturity occurs at around five to ten years of age, and earliest is at Laysan. Life span is 20 to 25 years of age. These are the only endangered marine mammal that occurs exclusively within the United States.

**DISTRIBUTION:** Occurs in all of the Hawaiian Islands, including a small population in the Main Hawaiian Islands (MHI), although the majority of the population and pupping occurs in the Northwestern Hawaiian Islands (NWHI).

**ABUNDANCE:** The total population is estimated at 1,200 individuals, most of which occur in the NWHI, with a decreasing population trend. About 150 of these seals occur in the MHI, where the population is increasing.

**LOCATION AND CONDITION OF KEY HABITAT:** Feeding occurs within the atoll lagoon systems and on the reef slope within 200 kilometers (124 miles) of islands or atoll systems. They also forage on the submarine ridges connecting the atoll systems and on the seamounts around the NWHI. Terrestrial habitat is used about one-third of the time and includes haul-out areas for pupping, nursing, and resting, primarily on sandy beaches, but virtually all substrates are used. Beach vegetation is used for protection from wind and rain. Critical habitat has been designated under the Endangered Species Act as all waters out to 20 fathoms of depth and beaches (including sand spits and islets) and beach vegetation to its deepest inland extent around the six known breeding sites plus Maro Reef, Gardner Pinnacle, Necker, and Nihoa Islands. In addition, there is proposed critical habitat that would extend the current designation in the NWHI out to the 500-meter depth contour plus Sand Island at Midway Islands, as well as six new areas in the MHI (Kaula Island, Ni'ihau, Kaua'i, O'ahu, Maui Nui, and Hawai'i) from 5 meters inland to the 500-meter depth contour.

## THREATS:

- Human disturbance. Capture by humans and disturbance by military activities in the NWHI were once major threats. Disturbance of mothers with pups on popular beaches in the MHI is an ongoing threat.
- Entanglement and fishery interactions. Hooking and entanglement from recreational fisheries and from marine debris are significant sources of mortality. Regulations limiting longline fishing near the NWHI has decreased entanglement.
- Habitat degradation. Haul-out and pupping beaches in the NWHI are being lost to erosion as a result of sea level rise from climate change and storms.
- Disease. The seals are susceptible or potentially susceptible to disease outbreaks caused by canine distemper, leptospirosis, toxoplasmosis, brucellosis, and West Nile Virus.
- Predation. Shark predation on seal pups at French Frigate Shoals is a chronic and significant source of mortality.
- Prey availability. Low pup survival rates have been associated with reduced prey resources, potentially due to climate cycles or other oceanographic factors.
- Small population size and low genetic diversity exacerbate the other threats.

**CONSERVATION ACTIONS:** Actions specific to ilio-holo-i-ka-uaua should include the following:

- Continue to reduce fishery interactions and remove marine debris.
- Continue restoration and conservation of habitat and prey base.
- Remove sharks that cause significant predation of pups.
- Continue efforts to reduce potential introduction and exposure to infectious diseases.
- Expand and coordinate education and outreach programs.
- Conduct as-needed captive feeding and release of juveniles, and translocation of problem males and pups from low-survival areas to bolster other subpopulations.
- Maintain extensive field presence in NWHI to monitor and manage the seal population.

**MONITORING:** Conduct population monitoring, pup tagging, and adult identification program.

## RESEARCH PRIORITIES:

- Examine causes of low juvenile survival.
- Continue habitat use and diet studies.

## References:

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