



NATURAL HISTORY

Things You Should Know About the Hawaiian Monk Seal

- The Hawaiian name is 'Ilio-holo-i-ka-uaua, which means dog running in the rough seas.
- The Hawaiian monk seal (*Monachus schauinslandi*) is essential to a healthy Hawaiian ecosystem.
- Hawaiian monk seals are endemic, or native to the Hawaiian Islands. They exist nowhere else on Earth.
- The Hawaiian monk seal is one of only two mammals indigenous to Hawaii's terrestrial environment.
- Hawaiian monk seals are one of the most endangered animal species in the world. Only about 1,100 seals are left and their overall population is in decline.
- Hawaiian monk seals are protected by the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA).
- The Hawaiian monk seal is Hawaii's official state mammal.



Taxonomy

Hawaiian monk seals are one of three species of seals in the genus *Monachus*, the oldest of all existing seal genera. Monk seals are the oldest species of seals on the planet.

- The Caribbean monk seal is extinct, with the last wild animal seen in 1952.
- The Mediterranean monk seal numbers are in the low hundreds.



Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Carnivora
Family: Phocidae
Genus: *Monachus*
Species: *schauinslandi*

Physical Description

- Adult Hawaiian monk seals are about 5-7 feet in length and weigh about 400-600 pounds.
- Their life expectancy is 25-30 years.
- Monk seals molt, or shed the top layer of their skin and fur about once a year.
- Female monk seals are slightly larger than males.

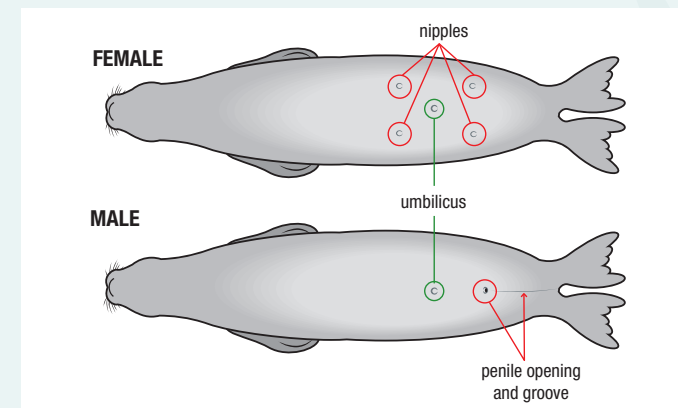


How to Tell Seals Apart

Most Hawaiian monk seals have unique natural markings, such as scars, that help identify individual seals. Some seals have identifiers that are applied by authorized NOAA Fisheries Service personnel to help keep track of individual animals:



The only way to confirm whether a seal is female or male is by looking at its belly:



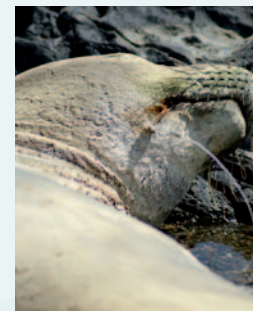
Diet

Hawaiian monk seals are "generalist" feeders, which means they eat a variety of foods depending on what's available. They eat many types of common fishes, squid, octopus, eels and crustaceans (crabs, shrimp and lobster). Their impact on the local fish population is thought to be limited and diet studies indicate that they prefer prey that is easier to catch unlike most of the locally popular gamefish, i.e. ulua, papio and oio.

Threats to the Hawaiian monk seal population



- Low juvenile survival
- Food limitation (starvation)
- Entanglement in marine debris
- Shark predation on pups
- Infectious disease
- Habitat loss
- Sea level rise due to climate change
- Fishery interactions
- Aggressive male seals attacking other seals
- Human disturbance



One Person Can Make a Difference

Protect the Hawaiian monk seal, let sleeping seals lie.

- It is natural for monk seals to come ashore, or haul out, on the beach for long periods of time. **Please give seals the space they need to rest, molt or pup.**
- Please do not enter areas roped off for seal protection zones and **keep a distance of at least 150 feet from all seals in areas where seals have not been roped off.** Use binoculars to view animals from a distance without disturbing them.
- In the ocean, monk seals may exhibit inquisitive behavior. **Do not attempt to approach these seals or "play" with them.** If approached by a seal, move away to avoid interaction.
- **Never feed or attempt to feed a seal.** It is illegal and may cause seals that interact with humans regularly to become dependant on humans. This may severely decrease the seal's chances of survival in the wild.
- Please remember to **keep your dog on a leash at all times** when in the presence of monk seals to avoid injury or disease transmission.

Please report all seal sightings by calling NOAA Fisheries Service monk seal hotline at: (808)220-7802 or email PIFSC.monksealsighting@noaa.gov

Please report entangled or injured seals: (888)256-9840

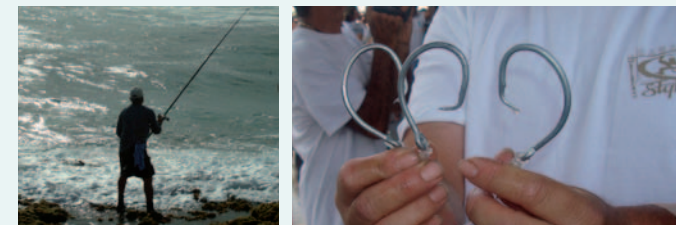
How to Prevent Seals from Getting Your Fish and Bait

Fishers are our partners in ocean stewardship and fishing has deep roots in the cultural heritages of many of our local families. Seal conservationists and Hawaii's fishers have a lot to learn from each other as we work together on marine conservation issues.



What can you do to minimize the possibility of a seal eating your catch or stealing your bait?

- 1. Don't feed the seals or discard old bait or scraps** into the water if seals are known to frequent or are seen in the area. A seal that has been fed even once may associate humans with food and persistently seek out humans thereafter. This creates possible risks for humans and reduces the seal's need to hunt on its own which hurts its chances for long-term survival in the wild.
- 2. If you encounter a seal while fishing take a short break or change locations.** Seals are curious creatures and investigate everything. Taking a short break from fishing while they are passing through your immediate area may allow them to move through quickly.
- 3. Use a barbless circle hook.** Barbless hooks help minimize post-hooking injuries. Barbless hooks have been proven to be effective in catching fish as well as retaining bait. Live baits can be bridled and fished effectively. To learn how to bridle live bait to a barbless hook, visit the Barbless Hook Project website: http://www.fpir.noaa.gov/RCF/barbless_hook.html



Critical Habitat Designation

Critical habitat is a specific area, or areas, that are essential to an endangered or threatened animal or plant in order for it to survive, not go extinct and recover to a healthy population.

This area(s):

- may require special management, like protection from development;
- may include an area that the species is not currently using, but will need to use as its population grows and recovers; and
- is only officially designated after a public comment period.



Designation of critical habitat does NOT federally restrict public access.

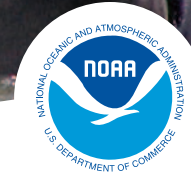
A critical habitat designation will not directly impact access to, and recreation on, the public beaches of Hawaii. A critical habitat designation only affects Federal activities (those that are federally authorized, carried out or funded).



NOAA Fisheries permit 9321305



NOAA Fisheries Service
Pacific Islands Region
 Visit our websites for more information.
 Pacific Islands Regional Office
<http://www.fpir.noaa.gov>
 Pacific Islands Fisheries Science Center
<http://www.pifsc.noaa.gov>



HISTORICAL TIMELINE OF THE HAWAIIAN MONK SEAL

Past to Present

Monk seals have occupied the Hawaiian archipelago for a very long time. Archeological and historical records indicate the seals have occupied the main Hawaiian Islands for at least the past several hundred years, and everything we know about monk seals suggests that the entire archipelago should have historically served as monk seal habitat for millions of years.

~70 million years ago (mya)

A series of volcanic eruptions that formed the islands of the Hawaiian archipelago began.

~3.5-11.6 mya

Monk seals made their way to Hawaii, presumably through a previously existing open water passage between North and South America called the Central American Seaway.

~3 mya

Central American Seaway was closed by the Isthmus of Panama.

~A.D. 1,400-1,750

Hawaiian monk seal bones are buried in a Hawaiian midden (domestic waste pile) and later unearthed by researchers in the Lapakahi archeological site on the Island of Hawaii during the summer field seasons of 1968-1970. This area was first settled around 600 years ago.

1800's to 1900's

Sealing expeditions during the middle of the 19th century reduced the Hawaiian monk seal population to near extinction in the NWHI.

1891

Records show the first Hawaiian monk seal specimens were collected for science.

1905

The Hawaiian monk seal is given its scientific name, *Monachus schauinslandi*, after Dr. H. Schauinsland brought a seal skull back from Laysan Island, NWHI.

1951

A group of naturalists traveled amongst the islands of the Leeward chain (NWHI) on the yacht Pioneer on the George Vanderbilt Pacific Equatorial Expedition observing that the Hawaiian monk seal was found on all the Leeward Islands from French Frigate northward, reporting a total of 407 sightings.

1984

Nine adult males were relocated from Laysan Island (NWHI) to Johnston Atoll because of attacks on adult females and immature seals.

1995

National Geographic's "CRITTERCAM" investigations began, revealing new insights about foraging areas and feeding habits of the Hawaiian monk seal.

2007

The Hawaiian Monk Seal Recovery Revised Plan was designed to describe the threats facing the species and the actions needed to address those threats.

2009

NOAA Fisheries Service announced that it intends to revise the Hawaiian monk seal's critical habitat.

~10-11.6 mya

Hawaiian monk seals as we know them today first appear in oceans.

~5.1 mya

The island of Kauai was formed.

~A.D. 300-600

Polynesian settlers first arrived in Hawaii.

1778

Captain James Cook, a British explorer, is the first European to arrive in the Hawaiian Islands.

1857

King Kamehameha IV visited Nihoa in the Northwestern Hawaiian Islands (NWHI) and an excerpt from the Manuokawai log states, "At 10 AM went ashore. About a dozen seals were on shore..."

1900

Historical evidence records that a seal was caught in Hilo Bay, Island of Hawaii. Solitary seals were said to occur on the coast about once in 10 years or so.

1912

The U.S. revenue cutter "Thetis" returned from a cruise to Midway and Laysan Islands in the NWHI and brought back a seal skin which was presented to the Bishop Museum in Honolulu and parts of three others which are in the U.S. National Museum.

1956

Scientists conducted the first systematic survey to count the number of Hawaiian monk seals.

1994

21 adult male Hawaiian monk seals were relocated from Laysan Island in the NWHI to the MHI because males greatly outnumbered females on Laysan Island, creating an unbalanced population. Additionally, some males were injuring and killing female seals. To prevent the further loss of females, it was necessary to remove some of the male seals from the island.

1998

Two adult males were relocated from French Frigate Shoals (NWHI) to Johnston Atoll because they were drowning pups.

2008

Lt. Governor Aiona signed into law legislation that establishes the Hawaiian monk seal as the official state mammal.

2010

Some Hawaiian monk seals in the main Hawaiian Islands (MHI) have recently been fitted with a new high tech cell phone tag that reveals their movements and also records water temperature and salinity.

FUTURE

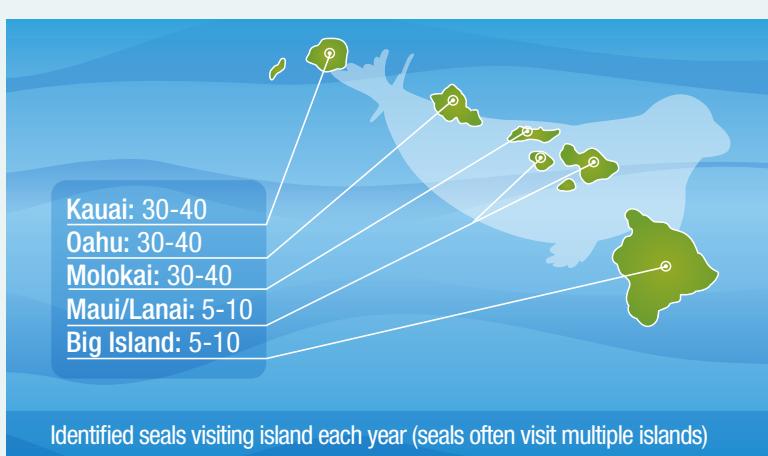
plans to conduct a translocation study to help increase the chance for juvenile seals to survive are currently being made. Pending regulatory approval, scientific validation and public engagement efforts to minimize potential adverse impacts some young seals may be temporarily moved from areas of low survivorship in the NWHI to areas of higher survivorship in the MHI to help avoid extinction of the species.



NOAA Fisheries Service Pacific Islands Region Recovering the Hawaiian Monk Seal

Growing population in the main Hawaiian Islands

A small and growing number of monk seals reside in the main Hawaiian Islands (MHI). Over 100 individual seals have been sighted here in recent years. However, despite the increase of animals in the MHI, the total population across their entire range, including the Northwestern Hawaiian Islands (NWHI), is in decline.



- The numbers of seal sightings and pups being born in the MHI are increasing each year
- Seals are generally in better condition than seals in the NWHI
- While growth is promising for the population it does not offset the decline in the NWHI and poses new risks and management concerns

NWHI (Northwestern Hawaiian Islands)

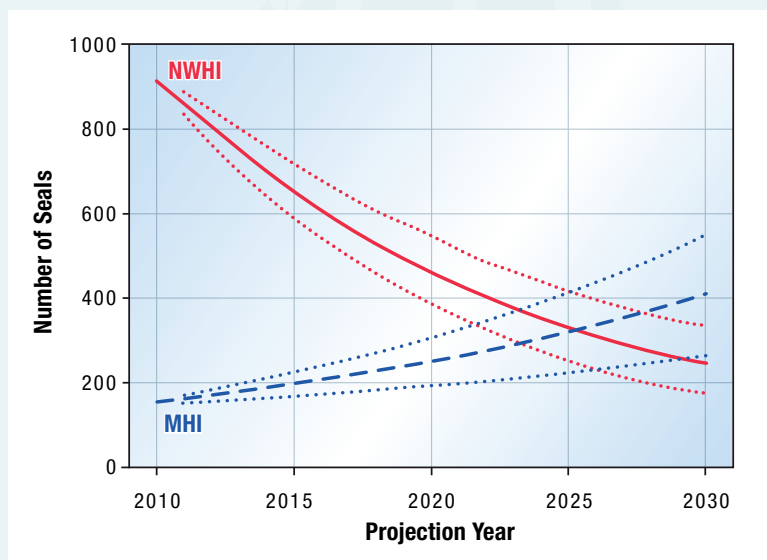
- Larger Population, but Declining
- Most Juveniles Perish

MHI (Main Hawaiian Islands)

- Smaller Population, but Growing
- Most Juveniles Thrive



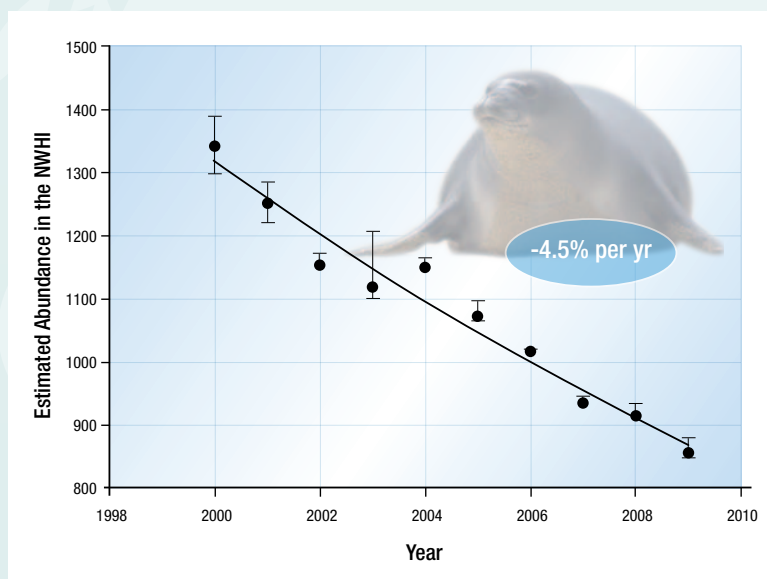
Preliminary projections of Hawaiian monk seal population growth based on current information.



At current rates, there may be as many seals in the MHI as NWHI in 2024.

The Hawaiian Monk Seal is in Crisis

- The NWHI population is currently declining at a rate of 4.5% per year
- Around 1,100 monk seals remain
- At current rate of decline, population may soon fall below 1,000 animals



Key Actions Required to Move Towards Recovery

- Improve juvenile female survival in NWHI
- Ensure continued growth in MHI by engaging the public and reducing threats
- Maintain extensive field presence in NWHI
- Reduce probability of infectious disease introductions

Juvenile Health Care Initiative

Develop a variety of tools to enhance survival of juvenile females, including the reduction of shark predation, relocation and supplemental feeding.

MHI Research Initiative

Understand biology, ecology and population dynamics of MHI seals and potential interactions with the human population.

Community-Based MHI Management Initiative

Enhance community participation in Hawaiian monk seal recovery activities through public education and outreach, and liaison and collaboration with native Hawaiians, fishers and other ocean stewardship partners.

Climate Change Initiative

Understand impacts of climate change on survival and recovery of monk seals in the future, including habitat loss and emerging diseases.

Recovery Plan Actions:

- Investigate and mitigate factors affecting food limitation
- Prevent entanglements of monk seals
- Reduce shark predation on monk seals
- Minimize the risk of exposure to or spread of infectious disease
- Conserve Hawaiian monk seal habitat
- Reduce Hawaiian monk seal interactions with fisheries
- Reduce male aggression toward pups/immature seals and adult females
- Reduce the likelihood and impact of human interactions
- Investigate and develop response to biotoxin impacts
- Reduce impacts from compromised and grounded vessels
- Reduce the impacts of contaminants
- Continue population monitoring and research
- Create and implement a main Hawaiian Islands Hawaiian Monk Seal Management Plan