

Pinnipeds aka Seals and Sea Lions



Pinnipeds, commonly known as seals, are a widely distributed and diverse clade of carnivorous, fin-footed, semiaquatic marine mammals. They comprise the extant families Odobenidae (whose only living member is the walrus), Otariidae (the eared seals: sea lions and fur seals), and Phocidae (the earless seals, or true seals). There are 33 extant species of pinnipeds, and more than 50 extinct species have been described from fossils. While seals were historically thought to have descended from two ancestral lines, molecular evidence supports them as a monophyletic lineage (descended from one ancestral line). Pinnipeds belong to the order Carnivora and their closest living relatives are bears and musteloids (weasels, raccoons, skunks, and red pandas), having diverged about 50 million years ago.



Stellar Sea Lion

(Eumetopias jubatus)



Quick Facts

Weight - Up to 2,500 pounds (males) or 800 pounds (females)

Lifespan - 20 to 30 years

Length - Up to about 11 feet (males); up to about 9.5 feet (females)

Threats - Effects of fisheries on prey, Climate change, Predation, Toxic substance, Incidental take due to interactions with active fishing gear, Illegal shooting, Disturbance, Disease and parasites, Vessel strikes, Entanglement, Illegal feeding

Location - Alaska, West Coast

About The Species

The Steller (or northern) sea lion is the largest member of the family Otariidae, the “eared seals,” which includes all sea lions and fur seals. Steller sea lions are named for Georg Wilhelm Steller, the German surgeon and naturalist on the Bering expedition who first described and wrote about the species in 1742. While they are the only living member of their genus, they share parts of their range with a smaller related species, California sea lions. Steller sea lions' impressive low-frequency vocalizations sound more like roars than California sea lions' barks. They also share parts of their range with another otariid: northern fur seal.

Historically, Steller sea lions were highly abundant throughout many parts of the North Pacific. Indigenous peoples and other settlers hunted them for their meat, hides, oil, and other products. In addition, they were killed for predator control and commercial harvests, causing their numbers to decrease.

Steller sea lions were first listed under the Endangered Species Act in 1990. In 1997 NOAA Fisheries recognized two populations, classifying the eastern population as threatened and the western population as endangered. The eastern population has since recovered and is no longer listed, which is a significant achievement under the ESA. The western population remains endangered. Steller sea lions are opportunistic predators, foraging and feeding primarily at night on over a hundred species of fish. Steller sea lions, especially males, can travel long distances in a season. Diving ability changes with age. The deepest dive documented is about 1,400 feet in depth.



California Sea Lion

(Zalophus californianus)



Quick Facts

Weight - 240 pounds (females) to 700 pounds (males)

Lifespan - 20 to 30 years

Length - 6 feet (females) to 7.5 feet (males)

Threats - Entanglement in fishing gear, Biotoxins resulting from harmful algal blooms, Human-caused injuries

Location - West Coast

About The Species

California sea lions are “eared seals” native to the West Coast of North America. They live in coastal waters and on beaches, docks, buoys, and jetties. They are easily trained and intelligent and are commonly seen in zoos and aquariums. California sea lions are playful, intelligent, and very vocal (sounding like barking dogs). California sea lions feed mainly offshore in coastal areas. They eat a variety of prey—such as squid, anchovies, mackerel, rockfish, and sardines—found in upwelling areas. They also may take fish from commercial fishing gear, sport fishing lines, and fish passage facilities at dams and rivers.

California sea lions are very social on land and in the water, but during the breeding season the males aggressively defend their territories and females fight other females to protect their pups. While on the breeding islands, California sea lions are very skittish of humans and will run into the water if they see or smell people.

California sea lion males bark like dogs to communicate with other males and females. Females and pups communicate using vocalizations that are unique to the female and pup. Each pup and female has a unique scent that also identifies them. A female can locate her pup among hundreds of others by her pup’s vocalization. When she finds her pup, she smells it as a final check.

One common behavior—called “rafting”—can make a sea lion look like it’s caught in a net. A rafting sea lion holds its flippers above the water for a long time, motionless, to rest and regulate its body temperature. If you cannot see a buoy or net gear, the seal is most likely rafting.



Harbor Seal

(Phoca vitulina)



Quick Facts

Weight - 24 pounds (birth) to 180 to 285 pounds (adult)

Lifespan - About 25 to 30 years

Length - About 5 to 6 feet

Threats - Entanglement, Illegal feeding and harassment, Habitat degradation, Chemical contaminants, Oil spills and energy exploration, Vessel collisions, Disturbance, Disease

Location = Alaska, New England/Mid-Atlantic, Southeast, West Coast

About The Species

Harbor seals are one of the most common marine mammals along the U.S. West and East Coasts. They are commonly seen resting on rocks and beaches along the coast and on floating ice in glacial fjords with their head and rear flippers elevated in a “banana-like” position.

State-financed bounty hunters once hunted harbor seals in Washington and Oregon because they were considered competitors of fishermen. This hunting program ended in 1960. Harbor seals haul out (rest) on rocks, reefs, beaches, and drifting glacial ice at night and during the day. They haul out to regulate their body temperature, molt, interact with other seals, give birth, and raise their pups. They also haul out in groups to avoid predators and spend less time being watchful for predators than those that haul out alone.

Harbor seal pelvic bones are fused, preventing them from moving their hind flippers under their pelvis to walk on land. Instead, they move by undulating in a caterpillar-like motion. This does not mean they are injured.

Harbor seal pups can swim at birth. They can also dive for up to 2 minutes when they are only 2 to 3 days old. Mother harbor seals raise their pups in nurseries—groups of mothers and their young—that help protect the seals from predators.

The harbor seal’s diet consists mainly of fish, shellfish, and crustaceans. Harbor seals complete both shallow and deep dives while hunting depending on the availability of prey. They can sleep underwater and come up for air once every 30 minutes.