The Pinnipeds: Seals, Sea Lions, and Walkuses View of the selection of the

The word pinniped means fin-footed, and refers to the marine mammals that have front and hind flippers. These include the seals, sea lions, and walruses. Most of these animals live in the ocean but are able to come on land for long periods of time. Millions of years ago, the ancestors of pinnipeds lived on land. These were probably weasel or bear-like animals that spent more and more time in the ocean, and eventually adapted to this marine environment.

There are three families of pinnipeds: phocids, otariids, and odobenids, and each of them is a little different. One family is the true seals (phocids). There are many different kinds of true seals, but you can always recognize them by looking at their ears and flippers. True seals have ear holes, but no external ear flaps. They also have small flippers and move on land by flopping along on their bellies. At sea, they move their rear flippers back and forth like a fish's tail to power themselves along.

Two of the true seal species that live in the Pacific Ocean are the harbor seal and the northern elephant seal. Even though they are both true seals, they are very different. Harbor seals have spotted fur and tend to stay near shore. Males and females are about the same size, reaching a maximum of 300 pounds (140 kg). Northern elephant seals are grayish and tan in color, only come onshore to mate, give birth, and molt (shed) their fur. Males and females are very different in size and appearance. Female elephant seals reach up to 1,500 pounds (600 kg). Males can grow up to 4,500 pounds (2,000 kg) and they develop a large nose or proboscis that looks like an elephant's trunk. Scientists have found that elephant seals can dive to over 5,000 feet (1,524 m) below the ocean's surface and stay under water for two hours!

Another group of pinnipeds includes sea lions and fur seals (otariids). You can also recognize these animals by their flippers and ears. Unlike true seals, they have external ear flaps. Their flippers are large, and on land, they are able to bring all four flippers underneath their bodies, and walk on them. In the water, they swim using their front flippers like oars. Fur seals have longer flippers and thicker coats than sea lions.

Two sea lion species live along the California coast: the California sea lion and the Steller sea lion. California sea lions have brown fur, act playful, like to stay together in large groups, and sound like barking dogs. You can often see them hauled out on offshore rocks or floating together in large groups. Males can weigh up to 850 pounds (390 kg), while females may weigh up to 220 pounds (110 kg).

Steller sea lions have light brown or auburn fur. The Steller sea lion is the largest otariid species, and males can weigh over 2,000 pounds (1,120 kg). Most Steller sea lions live in Alaskan waters, but about 500 live in California. The population is dropping, and they are on the endangered species list. Scientists are not sure why their numbers are dropping, but think it could be due to a change in the ocean ecosystem and competition from commercial fishing.

Another type of otariid found in California is the fur seal. The fur seal species most commonly seen in California is the northern fur seal. They tend to stay far offshore and are often seen floating on their backs with their flippers sticking out of the water, a behavior called "jughandling." As their name implies, they are very furry. With over 300,000 hairs per square inch, they spend a lot of time grooming themselves. Years ago, people made fur coats from their fur. The northern fur seal population is now considered depleted, and thousands of them are caught each year in plastic trash and nets. Another fur seal, the Guadalupe fur seal, is found in Mexico and sometimes off the California coast. Once there were many of them in California, but they almost became extinct due to over hunting for their fur. With protection from the Mexican and U.S. governments, there are now 7,400 Guadalupe fur seals.

The third family of pinnipeds is the walruses (odobenids). They have a combination of the traits found in seals and sea lions; like seals they have no external ears, but like sea lions they can rotate their hind flippers forward. Both males and females have tusks and vacuum-like mouths for sucking up shellfish from the ocean floor. Males have air sacs in their neck that they can inflate to allow them to float as if they were wearing life preservers. They have a bell-like call. Walruses are one of the largest pinnipeds, with males reaching over 3,000 pounds (1,500 kg). They live in the North Atlantic and Pacific Oceans, in the arctic region. Walruses are protected under U.S. and Canadian laws, but limited hunting by the Inuit people is allowed.

If you have a chance, look for your pinniped neighbors along the water or at a zoo or aquarium. You might want to read books to learn more about these wonderful creatures and also keep informed on current events to learn how you can help protect them.



© The Marine Mammal Center Illustrations by Pieter Arend Folkens © 2000 May be reprinted for non-commercial, or educational purposes. Revised 1/02

www.tmmc.org