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## Ocean Mammals

One of the major characteristics of mammals is that they need air to breathe; mammals cannot breathe under water like fish. Yet there are mammals that have adapted to spending a great deal of their lives not only in water but in the salt water of the ocean. Many of these marine mammals have also adapted to the extreme cold of ocean waters in the polar regions.

Ocean mammals include some of the largest creatures on earth. Male walrus can reach a length of ten feet and weigh 2,600 pounds. Male elephant seals grow to sixteen feet in length and weigh 6,000 pounds. Blue whales are the largest animals on earth at 110 feet long and weighing more than 170 tons.

### **Pinnipeds**

One of the major adaptations of marine mammals is a set of flippers designed for swimming. These flippers have replaced legs and feet. These animals are called pinnipeds, which is derived from the Latin roots meaning fin feet. There are thirty-three species of pinnipeds divided into three major categories: true seals; eared seals which include sea lions and fur seals; and the walrus. Their fins are quite short in relation to overall body size because they are efficient for swimming. The fins are much smaller than the legs an animal of equivalent size would need. Pinnipeds divide their time between the water and land but they are awkward on land because their bodies are streamlined for swimming.

Pinnipeds have other adaptations for life in the ocean. They have a thick layer of body fat, called blubber, which insulates them from the cold water. The extra fat increases buoyancy which makes life in the ocean significantly easier because these animals naturally float. Their eyes are well-adapted to vision both under and above the water. Diving is an important part of getting food and avoiding predators; while diving, a membrane descends and protects each eye and nostrils close automatically.

There are nine species of fur seals. Some species of fur seals were hunted to near extinction during the Nineteenth Century when their coats were made into garments for wealthy Europeans. Their fur is highly water-repellent and has a dense undercoat of insulating fur. Northern fur seals inhabit the frigid waters of the Bering Sea and along the Pacific Coast of Canada, the United States and Asia.

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Common seals, also called harbor seals, are found along the California coast and numerous other locales around the world. With an overall population of about a half million animals, common seals are not an endangered species. Other species of fur seals can be found in South Africa, South America and Australia.

## **Whales**

Some mammals, like whales, are so adapted to life in the ocean that they have lost all ability to live on land. Yet all mammals need to breathe air. Whales do not have nostrils but instead breathe through a blowhole on the top of the head. The blowhole closes when a whale is completely submerged under water. All mammals have fur but whales lose their hair covering before they are born. The whale's smooth skin is better adapted to life in the ocean.

Whales are classified as cetaceans and this classification also includes dolphins and porpoises. Some marine animals that are commonly called whales, like killer whales and pilot whales, are actually considered to be species of dolphins because they have teeth like dolphins. Toothed whales (dolphins) are distinct from baleen whales like the blue whale. Baleen whales filter the ocean water in order to eat plankton and krill; a comb-like plate of baleen, also called whalebone, in the jaws does the filtering. Baleen is made from keratin, the same material as human fingernails. Baleen whales include some of the largest creatures in the world, such as the sperm whale, blue whale, bowhead whale and humpback whale. Toothed whales are predators and eat other marine creatures like fish, seals and squid.

## **Manatees**

Manatees, also called sea cows, are another species of large marine mammals. Manatees reach over nine feet in length and weigh around 1,200 pounds. Scientists have determined that manatees are related to elephants and, like elephants, are herbivores. Manatees can remain submerged for up to twenty minutes at which time they must surface for air. Manatees are found in the coastal waters of Florida as well as the Caribbean Sea, the Amazon Basin, and portions of the west coast of Africa. The major threat to manatees in the United States is disfiguring or fatal collisions with boat propellers. It is difficult for the manatee population to rebound because a female manatee gives birth to one calf only every two years and the calf remains with the mother for up to eighteen months.

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Circle True or False after analyzing each of the following statements.

1. True False Humpback whales are the largest animals on earth at 110 feet long and weighing more than 170 tons.
2. True False Some species of manatees are adapted to cold ocean waters because they have a layer of blubber.
3. True False Like whales, walruses are pinnipeds.
4. True False Whales do not have nostrils but instead breathe through a blowhole on the top of the head.
5. True False Some marine animals that are commonly called whales, like killer whales and pilot whales, are actually considered to be species of dolphins.
6. True False Common seals, also called harbor seals, are found along the California coast and numerous other locales around the world; these seals are not an endangered species.
7. True False Toothed whales have a comb-like plate of made from whalebone in their jaws.
8. True False Toothed whales are predators and eat other marine creatures like fish, seals and squid.
9. True False Manatees are related to whales.
10. True False Manatees are found in the coastal waters of Florida as well as the Caribbean Sea, the Amazon Basin, and portions of the west coast of Africa.

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**Answers**

1. False
2. False
3. False
4. True
5. True
6. True
7. False
8. True
9. False
10. True