

GENERAL DESCRIPTION

The gray whale is a baleen whale (it is a filter feeder). Whalers used to call them "devilfish" because of their fierce defense they put up when hunted. They have a layer of blubber up to 10 inches (25 cm) thick. There are hairy bristles (vibrissae) on the gray whale's snout and the front of the head. These are used as tactile sensors, like cat's whiskers.

SIZE

Gray whales grow to be at most 45-50 feet (13.8-15 m) long, weighing about 36 tons (33 tonnes). Females are larger than males, as with all baleen whales.

SKIN, SHAPE AND FINS

The gray whale's skin is usually gray with some blotchy white spots and has many parasites, including hundreds of pounds of barnacles and whale lice. There are little or no parasites on its right side because of the way it scrapes along the ocean bottom to feed.

Gray whales have 2-4 throat grooves, about 5 feet (1.4 m) long each. These grooves allow their throat to expand during the huge intake of water during filter feeding. The gray whale has two broad flippers, no dorsal fin, and a series of small ridges along the its back near the flukes (tail).

DIET AND BALEEN

Gray whales (like all baleen whales) are seasonal feeders and carnivores. They are bottom feeders (benthic feeders). They sieve through the mud on the bottom of the ocean floor of the Arctic with their baleen. They filters out small crustaceans (1/2 inch (1.2 cm) long shrimp-like crustaceans called amphipods, krill, copepods, etc.), plankton, and mollusks (including squid and fish) from the ocean sediment. They usually feed on their right side, sucking up mouthfuls of mud filled with organic matter. Their baleen filters out the nourishing organic material (mostly amphipods), and the whale spits out the mud. The tongue loosens the amphipods (and other tiny food) from the baleen plates and the whale swallows the food. During migration and while in the warm breeding waters (about 3-5 months), gray whales eat very little. They live off their thick layer of blubber (fat).

The baleen plates in the gray whale's jaws have about 160 pairs of short, smooth baleen plates. The largest plates are about 15 inches long and 10 inches wide. The baleen bristles are thicker than those of the other baleen whales and are gray with yellowish bristles. The huge, narrow, pink tongue of the gray

whale is used to dislodge the food from the baleen, and weighs about 1-1.5 tons (0.9-1.36 tonnes).

SOCIAL GROUPS

Gray whales congregated in small pods of about 3 whales, but the pod may have as many as 16 members. Large groups (up to hundreds of whales) form in feeding waters, but these are loose, temporary associations. They do not form long-term bonds.

SWIMMING, DIVING, AND BREACHING

Gray whales are very agile swimmers. Gray whales can dive for up to 30 minutes and go 500 feet (155 m) deep. They can swim in even relatively shallow water without running aground.

They also breach, jumping partially out of the water and falling back at an angle, splashing and making a loud noise. This may help clean off some of the encrustations of parasites (barnacles and whale lice) or in communicating with other gray whales.

Spyhopping is another gray whale activity in which the whale pokes its head up to 10 feet (3 m) out of the water, turning around slowly, to take a look around.

SPOUTING-BREATHING

Gray whales breathe air at the surface of the water through 2 blowholes located near the top of the head. At rest, gray whales spout (breathe) 2-3 times per minute. Between deep dives they take deep breaths for about 3-5 minutes. The spout of the gray whale is a noisy stream that rises 10-13 feet (3-4 m) above the water. It can be heard half a mile away.

PREDATORS AND PARASITES

Killer whales (orcas), the large sharks, and humans are the gray whales' only natural predators. Orcas hunt gray whales off the Pacific Northwest coast near Oregon, USA. Skin parasites (including barnacles and whale lice) attach themselves to the head area, back, and blowhole area also.

VOCALIZATION

Gray whales emit grunts, clicks, and whistling sounds. These sounds and those produced by breaching may be used in communication with other gray whales.

SLEEP

Gray whales sleep with their blowholes just exposed on the surface of the water. During their extended migration they swim day and night, not sleeping.

HABITAT

Gray whales live at the surface of the ocean near the coastline but dive to the bottom to feed.

SPEED

Gray whales normally swim 2-6 mph (3.2-9.8 kph), but can go up to 10-11 mph (16-17.5 kph) in bursts when in danger. Feeding speeds are slower, about 1-2.5 mph (1.6-4 kph). Their long migration of about 10,000 miles (16000 km) usually takes about 2-3 months.

MIGRATION

Gray whales make an extraordinarily long migration from the Arctic Ocean (northwest of Alaska in the Chukchi Sea) to the Baja peninsula off Mexico, and back each year. They travel about 12,500 miles (20,110 km) each year, staying near the coast. They feed in the cold Arctic waters and calve and mate in the warm, protected tropical lagoons of the Pacific Ocean off Baja, Mexico.

REPRODUCTION

Gray whale breeding occurs mostly in the winter to early spring while near the surface and in warm waters. The gestation period is about 13.5 months and the calf is born head first (unusual for cetaceans) and near the surface of the warm, shallow waters. The newborn instinctively swims to the surface within 10 seconds for its first breath; it is helped by its mother, using her flippers. Within 30 minutes of its birth the baby whale can swim. The newborn calf is about 15 feet long and weighs about 1-1.5 ton. Twins are extremely rare (about 1% of births); there is almost always one calf. The baby is nurtured with its mother's fatty milk (53% fat) and is weaned in about 7-8 months. The mother and calf may stay together for about a year. Calves drink 50-80 pounds of milk each day. Gray whales reach maturity at 8 years. Growth stops at age 40 years old. Mature females give birth every other year in the warm lagoons off Baja, Mexico.

LIFE SPAN

Gray whales have a life expectancy of 50-60 years.

POPULATION COUNT

It is estimated that there are about 15,000-22,000 gray whales world-wide. Gray whales are a protected species.

CLASSIFICATION

Gray whales (*Eschrichtius robustus*) are baleen whales (Suborder Mysticeti). They are one of 76 cetacean species, and are marine mammals.