

Humpback whales

The humpback whale (*Megaptera novaeangliae*) is a marine mammal belonging to the order Cetacea. Within this order, the humpback is classified as a member of the parvorder *Mysticeti*, which groups the baleen whales (distinguished from the parvorder *Odontoceti*, which includes dolphins and porpoises, and all other toothed whales). The baleen of whales like the humpback is composed of longitudinal keratin fibers that form elastic and flexible structures. They are located in the upper jaw and serve to filter large volumes of seawater and facilitate the capture of food consisting of small fish and crustaceans, with tiny shrimp-like euphausiids known as krill constituting the whale's main source of nutrients.

Like all mammals, humpback whales have lungs, which they use to breathe air by surfacing. They also have mammary glands for feeding their young. Humpback whales are enormous: females, known as cows, can be up to sixteen or seventeen meters long, while the slightly smaller males, or bulls, grow up to fourteen or fifteen meters in length. Adults can weigh anything up to 35 tons. At birth, calves can be as much as four meters in length and weigh around six tons. During their first months of life in the warm waters of tropical latitudes, whale calves feed exclusively on their mother's milk, which has an extremely high fat content. This enables them to achieve great size, as well as the stamina and layer of blubber they will need during the long migration back to their feeding grounds, located in temperate and polar latitudes. The generating of a layer of fat is important because it provides the insulation required by the metabolism in much colder habitats. Weaning occurs after one year, although the calf does not separate from its mother before completing a social skills learning process that will take at least another year.

The scientific name *Megaptera novaeangliae* alludes to the most conspicuous characteristic of this whale and the place where the species was first described. The word "*Megaptera*" comes from the Greek "*mega*" ("giant") and "*ptera*" ("wing" or "fin"), referring to a physical characteristic that distinguishes this species from other whales; their large pectoral fins, which can be up to a third the total size of the individual. The Latin word "*novaeangliae*" means "New Englander", referring to the waters of the US state where the first description of the species was made. The common name, "humpback whale", is derived from the way these whales arch their back when diving, and the presence of a slight protuberance just in front of the dorsal fin.

Humpback whales make a long migration from their feeding grounds in temperate and polar latitudes, where they spend the summer of whichever hemisphere they are in, to tropical and subtropical latitudes, where their breeding and calving grounds are located. This migration is one of the longest engaged in by any mammal, and it takes place every year. In the eastern Pacific Ocean there are two groups of whales: one in the northern hemisphere, with feeding grounds in Alaska and breeding grounds in Central America; and another group in the southern hemisphere, with feeding grounds in the Antarctic peninsula, the area between the Straits of Magellan and the Gulf of Corcovado, and breeding grounds that extend from northern Peru to the coasts of Ecuador, Colombia, Panama and Costa Rica. This population is known as the "Stock G" or "southeast Pacific group".

The humpback is a species with very few natural predators, although hunting of whale calves by orcas and some shark species has been observed. Nevertheless, the greatest threats to this species come from

pollution of the seas, accidental collisions with large vessels, entanglement in fishing gear and trauma resulting from the explosions used in oil and gas exploration.

Whales were hunted throughout the 18th and 19th centuries, and into the 20th century, when an entire industry was based on the products derived from their meat, blubber, bones and baleen. This led to a sharp decline in the populations of several species; some species, such as the blue whale, remain on the verge of extinction as a result of these past activities. Today, whaling is banned throughout most of the world and the populations of some species have recovered considerably. However, not all species have recovered to the same degree, due to the particularly heavy losses they suffered, added to birth and death rate factors, which vary across species. For its part, the humpback whale has experienced a particularly good level of population recovery. It is estimated that in the southern hemisphere alone some 213,000 whales were hunted. Whaling was officially ended in 1966, although some countries, including Peru, continued to hunt humpbacks into the early 1980s. The current estimate for the population in the Pacific Ocean is around 7000 individuals.