**Whale** is the [common name](https://en.wikipedia.org/wiki/Common_name) for a widely distributed and diverse group of fully aquatic [placental](https://en.wikipedia.org/wiki/Placental_mammal) [marine mammals](https://en.wikipedia.org/wiki/Marine_mammal). They are an informal grouping within the infraorder [Cetacea](https://en.wikipedia.org/wiki/Cetacea" \o "Cetacea), usually excluding [dolphins](https://en.wikipedia.org/wiki/Dolphin) and[porpoises](https://en.wikipedia.org/wiki/Porpoise). Whales, dolphins and porpoises belong to the order [Cetartiodactyla](https://en.wikipedia.org/wiki/Cetartiodactyla" \o "Cetartiodactyla) with [even-toed ungulates](https://en.wikipedia.org/wiki/Even-toed_ungulate) and their closest living relatives are the [hippopotamuses](https://en.wikipedia.org/wiki/Hippopotamidae), having diverged about 40 million years ago. The two parvorders of whales, [baleen whales](https://en.wikipedia.org/wiki/Baleen_whales) (Mysticeti) and [toothed whales](https://en.wikipedia.org/wiki/Toothed_whales) (Odontoceti), are thought to have split apart around 34 million years ago. The whales comprise eight [extant](https://en.wikipedia.org/wiki/Neontology) [families](https://en.wikipedia.org/wiki/Family_(biology)): [Balaenopteridae](https://en.wikipedia.org/wiki/Balaenopteridae" \o "Balaenopteridae) (the rorquals), [Balaenidae](https://en.wikipedia.org/wiki/Balaenidae" \o "Balaenidae) (right whales), [Cetotheriidae](https://en.wikipedia.org/wiki/Cetotheriidae" \o "Cetotheriidae) (the pygmy right whale), [Eschrichtiidae](https://en.wikipedia.org/wiki/Eschrichtiidae" \o "Eschrichtiidae) (the gray whale), [Monodontidae](https://en.wikipedia.org/wiki/Monodontidae" \o "Monodontidae) (belugas and narwhals), [Physeteridae](https://en.wikipedia.org/wiki/Physeteridae" \o "Physeteridae) (the sperm whale), [Kogiidae](https://en.wikipedia.org/wiki/Kogiidae" \o "Kogiidae) (the dwarf and pygmy sperm whale), and [Ziphiidae](https://en.wikipedia.org/wiki/Ziphiidae) (the beaked whales).

Whales are creatures of the open ocean; they feed, mate, give birth, suckle and raise their young at sea. So extreme is their adaptation to life underwater that they are unable to survive on land. Whales range in size from the 2.6 metres (8.5 ft) and 135 kilograms (298 lb) [dwarf sperm whale](https://en.wikipedia.org/wiki/Dwarf_sperm_whale) to the 34 metres (112 ft) and 190 metric tons (210 short tons) [blue whale](https://en.wikipedia.org/wiki/Blue_whale), which is the largest creature that has ever lived. The [sperm whale](https://en.wikipedia.org/wiki/Sperm_whale) is the largest toothed predator on earth. Several species exhibit [sexual dimorphism](https://en.wikipedia.org/wiki/Sexual_dimorphism), in that the females are larger than males. Baleen whales have no teeth; instead they have plates of baleen, a fringe-like structure used to expel water while retaining the [krill](https://en.wikipedia.org/wiki/Krill) and [plankton](https://en.wikipedia.org/wiki/Plankton) which they feed on. They use their throat pleats to expand the mouth to take in huge gulps of water. Balaenids have heads that can make up 40% of their body mass to take in water. Toothed whales, on the other hand, have conical teeth designed for catching fish or [squid](https://en.wikipedia.org/wiki/Squid). Baleen whales have a well developed sense of "smell", whereas toothed whales have well-developed hearing − their hearing, that is adapted for both air and water, is so well developed that some can survive even if they are blind. Some species, such as sperm whales, are well adapted for diving to great depths to catch squid and other favoured prey.

Whales have evolved from land-living mammals. As such they must breathe air regularly, though they can remain submerged for long periods. They have [blowholes](https://en.wikipedia.org/wiki/Blowhole_(anatomy)) (modified nostrils) located on top of their heads, through which air is taken in and expelled in the form of vapour. They are [warm-blooded](https://en.wikipedia.org/wiki/Endotherm), and have a layer of fat, or [blubber](https://en.wikipedia.org/wiki/Blubber), under the skin. This allows them to maintain a body temperature similar to humans— 36 °C (97 °F)—even in freezing conditions.[[1]](https://en.wikipedia.org/wiki/Whale#cite_note-SAMM-1) With streamlined [fusiform](https://en.wiktionary.org/wiki/fusiform) bodies and two limbs that are modified into flippers, whales can travel at up to 20 [knots](https://en.wikipedia.org/wiki/Knot_(unit)), though they are not as flexible or agile as [seals](https://en.wikipedia.org/wiki/Pinniped). Whales produce a great variety of vocalizations, notably the extended songs of the [humpback whale](https://en.wikipedia.org/wiki/Humpback_whale). Although whales are widespread, most species prefer the colder waters of the Northern and Southern Hemispheres, and migrate to the equator to give birth. Species such as humpbacks and blue whales are capable of travelling thousands of miles without feeding. Males typically mate with multiple females every year, but females only mate every two to three years. Calves are typically born in the spring and summer months and females bear all the responsibility for raising them. Mothers of some species fast and nurse their young for a relatively long period of time.

Once relentlessly hunted for their products, whales are now protected by international law. The [North Atlantic right whales](https://en.wikipedia.org/wiki/North_Atlantic_right_whale) nearly became extinct in the twentieth century, with a population low of 450, and the [North Pacific gray whale population](https://en.wikipedia.org/wiki/Gray_whale#North_Pacific) is ranked [Critically Endangered](https://en.wikipedia.org/wiki/Critically_Endangered) by the [IUCN](https://en.wikipedia.org/wiki/International_Union_for_Conservation_of_Nature). Besides whaling, they also face threats from bycatch and marine pollution. The meat, blubber and [baleen](https://en.wikipedia.org/wiki/Baleen) of whales have traditionally been used by indigenous peoples of the Arctic. Whales have been depicted in various cultures worldwide, notably by the Inuit and the coastal peoples of Vietnam and Ghana, who sometimes hold whale funerals. Whales occasionally feature in literature and film, as in the great white whale of [Herman Melville](https://en.wikipedia.org/wiki/Herman_Melville)'s [*Moby Dick*](https://en.wikipedia.org/wiki/Moby_Dick). Small whales, such as [belugas](https://en.wikipedia.org/wiki/Beluga_whale), are sometimes kept in captivity and trained to perform tricks, but breeding success has been poor and the animals often die within a few months of capture. [Whale watching](https://en.wikipedia.org/wiki/Whale_watching) has become a form of tourism around the world.