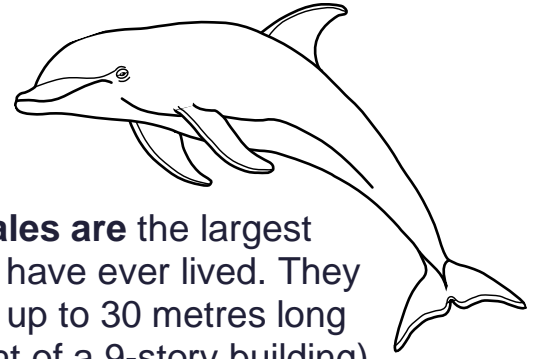


Student Fact File

Whales and Dolphins



Whales and dolphins are mammals, not fish, which means they are warm-blooded, breathe air, and suckle their young.

All whales and dolphins are protected in Australian waters.

Around 30 species of whales and dolphins have been recorded in the Great Barrier Reef area.

There are two types of whales, those with teeth and those with baleen.

Echolocation is a high-pitched sound (usually clicks) sent out by the whale. The sound bounces off an object and some returns to the whale. The whale interprets this returning echo to determine the object's shape, direction, distance, and texture.

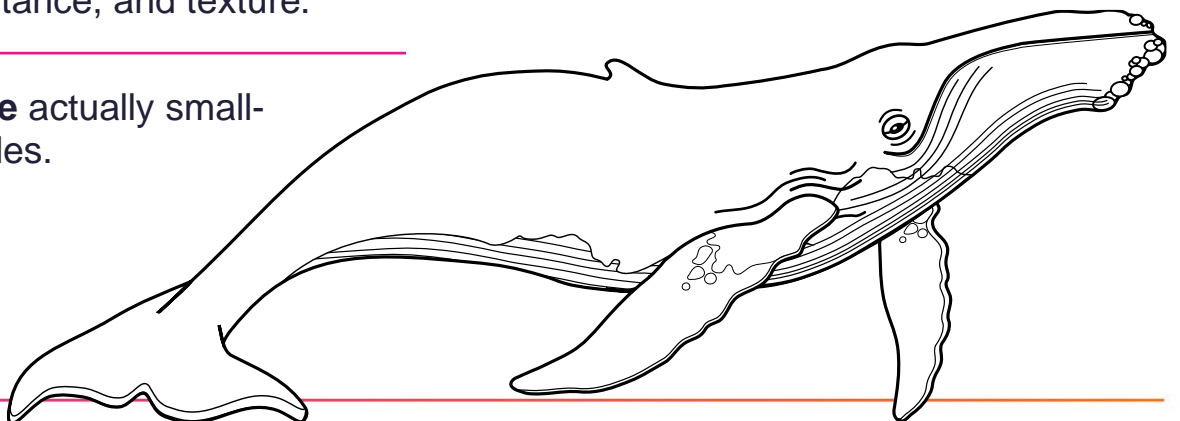
Dolphins are actually small-toothed whales.

Blue whales are the largest animal to have ever lived. They can grow up to 30 metres long (the height of a 9-story building) and weigh as much as 180 tonnes (as heavy as 180 cars).

Whales have a layer of fat, called blubber, under their skin to keep them warm.

A whale's nostril, called a blowhole, is situated on the top of its head so that it can breathe by just breaking the surface of the water.

Whales swim by moving their tail, called flukes, up and down. Fish swim by moving their tail left and right.



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Whales and dolphins belong to a group called *cetaceans*.

Toothed Whales or Odontoceti

Whales with teeth are active predators. Some eat sharks, seals, dolphins, birds, squid, fish and even other whales! The number of teeth varies by species, but can be from 2 to 250. There are about 66 species of toothed whales and the largest is the sperm whale which can be up to 18 metres long. Many species of toothed whales live in groups called pods.

Baleen Whales or Mysticeti

Whales with baleen are filter feeders. Baleen consists of vertical plates, fringed with stiff bristles, hanging from the upper jaw, that filters tiny animals from the water. Seawater is passed through the baleen and schools of tiny animals such as microscopic plankton are filtered from the water. There are 10 species of baleen whales, including the humpback and dwarf minke whales, found in the Great Barrier Reef area.

Some baleen whales are called 'rorquals' and have deeply grooved skin around their lower jaw and throat which form a pouch that can expand and allow the whale to take in large mouthfuls of water. The tongue forces the water out again, filtering it through the baleen. Those baleen whales that don't have throat grooves swim through the water with their mouths open, allowing the water and food to continuously flow through the baleen.

Migration

Many whales, especially baleen whales undergo long migrations every year. Gray whales make the longest seasonal migration of all the whales, travelling up to 20,000km each year! Humpback whales spend the summer in polar regions feeding and in winter travel to warmer tropical waters like the Great Barrier Reef where they mate or give birth.

Sounds and songs

Whales and dolphins produce sounds (high-pitched whistles and groans) to communicate. Humpback whales are the most vocal of all and produce elaborate 'songs' that last for hours. Humpbacks in the same area sing the same songs and only the males sing. The songs are thought to be used in attracting mates, to keep track of offspring, and for the toothed whales, to locate prey. Singing seems to be most frequent at or near breeding grounds.

Whaling on the Great Barrier Reef

Many years ago, whales were hunted in the Great Barrier Reef for their blubber, which was boiled into oil for lighting, lubrication, margarine, soap and cosmetics. The baleen or 'whalebone' was softened and trimmed to make stiffeners for clothes and umbrellas. Large scale whaling in the 1940s, 50s and early sixties is thought to have reduced humpback whale population from 10,000 animals to between 200-500 animals. Whaling ceased in Australia in 1978 and since then numbers have slowly started to increase with current estimates of increase up to 11% per year. Today, all whales are protected in Australian waters.

Threats to survival

Globally, despite restrictions on whaling, humans continue to have an impact on whale numbers. Whales belong to food chains where pesticides, heavy metals and other contaminants have accumulated. They must also cope with pollution such as oil spills, possible entanglement in discarded fishing lines, and with other hazards from increased boat traffic and from construction activity along the coastline. These threats are difficult to control and we should all be aware of our individual responsibility to preserve these magnificent creatures.

