

## Dolphins



Common dolphin:

*Delphinus delphis*

**Distribution:**

Coastal waters of tropical and temperate seas. Particularly common in the Mediterranean.

**Description:**

Black back, with brown or violet markings, white underparts. Body is streamlined and sleek.

**Size:**

Length 1.7-2.4m; Weight up to 75kg.

**Life-span:**

up to 25 years.

**Food:**

Inshore fish, especially herring and sardines

The mammalian order Cetacea contains about 90 species of whales, dolphins and porpoises. Of these, the gigantic blue whale is the largest and the freshwater or river dolphin the smallest. A big blue whale may attain a length of 31m (104ft) and weigh up to 125 tons, while the La Plata dolphin will rarely exceed 1.75m (5.7ft) in length.

Cetaceans are the mammals most completely adapted to life in the water. Whales, dugongs and manatees are the only mammals which spend their entire life in water (seals and sealions etc, return to dry land to mate and breed). The body of the whale is streamlined; tapering towards the tail. Whales cannot move about on land and, having no breastbone, they will usually die if stranded on the seashore because the weight of the body causes excess pressure on the lungs. In addition, the skin of the whale needs to be moist at all times, so exposure to air over a long period can cause serious damage to the outer layers of skin.

Whales have no hind limbs and their forelimbs have become modified into broad flippers. The tail flukes are horizontal in all the cetaceans (unlike fish tails which are vertical) and the movement of this powerful tail propels them through the water. Some whales have a dorsal (top) fin, and certainly most of the dolphins and porpoises have them. The nostril or blow hole is situated on top of the head and is automatically closed like a watertight valve when the animal submerges. A layer of blubber covers the body beneath the skin and acts as insulation against the extreme cold by conserving body heat.

The whale family is divided into two main groups: the baleen whales which have bony strips or plates in their mouths instead of teeth; and the toothed whales which have teeth. Of the 90 or so species of Cetaceans, about 80 are toothed whales, including 50 species of dolphins and porpoises. There is very little difference between dolphins and porpoises and they are closely related to each other, but it is possible to establish which is which by the shape of the head and mouth. The dolphin has a beak-like snout whereas the porpoise is usually smaller and slimmer and has a rounded face and a flat mouth.

All the typical dolphins and porpoises belong to one family, Delphinidae; but the freshwater dolphins (4 species) are listed as a separate family Planiistidae. The reason for this separation becomes apparent when a closer look at the four freshwater species is taken.

First of all, these dolphins are found in fresh water, sometimes as much as 1,000 miles from the sea! The four species live in the Amazon, Orinoco, Ganges and Yangtse rivers. They are rather primitive forms of dolphin, with a definite neck region and a poorly developed dorsal fin. Freshwater or river dolphins may have as many as 200 teeth in their long, bird like beaks. They are successful hunters, but almost certainly they detect their prey by sense of hearing and the use of sensory bristles which pick up the vibrations of the prey, as their

eyes are very tiny and these dolphins are probably almost blind. As they live in waters which become extremely muddy at times, the eyes would be of little help to them anyway. Despite this apparent handicap, the river dolphin of the Amazon region is known to kill and eat the dreaded piranha fish!

The species of dolphin known to most people is the Atlantic bottle-nosed dolphin, as this is the one normally seen in dolphinariums. Bottle-nosed dolphins respond readily to training and seem to like the company of humans. They are frequently observed in dolphinariums demonstrating the extraordinary power of the tail by "standing" high out of the water and propelling themselves backwards by rapid movement of the tail.

The common dolphin is a deep water species and it has been known to dive to a depth of 609m (2,000ft) and return immediately to the surface again without any apparent discomfort or injury. This is achieved because of the remarkable changes that take place during the dive. As the dolphin commences its dive the heartbeat slows down and blood is transferred from the muscles to the brain. The nerve centres in the brain that control breathing, unlike those in the human brain, are almost insensitive to the increase in carbon dioxide in the blood and as a result of this, the dolphin is able to hold its breath without the need to "gasp" as the carbon dioxide level increases. This applies to all whales.

The hearing of all the whale family is astoundingly acute - and recent studies suggest that the larger species of whales can hear other whales of the same species calling over a distance of 300 miles or more! The dolphins certainly seem to communicate with each other and in the process of doing so use several ranges of sounds from whistles to rapid clicks.

Largest member of the dolphin family is the killer whale (

***Orcinus orca***

), which grows to a length of 9m (29.5ft) and weighs about 10 tons. Killer whales hunt in packs and will kill fish, squid and marine mammals such as seals and whales - including other dolphins! The killer whale is found in all the oceans of the world wherever suitable prey species exist.

Many kinds of dolphins and porpoises are sociable animals and live in schools varying in size from a family group to around 1,000 individuals. Some dolphins, especially the common dolphin seem to enjoy playing around the bows of ocean-going ships. They use the pressure valve built up around the bows and "freewheel" along just in front of the ship. Dolphins are fast swimmers and can maintain a steady speed of up to 20mph if required.

Dolphins are born after a gestation period of 12 months. They are weaned at 9 months and become able to breed at the age of 8 years. The female dolphin will have one baby each year until she stops all breeding at the age of about 14 years. Life expectancy is 25 - 35 years.

The dolphins are considered to be, next to Man, the most highly intelligent of all animals. Their relative body to brain size is similar to those of humans and their ability to reason, learn and communicate has amazed scientists who have worked with these attractive and very interesting animals. Sadly, several hundred thousand dolphins of various kinds die each year by accident as they become entangled in fishing nets and drown.

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