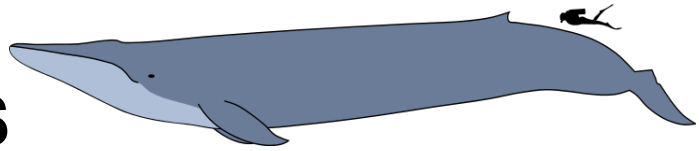


BLUE WHALES



The largest animal that has ever lived

The blue whale is the largest animal ever known to have existed. During the 20th century, the species was an important whaling target and even after it was protected and commercial whaling stopped in 1964, exploitation efforts by the former Soviet Union persisted.

Although commercial whaling no longer represents a threat, global climate change and its impact on ocean euphausiids (krill - shrimp-like crustaceans), blue whales' major prey, makes this cetacean particularly vulnerable.

A number of South Pacific countries, including five island nations, have declared their EEZs (Exclusive Economic Zone) to be whale sanctuaries in which commercial whaling is prohibited and where additional research on large whales is encouraged.

Physical description

The blue whale's heartbeat can be detected from two miles away and its heart is the size of a Volkswagen Beetle. Its stomach can hold one ton of krill and it needs to eat about four tons of krill each day. It is identified by a relatively small dorsal fin, a fairly rounded rostrum (anterior part of the skull), and approximately 90 ventral grooves which reach the navel.

Blue whales have row of 300- 400 baleen plates on each side of the mouth, which are black in color and range in length from 50 cm in front to 100 cm in back.

The species dives for 10 - 20 minutes periods, and usually feed at depths of less than 100 m. Average travel speed is around 22 km/hr, although they may swim as fast as 48 km/hr if they perceive a danger. To communicate, they emit low-frequency sounds and series of clicks.

Blue whales are believed to have excellent hearing, especially at low frequencies, which is valuable in the dark ocean environment. They are the loudest animals on Earth and louder than a jet engine: their calls reach 188 decibels, while a jet reaches 140 decibels. Their low frequency whistle can be heard for hundreds of miles, and is probably used to attract other blue whales.

Blue whale populations migrate towards the poles, into cooler waters, in the summer

to feed. They migrate back towards the equator, into warmer waters, in the winter to breed. Because the seasons are opposite in the Northern and Southern Hemispheres, the net result of these movements is that the Northern Hemisphere and Southern Hemisphere stocks do not mix.

How big is the blue whale?

The largest recorded length for a blue whale is 33.5 m (110 feet), but sizes tend to run more in the range of 80-100 feet. Females are up to 10 m longer than males. At 100 feet, a blue whale would weigh close to 200 tons, or 400,000 pounds.

Is the blue whale actually blue?

Blue whales are a lightly mottled blue-grey, with light grey or yellow-white undersides. The yellowish ventral colouring is due to the accumulation of diatoms (microscopic, unicellular marine algae) in colder water, and has inspired the nickname "sulphur bottom whale".

Habitat & Ecology

The blue whale is found mostly in cold and temperate waters, and it prefers deeper ocean waters to coastal waters. Like many other baleen whales, it feeds in cool waters at high latitudes, and generally migrates to warmer temperate and tropical waters to breed and give birth, although in some areas it appears that the species may be resident year-round.

Social Structure

Blue whales mostly travel alone or in groups of 2-3. Larger groups of up to 60 whales have been reported and are probably associated with feeding grounds. However, the blue whale has the most powerful and deepest voice in the animal kingdom, and its low-frequency sounds can travel in deep water over hundreds, or even thousands, of miles. Under these circumstances, animals which may appear to us to be traveling alone may actually be in constant contact with one another.

Life Cycle

At birth, a blue whale calf is the largest baby on earth: approximately 8 m long and weighing about 4 tons. They grow at a rate of 90 kg and one inch per day and wean after 7-8 months, once they have reached about 15 m in length, to follow the normal migration pattern alone. They reach sexual maturity at 5-10 years.

This growth rate is astonishing, and is probably the fastest in the animal kingdom. From conception to weaning, it represents an increase in tissue of several billion-fold in little more than a year and a half.

Like other baleen whales, the blue whale has no teeth so it is difficult to tell its age (teeth can be used to estimate age in other mammals). However, scientists believe they live until they are at least 50.

Breeding

Usually one calf is born, every 2 - 3 years. Recent evidence suggests however that the inter-breeding interval is shorter than before whaling occurred, possibly to increase the growth rate of the populations. Gestation is 10 - 11 months. Virtually nothing is known about the mating system.

Diet

During the summer feeding period, a blue whale eats about 40 million krill each day, amounting to about 3,600 kg (7,900 pounds). It expands its throat plates and takes in water with krill, then pushes out the water through the baleen plates, and swallows the krill that has stayed inside the mouth.

Population & Distribution

Previous population and distribution

Relentlessly pursued by 20th century whaling fleets, the blue whale was nearly exterminated before receiving worldwide protection in 1967. From 1904 to 1967, more than 350,000 were killed by whaling fleets in the Southern Hemisphere. It is thought that thousands more were killed by Soviet fleets during the 1960s and 1970s.

Pre-whaling population may have been more than 250,000 strong. In 1931, during the heyday of whaling, an astounding 29,000 blue whales were killed in one season. In total, about 360,000 blue whales were killed in the 20th Century in the Antarctic alone.

Current population and distribution

The blue whale has a truly global distribution, occurring in the Arctic Sea, Atlantic Ocean (Antarctic, eastern central, northeast, northwest, southeast, southwest, western central), Indian Ocean (Antarctic, eastern, western), and Pacific Ocean (Antarctic, eastern central, northeast, northwest, southeast, southwest, western central).

In spite of their global distribution, they are one of the rarest of the whales, and most biologists consider them to be among the most endangered of the great whales. Only one population, in the eastern North Pacific off California, is showing real recovery and currently numbers about 2,000 animals.

Some of the remaining blue whales are of a subspecies known as "pygmy" blue whales. As their name suggests, they are somewhat less gigantic than "true" blue whales, and until recently were thought to be confined to the Indian Ocean region; however, recent studies indicate they may be more widespread.

Only a few hundreds are thought to be found in the Antarctic, and while they have been increases around Iceland and off the coast of California, none are to be found off Japan, the Gulf of Alaska and the southern Bering Sea.

