

The Characteristics of Bottlenose Dolphins

Posted on September 12, 2018

The bottlenose dolphin is regarded as one of the famous dolphin species. They are very intelligent, capable of solving problems, and adaptable. Bottlenose dolphins come in two major varieties: the often smaller inshore form and the larger, extremely robust one that lives mainly offshore. Bottlenose dolphins are classified as Tursiops tunicates.

On the other hand, a distinct species also found in the Indo-Pacific area has been recognized as the Tursiops aduncus. Hence the two common species of bottlenose dolphins are the common Tursiops truncatus and the Tursiops aduncus found in Indo-Pacific. The Tursiops truncatus. It is a relatively large dolphin that is up to four meters long and light grey. The bottle dolphins live in tropical and temperate waters across the globe. Moreover, its coastal populations sometimes migrate into estuaries, bays, and river mouths. Moreover, the offshore bottle dolphin populations mainly inhabit the pelagic waters alongside the continental shelf. The bottlenose dolphins are majorly found in the coastal waters of South Australia, Gulfs, and the Port Adelaide River-Barker inlet estuary. Therefore, this paper explores the characteristics of bottlenose dolphins.

Distribution

The world's estimated bottlenose dolphin population is about 600,000. The bottlenose dolphins have a large distribution. They are mainly found in continental shelves and coastal waters in temperate and tropical zones. The distribution of bottlenose dolphins is limited to 10° to 32° C. in the Pacific Ocean. The bottlenose dolphins began to inhabit northern Japan and down to Australia. Also, it is from the southern parts of California to Chile. In the eastern Tropical Pacific, bottlenose dolphins are found offshore. Moreover, in the Atlantic Ocean, they can be traced from Nova Scotia to the region of Patagonia, Norway to South Africa, Cape Cod, and all the way to the Gulf of Mexico. They also inhabit the Black and Mediterranean Seas in lagoons, river mouths, and shallow bays. On the other hand, the Indo-Pacific bottlenose dolphins can be found in the Indian Ocean in Indonesia through to Australia, then from South Africa to the Red Sea, and finally in the subtropical and tropical waters of the West Pacific. Finally, the two offshore and coastal dolphins occupying the northwest Atlantic can be distinguished by body measurements, and skull and blood characteristics (Hammond, Bearzi, Bjørge, Forney, Karkzmarski, Kasuya & Wilson 2014).

Physical Descriptions

Bottlenose dolphins are dark or dark grey, sometimes fading to pink-white on their underside. A bottlenose dolphin often has a dark strip from its beak base to the eye area. It also possesses a noticeable snout and a protruding lower jaw against the upper jaw. It must be noted that the

bottlenose dolphin does possess a fusiform body that lacks several physical traits of terrestrial mammal-like hind limbs, external ears, and hair. Its fusiform body is to reduce water turbulence and enables it to cruise in water at an accelerated speed. The bottlenose dolphin also has front flippers, flukes, and dorsal fins for swimming. Its dorsal fin tail is curved and is set up almost at the center of its back. Its skull has a telescoped shape with elongated rostra, an elongated anterior, and nostrils that are dorsally located (Hammond et al). Hence, such features enable a bottlenose dolphin to breathe when swimming easily. Moreover, the bottlenose dolphin is both homeothermic and endothermic. It has insulation like blubber and vascular shunts to allow for thermoregulation (Wells & Eide 2000). The bottlenose dolphins' thermo-neutral zone is 10°C to 32°C; hence, the rising or decreasing of temperature reduces or increases metabolic rates (Berrow 2009).

Bottlenose dolphins are also 84 to 145 centimeters long and weigh about 14 to 20 kilograms at birth. The adult male bottlenose dolphin is often 245 to 385 centimeters long and weighs approximately 500kg. On the other hand, adult females are quite short in length. They are mainly 227 to 336 centimeters long, and approximately 250 kilograms in weight. The bottlenose dolphin has about 18 to 26 pairs of enormous teeth in every jaw. The European bottlenose dolphin is relatively larger than that in the West Atlantic. Moreover, there are significant color and size variations among the *Tursiops truncatus* across the globe.

Trophic Strategy

Bottlenose dolphins have diets that vary from place to place. For instance, bottlenose dolphins do feed on invertebrates and fish found at the shoreline. On the contrary, when in deep waters, they tend to feed on pelagic and squid fish. Those found on the U.S. Atlantic coastlines tend to feed on croakers, silver perch, and spotfish. The South African bottlenose dolphins eat African mackerel, olive grunners, and Pandora. Moreover, bottlenose dolphins normally target prey that are between five and thirty centimeters long. They also eat approximately 4.6 to 17 kilograms daily based on the individual size of the dolphin and whether it is lactating. Interestingly, bottlenose dolphins tend to feed individually. However, sometimes, they take part in cooperative feeding with one another. Also, when hunting, bottlenose dolphins like to set up their prey at the shore and strand-feed them. Sometimes they employ echolocation calls to catch their prey. Interestingly, the bottlenose dolphins employ passive listening to locate their prey when hunting. After detecting or locating a prey, bottlenose dolphins will either go after it or instead alert others to come for the prey. Furthermore, their sharp teeth enable them to hold onto their prey while they use their tongue to thrust the game down their throats. It must be noted that dolphins do not chew but swallow their prey as a whole. A bottlenose dolphin can also break the prey by striking it with its tail or shaking it vigorously in the air, a "fish-whacking technique." Finally, while hunting, the bottlenose dolphin is also famous for following fishermen's boats to catch discarded baits or fish (Würsig et al, 2017).

Social Structure and Behavior

Bottlenose dolphins are known for exhibiting extremely acrobatic and outgoing traits, displaying curiosity to people and other mammal species. The bottlenose dolphin likes to travel in groups of 2 to 30 dolphins. However, they are likely to form groups of hundreds to thousands of dolphins during mating. Moreover, bottlenose employs sound as a means of communicating with one another. Every dolphin has its signature whistle which is developed and retained from an early age. Therefore, kin can recognize each other's whistles. The sounds also assist in maintaining group cohesion. Moreover, the signature whistle provides both the position and state of emotion of every bottlenose dolphin. Moreover, regarding their adaptation, the dolphins navigate with echolocation and use it to detect prey, topography, and predators (Würsig et. El, 2017). They regularly surface to take breaths because they can only spend a maximum of seven minutes under the water. They also use vision to comprehend their environs. Like beings, the dolphin's eyes have cones and rods. The cones offer proper acuity when the light is intensive. Finally, to adapt, they use vision at varying times of the day at varying depths (Würsig et. El, 2017).

Migration

Not all *Tursiops truncatus* make noteworthy migrations. However, some populations of bottlenose dolphins do make extended movements of about 200 kilometers at a specific time of the year, mostly during breeding or when moving to hibernating sites. Sometimes, they make regular movements between offshore and inshore areas or move linearly along the coast for close to 100 kilometers.

Reproduction

Bottlenose dolphins often engage in mating individually or in alliances. Male bottlenose dolphins sometimes form an alliance to search for females in estrous, isolating a female from her home just to mate with her. Sometimes, when in a group, the male bottlenose dolphin may flank the females to stop access by the other male dolphins. A male bottlenose dolphin will always wait for a female dolphin to be receptive or attempt to attract her into mating by bending the back, nuzzling then stroking the female or yelping its jaws (Wells & Eide 2000).

The female bottlenose dolphin normally attains sexual maturity at about six to nine years of age. Male bottlenose dolphins tend to attain sexual maturity when they are eight or thirteen years old. Also, the sexual maturity of bottlenose dolphins is often fulfilled several years before reproduction. For example, the male bottlenose dolphin will mature sexually at the age of ten years but cannot breed until it is approximately 20 years old. Moreover, breeding seasons for [bottlenose dolphins](#) differ from the area of inhabitation. This is because females tend to ovulate only during a particular period or season, mostly warmer months, while males are constantly sexually active. The pregnancy or gestation lasts approximately one year, and every pregnancy produces a single calf. The mother

dolphin breastfeeds the calf up to the age of 18 to 20 months. Interestingly, female bottlenose dolphins reproduce every three to six years, with some becoming pregnant as soon as their calves are weaned (Wells & Eide, 2000).

Life Expectancy

Bottlenose dolphins are always endangered by different causes, either natural or human-made. Natural mortality results from disease, predation, and injury. On the other hand, since they live in shallow waters, bottlenose dolphins often encounter several human activities. Sometimes, they get entangled in fishing hooks and nets and environmental contamination. Therefore, naturally, female bottlenose dolphins live for approximately 50 years, while their male counterparts live for nearly 40 to 45 years (Wells & Eide, 2000).

In conclusion, the bottlenose dolphin is a very most famous species of dolphin. They are classified as *Tursiops truncatus* and *Tursiops aduncus*. The world's estimated bottlenose dolphin population is about 600,000. They are mainly found on the continental shelf and coastal waters in temperate and tropical zones. The bottlenose dolphin is dark grey with a fusiform body. Bottlenose dolphins have diets that always vary from one place to another. They tend to feed either individually or engage in cooperative feeding. They are also famous for following fishermen's boats to catch discarded baits or fish. During breeding, bottlenose dolphins often engage in mating individually or in alliances. The female bottlenose dolphin normally attains sexual maturity at about five to ten years of age while the males do so at the age of eight and thirteen years. Moreover, the gestation period for a bottlenose dolphin is approximately one year and every pregnancy produces a single calf. Finally, the lifespan of female bottlenose dolphins is approximately 50 years, while that of their male counterparts is nearly 40 to 45 years.

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