

Delphinus delphis (Short-beaked Common Dolphin)

Family: Delphinidae (Oceanic Dolphins and Killer Whales)

Order: Cetacea (Whales and Dolphins)

Class: Mammalia (Mammals)



Fig. 1. Short-beaked common dolphin, *Delphinus delphis*.

[<http://oceana.org/marine-life/marine-mammals/short-beaked-common-dolphin>,
downloaded 19 September 2016]

TRAITS. Short-beaked common dolphins have distinct bright colours and patterns which makes them stand out from other dolphins. A dark grey cape runs along the back of its body creating a V-shape exactly under the dorsal fin visible on both sides of the body (Fig. 1). Between this cape and the ventral patch there is a yellow or tan colour along the flank. Finally, a long stripe starting from the lower jaw, runs all the way to the flipper. They have a life span of up to 35 years, weigh approximately 200kg and can grow up to 2.7m in length. Males are slightly larger than females (sexual dimorphism).

ECOLOGY. These dolphins have a wide-ranging distribution and are found between 35-55°N in the Atlantic Ocean. They favour warm tropical to cool temperate waters from 10-28°C, and also occur in the Pacific Ocean, and the Mediterranean and Caribbean Seas. Figure 2 shows a distribution map showing where these dolphins are located.

SOCIAL BEHAVIOUR. Short-beaked common dolphins are mostly solitary or seen in pairs, but they also occur in large active schools. Most schools have less than 30 dolphins when feeding, but they have been seen in schools of 100 or more. During the summer and mid-winter the size of the

school increases most likely because they follow around prey as groups. There is a strong social bond between mother and young and also between a male and a female. If one of the dolphins becomes injured or has been caught, its companion will remain with it, occasionally showing signs of distress by squealing or squeaking. Whilst feeding dolphins have been sighted around seabirds such as gannets, shearwaters, and terns. They have also been seen around sei, Bryde's and minke whales.

ACTIVITY. Most time is spent searching for food and travelling. They move around due to the prey distribution at different times of the year. They hardly rest and do not sleep, because they need to be conscious to breathe, therefore they rest half of their brain at a time while the other half keeps up their breathing. Dolphins can hold their breath for 15 minutes, after which they must surface for air. They are very playful creatures and do this in a number of ways. Porpoising is done by moving through the water like a porpoise and alternately going above the water then submerging (Fig. 3). Pitch-poling is where a dolphin jumps high above the water vertically and falls lengthwise into the water making a large splash. They are also very attracted to boats and they ride the bow pressure waves of these boats for fun.

FORAGING BEHAVIOUR. Dolphins can forage either as an individual or in a group. As individuals they look for food without help from others. In a school they use the help of other dolphins to obtain their food, by carouselling, line-abreast, wall-formation, and bubble-blowing. Gallo (1991) noted carouselling as the dolphins actively herding a school of fish up to the surface where they then become trapped (Fig. 4). Line-abreasting is where dolphins form a line, each dolphin swims next to another, moving at a relatively high speed without stopping to tire out the fish, after which attacking becomes easy. When fish are driven into shallow water or near to other dolphins restricting their ability to move around, i.e. trapping them, this is called wall-formation. Finally the simple task of blowing bubbles underwater startles the fish, making it easier to catch them. Some prey of short-beaked common dolphins include jack mackerel, mullet, flying fish, and garfish.

COMMUNICATION. Dolphins can communicate in four different ways: 1) pure tones and pulse sounds, 2) non-vocal acoustic cues, 3) visual cues, and 4) tactile cues. The lower jaw of a dolphin is filled with fat and works like human ears. This is the region they use to figure out the direction in which the sound is coming from. Pure tones and whistle-like screams are used when separated from friends, excited, happy or even when panicked. Each group has a distinct whistle and it can change throughout its lifetime. Pulse sounds (clicks) are given in a rapid succession at regular intervals. Echolocation is more a way of seeing than a way of communicating but there are times where echolocation is used for communication. Burst pulses occur when the animal is in an emotional state whether excited or angry. An example of this is that a mother dolphin may release a loud burst aimed at a calf that is not behaving. Non vocal cues may be tail slaps or lob-tailing, flipper slaps, jaw claps and jaw pops which are all associated with aggression, breaches which involve the entire body of the dolphin leaving the water and crashing back onto the surface which shows when they are in an emotional state or tell a friend the direction in which he/she is about to move, and even the formation of bubbles which is a visual signal where large bubbles make a distinctive noise which can be heard a short distance away. Visual cues is associated with body coloration, spots and stripes on the body. It helps with identifying the age or species of the dolphin. Postures such as the S-shape denote anger or aggression. Other gestures like shaking the head back and forth rapidly, opening the jaw, and dipping the head are all associated with aggression, whereas

swimming away shows submission. Synchronous behaviour show that there is a close relationship between the dolphins. An aerial display shows the direction of travel and excitement levels. Object-carrying by a male is done to gain the attention of a female, showing that he is strong and capable. Some tactile cues like the rubbing of fin to fin (like holding hands) or resting a fin on the back of another dolphin show signs of friendship. Butting heads, body slams smacking flukes and ramming of the rostrum are all associated with aggression.

SEXUAL BEHAVIOUR. They become sexually mature at 2-7 years in females and 5-7 years in males. Females have a gestation period of about 10-11 months. Babies are weaned for 19 months and the mother takes a rest of about 4 months before undergoing her next pregnancy. Other females assist with the birthing and may even baby sit while the mother feeds. Males may actively chase females and separate them from their groups. This is done so that other males would not be present to reduce their chances of mating. Females can be picky about their mating partners and may try to get away from one male more than another. Females may also be in the presence of a male whilst pregnant. Also while in oestrus a female may prefer to be in the company of a dominant male but once out of oestrus the association stops.

JUVENILE BEHAVIOUR. Juveniles leave their mother to associate with other dolphins the same age and sex as themselves. In this stage they are usually the most active. They exhibit playful, sexual and aggressive physical contact. At times there may be violent exchanges within a group to establish dominance. Examples of these behaviours are tooth-raking and tail slapping.

ANTI-PREDATOR BEHAVIOUR. Dolphins are at the top of the food chain and therefore don't really have much predators besides killer whales, sharks and humans. They never try to fight these animals as they are relatively smaller so therefore they use their speed as a defence mechanism and try to out run their predators. Since they can be found in large groups they can also use this strength in numbers to ward off predators.

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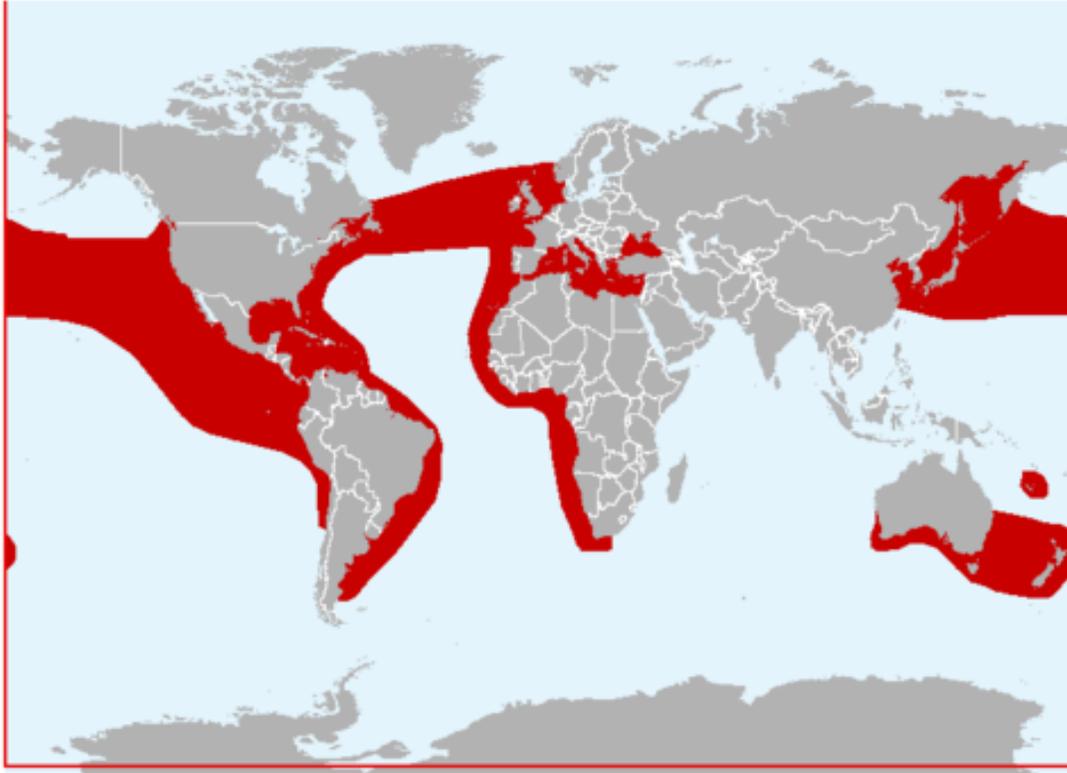


Fig. 2. Distribution of the short-beaked common dolphin.

[http://www.cms.int/reports/small_cetaceans/data/d_delphis/d_delphis.htm, downloaded 26 September 2016]



Fig. 3. Porpoising in short-beaked common dolphins.

[<http://www.arkive.org/short-beaked-common-dolphin/delphinus-delphis/image-A19280.html>, downloaded 14 November 2016]

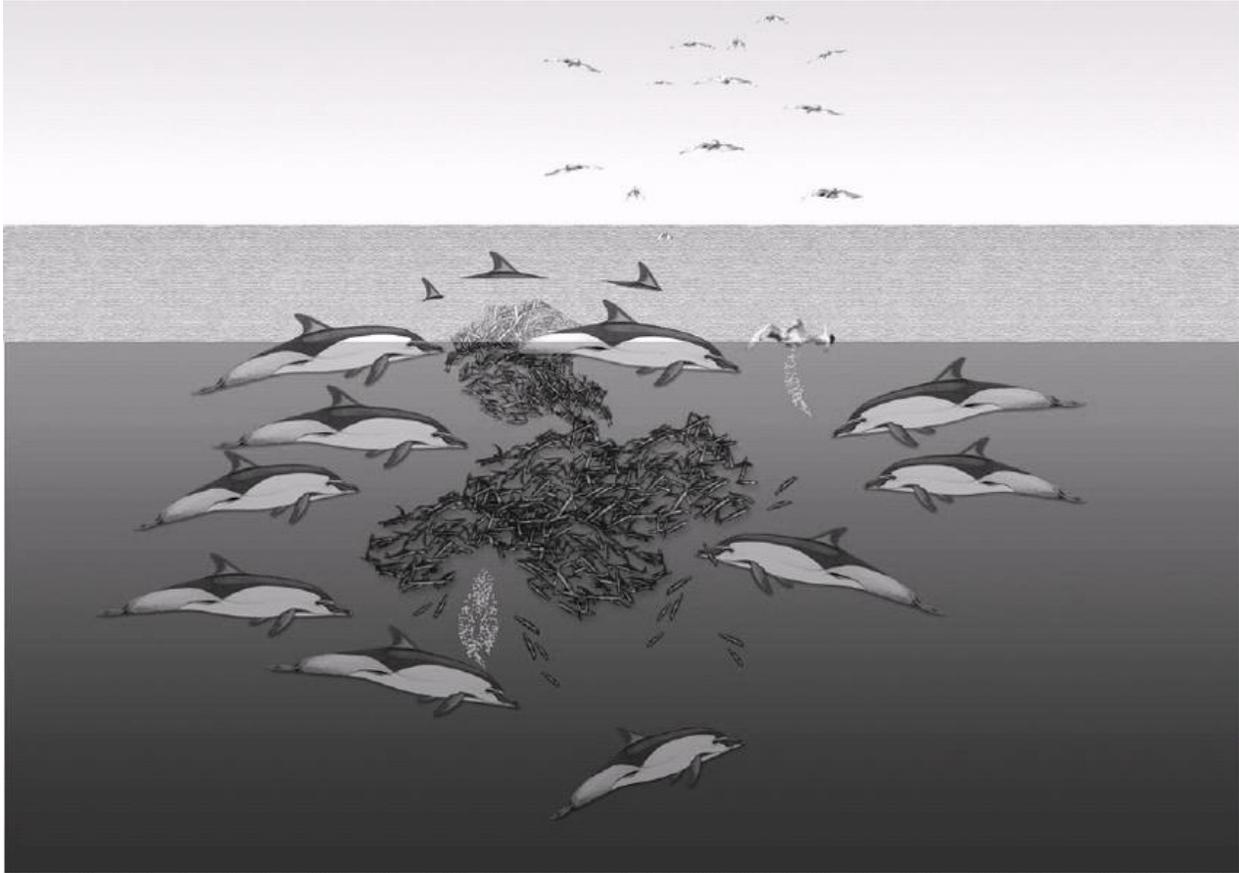


Fig. 4. Carouselling in dolphins.

[https://www.researchgate.net/publication/268440866_Foraging_ecology_of_common_dolphins_Delphinus_sp_in_the_Hauraki_Gulf_New_Zealand/figures?lo=1, downloaded 14 November 2016]

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