Bottlenose Dolphin

Shannon Estuary (Photo: Simon Berrow)

Classification

Class: *Mammalia*

Order: *Cetacea*

Suborder: *Odontoceti*

Family: *Delphinidae*

Genus: *Tursiops*

Species: *truncatus*

Common names: *bottlenose dolphin*

Irish Name: *An deilf bholgshrónach*

Key Identification Features

The appearance of bottlenose dolphins varies depending on the geographical region in which they live - the following identification features describe bottlenose dolphins found in Irish waters.

Body length: *Up to 4m*

Weight: *Up to 650kg*

Blow: *A low and bushy blow occasionally seen upon surfacing*

Head: *Small, stubby, long, wide, and rounded beak well marked off from exaggerated melon. Lower jaw protrudes beyond upper. Soft mouth line curves upwards at back to give familiar amused facial expression.*

Dorsal/pectoral fins: *Tall, prominent, dark dorsal fin, broad at base and curved backwards. Moderately keeled tailstock.*

Colouration/markings: *Medium grey back, pale/light grey flank and belly. Calves slightly bluish. Pale line drawn from flipper to eye and some spotting occurs on older animals on the belly; adults may have white calluses on tip of lower jaw.*

http://hawaiihumpbackwhale.noaa.gov/explore/bottlenose.html

Field identification: at sea (behaviour)

Probably the best known species of dolphin due to its coastal habitats, widespread distribution, and many appearances on television, bottlenose dolphins are usually seen in small groups and are rarely seen alone. They are quite active at the surface of the water. When traveling slowly, about one-quarter to one-third of the body appears above the water. When traveling at speed they often jump clear out of the water. When traveling, they normally surface 2-3 times a minute - the forehead is most often seen breaking the surface while the beak and fluke are seldom visible.

They are often seen bowriding boats, the reason for which is unclear. It may be to propel themselves along the water in an effort to save energy, or it may just be for fun! They have also been observed surfing inshore breakers or storm waves mid-ocean.They can be quite acrobatic leaping high out of the water, spinning, turning, and landing with a big splash.

Bottlenose dolphins often school with other species, including pilot whales. They are powerful swimmers and generally dive for 1-4 minutes inshore, although dives occasionally last longer offshore.

Field identification: on land (strandings)

Bottlenose dolphins have a short, rounded beak with the lower jaw protruding slightly beyond the upper jaw, both of which contain18-26 pairs of large, robust teeth. A soft mouth line curves upwards at the back to give the appearance of a 'smile' which is characteristic of this species.

Species Similar in Appearance

Most likely to be confused in the field with other species which are predominantly blue/grey with tall, curved fins such as roughtooth and spotted dolphins (neither of which have been recorded in Irish waters).

Risso's dolphins have been seen in Irish waters and are about the same size. Their key distinguishing features are: no prominent beak, blunt forehead, white scratch marks usually seen on the body.

Distribution and abundance

Bottlenose dolphins can be found in all warm and temperate waters in every ocean of the world. In the Atlantic, the occur as far north as Iceland. In the Pacific they occur from New Zealand in the south to the northern United States and in the north of Japan. Two different ecotypes have been described: an inshore one and a larger, more robust offshore one.

Another group of resident bottlenose dolphins live in the Moray Firth in the northeast of Scotland; a population which appears to be at northern edge of their range. Most often seen close inshore, even entering estuaries and rivers and very seldom found in the open ocean although they are capable of crossing open water. There is some evidence of co-coordinated migration in several populations of bottlenoses, particularly those found in temperate areas. This movement takes place towards the equator in autumn and back to richer feeding grounds in spring.

Bottlenose numbers are unknown but are thought to be common, however, pollution and degradation of fish stocks have led to markedly diminished numbers in some areas. Too large to be captured in nets, they have been, and still are, hunted with guns and harpoons. In West Africa, Japan and the Caribbean, small numbers are taken each year in coastal operations prompted by fears of competition for dwindling fish stocks. Significant numbers are captured and taken alive by the display industry.

Where and when best seen in Ireland

Seen mainly along the west coast, three distinct populations are now recognized in Irish waters – the offshore, inshore and Shannon estuary populations. One of the most important resident populations in Europe is the group of 140-170 bottlenose dolphins living year round in the Shannon.

Bottlenose dolphins have been seen beyond the continental shelf in Irish waters, and can regularly be seen off the north-west coast, occasionally with long-finned pilot whales or Atlantic white-sided dolphins.

Can be seen inshore on all Irish coasts. The resident population of c.130 dolphins in Shannon estuary is one of only four known resident populations of this species in Europe. Ireland currently has a number of "sociable" bottlenose dolphins that regularly interact with humans, they are currently in Dingle,

Co.Kerry (Fungie) and Fanore, Co.Clare (Dusty), Inis Oirr on the Aran Islands, Galway and Tory Island, Co. Donegal (Dusty). The locations of these individuals reflect this species' preference for the Western seaboard counties of Kerry, Clare, Galway, Mayo and Donegal. Since 2010 IWDG has recorded an increase in sightings along the Irish east coast extending into the North Irish Sea and Ulster coast.

Food and feeding

Bottlenose dolphins eat between 8-15 kg of fish, normally inshore bottom dwelling fish. They will also eat salmon, plaice, eels, small sharks, rays, hermit crabs, shrimps and mullet. They have also been known to eat larger pelagic fish. In captivity, they have been recorded taking large fish to the bottom and rub them on rocks in order to break the backbone and remove the head for ease of swallowing.

They usually hunt in co-operative groups, herding and corralling their prey into shallow water while two stand sentry. They will take turns thrusting into the terrified ball of herring, sprat or mackerel (normal prey off our Irish coasts) and pick them off at their leisure. These feeding frenzies often attract other predators and the bottlenose dolphins' intelligent ploy benefits the assembled predators and entire shoals of fish can be wiped out in this way. Dolphins off the West coast of Africa are said to dive to depths of 600m over the continental shelf and to facilitate these incredible dives they have evolved large, strong mid-ear bones to cope with the pressure.

Reproduction and Life Cycle

Life expectancy: *Up to 50 years*
Age of sexual maturity: *9-13 ♂ years ♀ 5-12 years*
Gestation period: *12 months*
Calf length / weight at birth: *1-1.3m / Up to 30kg*
Calving frequency: *One calf every 2-3 years*
Calves born:
Calves weaned: *Nurse for 12-18 months, remain close to mother for 3-5 years*

Status and conservation issues

Status*: Resident*

IUCN status*: Least Concern*

Conservation status in Ireland*: Good*

Protection:

- *EU Habitats Directive (92/43/EEC) Annex II and IV*
- *Wildlife Act, 1976 and Wildlife (Amendment) Act 2000*
- *Two designated Special Areas of Conservation (SAC): West Connacht Coast and Lower River Shannon*

Pollution and degradation of fish stocks have led to markedly diminished numbers of bottlenose dolphins in some areas. In addition to being caught in discarded fishing gear, they are also hunted with guns and harpoon in areas such as West Africa, Japan and the Caribbean where animals are taken each year in coastal operations prompted by fears of competition for dwindling fish stocks. Significant numbers are captured and taken alive by the display industry such as marine parks.

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