

## **SPECIES FACT SHEET –**

# White-beaked Dolphin (Lagenorhynchus albirostris)



Photo © Jacopo Bridda

#### Measurements

#### Length

Newborn: 1.1-1.2 m Full grown: Up to 3.1 m (males average 20 cm longer than females)

#### Weight

Newborn: c. 40 kg Full grown: Up to 354 kg

# Identification

#### At Sea

Less agile than common & striped dolphins but commonly breaches & bow-rides; tall recurved fin; black, with white on flanks and over back behind fin. Short, often white, beak.

#### On Land

General form stout. Moderate-sized (*c*. 6 mm diameter), sharp-pointed teeth. Total tooth count: 44-56/44-56 (upper/lower jaw). White-beaked dolphin skulls can be distinguished from those of other North Atlantic delphinids by a tooth row of more than 20 teeth and by the shorter (<240 mm in adults) and wider (>125 mm in adults) rostrum.

# Description

#### Head

In European waters, the white-beaked dolphin has a short, fairly stubby beak (5-8 cm long) generally tipped with light grey or white, which may darken to ashy grey with age. A shallow crease demarcates the beak from the melon.

### Body, Fin & Markings

It is a large and very robust dolphin. The white, grey and black body patterning varies between individuals. The white on the side of white-beaked dolphins always reaches onto the back of the animals, behind the dorsal fin (similar to a saddle patch) unlike the Atlantic white-sided dolphin where the white is restricted only to the sides of the animal. The absence of yellow-ochre streaks on the flanks behind the dorsal fin also distinguish it from the Atlantic white-sided dolphin. In front of the dorsal fin, white patches may occur on the flanks and on top on either side behind the head. There is a light patch surrounding the eye, with a darker section immediately around the eye. The dorsal fin is centrally placed, tall, and recurved at the tip. Immatures are less well marked.

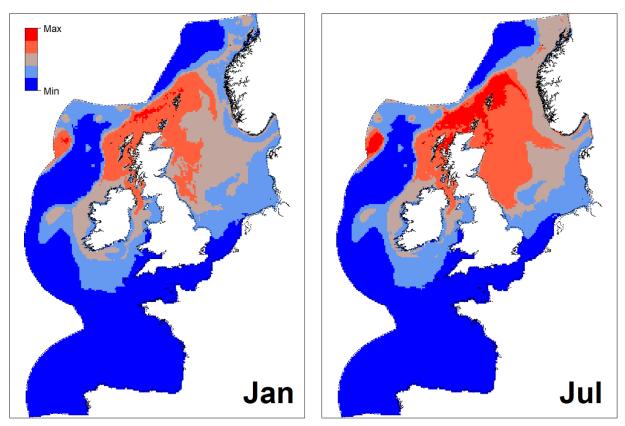
# Distribution

### **Global Distribution**

Restricted to the northern North Atlantic, its distribution extends northwards to Iceland, the Greenland Sea and central west Greenland, south to about Cape Cod (USA) in the west and the Bay of Biscay in the east.

#### **European Waters**

A species largely of continental shelf seas, the white-beaked dolphin favours the cool temperate and sub-arctic waters of the North Atlantic, around the Faroes, Iceland and west Norway extending into the Barents Sea.



Overall Distribution of White-beaked Dolphin around British Isles (Source: Waggitt et al., 2020)

### UK & Ireland

It is common in British and Irish waters, being the most abundant species of dolphin in the central and northern North Sea; it occurs regularly also around Shetland and Orkney across to northwest Scotland, and along the west coast of Ireland out to the shelf edge. It is rarely found south of the English Channel although a small population inhabits the waters around Lyme Bay, Devon. It is only occasional off southern Ireland, in the Irish Sea, and eastern Channel.

## Abundance

Wide-scale surveys of shelf seas from southern Norway to Portugal in summer 2016 indicate a population of around 40,000 animals. Numbers in the North Sea (counted in July) have not changed significantly between 1994, 2005 and 2016, when the main abundance surveys have taken place. However, over a wider region, there are indications of a general decline. Like many other smaller species of dolphin in UK waters, peak numbers of white-beaked dolphins occur between June and October, particularly August, although in northern Britain it is present throughout the year.

## Habitat

Most abundant in cool sub-arctic waters, it prefers water temperatures of 5-15°C. It is usually present over the continental shelf in waters 50-100 m depth but off west Greenland it apparently favours depths of 300-1,000 m. It may associate with areas of steep slope and uneven seabed.

## Diet

White-beaked dolphins eat a variety of prey, such as cod, whiting, hake, haddock, sprat, mackerel, herring, scad, and gobies; cephalopods such as the octopus, and sometimes crustaceans. Analyses of stomach contents from various parts of the North Sea and from Newfoundland have revealed cod, whiting, and hake as predominant prey. In the Hebrides, white-beaked dolphins are often seen associated with mackerel shoals.

## **Behaviour**

White-beaked dolphins have been reported in large schools of up to several hundred individuals in the eastern North Atlantic. In UK waters, however, most sightings are of groups of less than ten animals, although schools of up to 50 are not uncommon off north-west Scotland. Groups of 20-100 animals can be seen in particular in late summer with occasional aggregations of up to five hundred individuals. The social structure is poorly known, but there seems to be some segregation by age and sex, and, within larger aggregations, subgroups of 2-5 individuals are commonly observed. They are often observed in association with other small cetaceans, such as Atlantic white-sided dolphins, and have been seen feeding in close proximity to minke whales, humpback whales, bottlenose dolphins, and Risso's dolphins. They have been observed herding fish using co-operative techniques, communicating with each other using whistles, tail slaps, and somersaults. White-beaked dolphins are fast and powerful swimmers, and commonly bow-ride, especially in front of large, fast-moving vessels, although they tend to lose interest rather quickly if the vessel is travelling too slowly. An active species, they frequently engage in acrobatics such as breaching and tail lobbing.

## **Life History**

The age at sexual maturity is 6-10 years for females and 8-12 years for males. The gestation period is c. 11 months. The calving interval has been recorded as 2-3 years, but may be significantly longer. The lactation period is thought to be c. 18 months. Juvenile and adult survival rates are unknown. The life span for females is at least 39 years and 32 years for males. Mating is thought to occur in the spring or summer; calves are born mainly between June and September. Some aspects of the life history of this species are still unknown.

## **Conservation Threats**

In the past, the species was hunted in northern European waters, but nowadays only a few are taken, on an opportunistic basis, by coastal communities in the Faroes, Iceland and west Greenland. Some white-beaked dolphins are caught incidentally in purse seine and trawl nets in areas such as the North Sea and off western Ireland, but the numbers involved are not well known. Threats to the species in European shelf waters are poorly known but currently may be primarily from prey depletion and the possible effects of climate change. Contaminant levels can also be relatively high. Ice entrapments causing mortality have been reported in northern Canada. The species is ILegally protected in European, British and Irish waters.

IUCN status: Least Concern.

#### References

Evans, P.G.H., Anderwald, P., and Baines, M.E. (2003) UK Cetacean Status Review. Report to English Nature & Countryside Council for Wales. 160pp.

Kinze, C.C. (2018) White-beaked dolphin *Lagenorhychus albirostris*. Pp. 1077-1079. In: *Encyclopaedia of Marine Mammals* (B. Würsig, J.G.M. Thewissen, and K.M. Kovacs, Eds). Academic Press, London & San Diego. 1,157pp.

Jefferson, T.A., Webber, M.A., and Pitman, R.L. (2015) White-beaked dolphin *Lagenorhychus albirostris*. Pp. 282-284. In: *Marine Mammals of the World*. A Comprehensive Guide to their Identification. Academic Press, London & San Diego. 608pp.

Reeves, R.R., Smeenk, C., Kinze, C.C., Brownell, R.L. Jr, and Lien, J. (1999) White-beaked Dolphin. Pp. 1-31. In: Handbook of Marine Mammals. Volume 6: The Second Book of Dolphins and the Porpoises (Eds. S.H. Ridgway and R. Harrison). Academic Press, San Diego. 486pp.

Reid, J.B., Evans, P.G.H. and Northridge, S.P. (2003) Atlas of Cetacean Distribution in North-west European Waters. Joint Nature Conservation Committee, Peterborough. 76pp.

Waggitt, J.J., Evans, P.G.H., Andrade, J., Banks, A.N, Boisseau, O., Bolton, M., Bradbury, G., *et al.* (2020) Distribution maps of cetacean and seabird populations in the North-East Atlantic. *Journal of Applied Ecology*, 57: 253-269. DOI: 10.1111/1365-2664.13525.