



LONG-FINNED PILOT WHALE IN UK WATERS



DESCRIPTION The long-finned pilot whale, *Globicephala melas*, is a medium-sized whale, with a bulbous forehead and a short, almost imperceptible, beak. The mouth-line is curved upwards, and the blowhole is set slightly to the left of centre on the top of the head. Male long-finned pilot whales attain lengths of 5.5m to over 6m. Females are smaller at around 4 to 4.5m, with a maximum of 5.5m. Sexual size dimorphism is obvious: mature males are up to a metre or so longer than females, and almost double their maximum weight. The dorsal fin is fairly low and long-based, sickle-shaped to flag-shaped with age, and located relatively far forward on the back. The species has a black or dark grey head and back, a greyish-white anchor-shaped patch on the chin, and a grey area on the belly. At sea, it is recognised as slow-swimming with a bulbous head, a dark back, a low fin, and long flippers.

The short-finned pilot whale is a similar species found in tropical and sub-tropical waters. This species, however, is virtually impossible to distinguish at sea from its cooler water relative. Generally the species can be separated by their range, but in some areas, such as off the eastern US coast, they overlap.

DISTRIBUTION Long-finned pilot whales are common and widely distributed in deep waters of the north-eastern Atlantic from the Iberian peninsula north to Iceland. They are also widely distributed in British and Irish waters, occurring in all areas except the eastern English Channel and the southernmost part of the North Sea. Whales seasonally enter coastal waters around the Faroe Islands, North Scotland, Western Ireland and the Channel approaches west of England. The species is also common in the Mediterranean Sea. It has a primarily pelagic distribution with most near shore sightings occurring on the Atlantic seaboard, or in the northern North Sea. Recent sightings surveys estimated the population in Faroese waters at around 72,000 animals, with somewhere between 13,000 and 19,000 in Icelandic waters.



Regular, common or fairly common
 Occasional
 Casual or absent

SOCIAL BEHAVIOUR The social behaviour and mating system of pilot whales has not yet been fully elucidated, but they are extremely social and show strong herding behaviour. Pods may sometimes rest motionless at the surface allowing boats to approach closely. They sometimes bow-ride and lob tailing and spy-hopping are often observed. Adults rarely breach but young animals may. Pods of pilot whales range in



size from less than ten to more than 1000 individuals. Studies of several groups that stranded around the British Isles demonstrated some uniformity in group size, all groups consisting of 23 to 40 animals. Free-swimming groups, however, observed in British waters were usually of fewer than 20 individuals. Previous mass strandings in Britain have involved as many as 148 animals, and over 60 on several occasions.

REPRODUCTIVE BIOLOGY Females become sexually mature at about 7 years of age, with males maturing later, between 11 to 16 years of age. Males may become socially mature and mate successfully some years after this. Mating may take place all year round but conceptions peak in April to June. The gestation period was calculated to be 15.5 months in Newfoundland. Long-finned pilot whales are thought to have a life span of around 50 years, with the females living longer than males.



DIET The pilot whale diet varies between years and according to body size and reproductive status of the whale. Pilot whales feed year round and prey type reflects local availability and abundance to some extent. *Cephalopods* (squid, cuttlefish and octopus) form the bulk of pilot whale prey. From stomach content studies of Faroese pilot whales the variety of prey items was found to be large and included nine genera of *cephalopods*, thirteen species of fish and three species of *Crustacea*. Pilot whales seem to feed exclusively on *Todarodes* (a genera of *cephalopods*) where ever possible, but if it is unavailable, the diet is supplemented with a range of other prey items including fish and shrimps. In winter, prey species diversity increases whereas fish become more important in summer, especially in the diet of males, although squid still continue to make up the bulk of the food.

THREATS There is a long history of exploitation of long-finned pilot whales in the Northern Hemisphere. Organised drives have taken place for at least eleven centuries in the Faroe Islands, where an annual catch of several thousand has persisted for several hundred years and continue to some extent to the present day.

These Faroese hunts have been the subject of much concern and controversy in recent years because of the inhumane methods used and the question of whether the once 'subsistence' hunt is now necessary from a socio-economic or nutritional point of view. There are also concerns that consuming pilot whale meat may be posing a significant health risk due to the high levels of pollutants within it, particularly metals such as mercury and cadmium and PCBs and other organochlorines. This pollution is obviously also a concern for the health of pilot whales.

Underwater noise pollution may also be a concern. In the Mediterranean, long-finned pilot whale vocalisations were studied while active military sonar was being broadcast. Vocalisations were found to alter in response to the noise that dominated the acoustic environment over a significant range. The significance of such changes to cetacean vocalisation is unknown.



FURTHER READING

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