SPECIES FACT SHEET –

Long-finned Pilot Whale
(Globicephala melas)

Photo © Peter GH Evans

Measurements

Length

Newborn: c. 1.78 m
Full grown: Up to 8.5 m

Weight

Newborn: c. 75 kg
Full grown: 800 kg

Identification

At Sea

Slow-swimming; bulbous head, dark back, low, hooked dorsal fin positioned one-third along back, and long flippers, relatively long more slender tail stock behind dorsal fin.

On Land

General form robust particularly forward of dorsal fin. Small (less than 13 mm diameter) peg-like teeth. Total count: 16-26/16-26 (upper/lower jaw). Anchor shaped lighter patch below jaw.

Description

Head

The head is distinctive in shape being rather square and bulbous, particularly in old males, and with a slightly protruding upper lip. The head is black to dark-grey in colour but an anchor shaped patch of greyish-white can be seen on the chin, which is lighter in younger individuals.

Body, Fin & Markings

It has a robust, dark-grey to black, body with long (18-27% of body length) slender flippers with pointed tips and strongly angled leading edge at the base. There can be a lighter grey saddle over the back behind the dorsal fin. The fin is fairly low, very wide-based and situated slightly forwards of the mid-point of the back, varying from recurved in immature animals and adult females, to flag shaped in adult males. There is a thick keel on the tail-stock, which is more pronounced on adult males. The tail flukes have a concave trailing edge and are deeply notched in the centre. Calves are lighter than adults and may have a distinct brownish tinge. Long-finned and short-finned species can be hard to distinguish at sea which can make identification problematic in regions where populations overlap. The main distinguishing feature is the length of pectoral flippers, as the names suggest. Otherwise, the species is morphologically distinct from other cetaceans.

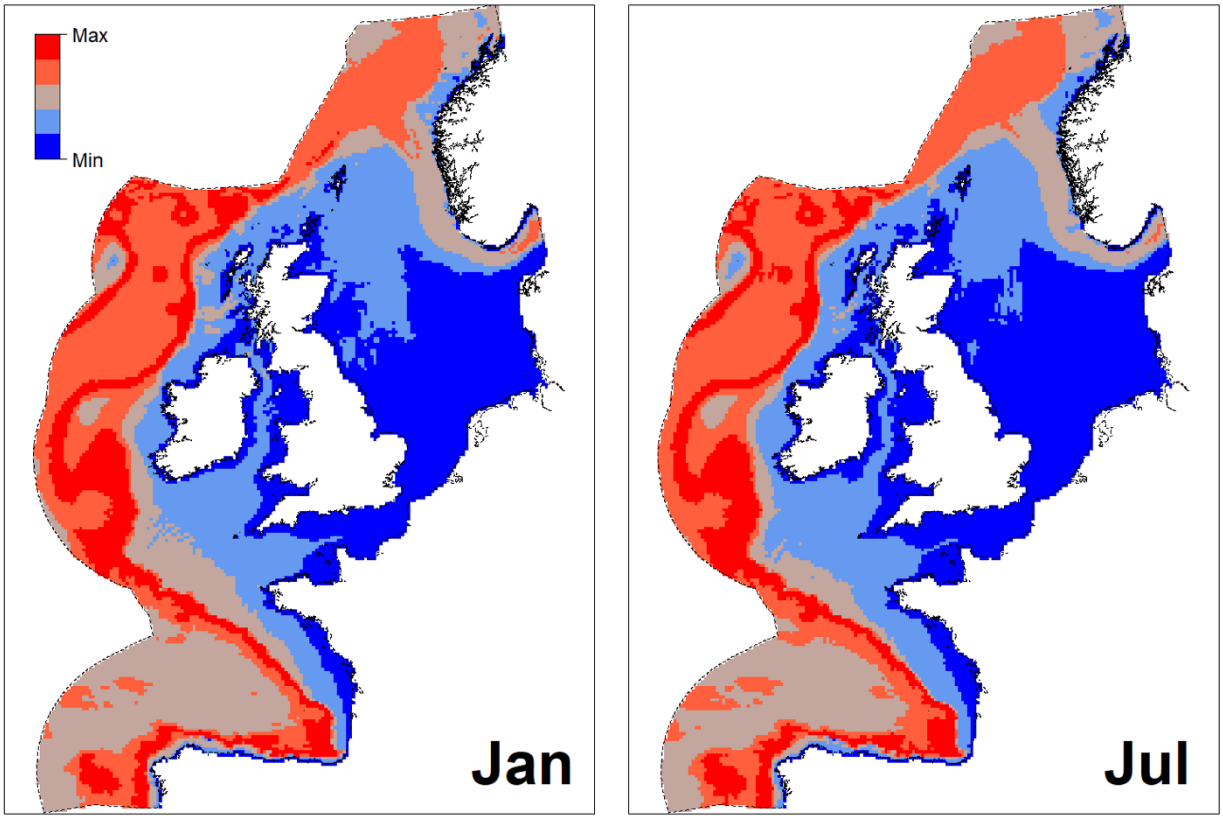
Distribution

Global Distribution

Short-finned and long-finned species have overlapping ranges in some parts of the world. Present in all oceans, with the long-finned species restricted to cold temperate waters in the North Atlantic and Southern Ocean. The long-finned species is not present in N Pacific. The long-finned varieties in the two hemispheres are isolated and accordingly divided into subspecies. *G. melas melas* is the subspecies of the N Atlantic.

European Waters

The long-finned pilot whale is one of the most abundant cetaceans in offshore European waters beyond the shelf edge. In the eastern North Atlantic, the species is common and widely distributed from northern Norway, the Faroe Islands and Iceland south to the Bay of Biscay and Iberian Peninsula; it is also common in the western Mediterranean.



Overall Distribution of Long-finned Pilot Whale around British Isles (Source: Waggitt et al., 2020)

UK & Ireland

In British and Irish waters, long-finned pilot whales occur mainly along the continental shelf slope, particularly around the 1000 m depth contour - in the Faroe-Shetland Channel, Rockall Trough, Porcupine Bight, and the South-west Approaches to the English Channel. It is rare in the North Sea except in the northernmost sector, but regularly enters the English Channel.

Abundance

Wide-scale surveys in 2016 indicated a population of *c.* 33,000 animals from shelf edge waters of southern Norway south to Portugal, with densities highest along the shelf edge north and west of the Outer Hebrides, west of Ireland and along the Biscay coast of Spain. Further north, surveys in 2015 around the Faroe Islands and south-west of Iceland resulted in an abundance estimate of almost 600,000 animals.

Habitat

Long-finned pilot whales are widespread in temperate regions of the world, usually occurring in temperate and sub-polar waters of 200-3,000 m depth (particularly around 1,000 m) seaward and along edges of the continental shelf where bottom relief is greatest. They may venture occasionally into coastal waters, entering fjords and bays (and sometimes mass strand there).

Diet

They are benthic and pelagic feeders. Their diet consists mainly of squid, notably *Todarodes* spp.; fish are also taken, including mackerel, hake, cod, whiting, pollack, scad, sea bass, sand-eels. The diet may vary with reproductive condition, for example, lactating females have been shown to take a greater proportion of fish off the Faroe Islands.

Behaviour

Group sizes in deep waters off the continental shelf of the North Atlantic and Mediterranean can number tens or hundreds of individuals, although pods of c. 20-100 divided into subgroups of 10-20 are more typical. Largest group numbers are thought to be temporary aggregations of social groups. Most groups comprise females with calves and adult males in the ratio 3:1 in favour of females. Males are not the father of the calves, suggesting mating occurs between males and females from different pods. The males' larger body size is used as protection; when boats approach, they will position themselves in front of the females and calves. It is thought this sexual dimorphism is also used for protection from predators. The social structure appears to be relatively stable, and maternally based (similar to killer whales) with a polygynous mating system. They are relatively slow swimmers although they can attain speeds of *c.* 40 km/h. Pilot whales can dive to depths of >1,000 m for 10 to 16 minutes to feed. Most feeding occurs at night in deep water between depths of 200 and 500 m. Adults scarcely ever breach, although juveniles will do so. They frequently lie vertically in water with the head and top of the pectoral fins exposed (termed spy-hopping). Dolphins (mainly bottlenose and Atlantic white-sided) may associate with herds.

Life History

Males reach sexual maturity around 12-13 years of age, females around 8 years. There is no distinct breeding season, although in the Faroes there is a conception peak in April-July. The gestation period is c. 12-16 months. The lactation period is c. 18-44 months, although males can suckle for up to 7 years and females up to 12 years. Older and/or un-reproductive females help care for calves in the social group. The calving interval is 3-6 years. The life span is 35-45 years in males and at least 60 years in females.

Conservation Threats

The tight social structure and tendency for the species to venture into coastal waters (such as fjords and bays) makes them vulnerable to herding, and this has been taken advantage of by whalers in drive fisheries. Organised drives have taken place for at least 11 centuries in the Faroe Islands. Between 1991 and 2017, annual catches have varied greatly, from zero to nearly 1,600, but the average is around 700 animals. Until the early 20th century, drive fisheries operated opportunistically, mainly in Shetland and Orkney, but also in the Outer Hebrides and Western Ireland, whilst through the 20th century small numbers have been taken at sea west of Norway, around the Faroes, Iceland, and off West Greenland. Besides the direct takes of pilot whales in the Faroe Islands, the main threats are thought to be bycatch in fishing gear (trawls, driftnets and longlines), possible high contaminant levels (e.g. mercury), and vessel strikes. They are possibly impacted also by underwater noise. Globally, some animals have been live captured for captive display. The species is legally protected in European, British and Irish waters.

IUCN status: Data Deficient.

References

Boran, J.R., Evans, P.G.H., and Martin, A.R. (2008) Long-finned pilot whale *Globicephala melas*. Pp. 735-738. In: *Mammals of the British Isles*. (Eds. S. Harris and D.W. Yalden). Handbook. 4th Edition. The Mammal Society, Southampton. 800pp.

Evans, P.G.H. (2020) Long-finned pilot whale *Globicephala melas*. Pp. 108-111. In: *European Whales, Dolphins and Porpoises.* Marine Mammal Conservation in Practice. Academic Press, London & San Diego. 306pp.

Evans, P.G.H. and Waggitt, J.J. (2020) Long-finned pilot whale *Globicephala melas*. Pp. 166-167. In: *Atlas of the Mammals of Great Britain and Northern Ireland* (D. Crawley, F. Coomber, L. Kubasiewicz, C. Harrower, P. Evans, J. Waggitt, B. Smith, and F. Mathews, Eds). Published for The Mammal Society by Pelagic Publishing, Exeter. 205pp.

Jefferson, T.A., Webber, M.A., and Pitman, R.L. (2015) Long-finned Pilot Whale *Globicephala melas*. Pp. 197-199. In: *Marine Mammals of the World.* A Comprehensive Guide to their Identification. Academic Press, London & San Diego. 608pp.

Olson, P.A. (2018) Pilot Whales *Globicephala melas and G. macrorhynchus.* Pp. 701-705. In: *Encyclopaedia of Marine Mammals* (B. Würsig, J.G.M. Thewissen, and K.M. Kovacs, Eds). Academic Press, London & San Diego. 1,157pp.

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.