



**SPECIES FACT SHEET –**

# **Blue Whale**

## ***(Balaenoptera musculus)***

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*Photo © Peter GH Evans*

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## Measurements

### Length

Newborn: 6-8 m

Full grown: 21-27 m

### Weight

Newborn: 2,000 – 3,000 kg

Full grown: 80,000-150,000 kg

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## Identification

### *At Sea*

Largest whale. Very small dorsal fin, variable in shape but usually with little curvature. On diving, the species lifts its tail at a slight angle. Body generally bluish-grey, sometimes has mustard yellow coloration mainly on belly (caused by diatoms from periods spent in low latitudes). May have white patches on ventral surface of tail. Tall, slender blow, 10-12 m in height.

### *On Land*

Baleen plates relatively short (90 cm long × 50 cm wide), 260–400 on each side of upper jaw, stiff and coarsely fringed, and jet black in colour. There are 60–88 ventral pleats running longitudinally from the tip of the lower jaw to the navel, which enable ventral pouch to distend when feeding.

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## Description

### *Head*

The head is broad, flat and U-shaped, up to 25% of total length, with a single ridge extending from a raised area forward of the blowhole towards the tip of the snout. The head and most of the body is characteristically pale bluish-grey, mottled with grey or greyish white.

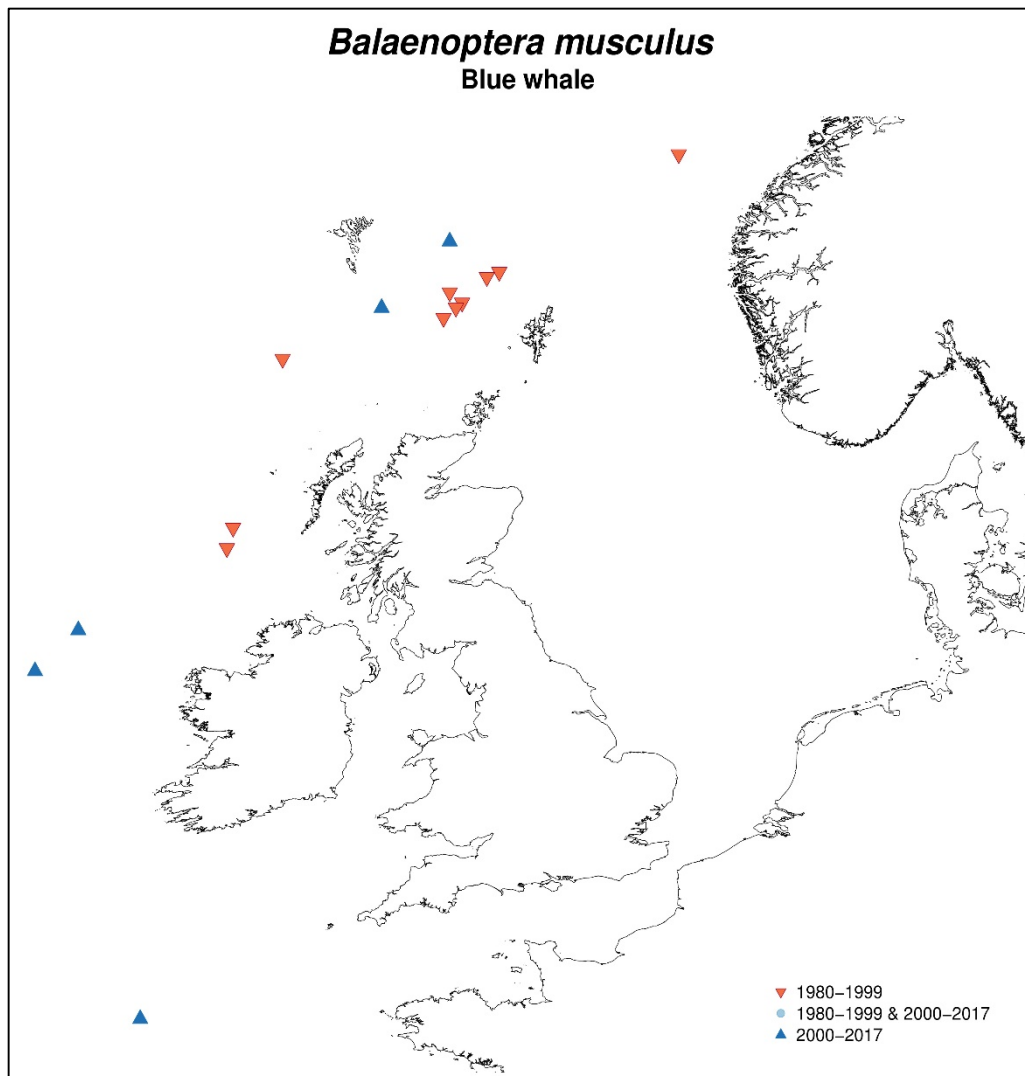
### *Body, Fin & Markings*

The blue whale is the largest mammal to have ever lived. Body form slender and streamlined but broadens to large head and snout. It has a very small dorsal fin that varies in shape from nearly triangular to moderately recurved, and is situated distinctly more than two-thirds along the back so that it is seen only just prior to a dive, and sometimes after the blow. The tail is broad and triangular in shape, with slender, pointed tips to the flukes and only a slight central notch. The flippers are long (up to 15% of body length), slim, with underside and pointed tips white or pale greyish-blue.

## Distribution

### *Global Distribution*

Blue whales are found worldwide in all seas. Although rare after a century of exploitation, the species occurs regularly in deep waters of the North Atlantic, from the Caribbean to the Davis Strait / southern Greenland in the west, and from the Canaries, Cape Verdes and West Africa to Jan Mayen, Svalbard and the Barents Sea in the east.



*Blue whale sightings around British Isles (Source: Evans & Waggitt, 2020)*

### *European Waters*

Greatest numbers are at high latitudes around Iceland and to a lesser extent in the Barents Sea on their main feeding grounds. Further south, sightings and acoustic monitoring reveal small numbers in deep waters of Faroe-Shetland Channel, Rockall Trough, and Porcupine Bight with a few sightings also in Bay of Biscay and off the Iberian Peninsula.

### ***UK & Ireland***

Their presence around British Isles is evident primarily from whale fisheries of the early 20th century indicating that small numbers regularly passed west of Britain and Ireland during summer in deep waters off the edge of the continental shelf. There were four strandings on British/Irish coasts, 1913-23, but none since. There has been only one recent well-documented sighting, off NW coast of Ireland, May 1977, although they've also been sighted over Wyville Thompson Ridge and in the Faroe - Shetland Channel.

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### **Abundance**

Sightings Surveys (NASS) in the central and eastern North Atlantic between 1987 and 2001 indicated total abundance there was lowest in 1987 when the estimate was 222, and highest in 1995 when 979 whales were counted. Since then, the population have shown signs of increase. The NASS survey around Iceland and the Faroes in 2015 yielded an abundance estimate of 2,993 whales, concentrated mainly north of Iceland and off the east coast of Greenland. Global population somewhere between 10,000 and 25,000 animals, representing just 3-11% of population size in the early 1900s.

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### **Range & Habitat**

Blue whales are found worldwide, ranging across all oceans, and usually found in deep waters of 400-1,000 m depth. They are thought to spend the winter in tropical and subtropical seas where they breed, and then migrate to feed during summer months in cold temperate and polar waters. However, acoustic recordings in the mid-Atlantic suggest that some individuals, at least, remain at high latitudes throughout winter.

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### **Diet**

The species feeds almost exclusively on planktonic crustaceans, mainly euphausiids (krill), although it will also take copepods, and, less frequently, amphipods, cephalopods, and occasionally small fish.

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### **Behaviour**

Blue whales are observed most commonly alone or in pairs; however, concentrations of 50 or more can be found spread out in areas of high productivity. Although not noted for raising their flukes when diving, approximately 18% of blue whales observed in the western North Atlantic and Northeast Pacific do so. When feeding at depth, blue whales will generally dive for 8-15 min, although dives of up to 30 min have been recorded. Swimming at 3-6 km/hr is most common. Blue whales vocalize regularly throughout the year with peaks from midsummer into winter months.

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## Life History

Mating is thought to occur in late autumn-winter, with births during winter. The breeding grounds are not known, but are thought to be in tropical Atlantic off NW Africa. In N Pacific, adults with young are seen regularly in winter. Females give birth every 2-3 years in winter, after a gestation period of 10-12 months. Sexual maturity is reached at 5-15 years, but mainly at 8-10 years for both sexes. The life span is thought to be at least 80-90 years and probably longer. Annual adult mortality is possibly 10-12%.

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## Conservation Threats

Because of their great size and commercial value, blue whales were hunted relentlessly from the late 19<sup>th</sup> century until their worldwide protection in 1966, bringing the species to the brink of extinction. Still an endangered species today (N Atlantic subpopulation designated 'Vulnerable' by IUCN), there is evidence, however, of a population increase in the Antarctic, and maybe also be now in the central northern North Atlantic. The main threats currently appear to be ship strikes although changes in prey availability through climate change might also impact the species. Increasing anthropogenic noise from shipping and oil exploration may also limit the recovery of some populations. The conservation status is classified by IUCN as Endangered. They are legally protected in European, British and Irish waters.

**IUCN status:** Endangered.

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