



SPECIES FACT SHEET –

Narwhal

(Monodon monoceros)



Photo © Mads Peter Heide-Jørgensen

Measurements

Length

Newborn: 1.6 m
 Full grown: c. 4.0 m (female),
 c. 4.5 m (male)

Weight

Newborn: 80 kg
 Full grown: c. 900 kg (female),
 c. 1,500 kg (male)

Identification

At Sea

Similar robust body shape to beluga; small blunt head and no dorsal fin. Males have a distinctive tusk protruding from lower jaw (thought to be source of the unicorn legend). Young belugas can resemble narwhals because of grey colouration in both species and absence of a tusk in young narwhals. Best distinguished by blotches over back in narwhal.

On Land

Flippers turn up distally with age, more prominent in males. Skull is similar to the beluga but no erupted teeth in upper jaw (aside from tusk), and none in lower jaw.

Description

Head

It has a small rounded head with a bulbous forehead and very slight beak. The melon is often overhanging in adult males. The mouthline short and upturned near the gape. It has one pair of teeth in the upper jaw only; the left tooth of the male extends to 2.7 m (but the average is 1.9 m) forming a spiralled tusk erupting through lower jaw (at age 2-3 years). In females, the teeth are embedded in skull and rarely erupt. However, occasionally, females have a small tusk and males sometimes two tusks.

Body, Fin & Markings

It has a stout body mottled grey-green, cream and black. Older males appear lighter, sometimes almost white (except for black mottling around head and anterior back), likely due to the accumulation of scarring. Newborns are blotchy slate grey or bluish grey. They have no dorsal fin but a low fleshy dorsal ridge on the posterior half of the back. Their flippers are short and blunt with an upturned tip in adults. The tail flukes change shape with age, becoming straight to concave on leading edge and convex on trailing edge. They are deeply notched with tips curling upwards as individuals, particularly males, age.

Distribution

Global Distribution

Arctic and circumpolar, rarely observed outside of Arctic Circle

European Waters

Centres of distributions are West and East Greenland, Svalbard, and Franz Josef Land. Extra-limital records have occurred in Germany (1736), The Netherlands (1921), Sweden (1992), and Belgium (2016).

UK & Ireland

There have been only seven records in British waters. Single animals were stranded in 1648, 1800, and 1802 and two in the Thames estuary in 1949. There have been two separate live sightings off Orkney in 1949; there have been no verified records since.

Abundance

No complete population estimates exist, but aerial surveys suggest populations of at least 60,000 in northern Davis Strait and Baffin Bay, c. 6,000 in northern Hudson Bay and Foxe Basin, and c. 6,000 in coastal areas of East Greenland. Low numbers occur in the Eurasian sector of the Arctic Ocean, most frequently around Franz Josef Island and Svalbard.

Habitat

The Narwhals' preferred habitat is deep offshore waters near or within heavy consolidated pack ice. In summer they migrate north into fjords and bays, occasionally found in waters <10 m deep; in winter, they travel south offshore into shelf slope waters of 1,000-2,000 m depth.

Diet

A relatively limited number of species have been recorded taken, primarily squid and fish (pelagic and demersal), with some invertebrates. Common prey include capelin, polar cod, redfish, Greenland halibut and *Gonatus* squid.

Behaviour

They are presumed to be a polygynous species due to presence of tusk, scarring in males and sexual dimorphism. A gregarious species, they are rarely observed alone (usually males) but usually in groups of 5-10 whales, migrating together. Groups often merge into larger herds. They have a similar group structure to belugas with groups forming larger aggregations covering several kilometres which move as a unit and can contain thousands of whales. Groups are usually segregated by sex, with adult males living in separate groups, and females with calves travelling with immature males. They are deep divers, to >1,500 m, with deeper dives (5-25/day rarely

exceeding 30 min duration) recorded in winter when further offshore. Whistles indicate social signals between and within groups.

Life History

Little known. A single calf is born usually in summer with mating in early spring. Age at sexual maturity is c. 8-9 years for females and 12-20 years for males. The gestation period is 13-16 months with the calving interval c. 3 years. The lactation period 1-2 years. Their life span poorly known, but indication from “eye lens ageing” ,using aspartic acid, is that females may attain a maximum age of c. 100 years, a slightly higher survival rate than males.

Conservation Threats

Narwhals have long been hunted for tusks and skin; this continues in Canada and Greenland. About 555 individuals are harvested from Greenland per year and 280 from Canada. There is an international trade for tusks but no known threats from other anthropogenic sources although disturbance from underwater noise may increase as arctic regions open up to vessels, and high levels of contaminants (e.g. organochlorines and heavy metals such as mercury) are of concern. They are naturally susceptible to ice entrapment which may become exacerbated by climate change. The species is legally protected in European, British and Irish waters.

IUCN status: Near Threatened.

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