

Narwhal (*Monodon monoceros*)

Photo: Jon Aars / Norwegian Polar Institute
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Narwhals are midsized toothed whales that are closely related to white whales. The most conspicuous feature of the narwhal is the up to three metres long spiralled tusk, borne by males of the species. The distribution of narwhal is largely confined to the North Atlantic region. They are most numerous in the eastern Canadian Arctic and along the coasts of Greenland, but occur also in the northern parts of Svalbard and the Franz Josef Land archipelagos.

Description

The most conspicuous feature of the narwhal is the up to three metres long spiralled tusk, borne by males of the species. Occasionally females develop a stunted version of this extended anterior maxillary tooth as well. Usually the tusk is single, but narwhals with two tusks have also been recorded.

Adult narwhals are light grey with numerous irregular black spots; the spots are more numerous on the back and fewer on the belly. Narwhal are mid-sized toothed whales that are closely related to white whales. Adult males are larger than females; males reach lengths of five metres and weights of up to 1,600 kg whereas females reach lengths of four metres and weights about 1,000 kg.

Similar to white whales, narwhals have small flippers and flukes, and they lack a dorsal fin. They have a defined dorsal ridge like the other ice-dwelling whales.

Young are born greyish-brown, and change their colour with age, similar to white whale calves.

Distribution

The distribution of narwhal is largely confined to the North Atlantic region. They are most numerous in the eastern Canadian Arctic and along the coasts of Greenland. They also occur in the northern parts of Svalbard and the Franz Josef Land Archipelagos. They are rare beyond this range, but have been reported in both Alaskan and Siberian waters.

Narwhals exhibit a seasonal movement pattern that follows the distribution of the ice through much of the year. In Svalbard, most recent sightings of narwhals come from fjords in Nordaustlandet and from Hinlopenstretet in the north-eastern parts of the Archipelago. But, observations of individual animals have also occurred recently on the west coast of Spitsbergen (e.g. innermost Kongsfjorden (2012) and deep within Adventfjorden (2013)).

General ecology

The global population size of narwhals is not known, but there is thought to be approximately 50,000 in the Northwest Atlantic region. The numbers in Svalbard and adjacent waters are not known; they are certainly less numerous than white whales in this area.

Narwhal are a gregarious species that usually occurs in small groups, but sometimes they aggregate into clusters of hundreds or even thousands of animals.

Narwhals are animals of the pack ice that keep quite a tight association with ice most of the year, but in some areas they move into coastal areas when there is little ice in summer despite the fact that these areas are not generally the deep-water habitat thought to be typical of this species. During freeze-up, coastal areas are abandoned and narwhals move offshore. In winter they stay in very heavy consolidated pack ice, using leads or polynyas to breathe.

Narwhals are cryptic in both colouration and behaviour, and move away from boats rapidly; hence, they are very difficult to spot. During the summer they occur in groups that are segregated by sex. Females and youngsters travel together while mature males tend to stay within all-male groups.

Narwhals are deep divers that can dive to well below 1000 m but dive records to date have never exceeded durations of 25 minutes. They feed relatively little in the summer months during the open water periods, but fatten in the autumn, winter and spring when they are associated most tightly with large expanses of sea ice. The prey of narwhals suggests that they feed over a wide range of depth.

Similar to white whales and other toothed whales, narwhals use echolocation during foraging and probably also when travelling in murky water to avoid striking objects. They feed on arctic cod, polar cod, Greenland halibut, bottom-dwelling cephalopods, squid and even shrimps.

Polar bears and killer whales are the dominant predators of narwhals.

Life history and reproduction

Births take place in July-August, following a gestation period of 13- 16 months. Narwhal calves are fed by their mothers for one to two years. So the interval between births for females is thought to be three to four years. Narwhals mate in the spring, usually in May. During the mating season males display with their tusks in contests that resemble jousting, but little else is known about the social behaviour of this species.

Management status and monitoring

Inuit people in the North Atlantic region have always hunted narwhal. People consume the meat and fat and where it is legal to do so the tusk of males is sold as a cash commodity. Commercial whalers and sealers operating in the North Atlantic took narwhal opportunistically. Records exist of catches in Svalbard waters, but large numbers were never taken close to the Archipelago.

Narwhals are protected in Svalbard.

<https://www.npolar.no/en/species/narwhal/>