PoLAR EcoChains



Narwhal (Monodon monoceros) - Taxonomic name means 'one toothed unicorn'.

Physical Description: A middle sized whale, narwhal can grow to over 5 meters (17 ft.) in length and up to 1900 kg (4,200 lbs). Their tusk can grow to 3 m (10 ft).

Food Web - Prey: In winter narwhal feed under the dense ice mostly on Greenland halibut; in summer they eat Arctic and polar cod as well as cephalopods (squid) and shrimp.

Food Web - Predator: Narwhal fall prey to killer whale, as well as Arctic subsistence hunters who eat the meat, organs. Blubber, and skin, Mattaaq (Mattak), is eaten as a delicacy. The bones and tusks are used for art and handicrafts.

SEA ICE & CLIMATE

Sea Ice: Narwhal, like beluga, are ice associated as they are found in areas seasonally covered by sea ice, swimming among icebergs and sections of ice floes as they eat along the ice edge. Different from beluga, the Narwhal actually live under the sea ice for up to 5 months during the winter months between Canada and western Greenland in Baffin Bay. Cracks in the sea ice are used for breathing. Narwhal depend on sea ice for both a place to feed and for protection. These slow moving whale hide under the ice, using submergence as a tactic to hide from predators like the killer whales that have been expanding their range as sea ice has retreated.

Climate Impacts The loss of sea ice is a habitat threat to the narwhal. Like the beluga, a narwhal's entire life is connected to the sea ice. As the killer whale expands its range the highly predatory species threatens the slower moving narwhal that will no longer be able to hide under the ice.

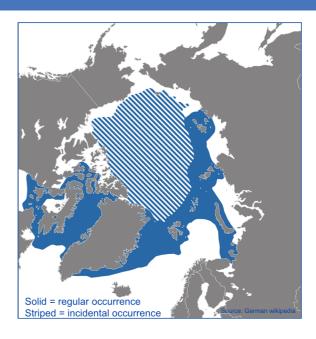
ADAPTIVE FEATURES

Adaptive features: The single tusk is actually a tooth with millions of nerve endings inside, and is used for protection. Like the beluga their cervical vertebrae (neck region) are not fused, allowing for a full range of motion for the head and neck for easy movement and visibility in ice-covered areas. Narwhals are insulated by a thick layer of blubber, and use their grey color as camouflage in the Arctic waters. Like the beluga their lack of a dorsal fin allows them to swim easily under the ice.

LIFECYCLE

Lifecycle: Narwhal live up to 50 yrs. They birth only a single calf after 14 months of gestation. Calves are with their mothers for ~ 2 yrs. Their low birth rate can be a factor in re-building population size if impacted.

DISTRIBUTION



Distribution Map: Narwhal regular range shown in solid and incidental range shown in the striped area. Their range is the Arctic and sub-Arctic around Russia, Svalbard, Greenland and Canada.

Conservation Status: Internationally 'Near Threatened'. * Note – only subsistence hunting is allowed, with restrictions on the number taken.