

COSEWIC
Assessment and Status Report
on the
Northern Bottlenose Whale
Hyperoodon ampullatus
Davis Strait-Baffin Bay-Labrador Sea population
Scotian Shelf population

Executive Summary

Wildlife species description and significance

The Northern Bottlenose Whale, *Hyperoodon ampullatus*, is a beaked whale found only in the northern North Atlantic. It is a sturdy, medium-sized (7-9m) whale, dolphin-like in appearance, with a beak and falcate dorsal fin, but much larger than most dolphins.

A substantial part of the total range of the Northern Bottlenose Whale lies in Canadian waters. The species is among the deepest and most prolonged divers of all mammals and is known for its tendency to approach vessels. The animals off the Scotian Shelf are the subjects of the most detailed research on any living species of beaked whale.

Distribution

Northern Bottlenose Whales are found in deep (>500m) waters of the northern North Atlantic, north of about 40°N. There are five recognized areas of concentration, three in the eastern Atlantic, Iceland, Svalbard, and off mainland Norway, and two in Canadian waters, along the edge of the Scotian Shelf and off Labrador, including southern Baffin Bay.

The Baffin Bay-Davis Strait-Labrador Sea and Scotian Shelf populations are genetically distinct. The Scotian Shelf animals are generally smaller, may breed later in the year, and have higher pollutant loads than those in the Baffin Bay-Davis Strait-Labrador Sea population. Movement between the two populations seems to be very rare.

Habitat

Northern Bottlenose Whales occur primarily in continental slope waters 800-1,500m deep. The whales of the Scotian Shelf edge depend heavily on three locations, the large submarine canyons called the Gully, Shortland Canyon and Haldimand Canyon.

Biology

Males become sexually mature at 7-9 years old and females at 8-13, thereafter giving birth to single offspring about every two years. The life span is at least 37 years, and the generation time is about 15.5 years.

The Scotian Shelf population does not seem to migrate. Movements by whales of the Baffin Bay-Davis Strait-Labrador Sea population have not been studied.

While Northern Bottlenose Whales eat various deep-water fishes and squids, they are specialists compared with other deep-diving mammals, particularly favouring squids of the genus *Gonatus*.

Population sizes and trends

The Scotian Shelf population contains approximately 164 adult and immature animals, and has shown no statistically significant trend in population size between 1988 and 2009. There is no estimate of the size of the Baffin Bay-Davis Strait-Labrador Sea population.

In 1962-1967 whaling operations took 87 animals from the Scotian Shelf population, and in 1969-1971 whalers took 818 from the Baffin Bay-Davis Strait-Labrador Sea population.

Threats and limiting factors

Northern Bottlenose Whales in Canadian waters face two principal threats, entanglement in fishing gear and ocean noise. In both cases the threat is actual, but the extent of harm is uncertain. There are also concerns about contaminant levels in whale tissues, possibly related to oil and gas development activities.

Protection, status, and ranks

The Northern Bottlenose Whale is listed as a "Protected Species" by the International Whaling Commission with a catch limit of zero. The species is in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and it is considered Data Deficient by IUCN. There is currently no regular hunt for Bottlenose Whales.

In Canada, hunting and other activities deliberately harmful to Northern Bottlenose Whales are covered by the Marine Mammal Regulations of the Fisheries Act. The Scotian Shelf population was listed as Endangered by COSEWIC in 2002 and was listed under Schedule 1 of SARA in April 2006. The Baffin Bay-Davis Strait-Labrador Sea population was implicitly considered "not at risk" when the species as a whole was assessed by COSEWIC in 1993.

The Gully was designated as a marine protected area in 2004 under the Oceans Act, with the core area of the protected area coinciding with the principal habitat of the Scotian Shelf Northern Bottlenose Whales. The remaining habitat of Northern Bottlenose Whales in Canada has no special protection.