



Beluga whale in the Churchill River estuary, Manitoba

Summary

Belugas are medium-sized, toothed whales within the Monodontidae family. They are highly social, often living and migrating in pods ranging from a few to hundreds of whales. Often referred to as the “canaries of the sea”, belugas are very vocal and produce a range of chirps, clicks, and whistles. Their vocal repertoire is useful for communicating with other whales and for using echolocation to find food and navigate in their environment.



What does a group of beluga socializing sound like? Scan the QR code to listen in!



Canadian Range and Conservation Status

Belugas have a **circumpolar range** throughout the Arctic and sub-Arctic and are widely distributed in Canada. Beluga in Canada are managed and monitored in eight subpopulations based, in part, on distinct summer and winter areas and genetics. Some of these are considered Endangered, such as the St. Lawrence Estuary, Ungava Bay, and Cumberland Sound beluga. Others like the James Bay and the Western Hudson Bay beluga are abundant and considered Not at Risk.

Habitat

Belugas live in Arctic and sub-Arctic **marine** environments and their habitat choices reflect seasonal fluctuations in sea ice. Some beluga populations are non-migratory and will occupy the same areas year-round. Other beluga populations will migrate thousands of kilometres between summer and wintering sites, returning to the same areas each year. In the winter, beluga tend to use deep offshore areas with loose to moderate pack-ice cover where they dive deep to catch fish, squid, and shrimp. As the sea ice melts in the spring, many beluga populations migrate to summer sites, including coastal areas and estuaries.





Life History

Belugas likely mate between late winter and early spring, with pregnant females birthing a single calf between June and September. When belugas are born, they are about 1.5 metres in length and a uniform, dark grey colour. When calves are young, they are completely dependent on their mothers for protection and food and will stay close for the first couple years of their life. As belugas grow they will slowly become paler in colour, eventually transitioning to the brilliant white of adult belugas. Adults are typically 2.6-4.5 metres in length and may weigh up to 1900 kg.

Behaviour and Diet

Belugas have a **carnivorous diet** of prey that can vary with the time of year and where they are. Fish like cod and capelin are a main feature of the beluga's diet where available, however, belugas are opportunistic and they will eat other things they can find, like octopus, squid, crabs, and shellfish. Belugas use **echolocation** to help navigate in their environment and to hunt prey. They have short, peg-like teeth and often use suction and swallow food whole as they hunt in open water and forage along the ocean bottom. Belugas often have their lowest body fat content when they first arrive in their summering areas. If prey is available, they will feed intensively during the summer to build up fat reserves.

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Belugas have an important ecological role within their marine environment, but they also have important **economic, social, and cultural value** for Inuit and other Indigenous communities. Belugas are a nutritionally rich and valuable resource; the hunting, preparation, and distribution of a harvest are important cultural activities which involve networks of familial and community relationships. The relationship between beluga and these communities, as well as the accumulation of knowledge, have been developed over thousands of years of living in close contact with one another.



Beluga mother and calf near Churchill, Manitoba

Threats

It's important to keep in mind that belugas inhabit a large, complex ecosystem. The threats and challenges populations face will vary between areas.

Scientists are working to monitor known threats and identify emerging ones and there is still much to learn. **Climate change** is an overarching threat for northern ecosystems and can manifest in a variety of ways, including changes in sea ice, predator and prey populations, and disease transmission. Pollution and contaminants are also a concern.

Pollutants can enter the environment from a variety of sources, affecting both beluga and their prey. Often contaminants will move up a food chain and accumulate in the bodies of predator species, like beluga, potentially causing health and reproductive problems.

Human development and **boat traffic** can be sources of pollution, but also of ocean noise. Belugas depend on underwater vocalizations and hearing to communicate with each other and for echolocation. As underwater noise from shipping traffic, resource development, and other human activities increases it can limit the ability for belugas, and other marine animals, to hear and communicate.