Beluga Bits | BIODIVERSITY

Pod of beluga whales in the Churchill River estuary, Manitoba

Summary

Maintaining **biodiversity** ensures that populations, species, and ecosystems are able to remain healthy and functioning, particularly in the face of new threats or changes. Biodiversity generally tends to be lower as we move closer towards the poles, meaning these ecosystems can be more vulnerable and sensitive to change than those which are more biodiverse.

Arctic environments can be harsh and the species which inhabit them are specially adapted to the extreme conditions. Despite having lower biodiversity than ecosystems closer to the equator, you can still find over 21,000 species of mammals, birds, fish, plants, fungi, and microbes living in the Arctic. Arctic species have evolved various strategies and traits for life in northern environments, such as thick fur and seasonal migrations. Given that they are highly specialized for these environments, it can be challenging for these species to adapt to rapid change. In fact, Arctic environments are changing faster than any other ecosystem in the face of **climate change**, making it a significant threat to Arctic biodiversity.

KEY TERMS

- **Biodiversity** - Shortened from "biological diversity", biodiversity describes the sheer variety and variability of life. Often used to describe diversity at different biological levels (genetics, population, species, ecosystem) or within specific boundaries.
- **Adaptation** - A trait or behaviour that an organism (plants, animals, bacteria, etc.) has evolved over time to better equip it to survive and reproduce in its environment.
- **Species Richness** - Species richness is the number of different species represented in an ecological community, landscape, or region.
- **Climate Change** - A change in regional and global temperature and long-term shift in weather patterns.

DISCUSSION QUESTIONS

1. **Think about different ecosystems near your school or community; what does biodiversity look like in these areas?**
2. **What ecosystems can you find near your school? In your community?**
3. **Choose an ecosystem you pass by often, in what ways would a loss of biodiversity affect other species or the ecosystem itself?**

Polar bear in the Churchill Wildlife Management Area near Churchill, Manitoba

Harbour seals

Arctic hare

Churchill River, Manitoba

SUGGESTED RESEARCH PROJECT

Traditional Ecological Knowledge (TEK) is an evolving knowledge acquired by Indigenous and local peoples over hundreds or thousands of years of direct contact with the environment. Explore how TEK has informed our current knowledge of beluga whales or other species.

ACTION STEP

Make a change in your own life to protect local biodiversity - for example, support local farming, plant native species, and stay on pathways to protect local habitat.

ADDITIONAL RESOURCES

Local knowledge of beluga and narwhal from four communities in Arctic Canada - Report documenting Inuit knowledge of beluga and narwhal

Inuit knowledge of belugas and narwhals in the Canadian eastern Arctic - Report documenting Inuit knowledge of beluga and narwhal

Arctic Council | Safeguarding Arctic Biodiversity - Background information about Arctic biodiversity

International Union for Conservation of Nature | Red List of Threatened Species - Comprehensive database on the global risk status of species

Polar Bears International | Arctic Biodiversity - Background information about Arctic biodiversity