



Harbour seals resting near Churchill, Manitoba

## Summary

Manitoba is home to diverse landscapes, including several unique terrestrial and aquatic areas in the northernmost part of the province – **tundra** and **marine ecosystems**. **Arctic** wildlife have special adaptations to help them thrive – including layers of thick blubber for warmth and seasonal movements dictated by the formation and break-up of **sea ice**.

In northern Manitoba, you can find polar bears, Arctic hares, and Arctic foxes making their homes on the tundra and a thriving marine ecosystem containing jellyfish, seals, and belugas. The rhythm of sea ice formation and break-up influence the lives of many of these northern species. Polar bears use sea ice as a platform for hunting, traveling, and mating; ringed and bearded seals use sea ice to rest and reproduce. Belugas rely on sea ice to support the fish populations they eat and provide protection from predators, like killer whales. Indigenous communities have deep connections to these landscapes and the wildlife within them, established across generations of living in close contact with one another.

## KEY TERMS

- **Ecosystem** - An ecosystem refers to all the living and non-living parts of a community within a specific environment or geographical location. These living and non-living parts interact in a variety of ways, and together create a dynamic community.
- **Tundra** - A land-based ecosystem found at high latitudes or altitudes where the lower layers of soil are often frozen year-round. The tundra is a treeless landscape, but the top layers of soil which thaw in the summer can support low-growing mosses and plants.
- **Marine** - Marine ecosystems are aquatic environments containing high levels of dissolved salts, including the ocean and surrounding areas.
- **Arctic** - Ecologists often define the Arctic as the northernmost region of the Earth encompassing the Arctic ocean and surrounding tundra.
- **Sub-Arctic** - The geographical region immediately south of the Arctic.
- **Sea Ice** - Ice formed when sea water freezes. Sea ice may form and melt away seasonally (called annual sea ice) or in some areas it may persist year-round, gradually thickening to become multi-year sea ice.

## DISCUSSION QUESTIONS

1. **Do you feel connected to the Arctic and what are those connections for you?**
2. **How is the Arctic valuable to you or other communities?**
3. **What are some adaptations that are shared across several Arctic species? For example, what adaptations do seals and polar bears share?**



Churchill,  
Manitoba



Willow  
ptarmigan



Overlooking  
the Churchill  
River estuary,  
Manitoba



## SUGGESTED RESEARCH PROJECT

Explore the names for northern species and places in Indigenous languages - how does language reflect our connections to the world around us?

## ACTION STEP

Connect with wildlife and ecosystems within your home community and share that connection with others - for example, visit a local art gallery where you can examine sculptures and prints of wildlife or go for a walk through a natural space.

## ADDITIONAL RESOURCES

[Native Land | Native Land Digital](#) - Indigenous-led mapping project providing resources about Indigenous nations, languages, and territories

[Place Names Program | Inuit Heritage Trust](#) - Traditional Inuit place names program

[Canadian Geographic | Indigenous Peoples Atlas of Canada](#) - Background information about Inuit traditional territories within Canada, place names, and more

[The Arctic | National Wildlife Federation](#) - Background information about the Arctic

[Arctic Eider Society / Société des Eiders de l'Arctique](#) - Indigenous knowledge-based educational packages and resources