

CANADA'S ARCTIC MARINE ATLAS



*This Atlas is funded in part by the
Gordon and Betty Moore Foundation.*



Suggested Citation:

Oceans North Conservation Society, World Wildlife Fund Canada, and Ducks Unlimited Canada.
(2018). *Canada's Arctic Marine Atlas*. Ottawa, Ontario: Oceans North Conservation Society.

Cover image: *Shaded Relief Map of Canada's Arctic* by Jeremy Davies

Inside cover: Topographic relief of the Canadian Arctic



This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License.
To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0> or send a letter to
Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

All photographs © by the photographers

ISBN: 978-1-7752749-0-2 (print version)

ISBN: 978-1-7752749-1-9 (digital version)

Library and Archives Canada

Printed in Canada, February 2018

100% Carbon Neutral Print by Hemlock Printers





HUMANS AND THE ENVIRONMENT

HUMANS & THE ENVIRONMENT

- Inuit Land Claims
- Inuit Travel Routes & Sea Ice
- Inuit Place Names
- Industrial & Commercial Activities
- Management & Conservation

About 60,000 people live year-round in Inuit Nunangat, with some 85% identifying as Indigenous. Canada's Arctic peoples hunt, fish, and gather from the land and sea; they govern their communities, their activities, and their environment; they develop natural resources and sustain their way of life.

Canada's Arctic Ocean encompasses the Northwest Passage, a waterway that has shaped the exploration and heritage of North America and embodies our differing perceptions of the Arctic.

Once hailed as a mythical transportation route by European geographers and adventurers, and seeing increasing shipping activity today, the passage has for far longer been home to people and wildlife. Accommodating the cultural, ecological, economic, and other assets of the Arctic will continue to require care and understanding from all concerned.

Facing Page: Northern Lights (aurora borealis), Wapusk National Park, Manitoba. (photo: André Gilden)



Netsilik Inuit at Pelly Bay, Nunavut breaking holes in the sea ice to hunt seals. The Netsilik caught seal to get blubber for their lamps, but also used the meat, skin, and bones. (Photo from the 5th Thule expedition, 1921–4, Nationalmuseum—National Museum of Denmark)

Politics and governance

Canada's northern waters fall predominantly within the jurisdiction of Canada's federal government and modern Inuit treaties, known as land claims. There are four Inuit land claim regions: the Inuvialuit Settlement Region, Nunavut, Nunavik, and Nunatsiavut. Land claim agreements establish constitutionally based co-management arrangements between the Inuit, the federal government, and applicable provincial and territorial government agencies. These arrangements relate to land and water management, resource development, environmental assessment, social services, education, and wildlife. The territorial governments of Yukon, Northwest Territories, and Nunavut all seek to take a greater role in the administration of northern waters by reaching agreements with the federal government and Inuit land claim organizations.

Conservation and management

For millennia, Inuit and other Indigenous peoples have worked to ensure the long-term health of the Arctic marine environment and wildlife through natural law and traditional forms of management and sustainable use. Today, Inuit actively promote marine planning initiatives, marine mammal and fishing plans, harvest management strategies, and conservation measures to ensure that the bounty of the ocean can support future generations. In addition, Inuit are key partners in guiding the advancement of federal mechanisms to protect Canada's Arctic Ocean.

Natural resource development

Modern industrial development in Canada's Arctic waters began with the advent of commercial whaling in the 19th century, in Baffin Bay, Hudson Strait, and the Beaufort Sea. Over the past century, a commonly held expectation among Inuit and the federal and territorial governments was that the natural resources of the Arctic would be developed and create financial prosperity

for northern Canada. This expectation has not come to fruition. Despite discrete periods of interest and activity, in fact, little or no marine natural resource development has occurred. At present, a handful of commercial activities are scattered across all four Inuit land claim regions. These include shipping, oil and gas development, mining, and commercial fishing.

Transportation and heritage

As a homeland, the Canadian Arctic has a rich cultural heritage of archaeological sites, place names, trails, and other aspects of long habitation. Inuit qaujimagatuqangit or traditional knowledge shows a deep understanding of the region acquired by observation and experience over many generations. While the full range of cultural heritage cannot be captured on maps or in words, a few examples can illustrate how thoroughly the Arctic environment is known and used, and how intimate the relationship is between Indigenous peoples and the ecosystems of which they are part. Recent efforts have mapped Inuit trails and recorded Inuit place names. Both illustrate how far people travel throughout the region, with place names also indicating a profound appreciation for the characteristics of the land and the environment.

For further reading, see p. 106.



INUIT LAND CLAIMS

HUMANS & THE ENVIRONMENT

➔ Inuit Land Claims

- Inuit Travel Routes & Sea Ice
- Inuit Place Names
- Industrial & Commercial Activities
- Management & Conservation

INUIT MAKE UP THE VAST MAJORITY (85%) of the human population of Inuit Nunangat, the Inuit name for their homeland of land, water, and ice. Approximately 44,000 Inuit live across four main regions—the Inuvialuit Settlement Region in the Western Arctic, Nunavut in the central Arctic, Nunavik in Northern Quebec, and Nunatsiavut in Northern Labrador. Other Indigenous peoples in these regions include Gwich'in in Yukon and Northwest Territories, the Dene of the Northwest Territories, the Innu in Labrador, the Cree around Hudson Bay, and Métis peoples, who make up another 2% of the total population.

All but three of the 53 Inuit communities of Canadian Arctic are located on the ocean shoreline, reflecting the central importance of coastal and marine environments in Inuit culture and daily life. Inuit have traditionally relied on marine animals as sustenance (seals, whales, walrus, and fish.) Today, Inuit continue to harvest wildlife or “country foods” to feed their families and communities, as they have for thousands of years. Inuit are also employed in the modern wage economy across a wide range of sectors including public and private services, transport, and resource extraction such as mining.

Inuit land claims agreements

Inuit co-manage their homelands with the Canadian federal government and the relevant provincial and territorial governments through constitutionally protected land claim agreements that act as modern-day treaties. The entire Canadian Arctic is governed by such agreements that correspond to the four major regions of Inuit Nunangat. The agreements create rights-based Inuit organizations that own lands and include, in some areas, rights to surface and subsurface resource development. The agreements establish co-management boards and other natural resource management bodies, provide financial compensation, and create structures for future co-management relationships between the organizations and the Canadian government.

Inuit Tapiriit Kanatami (ITK)

Inuit Tapiriit Kanatami, formerly the Inuit Tapirisat of Canada, was founded at a meeting in Toronto in February 1971 by seven Inuit community leaders. It is the national representational organization protecting and advancing the rights and interests of Inuit in Canada, including the approximately 16,000 Inuit who live outside Inuit Nunangat. The impetus to form a national Inuit organization evolved from shared concern among Inuit leaders about the status of land and resource ownership in Inuit Nunangat.

Inuvialuit Settlement Region (ISR)

In the Western Arctic, the Inuvialuit Settlement Region, spanning the northern Yukon and the northwestern Northwest Territories, is home to over 3,300 Inuit living in six communities. The communities of the ISR are located along the Mackenzie River Delta, the northern coast of the Northwest Territories, and on the westernmost islands of the Canadian Arctic Archipelago. In 1984, the Inuvialuit Final Agreement with Canada established the Inuvialuit Regional Corporation (IRC) to manage Inuit ownership of lands and the financial compensation for Inuit peoples in the region.

Nunavut

Nunavut, meaning “our land,” is the largest land claim region, comprising 25 communities with a total Inuit population of 27,000 across 2 million km²

Facing Page: Standing on snow pack wearing sealskin kamiks.
(photo: Kristin Westdal)

and divided into three administrative regions: Kitikmeot, Kivalliq, and Qikiqtaaluk. The Nunavut Agreement was concluded in 1993, providing Inuit rights and ownership of a total of over 350,000 km², with the remainder to be co-managed with the federal government. Nunavut Tunngavik Inc. (NTI) represents Inuit under the agreement, manages financial compensation, coordinates regional land claims organizations, manages wildlife environmental protections, and works to ensure that the federal and territorial governments fulfill their agreement obligations. The agreement also resulted in the creation of the new territory of Nunavut and its public territorial government.

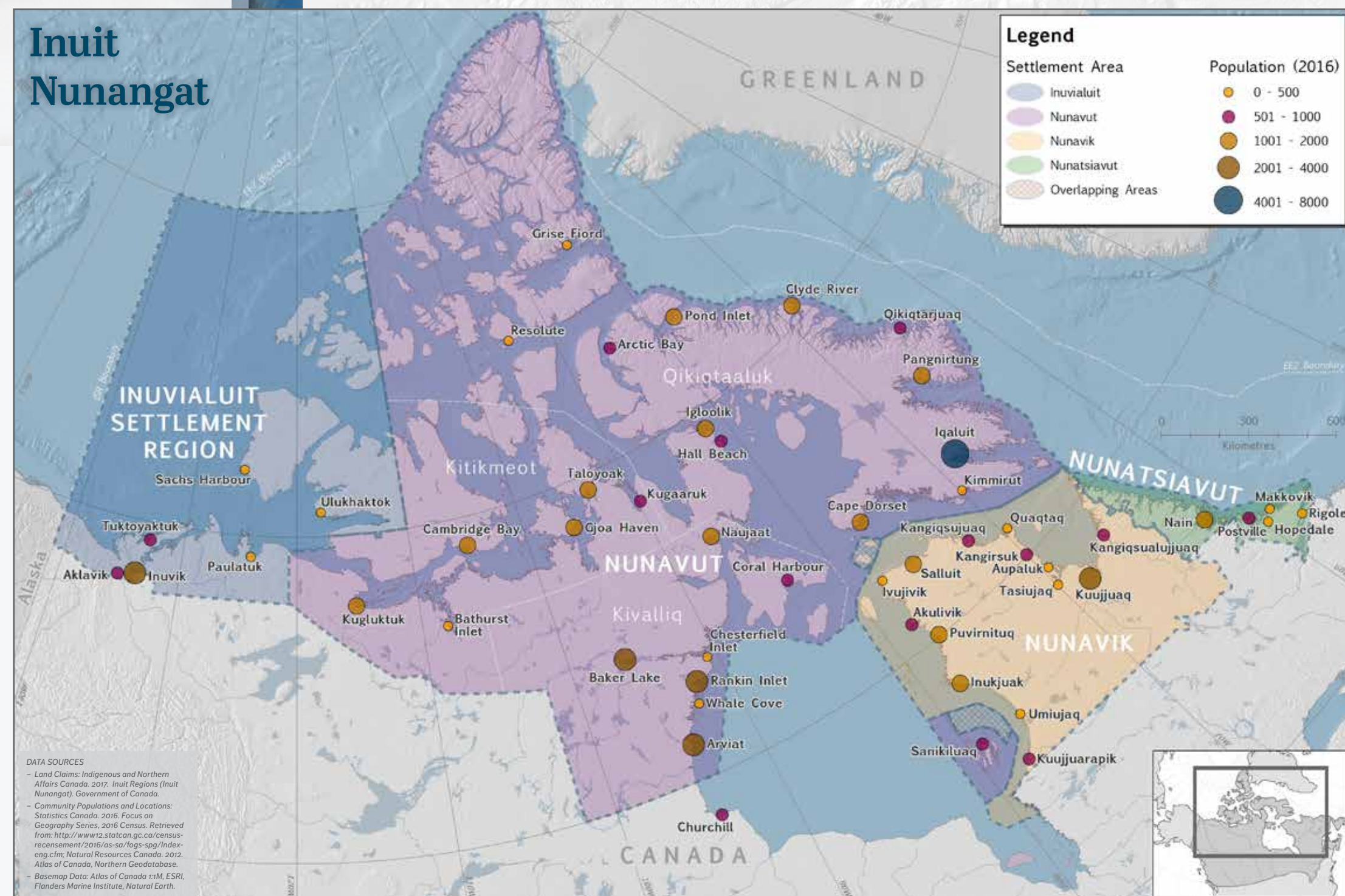
Nunavik

The territory of Nunavik is populated by more than 10,700 Inuit living in 15 communities along Ungava Bay, Hudson Strait, and Hudson Bay. The Nunavik region is located within the province of Quebec and

is one-third of that province's land mass. The Makivik Corporation was created to protect the rights, interests, and financial compensation provided by the 1975 James Bay and Northern Quebec Agreement, and the more recent offshore Nunavik Inuit Land Claims Agreement, which came into effect in 2008.

Nunatsiavut

Approximately 2,300 Inuit live in five communities along the northern coast of Labrador in the Inuit region of Nunatsiavut. In 2005, the Labrador Inuit Land Claim Agreement established the settlement area covering 72,500 km² and created the first Inuit regional government. The Nunatsiavut government remains part of the province of Newfoundland and Labrador but has authority over many central governance areas including health, education, culture and language, justice, and community matters, along with the power to pass laws.





INUIT TRAVEL ROUTES AND SEA ICE

HUMANS & THE ENVIRONMENT

- Inuit Land Claims
- ➔ **Inuit Travel Routes & Sea Ice**
- Inuit Place Names
- Industrial & Commercial Activities
- Management & Conservation

BOTH HISTORICALLY AND TODAY, travel across the waters and seas of Inuit Nunangat is as important, if not more, than travel over land. For six to nine months of the year, the ocean is frozen and Inuit travel takes place over sea ice. Riding on dog sleds and now the snowmobile, Inuit consider sea ice a “highway” across their homeland, and use it daily for travel and hunting. Sea ice is a treasured symbol of Inuit freedom of movement and a bridge that connects people and places across time and space.

The Inuit view of the critical role of sea ice for travel and hunting stands in direct contrast with that of the 19th-century European explorers and today’s operators of transport ships, to whom sea ice is an obstacle—something that stands in their way.

Before the existence of permanent settlements, Inuit travelled and lived seasonally in different locations throughout the Arctic. Their movements were shaped by the changing seasons, the availability of animals, and each community’s preferred hunting and fishing camp sites and settlement locations. Travel routes on the sea ice acted as social and survival networks, connecting hunting and fishing grounds and camps and settlements.

Today, many Inuit travel routes continue to be used, year after year, generation after generation. Many of these routes maintain their important role in contemporary northern lifestyles and livelihoods. A map of all the Inuit travel routes would cover much of the Arctic in a dense network of trails.

During the winter months, sea ice facilitates access to hunting, harvesting, and fishing areas as well as the chance to socialize with people in other camps and settlements. Because travel on land can be difficult in areas of high topographic relief, wetlands, or areas with little snow, a route over sea ice is often the most efficient and direct way of reaching important destinations. Sea ice makes travel and hunting easier, especially for communities or camps located on islands.

The knowledge Inuit have developed of sea ice, its nature, and its processes is embedded in their culture and identity. Sea ice plays an essential part in the daily life of northern Inuit communities for subsistence or commercial hunting, harvesting or fishing, and providing physical and spiritual nourishment.

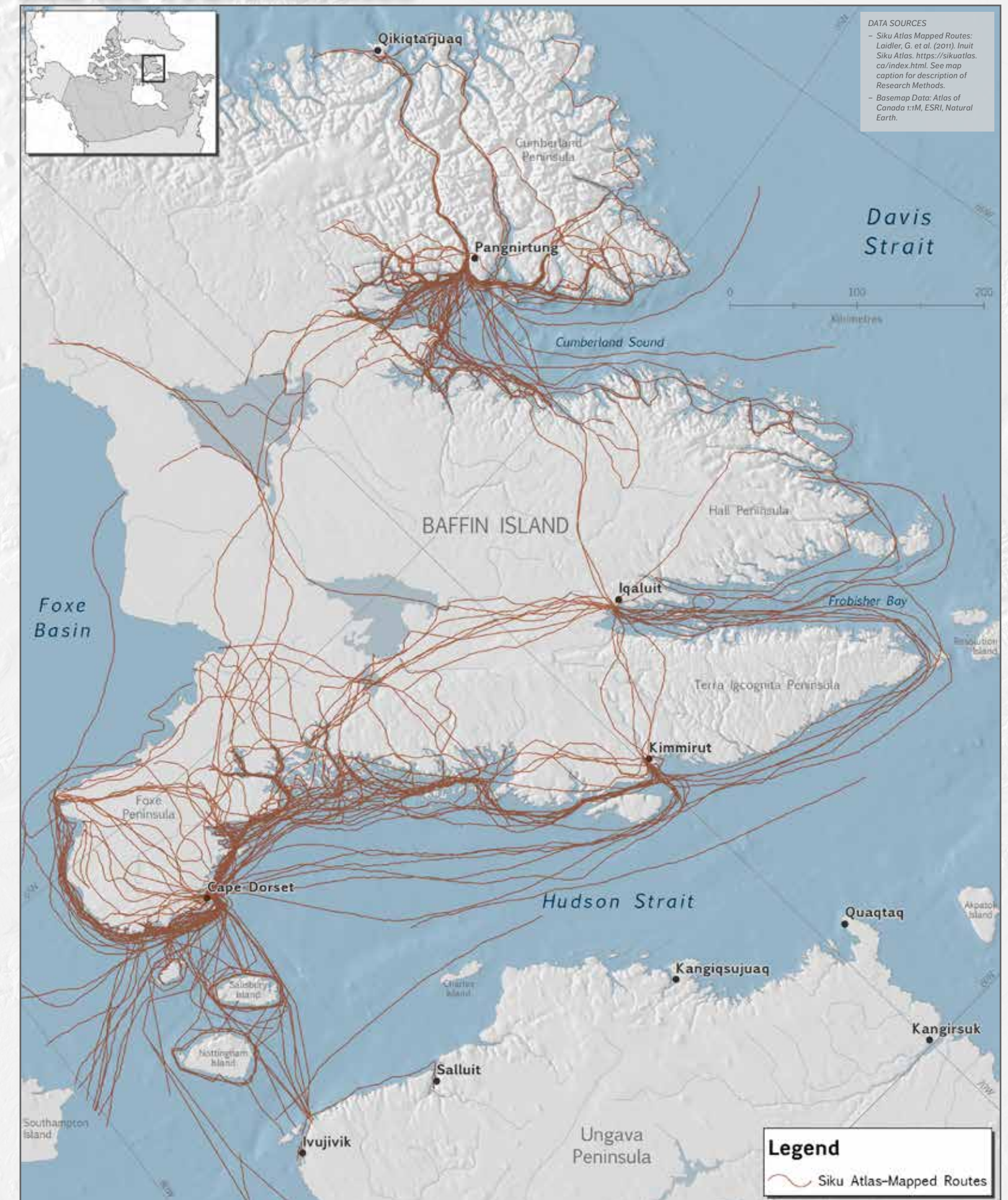
Changes in sea ice conditions have a considerable effect on travel patterns, access to certain destinations, the ability to hunt, and knowledge of the physical geography. These changes can also make travel much riskier and threaten the safety of hunters and community members.



Top: On dog sled in Nunavik. (photo: Friedrich Stark)

Left: A qamutik used to transport people and goods, Pond Inlet, Lancaster Sound. (photo: Trevor Taylor)

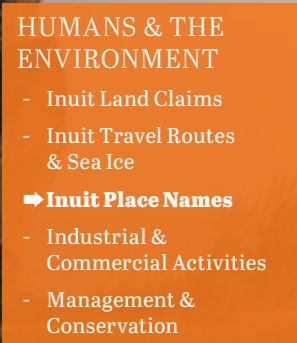
Sea Ice Travel Routes



Inuit Travel Routes—Research Methods

The travel routes shown here were collected as part of research conducted with the communities of Cape Dorset, Igloolik, and Pangnirtung, Nunavut between 2003–2007 (Laidler, 2007). This work was then expanded through the creation of the Inuit Siku (sea ice) Atlas (www.sikuatlas.ca) as part of the Inuit Sea Ice Use and Occupancy Project (ISIUOP), an International Polar Year (IPY) project that ran from 2006–2011 (Aporta et al., 2011). These routes were recorded through participatory mapping sessions as part of interviews and small group meetings where Inuit Elders

and active hunters were asked to discuss sea ice features, travel routes (land, sea, and ice travel), and indicators of change in each community. The lines on this map are not intended to be an exhaustive inventory of routes; they reflect the experiences that individual contributors were comfortable in sharing. In some cases, the full extent of travel was limited by the basemap used, and so this is only an indication of the extensive sea ice travel and use around Baffin Island.



INUIT HAVE A LONG, INTIMATE RELATIONSHIP with their homeland over the vast area between Greenland and Alaska and south to Labrador and Hudson Bay. Over many generations and centuries, Inuit expressed this relationship, in part, through the naming of places and geographical features across the land. These names record Inuit's evolving understanding and deep local knowledge of their changing environment. And as Inuit share a common linguistic and cultural heritage, their place names constitute a uniquely Inuit geography of the Canadian Arctic.

The Inuit practice of naming places reflects their ongoing interaction with and observations of their environment. The names identify distinct geographic features; concentrations of game, fish, or edible plants; strategic sites for fishing or hunting; sources of raw materials; efficient and safe travel routes; landmarks for navigation; and superior or strategic campsites. They also mark sites of historical and legendary importance and areas of spiritual significance. As Inuit culture was until very recently strictly oral, place names were and continue to be an effective means of retaining and passing on knowledge about the landscape.

Across Coronation Gulf from Victoria Island (Kiilliniq) one finds “the little ocean” or Tariyunnuaq, a fitting name for a long saltwater inlet separating the Kent Peninsula (Kiillinguyaq) from the mainland (Ahiag). Tariyunnuaq is almost completely cut off from the Coronation Gulf save for a narrow entrance and so is truly like a small ocean unto itself. Although the region is some distance from the nearest settlement of Cambridge Bay, and is now visited only occasionally, the names for the water and land features in the Tariyunnuaq area evolved over as many as seven centuries of continuous Inuit habitation. Over this long period Tariyunnuaq was an inhabited landscape named and discussed solely in an Inuit language expressing a distinctively Inuit way of seeing the world.

The Kitikmeot Heritage Society provided the map shown here, which illustrates Inuit place naming in the Tariyunnuaq area of Nunavut.

Arctic char”) and Kapihiliktuuq (“place of many whitefish”). The lake Harvaqtuuq (“place of many rapids”) has strong current and rapids at its outlet, making it a place of open water and thin ice in the winter, and therefore an easy place to fish. Inuit travel patterns by dog team are evident in the names for the routes Itlipiryuaq and Itlipiaryuk (the “big” and “little” portages) across the narrow isthmus connecting the Kent Peninsula to the mainland. Uivvarluk describes a peninsula that is simply in the way and annoying to have to go around when travelling on the sea ice. Inuit must have passed long evenings in the iglu villages on the sea ice of Tariyunnuaq, relaxing after a day of seal hunting and retelling the story of a group of muskox that turned into the islands

Editor's note: This section is intended as a representative example of Inuit place naming. The terms Inuit and Inuit language are used to describe a people and a language that span Arctic Canada. The contemporary people for whom the Tariyunnuaq area remains an ancestral homeland refer to themselves more specifically as Inuinnaït and to their language as Inuinnaqtun.

Kitikmeot Zoom Area





COMMERCIAL AND INDUSTRIAL ACTIVITIES IN THE CANADIAN ARCTIC started with commercial whaling in the 19th century, in Baffin Bay, Hudson Strait, and the Beaufort Sea. Since then, there have been several bursts of interest and activity amid periods of little or no development. At present, industrial and large-scale commercial activities in the region include shipping, oil and gas extraction, mining, and fishing. Industrial and commercial activities are regulated by various federal, provincial, and territorial laws, within the context of settled and unsettled Indigenous land claims.

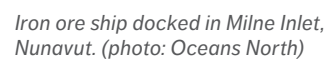
The vast majority of commercial vessel traffic in the Canadian Arctic is destination shipping, or voyages to and from Arctic locations. This includes the regular and largely predictable annual sea-lift to deliver supplies to Arctic communities during the ice-free summer months. It also includes support for mining and oil and gas operations, which increases or decreases depending on the level of activity in any given year. While much of the industrial support traffic comes in summer, some ice-capable ships arrive year-round in parts of the Canadian North to deliver supplies and take out ore and other products.

In recent years, there has been growing interest in the potential for transit shipping, using the Northwest Passage to shorten the distance between Asian, North American, and European markets. There has also been increasing cruise-ship tourism, including transits of the Northwest Passage. Transit shipping and tourism are so far confined to the ice-free season. In addition to risks to mariners and passengers, shipping creates noise, air and water pollution, and the threat of a fuel spill. These can all affect people and wildlife along the shipping route and where water currents may carry pollution.

The earliest oil development in the Canadian North was at Norman Wells on the Mackenzie River, starting in the 1920s. In the Arctic, oil and gas exploration boomed in the 1970s and 1980s, particularly on the Mackenzie Delta region of the Beaufort Sea. The Bent Horn oil field on Cameron Island was developed in the 1980s and produced oil until the 1990s. In recent years,

there has been continued interest in the Mackenzie Delta region and in exploring Baffin Bay. The challenges of operating in areas with seasonal sea ice and far from markets make oil and gas development expensive in the Arctic. For the marine environment, oil and gas activities typically require extensive vessel traffic to supply and support exploration and production, even on land. Off-shore activities create noise and the risk of an oil spill, both of which can affect marine animals and those who hunt them.

The Canadian Arctic is home to several major mines as well as extensive mineral prospects. While no offshore mining has occurred, Arctic mines require extensive sea-lift support to bring in supplies and equipment and to transport ore and other products to market. In some cases, the shipping activity is confined to the ice-free season, but for some mines, such as Voisey's Bay in Nunatsiavut, ice-capable ships are used through the winter. It is expected



that more mines will do likewise in order to remain productive year-round, although this can pose a threat to marine mammals that make dens on sea ice and to hunters who use sea ice to travel.

Commercial fisheries in the Canadian Arctic are at present confined to the Baffin Bay and Davis Strait area. In the 1960s, foreign vessels fished in the region for grenadier and redfish. By the time the 200-nautical-mile Exclusive Economic Zones (EEZs) were established in the 1970s, grenadier and redfish stocks had been overfished, and fishing operations targeted Greenland Halibut (*Reinhardtius hippoglossoides*). By the late 1980s, only Canadian vessels were involved. At around the same time, a shrimp fishery began in the Hudson Strait and

DATA SOURCES

- Common Shipping Routes: Modified from Arctic Council. 2009. *Arctic Marine Shipping Assessment Report* and major routes identified with 2012–2014 exactEarth® satellite AIS data.
- DEW Line Sites: Arctic Institute North America. 2005. *The Distant Early Warning (DEW) Line: A Bibliography and Documentary Resource List*.
- Generalized Commercial Fisheries Effort: Derived from Fisheries and Oceans Canada. 2017. *Delineation of Significant Areas of Cold-Water Crops and Sponge-Dominated Communities in Canada's Atlantic and Eastern Arctic Marine Waters and Their Overlap with Fishing Activity*. CSAS 2017/007 and fishing activity identified with 2012–2015 exactEarth® satellite AIS data.
- Hydrocarbon Potential: Indigenous and Northern Affairs Canada, 2008.
- Significant Discovery Licenses: Indigenous and Northern Affairs Canada, 2016
- Gas Field: Natural Resources Canada, 2017
- Abandoned and Suspended Wells: Indigenous and Northern Affairs Canada, 2014
- Infrastructure (Road, Airport, Active Mines): Natural Resources Canada, 2017
- Basemap Data: Atlas of Canada 1:M, ESRI, Flanders Marine Institute, Natural Earth,

Davis Strait area, gradually expanding northward. Today, the Greenland Halibut and shrimp fisheries continue in this area, with fishing activity in both winter and summer. There remain concerns about effects on Narwhal (*Monodon monoceros*) and other marine mammals through disruption of the food web, and also about damage to cold-water corals and other seafloor species and habitats. In the Beaufort Sea, the federal government in 2014 halted all commercial fishing, matching a similar policy in adjacent American waters.





MANAGEMENT AND CONSERVATION

HUMANS & THE ENVIRONMENT

- Inuit Land Claims
- Inuit Travel Routes & Sea Ice
- Inuit Place Names
- Industrial & Commercial Activities

Management & Conservation

THE CANADIAN ARCTIC HARBOURS one of the world's least disturbed marine ecosystems, plays a crucial role in moderating the planet's climate, and is home to spectacular wildlife, fish, and marine mammal populations. Inuit experts have identified over half of Arctic Ocean areas as important biological habitat needed to maintain a thriving marine ecosystem essential for continued use. Coastal areas, too, play important ecological roles for marine and terrestrial species. To date, however, few conservation measures have been legislated for Canada's Arctic waters.

The Government of Canada has pledged to create a network of marine conservation areas in at least 10% of its Arctic waters by 2020. It also pledged to exceed this target and develop policies to ensure abundant Arctic fish. Several mechanisms can be used to achieve these and other conservation goals.

Marine Protected Areas

At present Canada's federal marine protected area network comprises three legal instruments:

- The Oceans Act authorizes Fisheries and Oceans Canada to designate Marine Protected Areas (MPAs) to protect and conserve marine species, habitats, and/or ecosystems that are ecologically significant and/or distinct.
- National Marine Conservation Areas (NMCAs) established by Parks Canada protect and conserve representative samples of Canada's oceans and Great Lakes for public benefit and enjoyment.
- National Wildlife Areas (NWAs) are established by Environment and Climate Change Canada for wildlife conservation, research, and interpretation. Prohibited activities vary by site.

As of 2017, there are two MPAs and five NWAs in Canadian Arctic waters, and the final boundaries for Tallurutiup Imanga (Lancaster Sound), a proposed NMCA in the eastern Canadian Arctic, have been agreed upon.

As with industrial activities, the designation of protected areas requires concluding an Inuit Impact and Benefit Agreement (IIBA) to determine how the conservation action will both affect and help local residents. In addition, a new designation of Indigenous Protected Area (IPA) is under consideration, recognizing the special interests of Inuit and others in the long-term health and continued use of their lands and waters.

Shipping corridors

As commercial vessel traffic increases in the Canadian Arctic, establishing shipping corridors and other rules and guidelines for navigation can help reduce the risk of accidents, ship strikes of marine mammals, and conflicts with local hunters and fishers.

Fisheries closures

In 2014, the Beaufort Sea Integrated Fisheries Management Framework was completed by the Government of Canada and Inuvialuit institutions created under the Inuvialuit Final Agreement. The framework establishes that any commercial fisheries in the region should be orderly and sustainable, not

Facing Page: Freightier canoe on the shores of Frobisher Bay, Nunavut. (photo: David Henry)

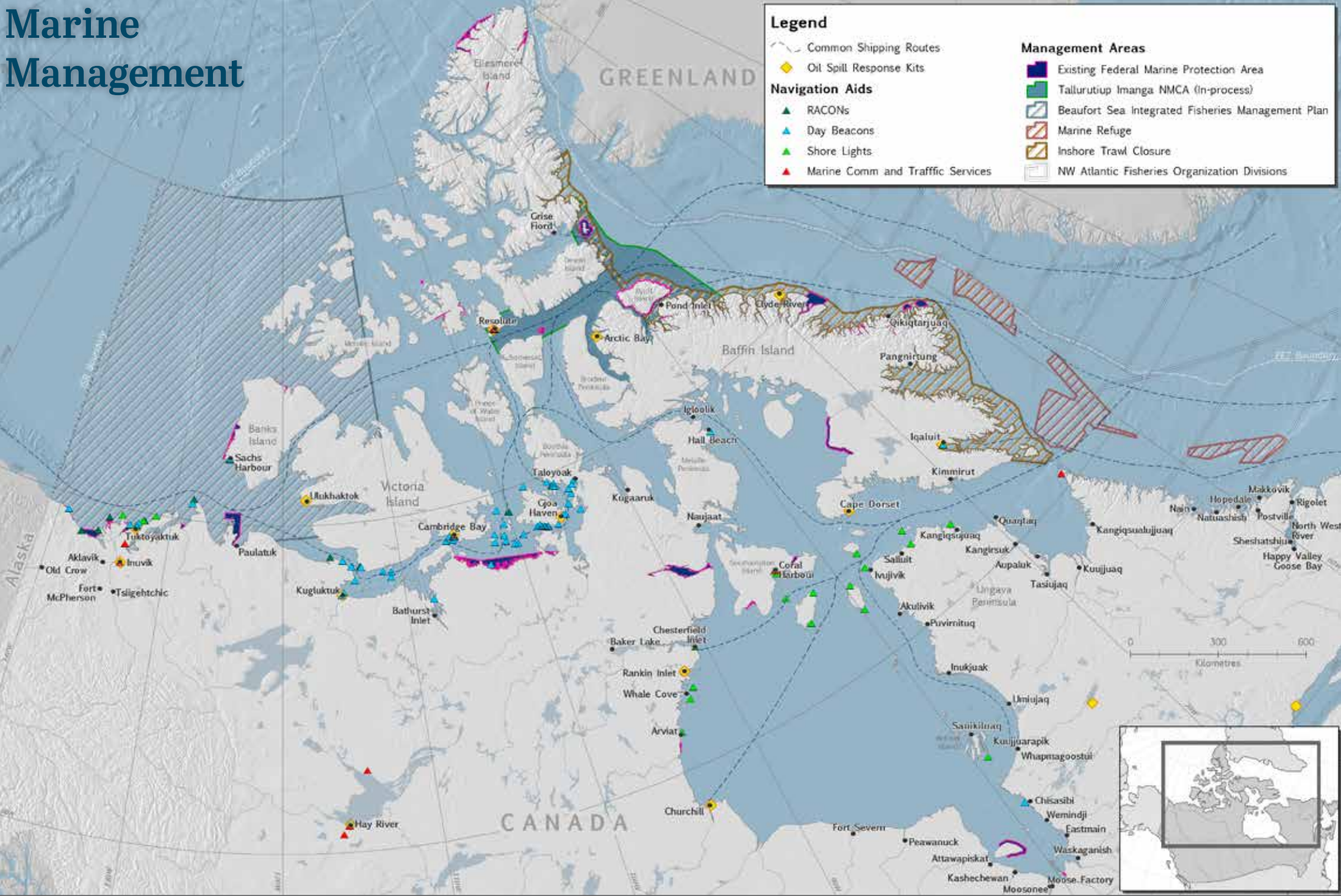
DATA SOURCES

- Community Populations: Statistics Canada, 2016
- Beaufort Sea Fisheries Plan: INAC, 2017
- Inshore Trawl Closure: Department of Fisheries and Oceans. 2014. Greenland Halibut (*Reinhardtius hippoglossoides*) - Northwest Atlantic Fisheries Organization Subarea 0 Integrated Fisheries Management Plan.
- Marine Refuge: DFO, 2017. Marine Refuges.
- NAFO Divisions: Northwest Atlantic Fisheries Organization. 2017. Divisions. <https://www.nafo.int/Data/GIS>
- Existing Marine Protections: UNEP-WCMC and IUCN. 2017. The World Database on Protected Areas (WDPA). April 2017. www.protectedplanet.net.
- Tallurutiup Imanga NMCA: QIA, 2017
- Oil Spill Response Kits: L. Ross Environmental Research Ltd., DF Dickins Associates LLC., Envision Planning Solutions Inc. 2010. Beaufort Sea Oil Spills State of Knowledge Review and Identification of Key Issues. Environmental Studies Research Funds Report No. 177. Calgary. 126p.
- Common Shipping Routes: Modified from Arctic Council. 2009. Arctic Marine Shipping Assessment Report and major routes identified with 2012-2014. exactEarth® satellite AIS data.
- Navigational Aids: DFO. 2010. Arctic Voyage Planning Guide.
- Basemap Data: Atlas of Canada 1:1M, ESRI, Flanders Marine Institute, Natural Earth.

just for the fish stock in question but also for the ecosystem as a whole. In light of the current state of scientific understanding of marine ecology in the region, no commercial fishing is authorized for the time being. This policy mirrors a similar one for adjacent American waters that was put in place in 2009. In eastern Canadian Arctic waters, where there are commercial fisheries for Northern Shrimp (*Pandalus borealis*) and Greenland Halibut, several areas are restricted to certain types of gear or vessels or closed to fishing altogether. In 2009, a large area of Baffin Bay was closed to Greenland Halibut fishing to protect the overwintering area of Narwhals and deep-water corals and sponges.

In 2017, the closed area was adjusted and all bottom-fishing gear was prohibited. In 2013, the marine zone of the Nunavut Settlement Area, approximately equivalent to the 12-nautical-mile territorial waters off the coast, was closed to vessels longer than 100 feet (approx. 30 m) from the north end of Baffin Bay south into Hudson Strait. In 2017, a large area in Davis Strait was closed to bottom-contact fishing gear to protect corals and sponges; another large area in Hatton Basin, at the eastern approach to Hudson Strait, which had been closed voluntarily by the fishing industry, was expanded and closed by regulatory action to protect sponges, corals, fishes, and marine mammals.

Marine Management



FURTHER READING

HUMANS AND THE ENVIRONMENT

Aporta, C. 2011. Shifting perspectives on shifting ice: documenting and representing Inuit use of the sea ice. *Canadian Geographer / Le Géographe canadien*, 55: 6–19.

Inuit Circumpolar Council—Canada. 2008. *The Sea Ice is Our Highway: An Inuit Perspective on Transportation in the Arctic*.

———. 2014. *The Sea Ice Never Stops*.

Inuit Places. 2017. *Inuit Places Atlas*.

Inuit Qaijusarvingat. 2017. “About Inuit.”

Inuit Sea Ice Use and Occupancy Project. 2017. *Atlas of Inuit Sea Ice Knowledge and Use* (SIKU).

Inuit Tapiriit Kanatami. 2017. “About Inuit.”

Kitikmeot Heritage Society. 2017. *Inuit Knowledge Atlases*.

Laidler, G. 2007. Ice, Through Inuit Eyes: Characterizing the importance of sea ice processes, use, and change around three Nunavut communities. Ph.D. thesis, Dept. of Geography, University of Toronto.

Li, S. and Smith, K. 2016. “Inuit: Fact Sheet for Inuit Nunangat.” Statistics Canada. Catalogue no. 89-656-X2016014.

Statistics Canada. 2011. “Aboriginal Peoples in Canada: First Nations People, Métis and Inuit.” *National Household Survey, 2011*. Catalogue no. 99-011-X2011001.