



Igloolik, ᐃᓄᓄᓄᓄ, "Place of houses"

Introduction

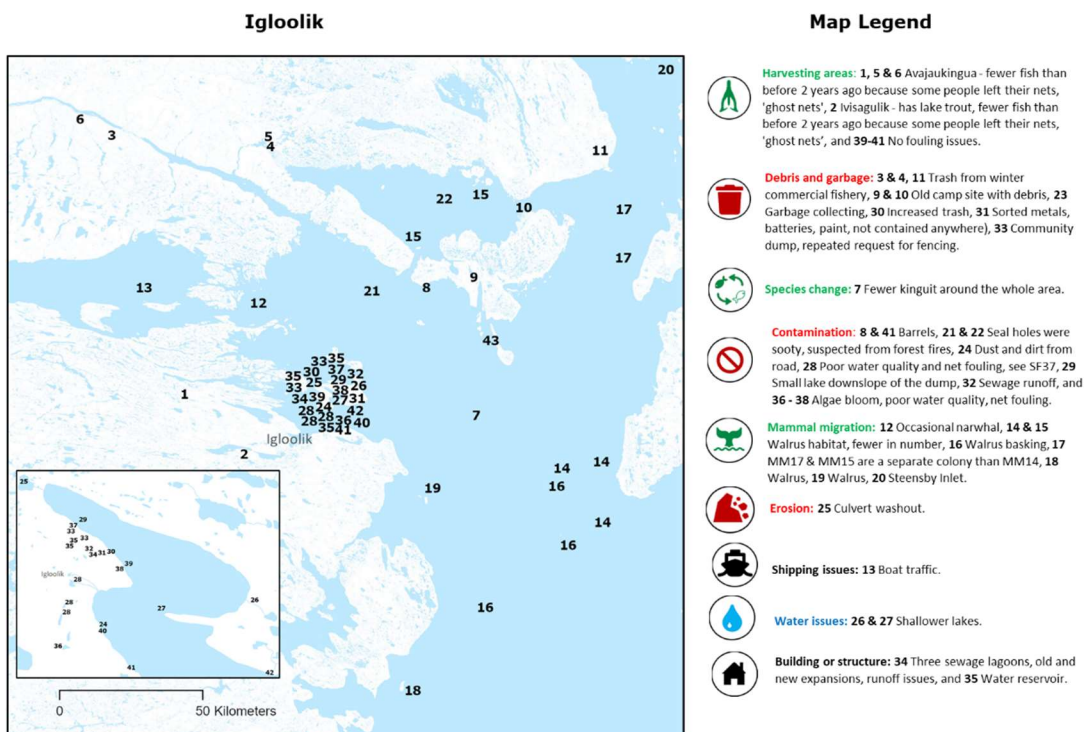
Igloolik is located on a small island of the same name near the eastern entry of Fury and Hecla Strait, in Foxe Basin, Qikiqtaaluk Region. In 2016 the population was 1,682 residents. The economy is mixed, with many residents employed in various positions while also taking part in the traditional economy and the harvesting of country food, which forms an important part of the community's identity¹. Narwhal, ringed seals, walrus, beluga whale, arctic char, caribou, polar bear, and a variety of migratory birds are the mainstays of the wildlife harvest². The community's hunting and fishing area includes Frobisher Bay, Resolution Island, Meta Incognita Peninsula, and Amadjuak Lake³. Igloolik is home to Artcirq, the only Inuit circus that gives Inuit youth a vehicle for creative expression and maintains Inuit tradition Igloolik is also the base for the film company ISUMA productions¹.

Community Restoration Priorities

1. A new fence for the dump; **2.** Clean-up of winter char fishing sites; **3.** Remediation of contaminated sites; and **4.** Arctic char tagging as it seems that the fish are moving further away to deeper and cooler rivers.

Community Map and Workshop Highlights

The CRN research team visited the community in March 2018. Participants at the workshop indicated three main areas of concern: 1. Species loss, 2. Contamination issues, and 3. Changes in species movements. Species loss included kinguk (small crabs) no longer appeared on the beaches and wildlife was much more abundant before. Contamination issues included the sewage lagoon overflow and its potential pollution and contamination of the waters. Fishing nets were also getting very dirty and are only good for one season. The fence around the dump needed to be repaired as garbage was everywhere, and the old Distant Early Warning (DEW) Line site was contaminated. Noted species changes were the presence of harp seals after 30-40 years, polar bears and walruses were moving closer to land as there was no ice, and recent shifts in wildlife distribution, feeding patterns, and predator/prey relationships. Participants thought that this might be due to the hydrophone in the water.



Literature Review

The International Network for Terrestrial Research and Monitoring in the Arctic (a circumpolar network of terrestrial research stations in arctic and northern alpine areas) is located here⁴. The main research objectives of the station are to provide up-to-date information from various sources, including in-house scientific research and Inuit Qaujimajatuqangit, to co-management partners to inform responsible wildlife management and land use decisions⁴.

Attributes	Examples of Environmental Changes and Observations
Sea ice	<ul style="list-style-type: none"> Hunters (e.g., for seal, walrus, and open and ice fishing) have noticed that in winter the ice is thinner, takes longer to form, and breaks up more easily. In summer there is more floating ice, with strong winds and rough waves³.
Seasonal events	<ul style="list-style-type: none"> There is more snow on the ice now, which hides thin ice. There have been recent incidences of hunters falling through hidden thin ice. Blizzards are now more common in winter⁵. Changes in the predominate winds are also affecting the shape of snowdrifts⁵.
Multi-year sea ice (MYSI)	<ul style="list-style-type: none"> During the winter, less moving and MYSI has been observed, which is believed to be linked to potentially warmer water and air temperatures, especially in the summer⁵. Weaker and more variable winds may not be pushing as much ice through Labrador Narrows and into Fury and Hecla Strait. Consequently, less moving MYSI may in turn contribute to the delayed freezing of the sea ice in the autumn and thinner ice conditions overall⁵.
Weather	<ul style="list-style-type: none"> With unpredictability weather it is harder to anticipate where animals will be⁵. Unpredictable and stronger winds also limit the hunter's ability to access hunting grounds by boat⁵.

Attributes	Examples of Ecosystem Changes and Observations
Walrus	<ul style="list-style-type: none"> Walrus are reported as being widely distributed throughout Northwestern Foxe Basin, and extending up into Steensby Inlet, Fury and Hecla Strait and the Gulf of Boothia. High numbers occur between Igloolik and Jens Munk Island where there are extensive feeding shallows and ice much of the year³.
Seals	<ul style="list-style-type: none"> In 2008 there was a high abundance of bearded, harp, and ringed seals³, whereas in 1992 there was a high abundance of ringed seals in Fury and Hecla Strait⁶.
Whales	<ul style="list-style-type: none"> Fury and Hecla Strait are major thoroughfare, including a fall migration of belugas and narwhal, possibly from Arctic Bay. In summer, bowhead whales move north in April and south in July along the flow edge³. Bowheads were observed near Igloolik and sometimes in great abundance³. Narwhals occur in the vicinity of Richard's bay during late August and September. Where narwhals congregate for periods of time during their migration, capelin are also present³. Killer whales are rare³.
Fisheries	<ul style="list-style-type: none"> In 2008, Arctic char, Arctic cod, Arctic staghorn sculpin, and lake trout were considered highly abundant³. Cod and sculpin were also repeatedly described as "everywhere", which may suggest that both species may be underrepresented⁶.
Birds	<ul style="list-style-type: none"> Species in high abundance included: Arctic tern, black guillemot, Canada goose, common eider, herring gull, king eider, red phalarope, red throated loon, rock ptarmigan, snow goose, and willow ptarmigan^{3,6}
Invertebrates	<ul style="list-style-type: none"> Include northern shrimp, whelks, amphipods, and mud star. Clams were also well distributed and are an important food for walrus⁶.

Based on the Current Gaps in the Literature, Research Needs Include:

- Land use and infrastructure studies:** Current infrastructure plans highlight the need to increase and maintain community access roads to support and encourage the traditional way of life on the land. Camps and cabin development would also promote the traditional way of hunting and harvesting¹.
- Youth engagement programs/development:** Changing community dynamics and technology have reduced the participation of youth in hunting. This in turn has slowly increased their vulnerability to sea ice risks by encouraging risk-taking behavior and reducing land-based skills⁷.

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