EXECUTIVE SUMMARY

This report is derived from the community of Arviat and represents one component of the Nunavut Coastal Resource Inventory (NCRI). “Coastal inventory”, as used here, refers to the collection of information on coastal resources and activities gained from community interviews, research, reports, maps, and other resources. This data presented in a series of maps.

Coastal resource inventories have been conducted in many jurisdictions throughout Canada, notably along our Atlantic and Pacific coasts. These inventories have been used as a means of gathering reliable information on coastal resources to facilitate their strategic assessment, leading to the promotion of economic development, coastal management, and conservation opportunities. In Nunavut, the coastal resource inventory has two additional applications: the preservation of traditional knowledge (Inuit Qaujimajatuqangit, or IQ) and the preparation for forthcoming environmental changes, particularly those driven by climate change.

The Fisheries and Sealing Division of the Department of Environment (DOE) initiated this inventory in 2007 by conducting a pilot project in the community of Igloolik, Nunavut. The NCRI has since been completed in the following communities:

- 2008 Kugluktuk and Chesterfield Inlet
- 2009 Arctic Bay and Kimmirut
- 2010 Sanikiluaq
- 2011 Qikiqtarjuaq and Gjoa Haven
- 2012 Iqaluit, Naujaat and Grise Fiord
- 2013 Pangnirtung
- 2014 Coral Harbour, Clyde River and Taloyoak
- 2015 Cambridge Bay, Kugaaruk and Rankin Inlet
- 2016 Pond Inlet
- 2017 Cape Dorset, Hall Beach and Resolute Bay
- 2018 Whale Cove and Arviat

This report presents the findings of the coastal resource inventory of Arviat conducted in February 2018. A total of eight interviews were conducted. During the interviews we asked participants about the coastal species they currently observe or have previously observed in the area and had them draw the location of their observations on the maps we provided. We used photographs to help participants identify the species they have seen. The interviews varied from 2 - 4 hours in length, depending on the participant. The data collected throughout the interviews was compiled into a database and the map were digitized and analyzed.

The maps produced in the interviews are presented here, organized into the following categories: Well-known areas, Fish, Invertebrates, Marine Mammals, Birds, and Marine Plants.

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INTRODUCTION

This document is one in a series of reports produced by the Nunavut Coastal Resource Inventory (NCRI). The overall goal of this initiative is to conduct inventories in all 25 of Nunavut's coastal communities (Figure 1). Each community is unique in terms of its physical environment, oceanographic setting, organisms present, and the interests and approaches of its hunters and trappers.

THE COASTAL RESOURCE INVENTORY

A coastal resource inventory is a collection of information on coastal and aquatic resources and activities gained principally from interviews with elders and hunters in each community. Coastal resources are defined as the animals and plants that live near the coast, on the beaches, on and around islands, above and below the surface of the ocean, above and below sea ice, and on the sea floor, and in lakes and oceans.

All of the community-specific data is digitized and mapped using a Geographic Information System (GIS). This approach can be an effective tool to assist with management, development and conservation of coastal areas.

Resource inventories have been conducted along Canada's Atlantic and Pacific coasts. The information has been used to provide the foundation for an integrated coastal management plan, to assist with the protection of important coastal areas; and to facilitate environmental impact assessments, sensitivity mapping, and community planning. Coastal resource inventories have also provided different levels of government with the tools to engage in strategic assessments, informed development, and enlightened stewardship.

The principal source of information for community-based coastal inventories is traditional knowledge or, in Inuktitut, Inuit Qaujimajatuqangit (IQ), gathered through interviews. Over the past 50 years, Inuit have transitioned from a resource-based nomadic life style to a wage-based economy. Coastal and land-based activities remain extremely important, contributing to Inuit quality of life, providing income and food, and as a significant part of Inuit culture.

The NCRI aims to retain some of this valuable knowledge by engaging community elders, hunters and fishers to document the presence, distribution and characteristics of various coastal resources. IQ is unique in that it is qualitative, intuitive, holistic, spiritual, empirical, personal and often based on long time-series of observations (Berkes 2002). It is particularly useful for recording historical data that are unattainable in any other manner. A complementary coupling of IQ and scientific knowledge may provide a means to better understand and manage coastal resources.

Information on coastal resources may provide insights regarding the potential for future fisheries development or other economic opportunities. Given the high unemployment rates in many of Nunavut's coastal communities, it is increasingly important to identify areas of

potential economic development. In order to determine both feasibility and long-term sustainability of a new fishery, information on species-specific abundance and distribution of fish stocks (or other coastal resources) must be obtained. Combining communal knowledge of local resources can be a vital step in establishing a commercialized fishery. This information can also lead to the identification of potential coastal parks and related tourism opportunities. This may include sensitive coastal areas, breeding grounds, important species, and unique habitats. Attaining this information comes with much responsibility. The resource should be thoughtfully governed from the outset to avoid unsustainable exploitation.

IQ embodies both tangible and intangible Inuit knowledge. Conserving this knowledge has importance in its own right and for its potential to inform future management plans. Some communities have expressed an interest in exploring development options using a database that has its origins in the living memories, experience, history, and skills of the people who live there. Other communities have opted for a continuation of existing practices: the gathering of extant knowledge into a form that could assist informed decision-making. Regardless, there is growing urgency throughout the Territory to identify, record, and conserve Nunavut's traditional, biological, cultural and ecological knowledge.

There is increasing concern over the potential impact of climate change on the Arctic environment. Over the past 20 years, an increasing number of arctic researchers have commented on the predicted impacts of climate change on the marine environment (Tynan and DeMaster 1997, Michel et al. 2006, Ford et al. 2008a and 2008b, Moore and Huntington 2008). Additionally, the Intergovernmental Panel on Climate Change (IPCC) has reported that the increase in global temperatures is very likely caused by human activity, and that warming is predicted to occur faster in the Polar Regions that anywhere else on the planet (IPCC 2007, 2014). Many changes are predicted to occur in recurrent open water sites, with the potential to affect various coastal resources. Specific impacts can be accepted on water stratification and its role in nutrient renewal, the balance between multi-year and annual ice, the duration and location of open water, and the impacts of tidal mixing and topographic upwelling. These physical changes could influence the marine food web through the prevalence of ice algae, the timing and magnitude of primary and secondary production, and changes in the distribution, abundance and success of traditional species. Inuit can expect significant environmental changes in sea ice, fast ice, coastal erosion, animal behaviour, and population abundances to name a few. For instance, apparent changes in polar bear health and abundance have been linked to climate change driven shifts in sea ice formation and movement. The coastal resource inventory provides a means of collecting information on environmental changes observed by community members.

Figure 4. Map of Nunavut

PERSONNEL AND PROJECT DELIVERABLES

The Coastal Resource Inventory of Whale Cove was conducted by Department of Environment (DOE) staff. Overall project leadership was provided by Janelle Kennedy, Acting Director, Fisheries and Sealing Division and her staff: Teresa Tufts, Fisheries Scientist; and Manasie Kendall, NCRI Coordinator.

Project deliverables include:

- A final report summarizing project activities;
- The Nunavut Coastal Resource Inventory in a GIS database;
- A series of large-format resource inventory maps;
- Access to all documentation pertaining to project completion; and
- Recommendations on the use of this study and future initiatives.

METHODOLOGY

COMMUNITY VISITS

Arviat was visited in February 2018 for on-site interviews. Correspondence via email and telephone was used before the on-site interviews to put into place all of the elements that were required to properly conduct the interviews. This process was strongly dependent upon Arviat's Hunters and Trappers Organization (HTO) and the Hamlet office. The HTO formally agreed to support this initiative by providing a list of local Inuit hunters and trappers who, in their opinion, were among the most knowledgeable and accomplished members of the community and could best satisfy the requirements of the interview process. The final selection of eight interviewees (Appendix 1) was made by NCRI project personnel. In addition, HTO personnel recommended the names of individuals who could be used as translators and student observers.

THE INTERVIEWS

Four individuals were present during each interview: the interviewee, two interviewers, and a translator. The interviewer followed a defined protocol that placed emphasis on a series of predetermined questions and photographs of various living resources thought to occur in the area. Maps covering the area of interest and colour coded pencils were provided to interviewees to illustrate locations of interest. Interviewees were encouraged to supplement their responses by drawing on the maps provided to annotate their verbal remarks. Specific categories addressed in the interviews included: interviewee life-history information, location of outpost camps; archaeological sites; travel routes and hunting/fishing areas frequented; the geographic occurrence of mammals, fish, birds, invertebrates, and plants; linkages between coastal resources; present and future environmental changes; and potential economic development (e.g., the possibility of an emergent fishery). Qualitative data were gathered in the form of individual opinions, assumptions, and conclusions.

Annotations on the maps were coded to enable future identification and reference. Follow-up questions were asked of the interviewee, clarifications were elicited, and, if appropriate, discussion ensued about the information presented. The entire process was recorded using audio and video equipment, while selected portions were simultaneously manually recorded. Manual recording was used to maintain a running record of all map annotations and codes. This permitted the analysis of interviews to proceed without first transcribing the audiotapes. The interviews varied from 2 - 4 hours, depending on the individual being interviewed.

POST-INTERVIEW METHODOLOGY

All of the data manually recorded throughout the interview was entered into a spreadsheet using audio and video data for verification when needed. The maps were scanned and the hand drawn data were digitized using Geographic Information System (GIS).

NON-INTERVIEW DATA ACQUISITION

Data on marine resources can be found scattered throughout many different sources including scientific papers, government reports, environmental impact assessments, and maps. However, three surveys with similar geographic breadth and goals have proven to be especially useful. The three-volume "Inuit Land Use and Occupancy Study" was undertaken in the early 1970s and published in 1976 by Indian and Northern Affairs. It grew out of the documentation required by the land claim process and was used to substantiate Inuit claims to residency and land use. The study contained detailed information on traditional land use up to that time, based on interviews with Inuit in each community. It used topographic maps to outline regions associated with hunting, trapping, and fishing activities for every community in Nunavut over three periods: pre-contact, the trading period up to the 1950s, and the present (early 1970s). The third volume is an atlas that displays the results. The original research is available in Ottawa at the National Archives and a copy is also available in the Legislative Library in Iqaluit.

The second is the *Nunavut Atlas* co-published in 1992 by the Canadian Circumpolar Institute and the Tunngavik Federation of Nunavut (now Nunavut Tunngavik Incorporated or NTI). This atlas is largely data collected for the Inuit Land Use and Occupancy Study. The resource data and maps are great resources but the information is approximately 35 years old. Relevant maps from this volume are presented in this report (Figures 38 - 39).

The third document is the Nunavut Wildlife Harvest Study produced by the Nunavut Wildlife Management Board in 2004 as mandated by the Nunavut Land Claim Agreement. Harvest data were collected monthly from Inuit hunters from 1996 to 2001. The purpose of the study was to determine the current harvesting levels and patterns of Inuit use of wildlife resources. Once completed this information was to be used to manage wildlife resources in Nunavut.

DATA MANAGEMENT AND ANALYSIS

Data collected through interviews and research were, when appropriate, plotted on maps. In order to stay within the size of the geographic area under discussion, the scale of the map is kept relatively small. The scale was common to all maps to permit relatively easy comparisons. Information was separated according to resource categories and all information associated with a specific geographic location was entered into a tabular database. The development, care, and maintenance of this tabular database are extremely important, not only as a storage facility for information, but as an active repository accessed by users with diverse interests.

Data management also included protecting the confidentiality of the data. Each interviewee provided their consent to be interviewed, as well as audio and video taped. Any person or organization wishing to access NCRI data must provide written justification to the NCRI Steering Committee and agree to the terms outlined in the Data Release Form.

GIS INTERFACE

Once the inventory maps and database were completed, they were entered into a GIS which creates computer generated maps. It also links information to the geographic locations

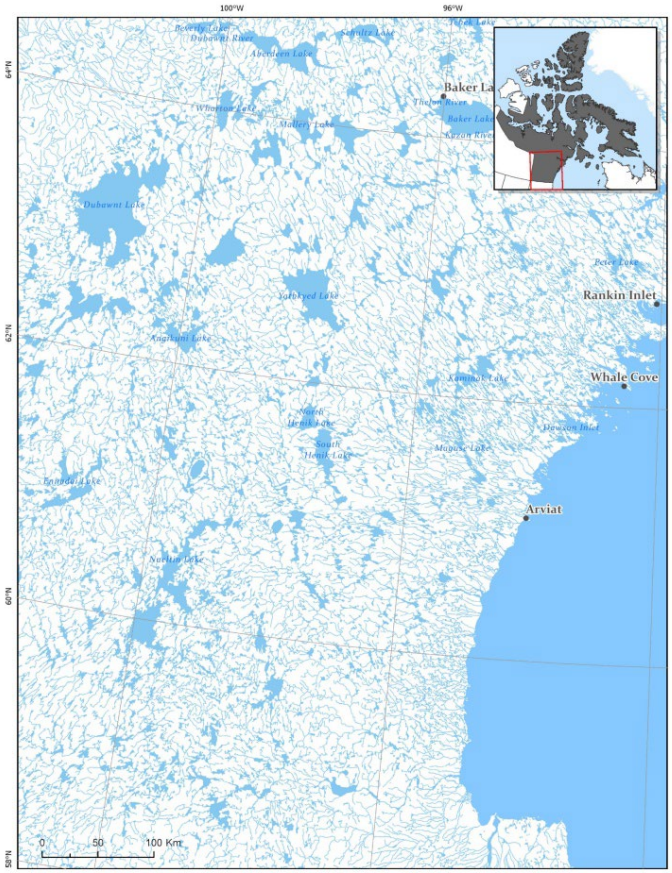
contained in the database. Attributes associated with each piece of data include information such as the species name, the interviewee source, and the time of year it was observed.

INTERACTIVE ATLAS

The NCRI results are published in community-specific reports that are shared with project partners (community HTOs /HTAs, Hamlets, high schools, and all interviewees) and that are publicly available in hard-copy and PDF formats.

Reports are currently produced in English and Inuktitut. The results from all communities are also displayed online in an interactive atlas, with this information available within a year of interviews in a community. The reports can take up to two years to produce. Links to access the Atlas and other CRI reports are here: ncriatlas.ca and http://www.gov.nu.ca/environment/information/nunavut-coastal-resource-inventory

Figure 2. The study area extent discussed in the Arviat interviews



RESOURCE INVENTORY

The observations below provide highly personal insights that could warrant additional investigation.

MARINE ENVIRONMENT

The geographic area identified by interviewees as the normal range of their hunting and fishing activities spans approximately 400 km north to south, and 550 km east to west. The region includes Arviat, Whale Cove, northern Manitoba, and the boarder with Northwest Territories.

HUNTING/FISHING

Arviat hunters/fishers depend on a broad array of animals to supply their country food needs. Ensuring access to and availability of country food continues to be an issue of importance and concern for the community.

Three interviewees mentioned that polar bears are increasing in numbers in the area. Two mentioned that it is not advisable to camp overnight anymore because there are too many bears.
Three interviewees noted that polar bears are coming closer to town now compared to in the past. One thought that it might be due to forest fires in the south and another thought it might be due to increased human interaction with polar bears in Churchill that is making bears less afraid of entering towns. Another interviewee expressed concerns that polar bears are no longer afraid of humans.
Two hunters commented that caribou seem to be migrating further inland (they used to travel up the coast) which is making it harder to hunt them. One hunter noted that caribou taste different now compared to in the past. Another noted that in recent years hunters are catching more wolverine and less caribou.
One interviewee said that when he was younger there were no walrus around because too many were killed on one of the islands. Now, 45 years later, they are coming back and in the spring of 2017 there were 3 or 4 caught in the area.
One interviewee observed that there are more burbot in the lakes now compared to in the past which is making it harder to catch lake trout.

HEALTH, SIZE, AND PRESENCE

Throughout the course of the interviews references were made regarding the health, size, or presence/absence of different species:

One interviewee mentioned that in the spring there used to be lots of seals, but now there aren't many. He thinks they are moving further north because the coast is getting shallower. There are islands that use to be underwater that are now exposed.
One interviewee noted that there are more grizzly bears in the area compared to the past.

One interviewee saw six narwhal in the bay in the spring of 2017 but noted that narwhal are normally further north and in deeper water.
Two hunters expressed concern that polar bears may be losing their sense of hearing. One mentioned that in the 60's when traveling by dog team a bear could hear you coming from miles away. Now they don't hear you and you can get close to them with a skidoo. Another interviewee noted that now that there is so much noise in the environment bears are not able to hear well anymore, which is reducing their ability to hunt.
Many interviewees commented on species that are new to the area including black bears, moose, wolverines, muskox and muskrat. They also noted new insects such as grasshoppers and black flies. Small birds, sandhill cranes, crows and pelicans were also observed recently in the area. One interviewee even noted seeing frogs in recent years.
One interviewee noted that there are fewer char recently and would like to see a study looking at why char numbers are so low. They also mentioned that char meat is getting whiter where it used to be orange/pink.
One interviewee commented that bald eagles are becoming more common now compared to in the past and can be seen all along the coast in groups.

CHANGES UNDERWAY

Participants commented on changes in their local area:

Four interviewees noted that the location of the floe edge has changed and that it is closer to the shoreline than it ever used to be.
Three commented that the sea ice is not freezing well in recent years and another mentioned that ice has been breaking off from the floe edge a lot in recent years but never did in the past.
Two interviewees described a decrease in the thickness of the sea ice over time, stating that it is not as thick as it used to be. Two interviewees also noted that the thickness of lake ice has also decreased.
Two interviewees mentioned that the sea ice has become more dangerous now compared to the past. One noted that there are lots of polynyas in the ice now but in the past there never used to be many. Another noted that in the 60's/70's you could travel anywhere on the ice but today it is different. There is water everywhere and you have to be very careful. A lot of good hunters have been lost because of this.
One interviewee noted that the timing of ice freeze-up is later in the year compared to in the past.
Three interviewees noted that the spring comes a lot quicker now compared to in the past – spring used to be very gradual but now the snow melts very quickly.
One interviewee mentioned that the McConnell River is getting shallower.
Two interviewees noted that there are fewer blizzards now compared to in the past. One said that instead of the usual cold blizzards there is warmer spring-like weather in the middle of winter.

ECONOMIC DEVELOPMENT

Arviat interviewees discussed the following with regards to social changes and economic development in their area:

Two hunters noted that there used to be a lot of beluga in the area but in the last 3 or 4 years there hasn't been many and are concerned that it might be due to increased shipping in the area.
One hunter is concerned that increased ATV, truck, and skidoo traffic in recent years might be causing caribou to stay further away from the community making it harder to hunt them.
A few interviewees noted that a whitefish commercial fishery could be feasible in Arviat.
One interviewee would like to see studies done on the caribou, seals and walrus to figure out why they are declining or moving away from the community. Another interviewee would like to see studies done on caribou, beluga, and walrus to see if they are safe to eat and expressed that the community needs help with finding the funding to do this kind of research.
Two hunters would like to see more research on how to manage overpopulated migratory bird populations in the area such as snow geese.
One interviewee expressed concerns about research on animals. He mentioned that many studies have been done but the community never gets the results. He is also concerned that science doesn’t take into account natural cycles of animal populations thereby underestimating their population size.

MARINE RESOURCES IN A PHYSICAL SETTING

The coastal communities of Nunavut are diverse. They extend over 27° of latitude and 60° of longitude. In addition to different geomorphologies, climates, and wildlife they also experience widely different marine environments. These include significant differences in residual circulation, tidal range, tidal currents, tidal mixing, shore-fast leads, ice-edge upwelling, topographic upwelling, and polynyas, all of which influence the abundance, diversity and concentration of marine animals and plants. The oceanographic context in which these organisms occur, especially the causal mechanisms that contribute to population dynamics, is an essential prerequisite to understanding changes that occur over time.

One of the stated goals of this initiative is to develop the capacity to monitor Nunavut's marine resources within the context of impending climate change. Organisms will experience the impacts of global warming directly, through changes in their physiology and indirectly, through variations in their physical or biological environments. Responsible monitoring of marine resources will require more than just a quantitative assessment of certain species; it will require an ecosystem approach that, by definition, includes the physical factors at play in that system.

RECURRENT OPEN WATER AND ARCTIC BIOLOGY

The presence of open water in winter can be a chance occurrence that reflects either temporary or recurring conditions. Temporary open water sites are largely unpredictable and of limited usefulness to animals and humans. Alternatively, recurrent open water sites are a physical indicator of one or several predictable physical processes that result in spatial and temporal reliability.

The formation of recurring open water sites in ice-covered seas, including polynyas, pack ice edges, and shore-fast leads reflect local geography, ice conditions, and water movements such as upwelling and tidal mixing. There is a positive correlation between recurrent open water sites and abundance of marine organisms. Stirling (1980, 1997) identified increases in the abundance of birds, seals, and whales with proximity to ice edges, polynyas, and pack ice. In some cases, animals are drawn to these sites for practical reasons such as the availability of breathing holes, a platform to haul out and rest, predator avoidance, pupping, or moulting (Stirling 1997). Ultimately, recurrent open water sites encourage a non-homogeneous distribution of animals that is linked to greater biological productivity.

Major contributing factors in the abundance of marine organisms observed at recurrent open water are due to food availability, the product of primary production in phytoplankton, ice algae and marine plants. Algal groups are important, but their relative contributions can vary depending on ice conditions and available light. Ice algae can represent 5 to 30% of the total primary production (Alexander 1974; Harrison and Cota 1991; Legendre et al. 1992). Plant material is grazed and enters into the food web, supplying energy to invertebrates such as copepods, amphipods, and shellfish, to fish such as Arctic Cod, to mammals such as seals,

Narwhal, Walrus, and Polar Bears and to birds such as Thick-Billed Murres, Northern Fulmars, Black-Legged Kittiwakes, and Black Guillemots. This results in a form of oasis or hotspot in an otherwise ice-covered area. With climate change, the sea ice is thinning faster and earlier in the spring and sunlight sufficient to drive photosynthesis, especially in ice algae, is available sooner. These conditions are extending both the growing and grazing seasons, in some cases by as much as two months.

These open water sites appear to have great importance to the peoples that have occupied the Arctic for several thousand years. Archaeological data obtained from historic Inuit habitation sites, coupled with modern sea-ice extremes, have been used to infer a strong causal relationship between polynyas and historic Inuit settlement patterns (Henshaw 2003). Schledermann (1980) drew attention to the fact that the early settlers of present-day Nunavut did not create settlements in random fashion. Since they depended almost entirely on food resources obtained through hunting, settlements were usually located within reasonable proximity of game, which often meant areas of recurrent open water. Schledermann (1980) also found a close correlation between the distribution of recurring polynyas in the eastern Canadian High Arctic and the abundance of archaeological sites from the Thule culture which specialized in hunting marine mammals.

OCEANOGRAPHIC FACTORS THAT CONTRIBUTE TO OPEN WATER

The community of Arviat is situated on the western coast of the Hudson Bay in the Kivalliq region of Nunavut. At 61°06'22" N, -94°03'37" W, Arviat is the southernmost community in Nunavut and is 150 km southwest of the nearest Nunavut community, Whale Cove.

TIDAL MIXING

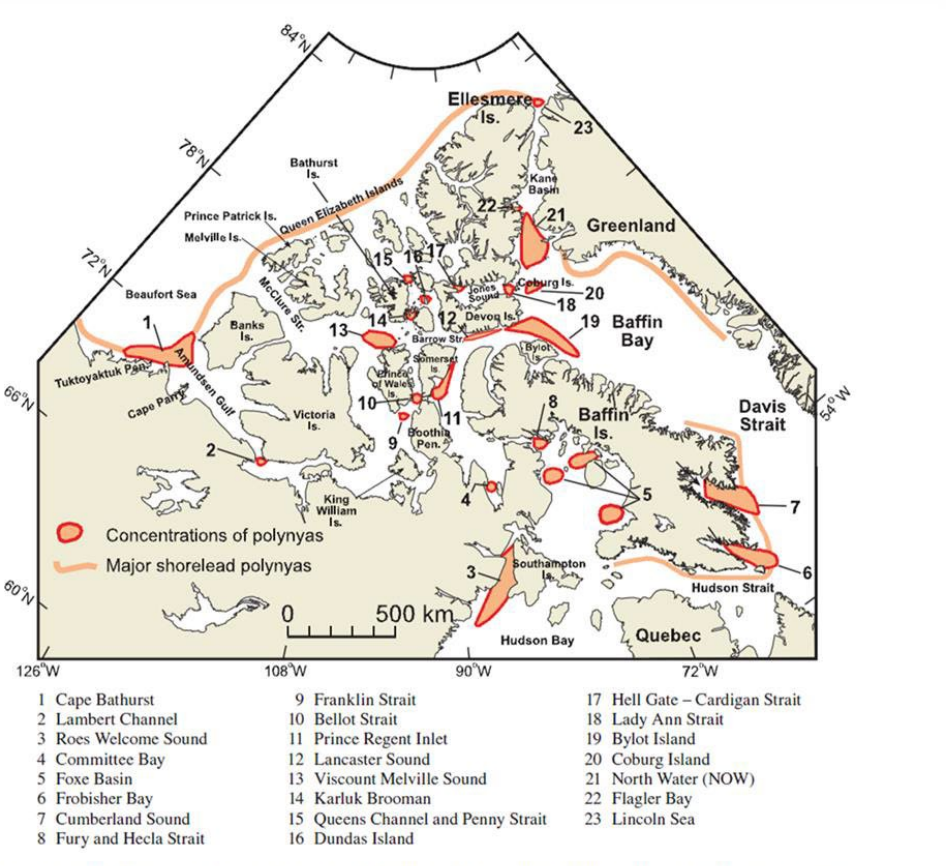
Even at somewhat limited velocities, tidal currents can produce sufficient turbulence to generate the vertical mixing capable of forming and maintaining a polynya. A slow-moving tidal current that encounters a shallow and/or narrow strait increases in velocity, promoting vertical mixing. Warmer, deeper water moves to the surface slowing or preventing the formation of ice. Tidal mixing also delivers nutrients, which promote plant and algal growth when sufficient light is available, especially in summer months. Examples of this phenomenon are the well-known polynyas in Fury and Hecla Strait at the head of Foxe Basin (Hannah et al. 2009).

POLYNYAS

If the Arctic were covered with a thick, seamless layer of sea-ice, many of the organisms that currently exist there and contribute to the region's productivity would find it impossible to survive. Polynyas and leads provide the necessary breaks in the ice that permit sunlight to penetrate and photosynthesis to proceed (in both planktonic and ice-based algae), allow mammals to breathe, and permit over-wintering birds to feed. Wind, water movement, and heat transfer are among the primary factors that contribute to the establishment and maintenance of these open water sites.

Polynyas have long been viewed as extraordinary because of the contradiction of open water occurring in conditions that promote ice. The explanation for this phenomenon is twofold: in some cases the introduction of heat forestalls ice formation, while in others any newly formed ice is rapidly removed. This process is controlled by wind and/or ocean currents, which remove any ice formed at the site. Other factors include turbulence from the surface waves or currents that can inhibit ice formation, adjacent coastlines, and shore-fast ice or ice bridges that prevent ice from drifting into polynyas.

Recurring polynyas typically occur near shoals and between islands, within the land-fast ice. There are two types of polynyas that recur each year: those that remain open all year long and those that freeze over for one or two of the coldest months of the year. Animals such as seals, walrus and some migratory sea birds use these polynyas as important over-wintering areas.



1 Cape Bathurst	9 Franklin Strait	17 Hell Gate – Cardigan Strait
2 Lambert Channel	10 Bellot Strait	18 Lady Ann Strait
3 Roes Welcome Sound	11 Prince Regent Inlet	19 Bylot Island
4 Committee Bay	12 Lancaster Sound	20 Coburg Island
5 Foxe Basin	13 Viscount Melville Sound	21 North Water (NOW)
6 Frobisher Bay	14 Karluk Brooman	22 Flagler Bay
7 Cumberland Sound	15 Queens Channel and Penny Strait	23 Lincoln Sea
8 Fury and Hecla Strait	16 Dundas Island	

FIG. 1. A map of known polynyas in the Canadian Arctic, adapted from Barber and Massom (2007) and Stirling (1981). The Karluk Brooman polynyas were identified by Schledermann (1980) and Brown and Nettleship (1981).

Figure 3. Map of known polynyas in Nunavut

LAND-FAST LEADS (FLAW LEADS)

Extensive systems of land-fast leads occur throughout the Arctic. Land-fast ice generally comprises first-year ice, possibly mixed with multi-year remnants, that is fixed to the coast. This ice platform extends outward, eventually merging with offshore pack ice (Stirling and Cleator

1981). The physical presence of this ice cover modifies tidal and wind energy, dramatically changing circulation (George et al. 2004). Eventually, a fracture or crack may develop between the attached ice and the free-floating pack ice due to offshore winds, or through the actions of coastal currents. These leads are normally linear in shape and run parallel to shorelines. They are recurrent and predictable in their location and are among the areas where open water is found most consistently during winter and early spring. Because of these factors, land-fast lead systems are of great biological importance.
The boundary between the ice edge and the beginning of the lead is an ecosystem that is very important and has been identified as biologically rich and diverse by many elders and previous research. For instance:

The land-fast ice edge is an important Inuit hunting site (Crawford and Jorgenson 1990);
During late spring and early summer, large numbers of sea birds and marine mammals congregate at the edges of land-fast ice (McLaughlin et al. 2005);
Ringed seals and polar bears are the only marine animals that regularly occupy extensive land-fast coastal ice (Tynan and DeMaster 1997);
Bearded seals prefer relatively shallow water (<150 m) with thin shifting ice and leads kept open by strong currents (Tynan and DeMaster 1997);
Along with polynyas, land-fast lead systems and ice edges play key roles in influencing the abundance and distribution of marine mammals and sea birds (McLaughlin et al. 2005);
Satellite observations of polar bears in multi-year ice show that they are often associated with leads (Stirling 1997);
High densities of arctic cod are found immediately below the edge of land-fast sea ice, linked to the availability of high concentrations of copepod prey (Crawford and Jorgenson 1990);
Near the ice edge the diet of adult ringed seals and narwhal is composed primarily of arctic cod while amphipods and copepods are consumed in smaller numbers (Bradstreet and Cross 1982).

The reasons for greater biological abundance and diversity associated with land-fast leads and ice edges are largely the same as those outlined above for recurrent open water. However, upwelling is an additional mechanism that appears to occur at shore-fast and pack ice edges.

UPWELLING: TOPOGRAPHIC AND ICE-EDGE

Upwelling is a mechanism by which colder, deeper water is moved to the surface, where it can create and/or maintain ice-free open water. Topographic upwelling occurs where a current moving through cold subsurface water is deflected or welled upward toward the surface by a bottom structure such as a sill, bank, or ridge (Tee et al. 1993).

Ice-edge upwelling occurs when wind blows parallel to the ice edge and causes surface water to move away from the edge. The surface water is then replaced from below (Tang and Ikeda, 1989). The upwelling zone may be several kilometres wide and draw subsurface water from depths of up to 100 metres. This phenomenon has been observed in the Bering Sea (Alexander and Niebauer 1981), the Arctic Ocean (Buckley et al. 1979, Johannessen et al. 1983) and off the coast of Newfoundland (Tang and Ikeda 1989).

Upwelled water usually carries nutrients into the upper layer where, with sufficient light, both phytoplankton and ice algae can grow and provide a strong stimulus to the local food web. This is one explanation for why polynyas and shore-fast leads are so productive.

MARINE RESOURCES IN THE CONTEXT OF CLIMATE CHANGE

Over the past 20 years, many Arctic researchers have commented on the impending effects of climate change, with its predicted impacts on the marine environment as well as the abundance, diversity, and well-being of marine organisms (Tynan and DeMaster 1997, Michel et al. 2006, Moore and Huntington 2008). Changes may occur affecting water stratification and its role in nutrient renewal, the balance between multi-year and annual ice, the relative importance of ice algae, the timing and magnitude of primary and secondary production, changes in traditional species distributions and hunting sites, amongst others. Each of these changes could exert some influence on the food web and the state of the resources as they are presently defined.

GUIDE TO MAPS AND TABLES

The following maps summarize the geographic context, species locations, and information provided by interviewees. The maps are accompanied by data in tabular form which provides additional detail along with descriptive information.

Generally, maps comprise groupings of single or several species as reported in multiple interviews. Species and interviews are normally color-coded and locations are labelled with a number. These labels can be used to look-up relevant information in the table associated with each map.

The species identified by interviewees as being distributed “Everywhere” are not mapped in this report. The designation of “Everywhere” was used when interviewees felt that the organism under discussion has been observed everywhere throughout their travels and places with which they are very familiar. Giving a species an “Everywhere” designation does not confer any information about abundance nor should it be presumed to be ubiquitous; it is only a measure of distribution relative to where the interviewee has been. “Everywhere” data is provided in the table of data following the maps.

MAPS AND TABLES

Figure 4 - Camps and Archeological sites

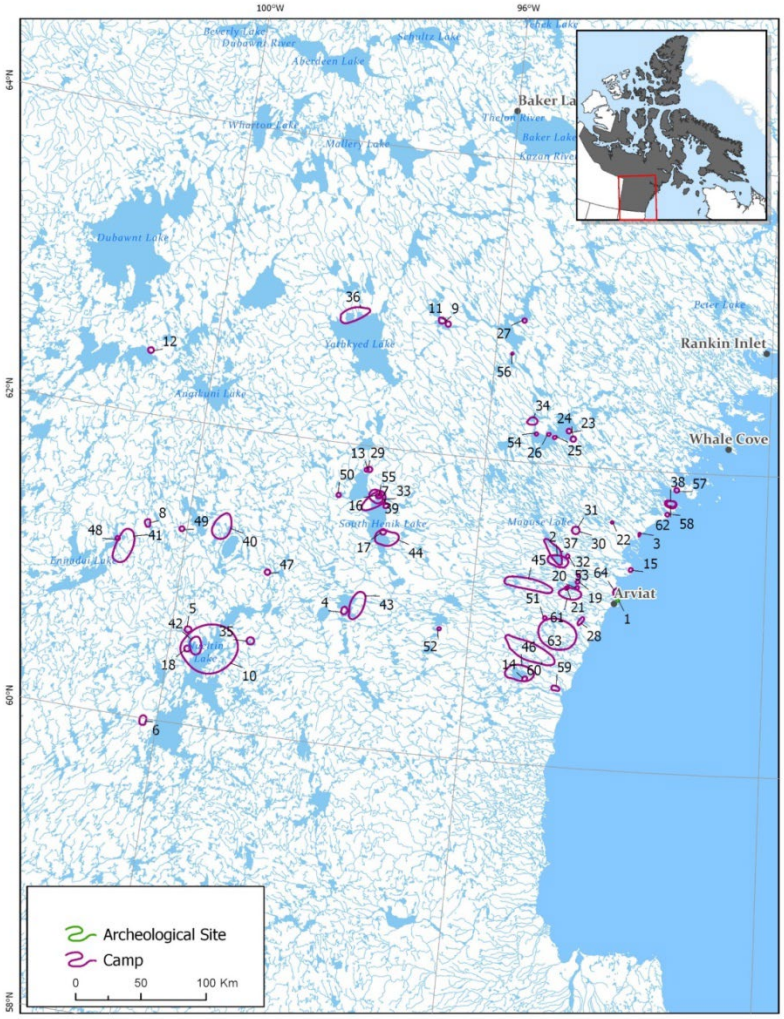


Table 23 - Camps and Archeological sites

Map #	Inter-view	Category	Time of Year	Details	Comments
1	8	Arch			There is an old camp here. Lots of graves and a fishing weir
2	1	Camp			Lots of cabins in this area. Some consider it a "little town". They built a gravel road to it about 6-7 years ago.
3	1	Camp			Cabin here. Also an area where lots of caribou migrate through.
4	2	Camp	Spring		During wolf hunting trips
5	2	Camp	Spring		During wolf hunting trips
6	2	Camp	Spring		During wolf hunting trips
7	2	Camp	Spring		During wolf hunting trips
8	2	Camp	Spring		During wolf hunting trips
9	2	Camp	Spring		During wolf hunting trips
10	3	Camp			Cabin. Will travel here, set up camp, then go hunting from there
11	3	Camp			Cabin reachable by airplane. Would stay here while doing wildlife surveys
12	3	Camp			Cabin reachable by airplane. Would stay here while doing wildlife surveys
13	3	Camp			Cabin
14	3	Camp			Cabin
15	3	Camp			Cabin
16	3	Camp			Cabin
17	3	Camp			Cabin
18	3	Camp			Cabin
19	3	Camp			Cabin
20	3	Camp			Cabin
21	3	Camp			Cabin

Map #	Inter-view	Category	Time of Year	Details	Comments
22	3	Camp			Cabin
23	3	Camp			Cabin
24	3	Camp			Cabin
25	3	Camp			Cabin
26	3	Camp			Cabin
27	3	Camp			Cabin
28	3	Camp			Cabin. A bear damaged it - it came in through the window
29	4	Camp			
30	4	Camp			
31	4	Camp	Year-round		
32	5	Camp			Cabin
33	5	Camp		Historic	There used to be cabins here
34	5	Camp			Cabin
35	5	Camp			Cabin
36	5	Camp			Place where he was born.
37	6	Camp			Cabin
38	6	Camp			Cabin
39	6	Camp			Camp here on long hunting trips in the spring
40	6	Camp			Camp here on long hunting trips in the spring
41	6	Camp			Camp here on long hunting trips in the spring
42	6	Camp			Camp here on long hunting trips in the spring
43	6	Camp			Camp here on long hunting trips in the spring
44	6	Camp			Camp here on long hunting trips in the spring
45	6	Camp			Camp here on long hunting trips in the spring
46	6	Camp			Camp here on long hunting trips in the spring
47	7	Camp			
48	7	Camp			
49	7	Camp			

Map #	Inter-view	Category	Time of Year	Details	Comments
50	7	Camp			
51	7	Camp			
52	7	Camp			
53	7	Camp			
54	7	Camp			
55	7	Camp			
56	7	Camp			Set up tent in an old cabin
57	7	Camp			
58	7	Camp			2 HTO cabins here
59	8	Camp			There is an old cabin here. Can take a day trip to here
60	8	Camp			Cabin
61	8	Camp			Cabin
62	8	Camp			Cabin
63	8	Camp			Cabin
64	8	Camp			Cabin

Figure 5 - Travel Routes

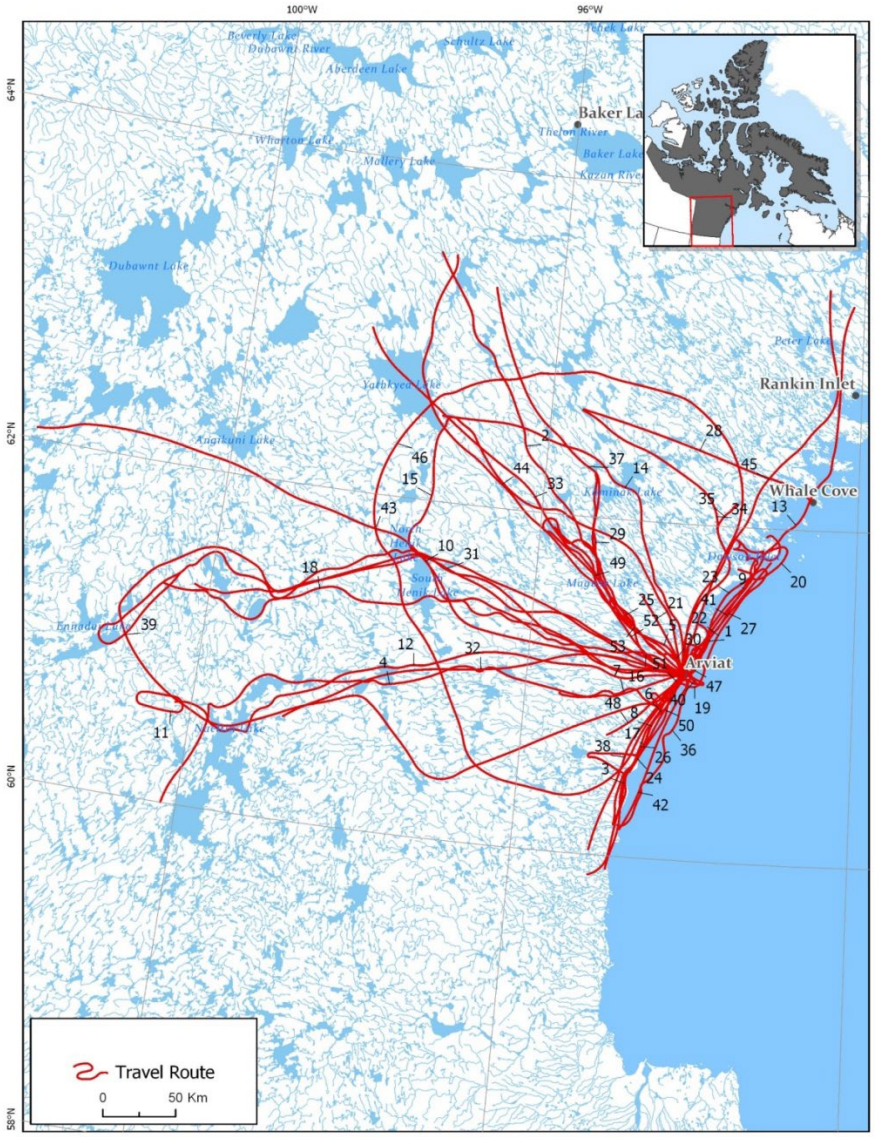


Table 24 - Travel Routes

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Travel			Travel close to the land to "no name" river during the summer.
2	2	Travel	Spring		Travel route during wolf hunting trips
3	2	Travel	Spring		Route to hunting area
4	2	Travel	Spring		Route to wolf hunting area
5	2	Travel	Winter		Snowmobile trail to hunting area
6	2	Travel	Summer		ATV trail to hunting area
7	2	Travel	Summer		Snowmobile trail to hunting area
8	2	Travel	Summer		ATV trail to hunting area
9	2	Travel	Summer		Boating route to hunting area
10	2	Travel	Spring		Travel route during wolf hunting trips
11	3	Travel		Hazard	Travel on the river is dangerous because there can be open water
12	3	Travel			Skidoo route. Good to travel with another person incase machines break down
13	3	Travel			Skidoo route on the ice. Can follow this to go to Rankin Inlet
14	3	Travel			Skidoo route. Always travels with a friend over long distances
15	3	Travel			Skidoo route
16	3	Travel			Travel route to fishing area by skidoo. Lots of people use this trail so it's sometimes referred to as a 'highway'
17	3	Travel			Skidoo route
18	3	Travel			Skidoo route
19	4	Travel			Boating route
20	4	Travel			Boating route
21	4	Travel			Skidoo route to hunting area
22	4	Travel			Boating route in the summer when it's nice out
23	4	Travel			Boating route in the summer when it's windy

Map #	Inter-view	Category	Time of Year	Details	Comments
24	4	Travel			Skidoo route for wolf, wolverine and moose hunting
25	5	Travel			Boating in Magoose Lake
26	5	Travel			Skidoo route in the spring. The trail is very rough - there is lots of water and soft mud
27	5	Travel			Boating route to go fishing
28	5	Travel			Skidoo route
29	5	Travel			Skidoo route
30	5	Travel			Road to Magoose Lake. Usually takes 3 hours but with a boat on a trailer it takes 7 hours
31	5	Travel			Skidoo route
32	5	Travel			Skidoo route
33	5	Travel			Travel route to hunting area for muskox
34	5	Travel			Skidoo route to fishing derby area
35	5	Travel			Skidoo route to char fishing spot
36	5	Travel	Summer		Travel by boat to fishing area
37	6	Travel			Skidoo route to go wolf or caribou hunting in the winter and spring
38	6	Travel			Skidoo route to go wolf or caribou hunting in the winter and spring
39	6	Travel			Skidoo route to go wolf or caribou hunting in the winter and spring
40	6	Travel			Boating route for char fishing and seal and beluga hunting
41	6	Travel			Boating route for char fishing and seal and beluga hunting
42	6	Travel			Boating route for char fishing and seal and beluga hunting
43	7	Travel			Skidoo route
44	7	Travel	Winter/spring		Skidoo route to Baker Lake
45	7	Travel	Winter/spring		Skidoo route to Rankin Inlet for char fishing
46	7	Travel	Winter/spring		Skidoo route

Map #	Inter-view	Category	Time of Year	Details	Comments
47	8	Travel			ATV travel route
48	8	Travel			Skidoo route to go wolf hunting
49	8	Travel	Winter		Skidoo route
50	8	Travel			Travel route by ATV in the summer and by skidoo in the spring
51	8	Travel			Travel route by ATV in the summer and by skidoo in the spring
52	8	Travel			Travel route by ATV in the summer and by skidoo in the spring
53	8	Travel			Travel route by ATV in the summer and by skidoo in the spring

Figure 6 - Harvest Areas and Areas Known Best

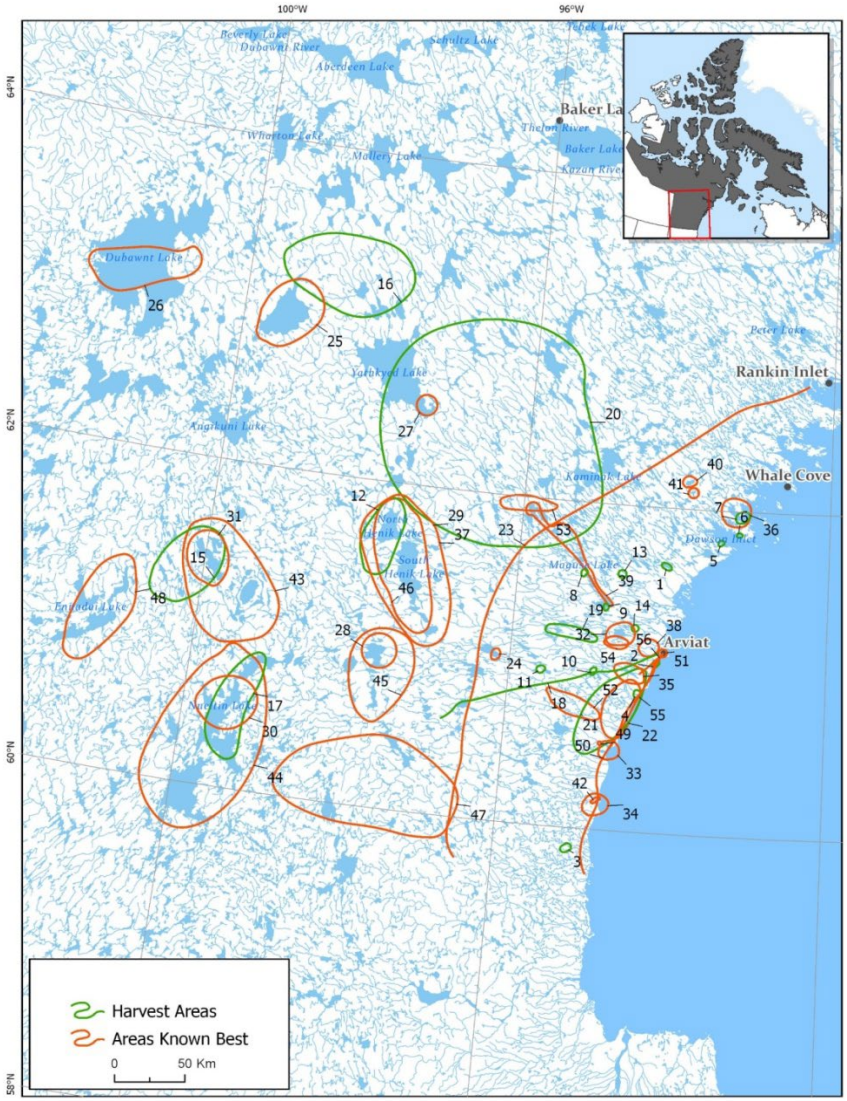


Table 25 - Harvest Areas and Areas Known Best

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Harvest			Hunting area in summer months. Hunt for caribou, go fishing, dry their meat.
2	2	Harvest		Change	Last year (2017) he caught a moose in this area.
3	2	Harvest	Spring		Hunting area
4	2	Harvest			Hunting and Fishing area
5	2	Harvest	Summer		Hunting area
6	2	Harvest	Summer		Hunting area
7	2	Harvest	Summer		Hunting area
8	2	Harvest			Hunting and Fishing area
9	2	Harvest			Hunting and Fishing area
10	2	Harvest			Hunting and Fishing area
11	2	Harvest			Hunting and Fishing area
12	4	Harvest			Hunting area for muskox
13	4	Harvest			Area for caribou hunting and fishing
14	4	Harvest			Caribou hunting area
15	5	Harvest			Wolf and caribou hunting area
16	5	Harvest			Muskox hunting area. Muskox are moving further south. You used to have to go to Gjoa Haven for muskox but now they are near Whale Cove. There are so many now and they're hard to hunt because they're so heavy
17	5	Harvest			Wolf hunting area
18	5	Harvest			Wolf hunting route
19	6	Harvest			Caribou hunting area
20	6	Harvest			Wolverine hunting area
21	6	Harvest			Goose hunting area

Map #	Inter-view	Category	Time of Year	Details	Comments
22	1	Known			McConnel River. Bird Sanctuary. Popular area people travel to by ATV in the summer and snowmobile in the winter.
23	1	Known			Knows the areas north to Rankin Inlet and south to the Manitoba boarder
24	2	Known			Place he was born
25	3	Known			Knows this area from doing wildlife surveys via airplane
26	3	Known			Knows this area from doing wildlife surveys via airplane
27	3	Known			Well known area with caribou, wolf, and fox dens
28	3	Known			Well known areas where he goes hunting
29	3	Known			Well known area where he goes hunting
30	3	Known			Well known area. The treeline is here. Some spots on the lake are not safe to travel on
31	3	Known			Well known area where he frequently goes for hunting
32	3	Known			Well known area where he frequently goes for hunting
33	3	Known			Well known area where he frequently goes for hunting
34	3	Known			Well known area where he frequently goes for hunting
35	3	Known			Well known area where he frequently goes for hunting
36	3	Known			Big river. There is a lot of wildlife activity here. He would go with his parents for to fish for char
37	3	Known			He was here doing grizzly bear sampling in the summer of 2017
38	4	Known			Geese hunting area in the spring
39	5	Known			Area for hunting, fishing, berry picking every weekend in August
40	5	Known			Fishing derby area
41	5	Known			Fishing derby area
42	5	Known	Spring		Good area for fishing

Map #	Inter-view	Category	Time of Year	Details	Comments
43	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
44	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
45	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
46	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
47	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
48	6	Known			Wolf hunting area. Wolverine, grizzly bear, black bear and otters are in this area too.
49	7	Known			The place where he was born
50	7	Known			Area used for caribou or wolf hunting
51	8	Known			There are beds of shells here. 6 or 7 big piles
52	8	Known			Wolf hunting area. There are wolf dens around here too
53	8	Known			Wolf and caribou hunting area
54	8	Known			Caribou hunting in the spring and summer
55	8	Known			Caribou hunting in the spring and summer
56	8	Known			Caribou hunting in the spring and summer

Figure 7 - Floe edges, polynyas and other observed ice or water features

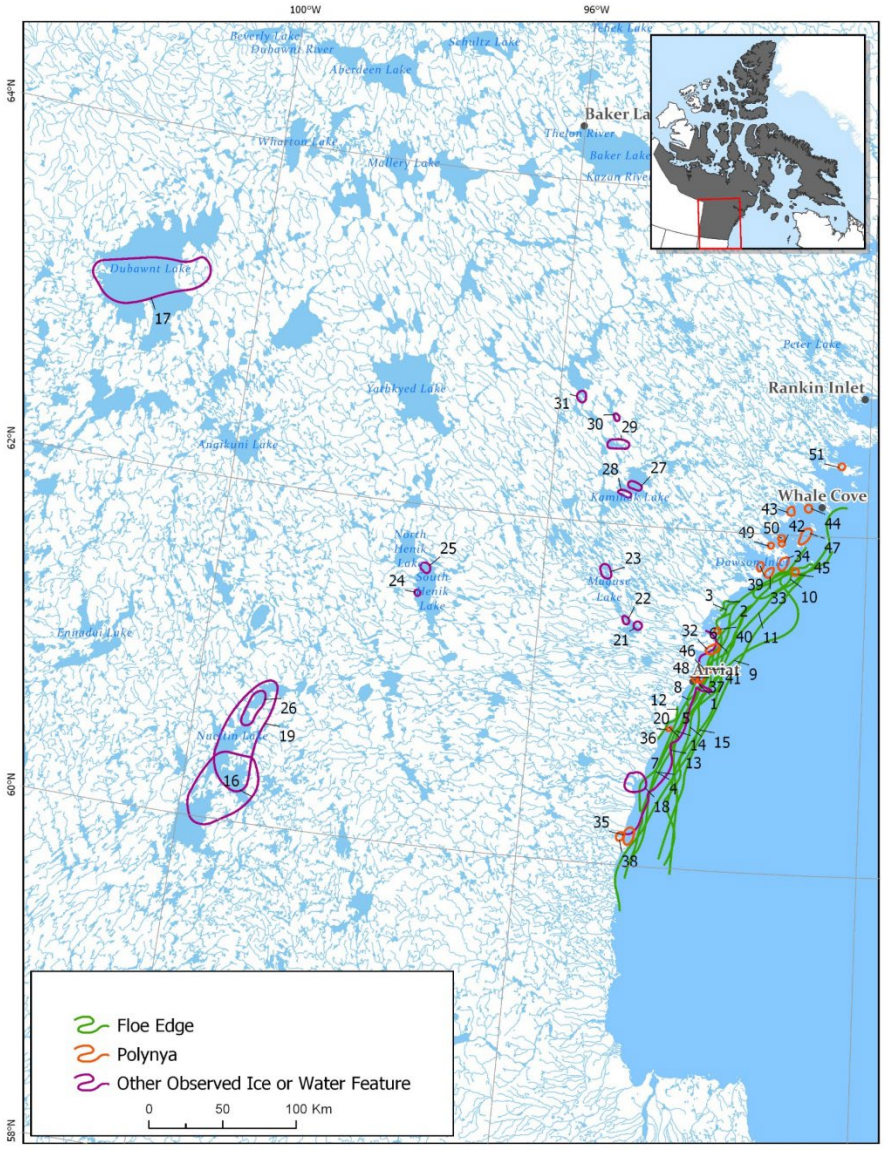


Table 26 - Floe edges, polynyas and other observed ice or water features

Map #	Inter-view	Category	Details	Comments
1	1	Ice Floe		Every year is different. The ice isn't freezing well this year (2018). When it does freeze, it is further out.
2	1	Ice Floe		Every year is different. The ice isn't freezing well this year (2018). When it does freeze, it is further out.
3	1	Ice Floe		Most years, it is normally out in this area.
4	2	Ice Floe	Change	The floe edge is normally here. Has changed over the years.
5	2	Ice Floe	Historic	The floe edge use to be here in the 1960s/1970s
6	3	Ice Floe		Floe edge
7	3	Ice Floe	Hazard	Floe edge. The ice sometimes comes off the shore with the tide on a full moon. It can be very dangerous
8	4	Ice Floe		Flow edge
9	5	Ice Floe		The usual floe edge
10	6	Ice Floe		The floe edge is different every year because of the currents
11	6	Ice Floe		Usual floe edge
12	6	Ice Floe		The floe edge is different every year because of the currents
13	7	Ice Floe	Change	Floe edge. It is closer to town now than it ever used to be. In the past there wouldn't be any ice breaking off but now it does a lot
14	8	Ice Floe		Usual floe edge now
15	8	Ice Floe	Historic, change	The usual floe edge when she was young
16	3	Ice Other	Hazard	Doesn't ice up well. Very dangerous in winter
17	3	Ice Other	Hazard	The ice here doesn't get thick and can be very dangerous. Some areas can be covered in snow so you can't see that the ice is bad.
18	3	Ice Other	Hazard	In the fall and spring the river runs on top of the ice and is very dangerous.

Map #	Inter-view	Category	Details	Comments
19	5	Ice Other	Hazard	Dangerous to travel on the lake because it doesn't ice up
20	5	Ice Other		In the spring the ice detaches from the land easily because the area is very shallow
21	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
22	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
23	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
24	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
25	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
26	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
27	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
28	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
29	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
30	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
31	6	Ice Other	Hazard	Dangerous area of ice that doesn't freeze up well. Sometimes it is open all winter because the currents are too strong
32	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.

Map #	Inter-view	Category	Details	Comments
33	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.
34	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.
35	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.
36	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.
37	2	Ice Polynya	Change, Hazard	Lots of polynyas in the area. They never use to be around, but now they are located right in the middle of trails.
38	3	Ice Polynya	Hazard	The ice here is really thin and can't hold any weight because the river runs really fast.
39	5	Ice Polynya		
40	5	Ice Polynya		
41	5	Ice Polynya		
42	5	Ice Polynya		
43	5	Ice Polynya		
44	5	Ice Polynya		
45	6	Ice Polynya		
46	6	Ice Polynya		
47	6	Ice Polynya		
48	7	Ice Polynya		
49	7	Ice Polynya		
50	7	Ice Polynya		
51	7	Ice Polynya		

Figure 8 - Arctic Char and Land Locked Char/Red Lake Trout Areas of Occurrence

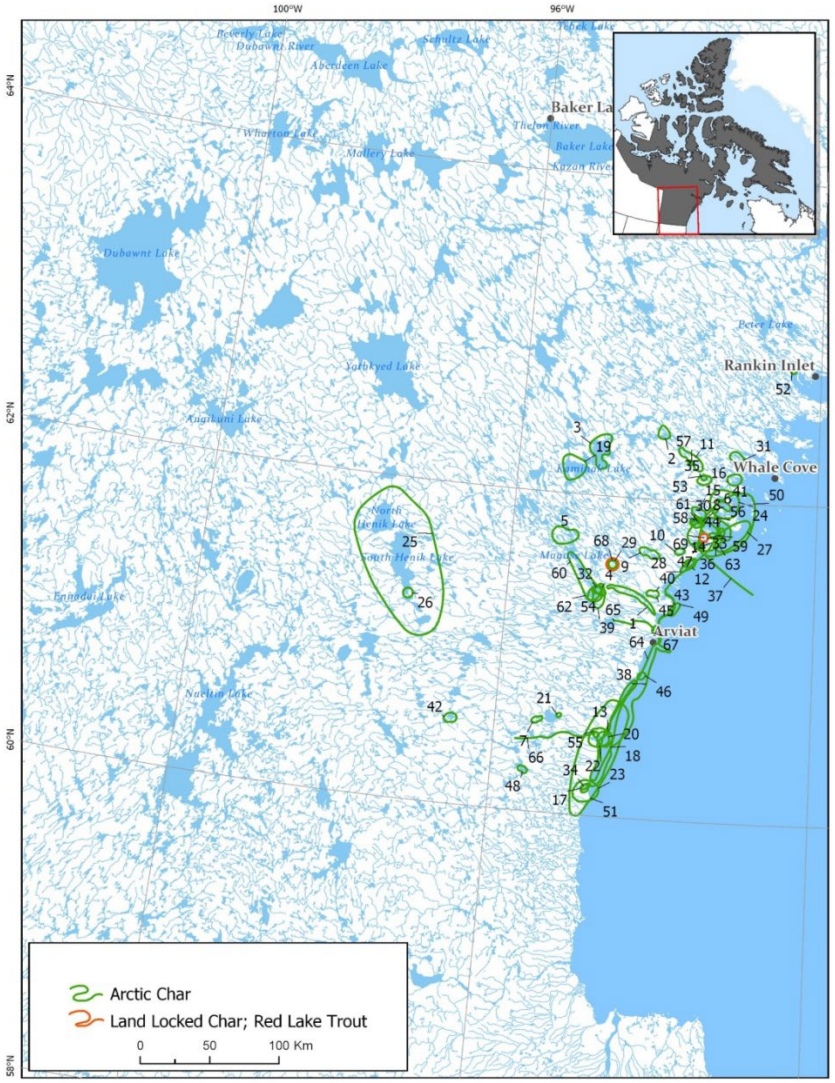


Table 27 - Arctic Char and Land Locked Char/Red Lake Trout Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Arctic Char		Migration	Only fish here when they are traveling up and down the river. In spring they travel down and are a nice red colour. Some people set nets at the mouth of the river.
2	2	Arctic Char		Spawning	
3	2	Arctic Char		Spawning	
4	2	Arctic Char	Spring and Fall		
5	2	Arctic Char	Spring and Fall		
6	2	Arctic Char		Spawning	
7	2	Arctic Char	Spring and Fall		
8	2	Arctic Char	Spring and Fall		
9	2	Arctic Char	Spring and Fall	Spawning	
10	2	Arctic Char	Spring and Fall		
11	2	Arctic Char	Spring and Fall		
12	2	Arctic Char			
13	2	Arctic Char			
14	2	Arctic Char			
15	2	Arctic Char			
16	3	Arctic Char			There's a little creek here that looks like it came out of nowhere
17	3	Arctic Char			
18	3	Arctic Char			At low tide he sets up nets for char
19	3	Arctic Char		Spawning	Spawning colours at the end of summer and fall
20	3	Arctic Char			
21	3	Arctic Char			

Map #	Inter-view	Category	Time of Year	Details	Comments
22	3	Arctic Char			Late spring and summer
23	3	Arctic Char			Late spring and summer
24	3	Arctic Char			
25	3	Arctic Char			Fishing hot spot. The area is shallow so you can see lots of fish
26	3	Arctic Char			Fishing hot spot. The area is shallow so you can see lots of fish
27	4	Arctic Char			
28	4	Arctic Char			
29	4	Arctic Char			
30	5	Arctic Char		Spawning	The char are in spawning colours in August
31	5	Arctic Char			
32	5	Arctic Char			Catch with gill nets
33	5	Arctic Char	Spring		Ice fishing
34	5	Arctic Char			
35	5	Arctic Char			Ice fishing with nets
36	5	Arctic Char			
37	5	Arctic Char			When the tide goes down there are a lot of char here. You can reach it by boat
38	5	Arctic Char	Summer		
39	6	Arctic Char		Spawning	
40	6	Arctic Char		Spawning	
41	6	Arctic Char		Spawning	
42	6	Arctic Char		Spawning	
43	6	Arctic Char			
44	6	Arctic Char			
45	6	Arctic Char			
46	6	Arctic Char			

Map #	Inter-view	Category	Time of Year	Details	Comments
47	6	Arctic Char			
48	6	Arctic Char			
49	6	Arctic Char	Spring, summer		
50	6	Arctic Char	Spring, summer		
51	6	Arctic Char	Spring, summer		
52	7	Arctic Char	Spring, summer and fall		
53	7	Arctic Char	Spring, summer and fall		
54	7	Arctic Char	Spring, summer and fall		
55	7	Arctic Char	Spring, summer and fall		
56	7	Arctic Char		Spawning	When spawning they stay in the fresh water
57	7	Arctic Char		Spawning	When spawning they stay in the fresh water
58	7	Arctic Char		Spawning	When spawning they stay in the fresh water
59	8	Arctic Char			Goes fishing here in the spring
60	8	Arctic Char			Sets nets and goes jigging here
61	8	Arctic Char			
62	8	Arctic Char		Spawning	
63	8	Arctic Char		Spawning	
64	8	Arctic Char	May,Jun,Jul,Aug		
65	8	Arctic Char			They swim up river in August
66	8	Arctic Char			They swim up river in August
67	8	Arctic Char		Spawning	
68	4	Land Locked Char; Red Lake Trout			

Map #	Inter-view	Category	Time of Year	Details	Comments
69	7	Land Locked Char; Red Lake Trout			

Figure 9 - Arctic/Polar, Atlantic, Greenland and Toothed Cod Areas of Occurrence

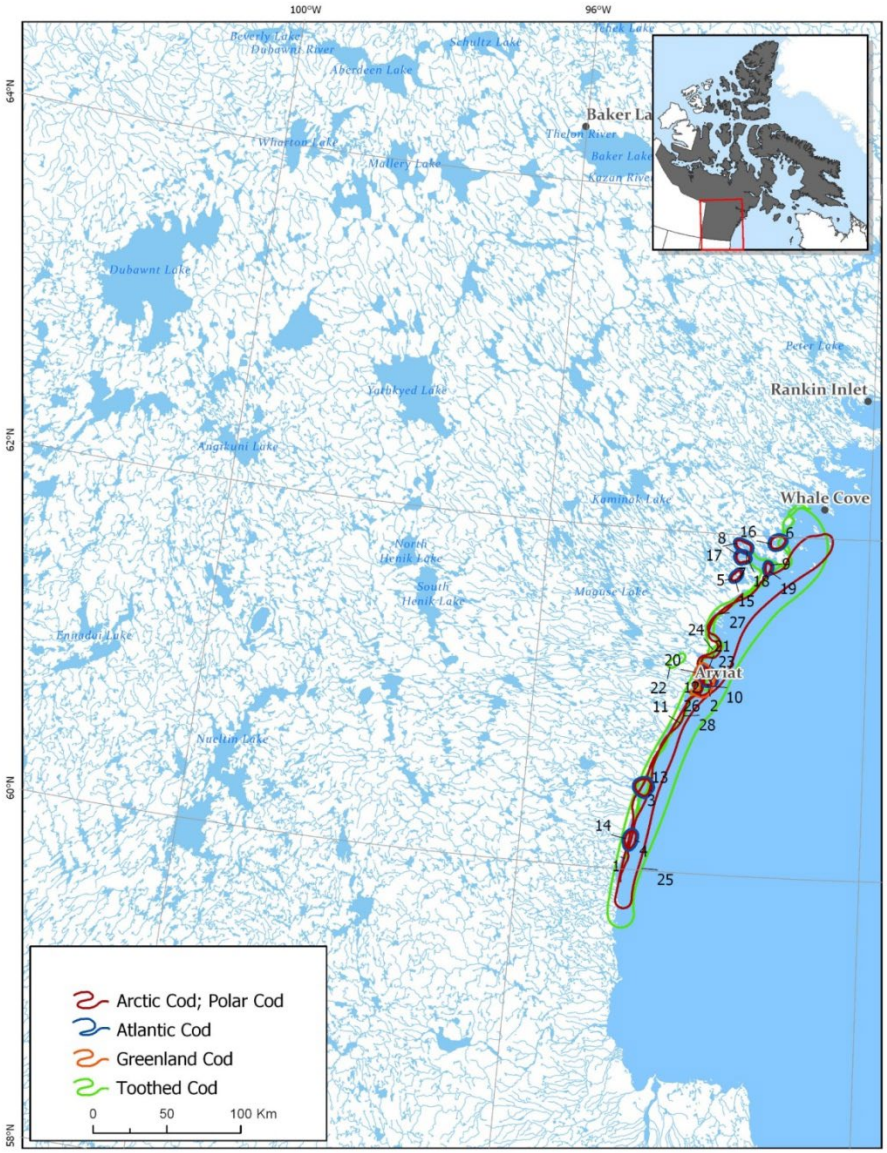


Table 28 - Arctic/Polar, Atlantic, Greenland and Toothed Cod Areas of Occurence

Map #	Inter-view	Category	Details	Comments
1	1	Arctic Cod; Polar Cod	Abundant	All along the coast
2	2	Arctic Cod; Polar Cod		
3	2	Arctic Cod; Polar Cod		
4	2	Arctic Cod; Polar Cod		
5	2	Arctic Cod; Polar Cod		
6	2	Arctic Cod; Polar Cod		
7	2	Arctic Cod; Polar Cod		
8	2	Arctic Cod; Polar Cod		
9	2	Arctic Cod; Polar Cod		
10	3	Arctic Cod; Polar Cod		In May there is a fishing derby. You can catch sculpin, cod and crab on your hook
11	3	Arctic Cod; Polar Cod		
12	2	Atlantic Cod		
13	2	Atlantic Cod		
14	2	Atlantic Cod		
15	2	Atlantic Cod		
16	2	Atlantic Cod		
17	2	Atlantic Cod		
18	2	Atlantic Cod		
19	2	Atlantic Cod		
20	4	Greenland Cod		
21	4	Toothed Cod		
22	5	Toothed Cod		Only ~25 inches long

23	6	Toothed Cod
24	6	Toothed Cod
25	6	Toothed Cod
26	7	Toothed Cod
27	7	Toothed Cod
28	8	Toothed Cod

Figure 10 - Arctic Grayling Areas of Occurrence

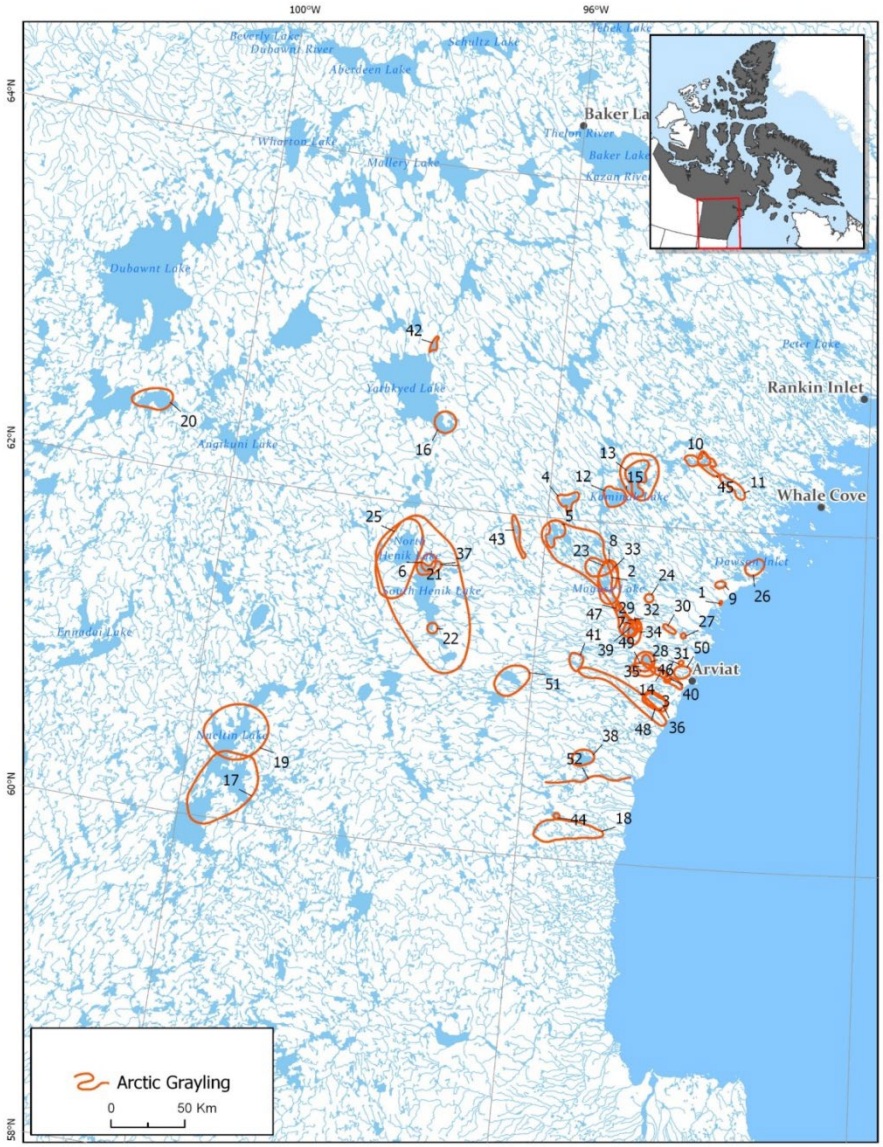


Table 29 - Arctic Grayling Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Arctic Grayling			Favorite fish to eat.
2	1	Arctic Grayling			Catch them at the mouth of the river. Favorite fish to eat.
3	1	Arctic Grayling			Catch them at the mouth of the river. Favorite fish to eat.
4	2	Arctic Grayling			
5	2	Arctic Grayling			
6	2	Arctic Grayling			
7	2	Arctic Grayling			
8	2	Arctic Grayling			
9	2	Arctic Grayling			
10	2	Arctic Grayling			
11	2	Arctic Grayling			
12	2	Arctic Grayling			
13	2	Arctic Grayling			
14	3	Arctic Grayling		Abundant	Along the creek. In September they're easy to catch, there's so many
15	3	Arctic Grayling			
16	3	Arctic Grayling			
17	3	Arctic Grayling			
18	3	Arctic Grayling			
19	3	Arctic Grayling			
20	3	Arctic Grayling			
21	3	Arctic Grayling			Fishing hot spot. The area is shallow so you can see lots of fish
22	3	Arctic Grayling			Fishing hot spot. The area is shallow so you can see lots of fish
23	4	Arctic Grayling			

Map #	Inter-view	Category	Time of Year	Details	Comments
24	4	Arctic Grayling			
25	4	Arctic Grayling			
26	4	Arctic Grayling			
27	5	Arctic Grayling			
28	5	Arctic Grayling			
29	6	Arctic Grayling	Summer		
30	6	Arctic Grayling	Summer		
31	6	Arctic Grayling	Summer		
32	6	Arctic Grayling	Summer		
33	6	Arctic Grayling			
34	6	Arctic Grayling			
35	6	Arctic Grayling			
36	6	Arctic Grayling			
37	7	Arctic Grayling			In deep rivers
38	7	Arctic Grayling			In deep rivers
39	7	Arctic Grayling			In deep rivers
40	7	Arctic Grayling			In deep rivers
41	7	Arctic Grayling			In deep rivers
42	7	Arctic Grayling			In deep rivers
43	7	Arctic Grayling			In deep rivers
44	7	Arctic Grayling			In deep rivers
45	7	Arctic Grayling			In deep rivers
46	7	Arctic Grayling			In deep rivers
47	7	Arctic Grayling			In deep rivers
48	8	Arctic Grayling			
49	8	Arctic Grayling			
50	8	Arctic Grayling			
51	8	Arctic Grayling			

Map #	Inter-view	Category	Time of Year	Details	Comments
52	8	Arctic Grayling			

Figure 11 - Arctic Sculpin, Atlantic Seasnail, Burbot and Capelin Areas of Occurrence

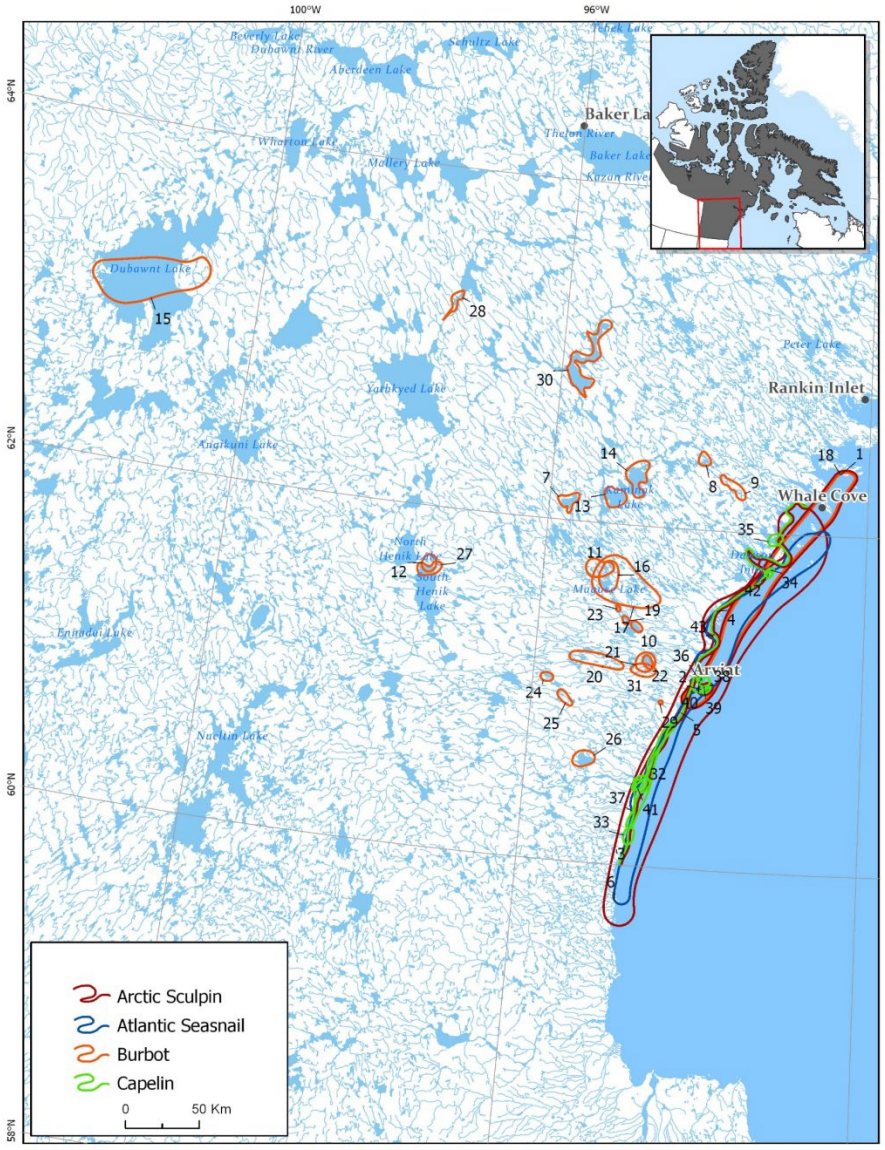


Table 30 - Arctic Sculpin, Atlantic Seasnail, Burbot and Capelin Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	5	Arctic Sculpin			
2	5	Arctic Sculpin			
3	6	Arctic Sculpin			
4	7	Arctic Sculpin			
5	8	Arctic Sculpin			
6	1	Atlantic Seasnail			
7	2	Burbot			Tend to wiggle around. Haven't tasted them before.
8	2	Burbot			Tend to wiggle around. Haven't tasted them before.
9	2	Burbot			Tend to wiggle around. Haven't tasted them before.
10	2	Burbot			Tend to wiggle around. Haven't tasted them before.
11	2	Burbot			Tend to wiggle around. Haven't tasted them before.
12	2	Burbot			Tend to wiggle around. Haven't tasted them before.
13	2	Burbot			Tend to wiggle around. Haven't tasted them before.
14	2	Burbot			Tend to wiggle around. Haven't tasted them before.
15	3	Burbot			
16	4	Burbot			
17	4	Burbot			
18	5	Burbot			
19	6	Burbot			

Map #	Inter-view	Category	Time of Year	Details	Comments
20	6	Burbot			
21	6	Burbot			
22	7	Burbot			
23	7	Burbot			
24	7	Burbot			
25	7	Burbot			
26	7	Burbot			
27	7	Burbot			
28	7	Burbot			
29	7	Burbot			
30	7	Burbot			
31	8	Burbot			Caught one in the fall. When burbot are around there are no other fish
32	2	Capelin	Jul	Abundant	
33	2	Capelin	Jul	Abundant	
34	2	Capelin	Jul	Abundant	
35	2	Capelin	Jul	Abundant	
36	3	Capelin		Abundant	On the shore sometimes
37	3	Capelin			
38	5	Capelin			When there's no char around these turn up. You can see them at low tide.
39	6	Capelin	Summer		See them once in a while
40	7	Capelin	Summer		
41	7	Capelin	Summer		
42	7	Capelin	Summer		
43	7	Capelin	Summer		

Figure 12 - Broad, Lake and Round/Frost Whitefish Areas of Occurrence

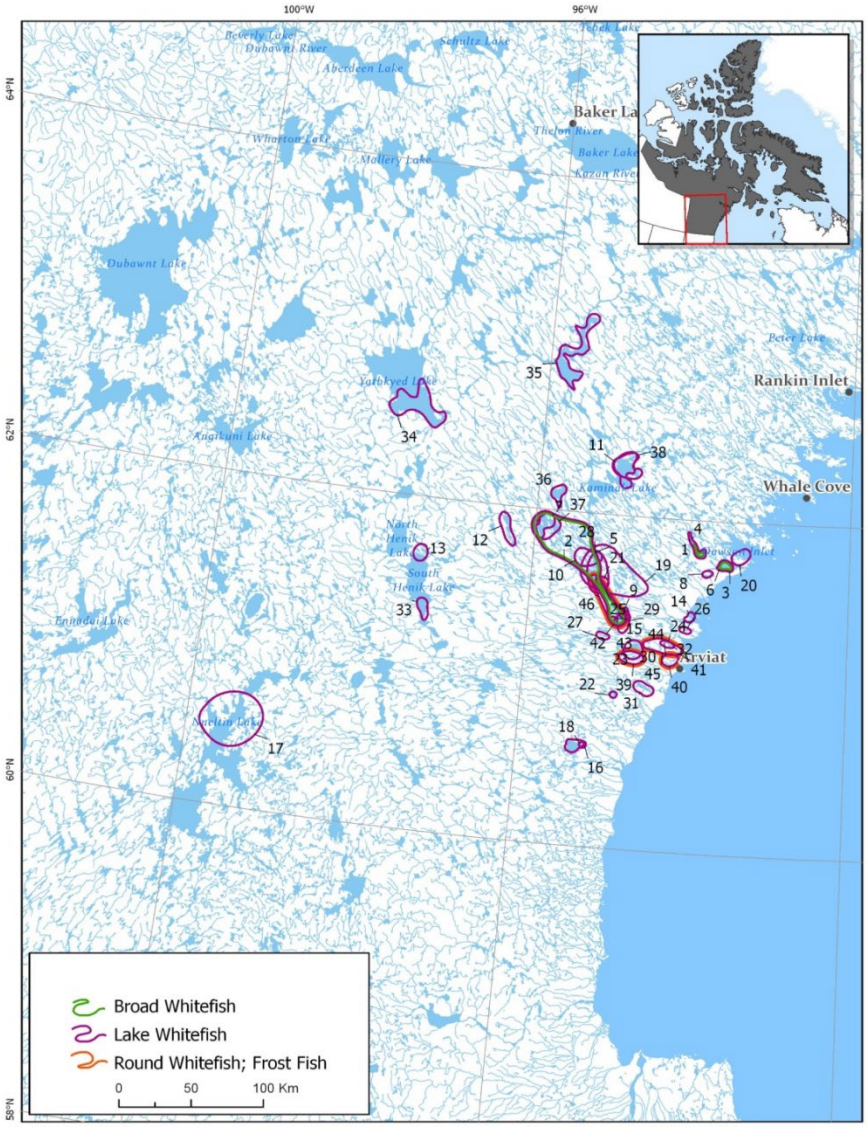


Table 31 - Broad, Lake and Round/Frost Whitefish Areas of Occurance

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Broad Whitefish		Abundant	
2	1	Broad Whitefish		Abundant	
3	1	Broad Whitefish		Abundant	
4	1	Lake Whitefish		Abundant	
5	1	Lake Whitefish		Abundant	
6	1	Lake Whitefish		Abundant	
7	2	Lake Whitefish			
8	2	Lake Whitefish			
9	2	Lake Whitefish			
10	2	Lake Whitefish			
11	2	Lake Whitefish			
12	2	Lake Whitefish			
13	2	Lake Whitefish			
14	2	Lake Whitefish			
15	2	Lake Whitefish			
16	3	Lake Whitefish			
17	3	Lake Whitefish			
18	3	Lake Whitefish			They don't bite much - better to catch them with gill nets
19	4	Lake Whitefish	Summer		
20	4	Lake Whitefish	Summer		
21	5	Lake Whitefish			
22	5	Lake Whitefish			Ice fishing. They won't take a hook - have to use nets to catch them.
23	6	Lake Whitefish			

Map #	Inter-view	Category	Time of Year	Details	Comments
24	6	Lake Whitefish			
25	6	Lake Whitefish			
26	6	Lake Whitefish			
27	6	Lake Whitefish			
28	6	Lake Whitefish			
29	6	Lake Whitefish			
30	6	Lake Whitefish			
31	6	Lake Whitefish			
32	6	Lake Whitefish	Winter		
33	7	Lake Whitefish			In deeper lakes
34	7	Lake Whitefish			In deeper lakes
35	7	Lake Whitefish			In deeper lakes
36	7	Lake Whitefish			In deeper lakes
37	7	Lake Whitefish			In deeper lakes
38	7	Lake Whitefish			In deeper lakes
39	8	Lake Whitefish			They have too many bones so she doesn't fish for them very often
40	8	Lake Whitefish			They have too many bones so she doesn't fish for them very often
41	8	Lake Whitefish			They have too many bones so she doesn't fish for them very often
42	8	Lake Whitefish			They have too many bones so she doesn't fish for them very often
43	8	Round Whitefish; Frost Fish			They have too many bones so she doesn't fish for them very often
44	8	Round Whitefish; Frost Fish			They have too many bones so she doesn't fish for them very often

Map #	Inter-view	Category	Time of Year	Details	Comments
45	8	Round Whitefish; Frost Fish			They have too many bones so she doesn't fish for them very often
46	8	Round Whitefish; Frost Fish			They have too many bones so she doesn't fish for them very often

Figure 13 - Brook Trout, Lake Trout and Trout-perch Areas of Occurrence

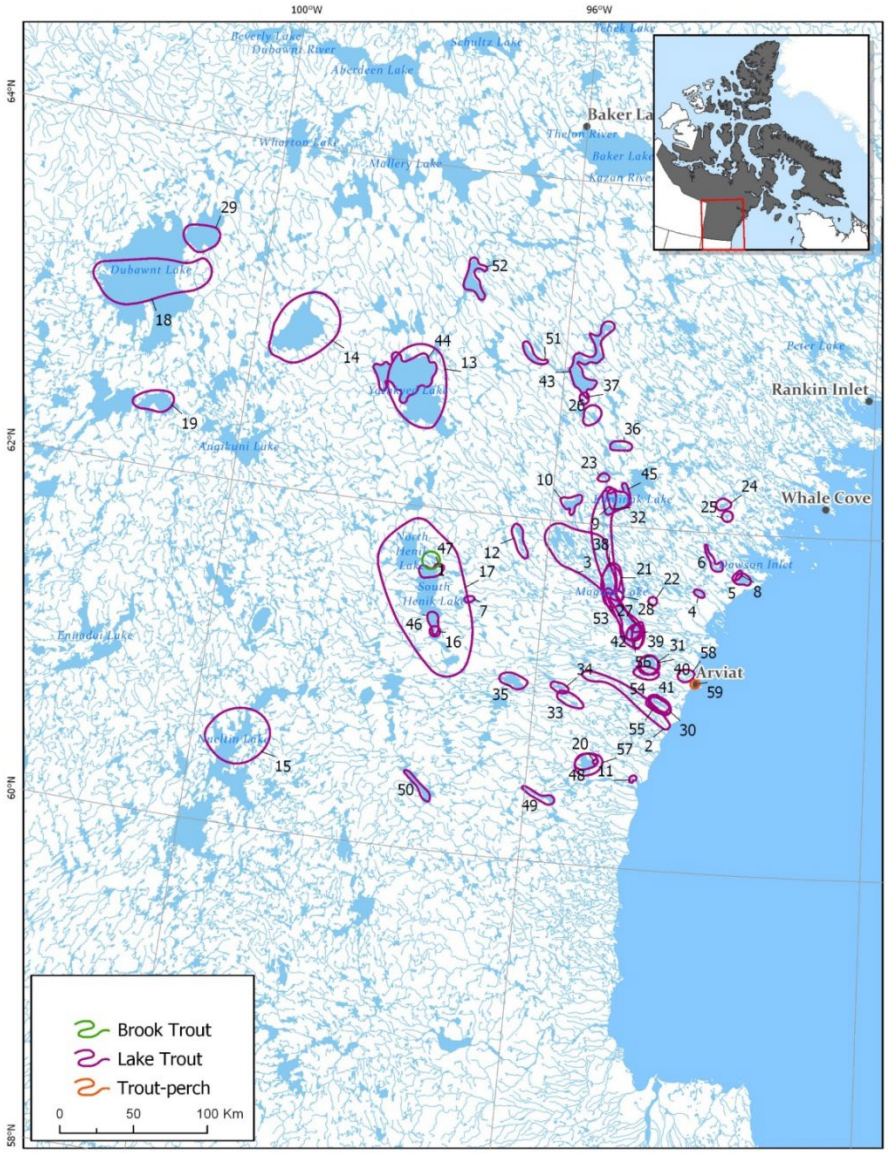


Table 32 - Brook Trout, Lake Trout and Trout-perch Areas of Occurrence

Map #	Inter-view	Category	Details	Comments
1	3	Brook Trout		
2	1	Lake Trout	Abundant	McConnel River. Seems to be getting more shallow.
3	1	Lake Trout	Abundant	They are everywhere wet.
4	1	Lake Trout	Abundant	
5	1	Lake Trout	Abundant	
6	1	Lake Trout	Abundant	
7	2	Lake Trout		Usually goes fishing here
8	2	Lake Trout		Usually goes fishing here
9	2	Lake Trout		Usually goes fishing here
10	2	Lake Trout		Usually goes fishing here
11	2	Lake Trout		Usually goes fishing here
12	2	Lake Trout		Usually goes fishing here
13	3	Lake Trout		
14	3	Lake Trout		
15	3	Lake Trout		
16	3	Lake Trout	Abundant	
17	3	Lake Trout		
18	3	Lake Trout		Big ones
19	3	Lake Trout		
20	3	Lake Trout		
21	4	Lake Trout		
22	4	Lake Trout		
23	5	Lake Trout		
24	5	Lake Trout		Big ones but they don't bite much
25	5	Lake Trout		Big ones but they don't bite much
26	5	Lake Trout		

Map #	Inter-view	Category	Details	Comments
27	5	Lake Trout		Catch with gill nets
28	5	Lake Trout		
29	5	Lake Trout		Huge ones. They could swallow people. There's a story about a woman getting eaten by a trout and when her husband tried cutting her out he lost all his hair because it was so hot inside the fish.
30	5	Lake Trout		
31	5	Lake Trout		
32	6	Lake Trout		
33	6	Lake Trout		
34	6	Lake Trout		
35	6	Lake Trout		
36	6	Lake Trout		
37	6	Lake Trout		
38	6	Lake Trout		
39	6	Lake Trout		
40	6	Lake Trout		
41	6	Lake Trout		
42	7	Lake Trout		
43	7	Lake Trout		
44	7	Lake Trout		
45	7	Lake Trout		
46	7	Lake Trout		
47	7	Lake Trout		
48	7	Lake Trout		
49	7	Lake Trout		
50	7	Lake Trout		
51	7	Lake Trout		

Map #	Inter-view	Category	Details	Comments
52	7	Lake Trout		
53	8	Lake Trout		Sets nets and goes jigging here
54	8	Lake Trout		
55	8	Lake Trout		
56	8	Lake Trout		
57	8	Lake Trout		
58	8	Lake Trout		
59	8	Trout-perch		

Figure 14 - Eelpout, Longnose Sucker, Lumpsucker/Lumpfish, Northern Hagfish and Northern Sand Lance Areas of Occurrence

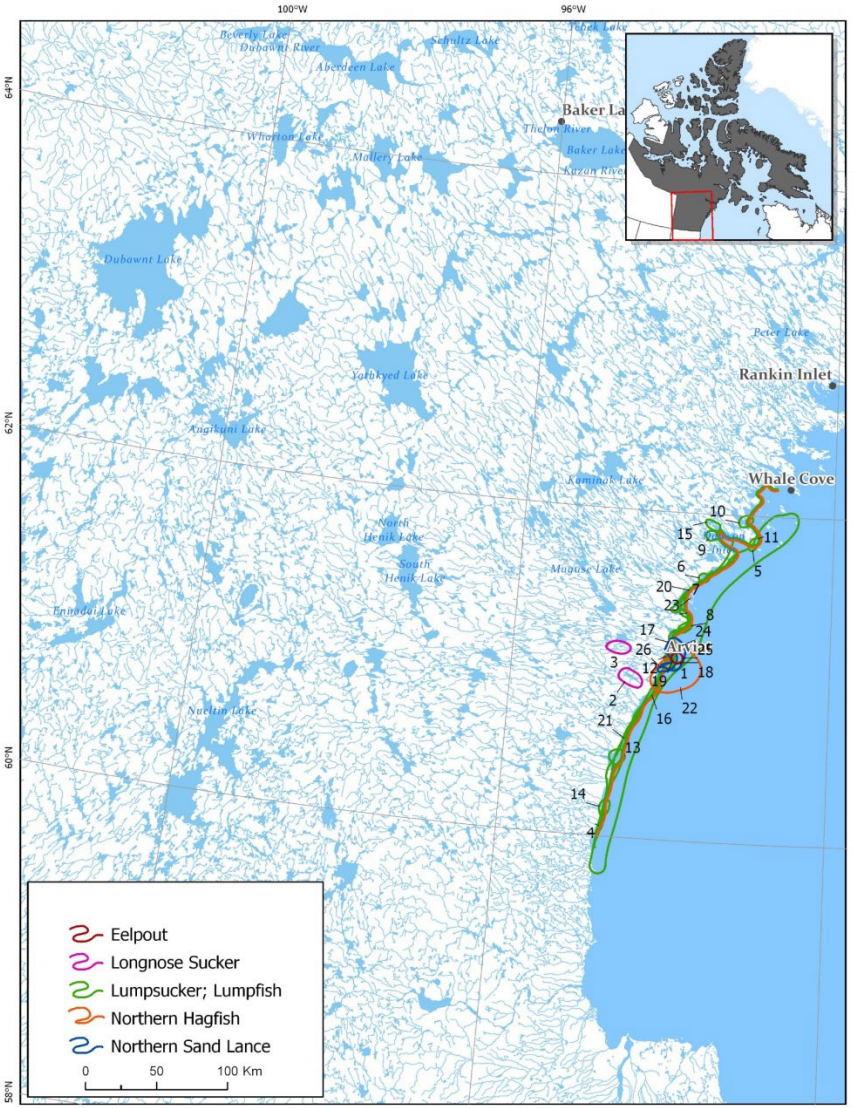


Table 33 - Eelpout, Longnose Sucker, Lumpsucker/Lumpfish, Northern Hagfish and Northern Sand Lance Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	6	Eelpout	Summer		Would pick them up when he was a kid
2	8	Longnose Sucker			
3	8	Longnose Sucker			
4	1	Lumpsucker	Summer		Found all along the coast. They get caught in fishing nets
5	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
6	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
7	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
8	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
9	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
10	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
11	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
12	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
13	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
14	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.

15	2	Lumpsucker	Summer		They get caught in nets and can be very annoying.
16	3	Lumpsucker; Lumpfish	Aug(Late)	Abundant, spawning	They hang out in fishing nets - they don't fight the net and get tangled, they just 'chill'. Would get ~9 in one day. They have lots of eggs in late August. One time he accidentally squeezed one and the eggs attracted lots of char.
17	4	Lumpsucker; Lumpfish			
18	5	Lumpsucker; Lumpfish			Get stuck in gill nets sometimes
19	6	Lumpsucker; Lumpfish			
20	7	Lumpsucker; Lumpfish			
21	8	Lumpsucker; Lumpfish	Summer		Sometimes they get caught in fishing nets. When they're in the nets there won't be any char.
22	5	Northern Hagfish		Historic	Wrap around your arm when you're trying to pick it up.
23	7	Northern Hagfish		Historic	Used to see them a long time ago but not anymore. They will curl up around your wrist
24	4	Northern Sand Lance			
25	6	Northern Sand Lance	Summer		See them once in a while
26	8	Northern Sand Lance			Don't see them too often. People try to catch them with buckets.

Figure 15 - Northern Pike Areas of Occurrence

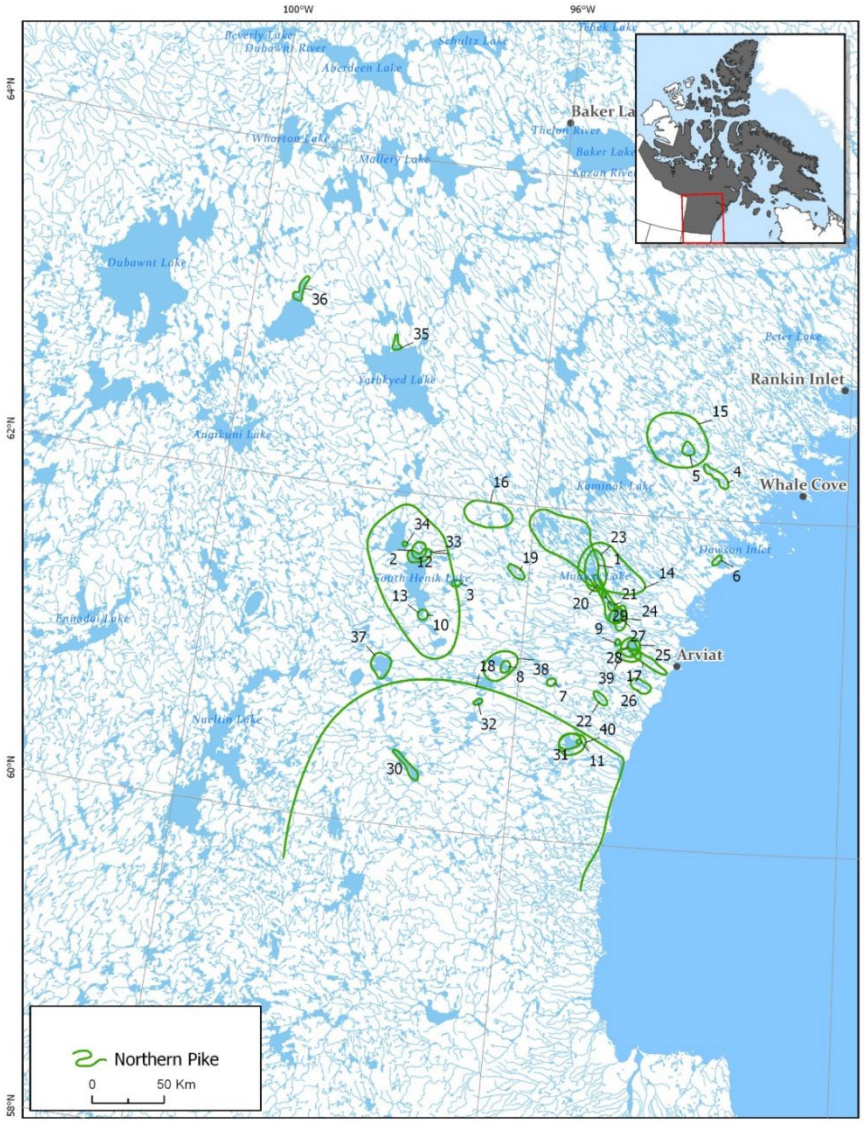


Table 34 - Northern Pike Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	1	Northern Pike		In big lakes
2	2	Northern Pike		
3	2	Northern Pike		
4	2	Northern Pike		
5	2	Northern Pike		
6	2	Northern Pike		
7	2	Northern Pike		
8	2	Northern Pike		
9	2	Northern Pike		
10	3	Northern Pike		
11	3	Northern Pike		
12	3	Northern Pike		Fishing hot spot. The area is shallow so you can see lots of fish
13	3	Northern Pike		Fishing hot spot. The area is shallow so you can see lots of fish
14	4	Northern Pike		
15	4	Northern Pike		In the spring there is a fishing derby for the biggest pike
16	4	Northern Pike		
17	5	Northern Pike		
18	5	Northern Pike		
19	6	Northern Pike		
20	6	Northern Pike		
21	6	Northern Pike		
22	6	Northern Pike		
23	6	Northern Pike		
24	6	Northern Pike		

25	6	Northern Pike
26	6	Northern Pike
27	7	Northern Pike
28	7	Northern Pike
29	7	Northern Pike
30	7	Northern Pike
31	7	Northern Pike
32	7	Northern Pike
33	7	Northern Pike
34	7	Northern Pike
35	7	Northern Pike
36	7	Northern Pike
37	7	Northern Pike
38	8	Northern Pike
39	8	Northern Pike
40	8	Northern Pike

Figure 16 - Ninespine Stickleback, Sculpin, Shorthorn Sculpin, Skate, Walleye, and unknown fish Areas of Occurrence

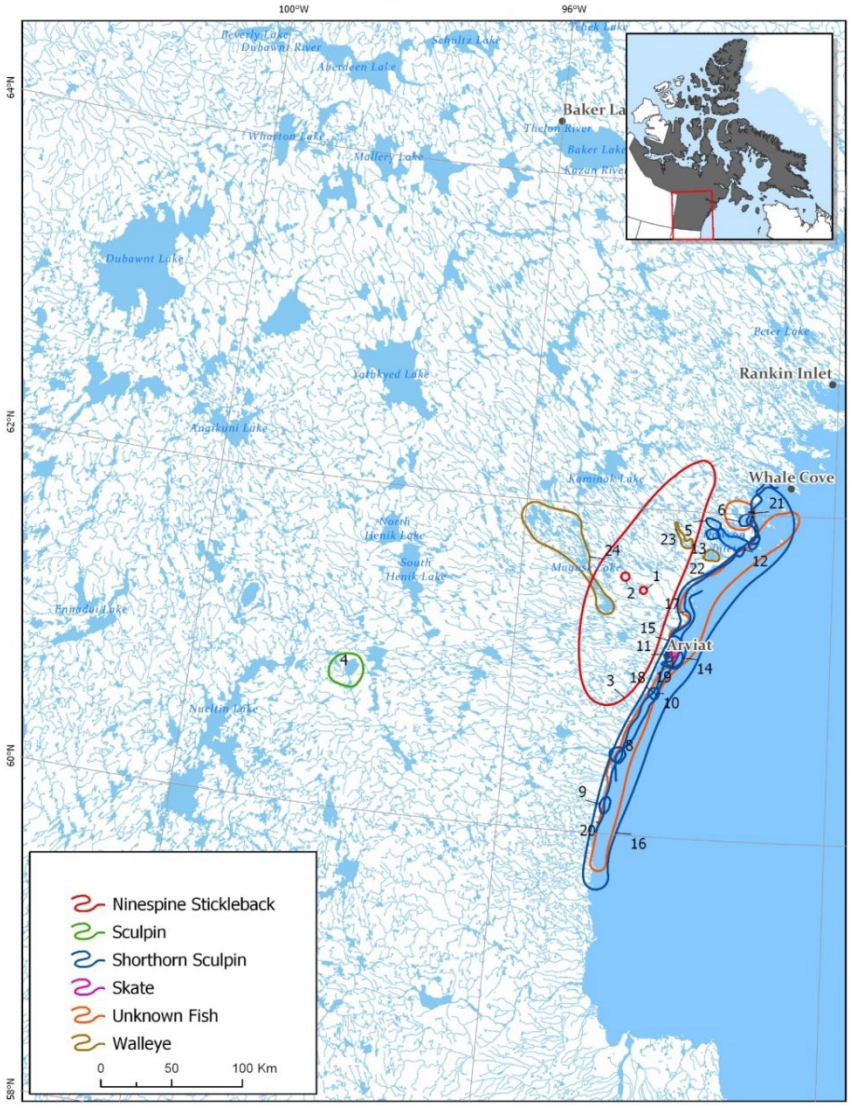


Table 35 - Ninespine Stickleback, Sculpin, Shorthorn Sculpin, Skate, Walleye, and unknown fish Areas of Occurrence

Map #	Inter-view	Category	Details	Comments
1	4	Ninespine Stickleback		
2	4	Ninespine Stickleback		
3	7	Ninespine Stickleback		
4	6	Sculpin		Yellowish colour
5	2	Shorthorn Sculpin		
6	2	Shorthorn Sculpin		
7	2	Shorthorn Sculpin		
8	2	Shorthorn Sculpin		
9	2	Shorthorn Sculpin		
10	2	Shorthorn Sculpin		
11	2	Shorthorn Sculpin		
12	2	Shorthorn Sculpin		
13	2	Shorthorn Sculpin		
14	3	Shorthorn Sculpin		In May there is a fishing derby. You can catch sculpin, cod and crab on your hook
15	4	Shorthorn Sculpin		
16	6	Shorthorn Sculpin		
17	7	Shorthorn Sculpin		
18	8	Shorthorn Sculpin		
19	7	Skate		Caught one on a hook once
20	1	Unknown Fish	Abundant	Unknown Sculpin. Found all along the coast. They get caught in fishing nets.
21	3	Unknown Fish		Red salmon. Looks a bit like chinook salmon
22	1	Walleye		Can catch them all year long; usually catch them with a rod.

23	1	Walleye	Can catch them all year long; usually catch them with a rod.
24	1	Walleye	Can catch them all year long; usually catch them with a rod.

Figure 17 – Amphipod and Arctic Moonsail Areas of Occurrence

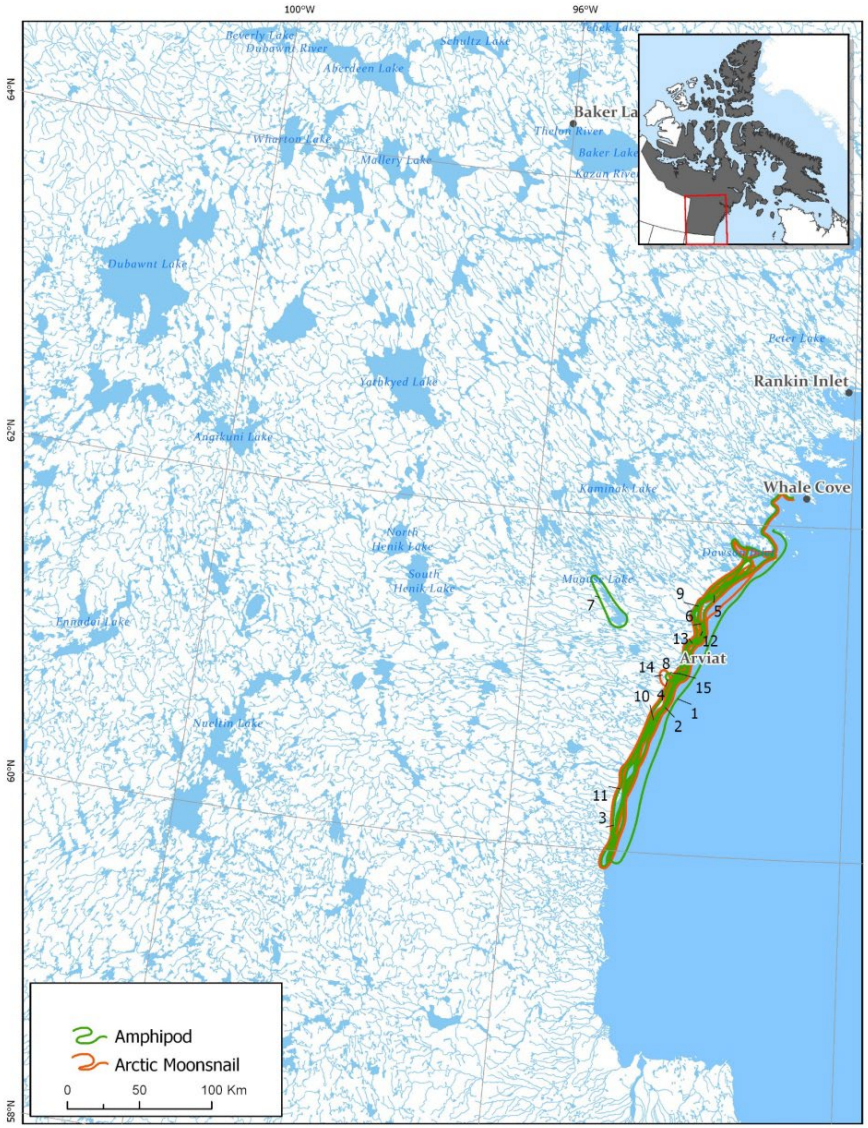


Table 36 - Amphipod and Arctic Moonsail Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Amphipod			All along the coast
2	3	Amphipod			Referred to as 'mini piranhas'. You can put a polar bear hide in the ocean and the amphipod will clean it
3	5	Amphipod			
4	5	Amphipod			
5	6	Amphipod			
6	7	Amphipod			
7	8	Amphipod			
8	8	Amphipod			
9	1	Arctic Moonsnail			Sit on rocks; not found in sand.
10	3	Arctic Moonsnail			
11	5	Arctic Moonsnail			When you sing they open up
12	6	Arctic Moonsnail			
13	7	Arctic Moonsnail			
14	8	Arctic Moonsnail			Just the shells
15	8	Arctic Moonsnail			

Figure 18 - Blue Mussel and Common Cockle Areas of Occurrence

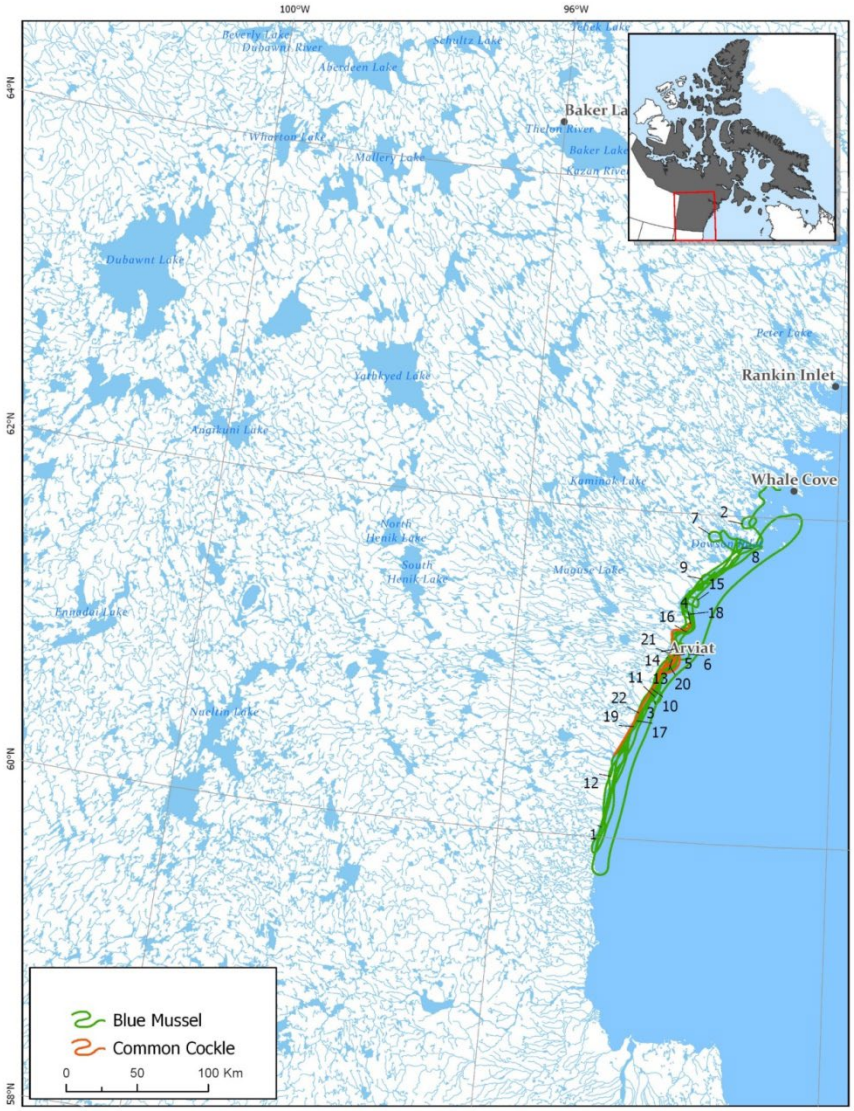


Table 37 - Blue Mussel and Common Cockle Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	1	Blue Mussel		The ocean is quite shallow in the area, so there aren't many and they only grow to a small size. Better ones are found further north near Naujaat and Coral Harbour.
2	2	Blue Mussel		
3	2	Blue Mussel		
4	2	Blue Mussel		
5	2	Blue Mussel		
6	2	Blue Mussel		
7	2	Blue Mussel		
8	2	Blue Mussel		
9	2	Blue Mussel		
10	2	Blue Mussel		
11	3	Blue Mussel		The eiders feed on them
12	5	Blue Mussel		
13	6	Blue Mussel		
14	6	Blue Mussel		
15	6	Blue Mussel		
16	6	Blue Mussel		
17	6	Blue Mussel		
18	7	Blue Mussel		
19	8	Blue Mussel		
20	3	Common Cockle		Just the shells
21	8	Common Cockle		Just the shells
22	8	Common Cockle		Just the shells

Figure 19 - Ctenophore, Icelandic Scallop, Moon Jellyfish, Mud Star and Plankton Worm Areas of Occurrence

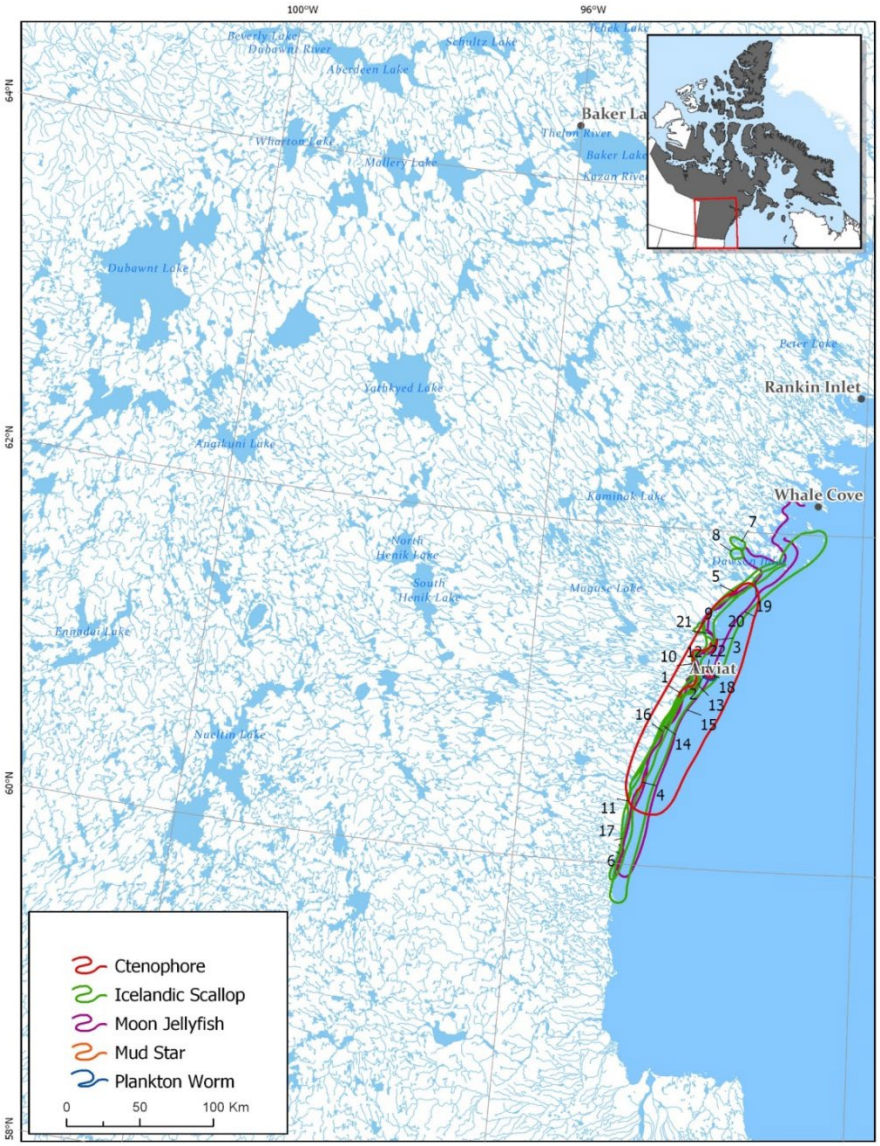


Table 38 - Ctenophore, Icelandic Scallop, Moon Jellyfish, Mud Star and Plankton Worm Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	3	Ctenophore			
2	6	Ctenophore			
3	7	Ctenophore	Summer		
4	7	Ctenophore	Summer		
5	8	Ctenophore			Can see them when you're boating
6	1	Icelandic Scallop			The ocean is quite shallow in the area, so there aren't many and they only grow to a small size. Better ones are found further north near Naujaat and Coral Harbour.
7	2	Icelandic Scallop			Find shells on the shore
8	2	Icelandic Scallop			Find shells on the shore
9	2	Icelandic Scallop			Find shells on the shore
10	3	Icelandic Scallop			Just the shells
11	5	Icelandic Scallop			Just the shells
12	6	Icelandic Scallop			Just empty shells
13	8	Icelandic Scallop			Just the shells
14	8	Icelandic Scallop			Just the shells
15	2	Moon Jellyfish			All along the coast
16	3	Moon Jellyfish		Abundant	
17	5	Moon Jellyfish			Big ones
18	6	Moon Jellyfish			
19	7	Moon Jellyfish			
20	8	Moon Jellyfish			Can see them when you're boating
21	7	Mud Star			
22	6	Plankton Worm			

Figure 20 - Polar Sea Star and Sea Urchin Areas of Occurrence

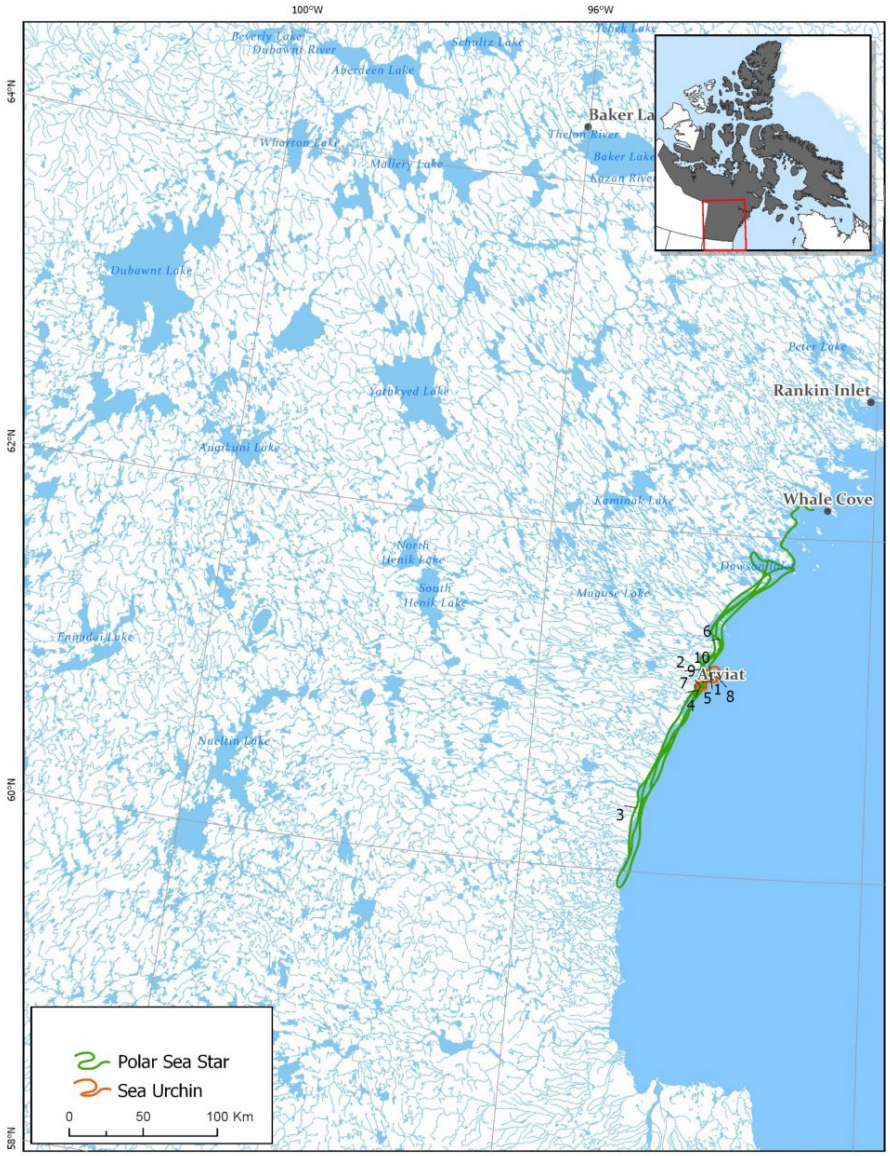


Table 39 - Polar Sea Star and Sea Urchin Areas of Occurence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Polar Sea Star			
2	3	Polar Sea Star			
3	5	Polar Sea Star			You can catch them on a hook
4	6	Polar Sea Star			
5	6	Polar Sea Star			
6	7	Polar Sea Star			
7	8	Polar Sea Star			
8	3	Sea Urchin			Divers picked them up
9	6	Sea Urchin			
10	6	Sea Urchin			

Figure 21 - Snow Crab, Tortoiseshell Limpet and Whelk Areas of Occurrence

Table 18 - Snow Crab, Tortoiseshell Limpet and Whelk Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	3	Snow Crab			In May there is a fishing derby. You can catch sculpin, cod and crab on your hook
2	6	Snow Crab			
3	7	Snow Crab		Abundant	
4	8	Snow Crab			Can catch them when jigging for fish
5	6	Tortoiseshell Limpet; Plant Limpet			
6	1	Whelk			Sit on rocks; not found in sand.
7	2	Whelk			Find shells along the Arviat shores
8	3	Whelk			Just the empty shells
9	6	Whelk			
10	8	Whelk			

Figure 22 - Polar Bear Areas of Occurrence

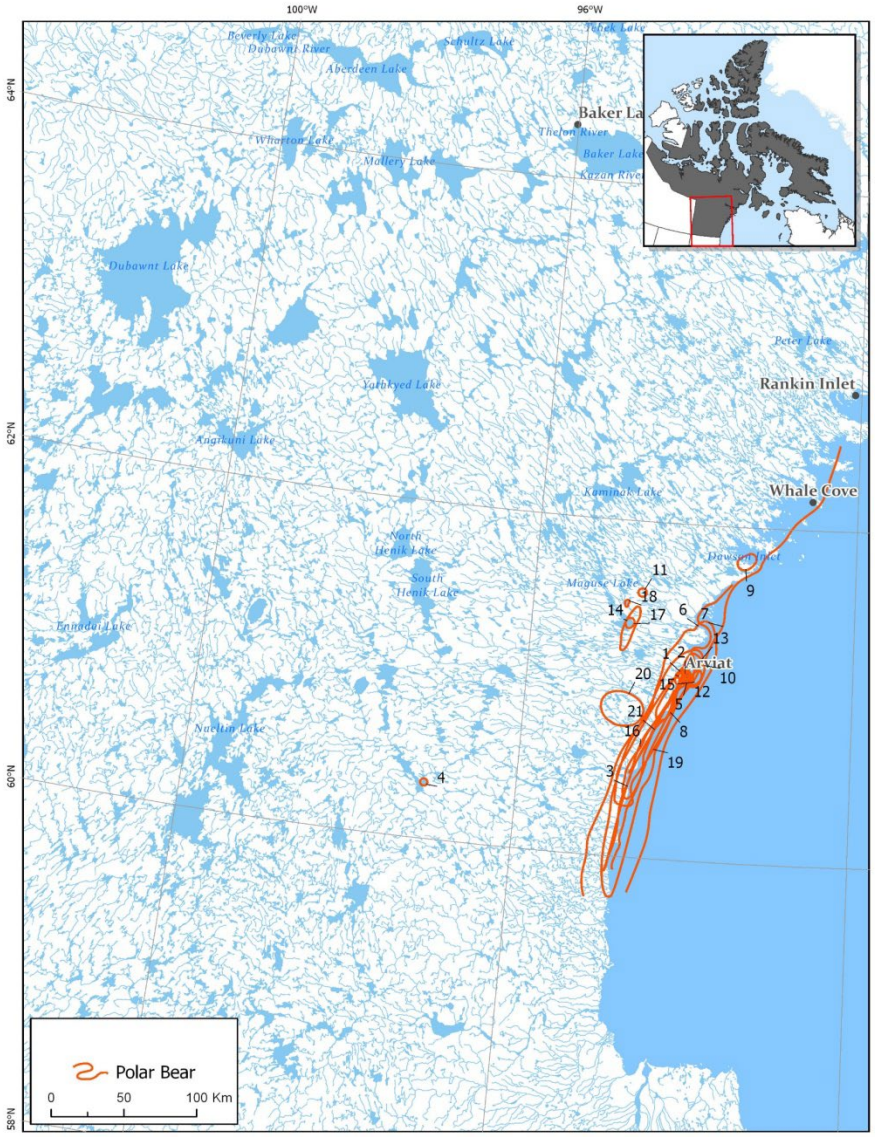


Table 19 - Polar Bear Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Polar Bear	Fall and summer		They are found right in town and at the dump. Only stay for a short time. They have their cubs further inland where there is more snow.
2	2	Polar Bear	All year	Abundant	All along the coast. People cannot use tents anymore.
3	2	Polar Bear	All year	Abundant	All along the coast. People cannot use tents anymore.
4	3	Polar Bear	Sep(Early)		This is the furthest inland he's seen a polar bear.
5	3	Polar Bear		Abundant	In the spring you will see individual bears. In the fall you'll see families. In the winter you see big males. By September/October there are lots of bears around. The smaller/weaker bears get pushed out towards town. The bear monitors try to push them N
6	3	Polar Bear			In the summer time after the ice breaks up you can't set camp along the shore because there are too many bears around
7	3	Polar Bear		Migration	Migration route in the fall heading North. Pregnant females won't go very far north - they will find a hillside to make a den.
8	3	Polar Bear			
9	4	Polar Bear			
10	4	Polar Bear			
11	4	Polar Bear			
12	4	Polar Bear			
13	5	Polar Bear		Abundant, Change	When there's forest fires in the south the polar bears come north. It's hard to camp overnight now because there are so many bears

Map #	Inter-view	Category	Time of Year	Details	Comments
14	5	Polar Bear		Change	This is the furthest inland he's seen a bear. They aren't afraid of people anymore. In 1960 when you were traveling by dog team a bear would hear you coming from miles away. Now they don't hear you and you can get close with a skidoo.
15	5	Polar Bear		Historic	The first bear that came into town was in 1964
16	6	Polar Bear			
17	7	Polar Bear			Sometimes they are inland
18	7	Polar Bear			Sometimes they are inland
19	7	Polar Bear		Abundant	
20	8	Polar Bear			Sometimes they're inland following caribou
21	8	Polar Bear		Change	Sees them mostly in the fall. Never used to see them 20-40 years ago

Figure 23 - Beluga Areas of Occurrence

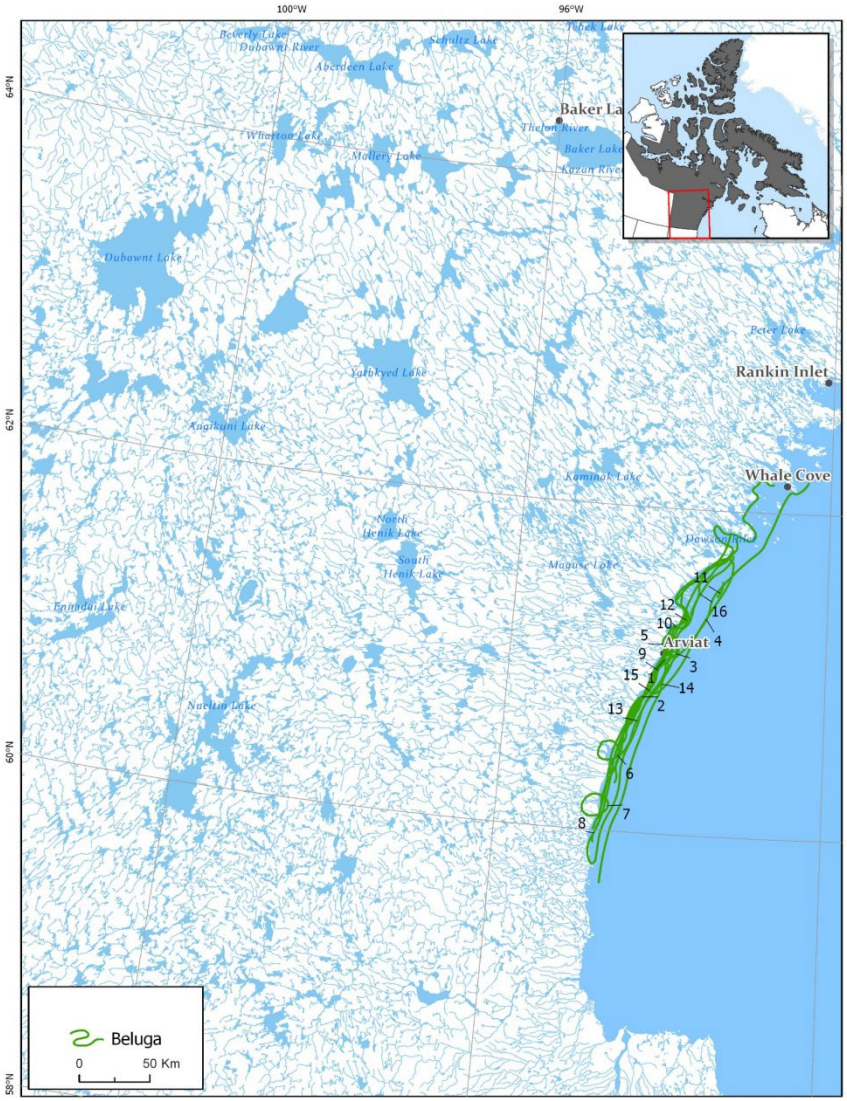


Table 20 – Beluga Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Beluga			
2	1	Beluga		Feeding	Found at the mouth of the river, feeding on small fish.
3	6	Beluga			
4	4	Beluga	Jun,Jul,Aug,Sep,Oct		Saw one in May or June but they usually are seen August to October.
5	4	Beluga			
6	3	Beluga			Late spring and summer
7	3	Beluga			Late spring and summer
8	2	Beluga			
9	8	Beluga			They start coming from Churchill area in the spring when the ice is breaking up. You stop seeing them after August
10	7	Beluga		Abundant	Start coming in the spring until September. Lots in August
11	7	Beluga		Migration	Migration north
12	7	Beluga		Migration	Migration north
13	6	Beluga			
14	5	Beluga	Jun(Late),Jul	Abundant, migration	Can see them traveling north
15	3	Beluga	Aug		He did a wildlife survey that went from northern Ontario to Arviat one year. He saw a lot of beluga in the moths of rivers and moving North. When killer whales are around, beluga hug the shoreline.
16	2	Beluga			

Figure 24 - Narwhal and Walrus Areas of Occurrence

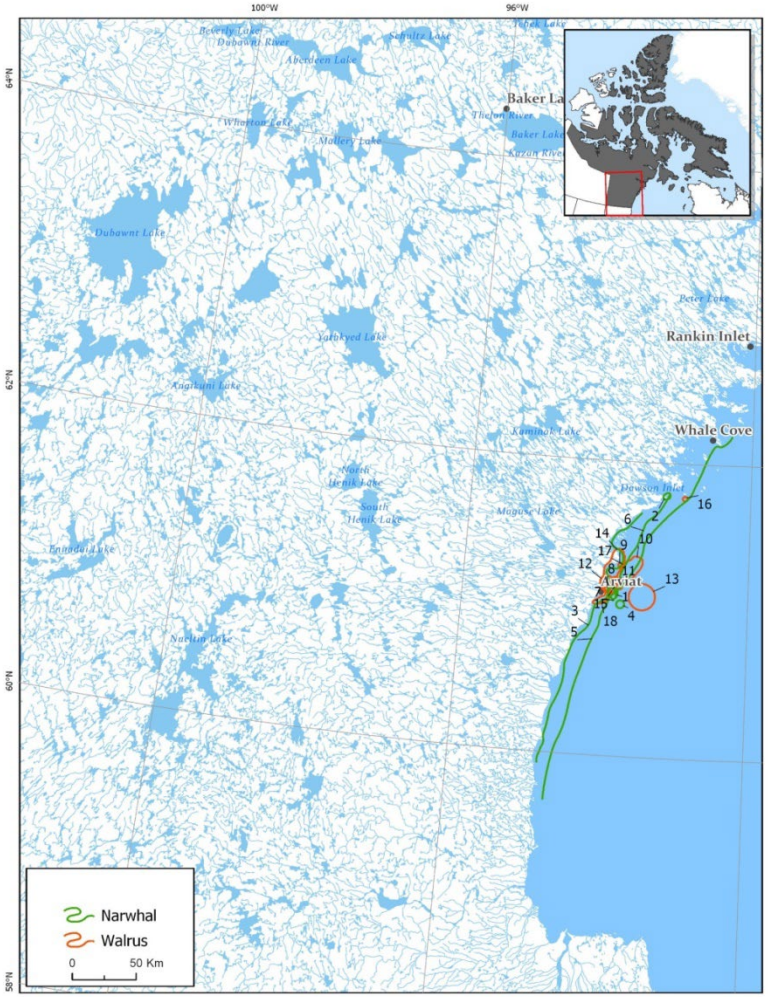


Table 21 - Narwhal and Walrus Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Narwhal			Not in the area every year, but last year (2017) he saw 9-12.
2	2	Narwhal			Not in the area every year, but last year (2017) he saw 9-12.
3	3	Narwhal	Aug		Sometimes they travel with beluga or just after them, heading North. He has seen them every year now
4	5	Narwhal			Normally in deeper water. Their blubber tastes less strong than beluga blubber
5	5	Narwhal			Once in a while narwhal travel with beluga. They have very sharp hearing
6	6	Narwhal			
7	7	Narwhal			Saw 6 in the bay last spring. They are normally further north and in deeper water
8	1	Walrus		Change	Hunters are starting to see them in this area.
9	2	Walrus	Spring	Change	Saw one here recently (2017). Usually have to go far to see them.
10	2	Walrus			Son caught one here, 7 miles from Arviat; they are usually more north near Rankin Inlet. There was an unknown shrimp or amphipod in the walrus stomach. They must be eating them.
11	3	Walrus			Once in a while there will be walrus here. He saw 3 here once - one had tusks and the other 2 had none
12	4	Walrus			There was a walrus with big tusks caught here that was sick - it was spitting blood. Someone ate it and got sick.

Map #	Inter-view	Category	Time of Year	Details	Comments
13	5	Walrus		Change	When he was younger there were no walrus around because too many were killed on one of the islands. Now, 45 years later, they are coming back. Last spring (2017) there were 3 or 4 caught here.
14	5	Walrus			Along shore. Caught one here in the spring (2017)
15	6	Walrus			Once in a while
16	7	Walrus	Winter		
17	7	Walrus	Fall		
18	8	Walrus			

Figure 55 - Bearded Seal Areas of Occurrence

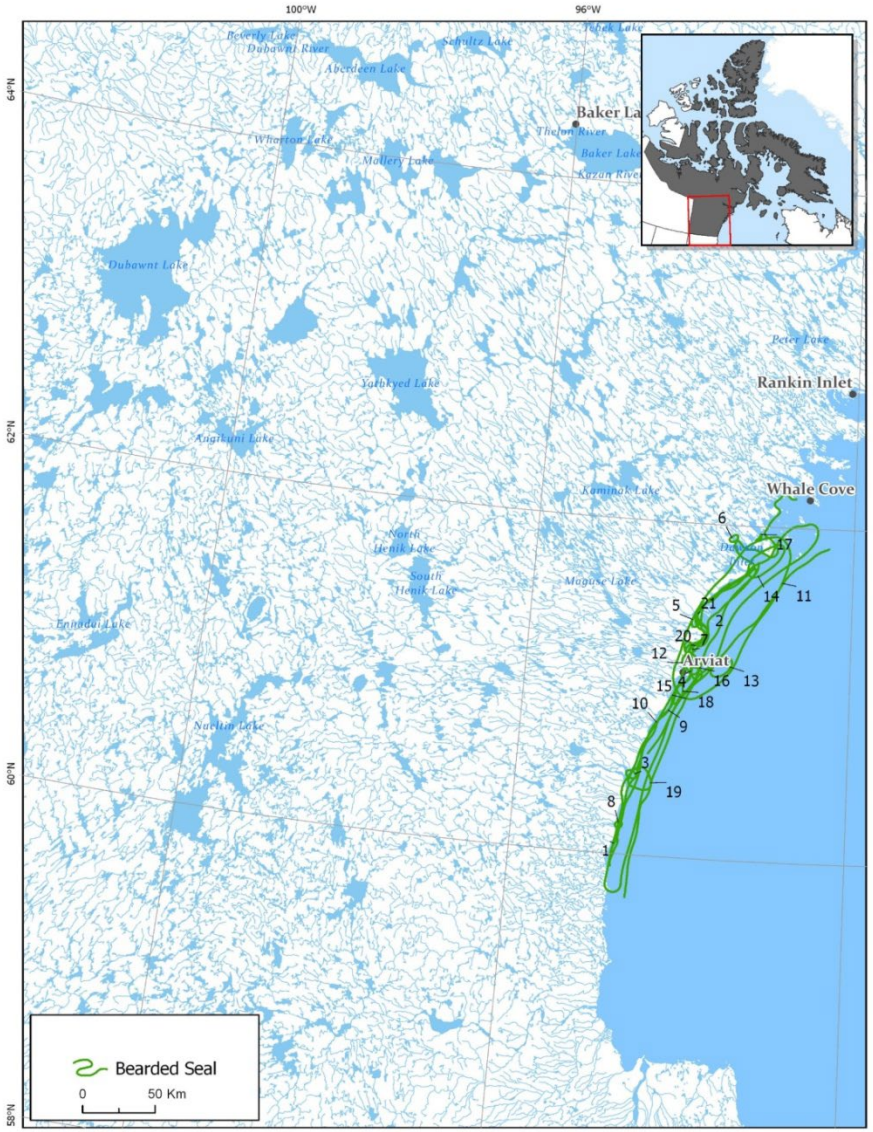


Table 22 - Bearded Seal Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	1	Bearded Seal		
2	1	Bearded Seal		
3	2	Bearded Seal	Summer	
4	2	Bearded Seal	Summer	
5	2	Bearded Seal	Summer	
6	2	Bearded Seal	Summer	
7	2	Bearded Seal	Summer	
8	2	Bearded Seal	Summer	
9	3	Bearded Seal		
10	3	Bearded Seal		
11	4	Bearded Seal		
12	4	Bearded Seal		
13	4	Bearded Seal		
14	4	Bearded Seal		
15	5	Bearded Seal		In the fall they go to the mouth of rivers
16	6	Bearded Seal	Winter	At the floe edge
17	7	Bearded Seal		
18	7	Bearded Seal		
19	7	Bearded Seal		
20	7	Bearded Seal		
21	7	Bearded Seal		

Figure 26 - Harbour/Ranger Seal Areas of Occurrence

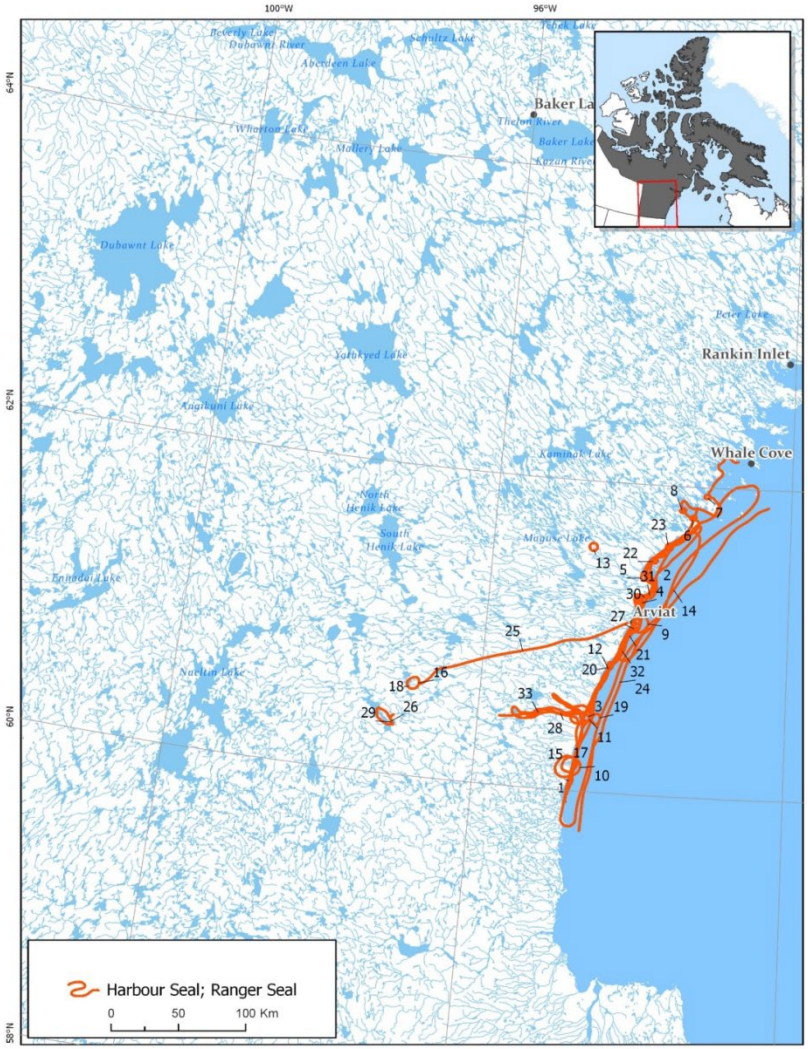


Table 403 - Harbour/Ranger Seal Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Harbour Seal; Ranger Seal			Only a few, and they are hard to see and catch. They are very tricky and have to outsmart them.
2	1	Harbour Seal; Ranger Seal			Only a few, and they are hard to see and catch. They are very tricky and have to outsmart them.
3	2	Harbour Seal; Ranger Seal	Summer		
4	2	Harbour Seal; Ranger Seal	Summer		
5	2	Harbour Seal; Ranger Seal	Summer		
6	2	Harbour Seal; Ranger Seal	Summer		
7	2	Harbour Seal; Ranger Seal	Summer		
8	2	Harbour Seal; Ranger Seal	Summer		
9	3	Harbour Seal; Ranger Seal		Feeding	They feed here on capelin and arctic char. They are especially present when the char are going back upstream
10	3	Harbour Seal; Ranger Seal		Feeding	They feed here on capelin and arctic char. They are especially present when the char are going back upstream
11	3	Harbour Seal; Ranger Seal		Feeding	They feed here on capelin and arctic char. They are especially present when the char are going back upstream
12	3	Harbour Seal; Ranger Seal		Feeding	They feed here on capelin and arctic char. They are especially present when the char are going back upstream
13	4	Harbour Seal; Ranger Seal			Saw ones near the fishing nets eating the fish from the nets. They were black
14	4	Harbour Seal; Ranger Seal			

Map #	Inter-view	Category	Time of Year	Details	Comments
15	5	Harbour Seal; Ranger Seal			Saw a very large one once (10 feet long). Some stay small and never get fat. They sink right away when you shoot them
16	5	Harbour Seal; Ranger Seal			Around all year. Seen in open water
17	5	Harbour Seal; Ranger Seal			At the mouth of rivers
18	5	Harbour Seal; Ranger Seal			At the mouth of rivers
19	5	Harbour Seal; Ranger Seal			At the mouth of rivers
20	5	Harbour Seal; Ranger Seal			At the mouth of rivers
21	5	Harbour Seal; Ranger Seal			At the mouth of rivers
22	5	Harbour Seal; Ranger Seal			At the mouth of rivers
23	5	Harbour Seal; Ranger Seal			At the mouth of rivers
24	5	Harbour Seal; Ranger Seal			At the mouth of rivers
25	5	Harbour Seal; Ranger Seal			At the mouth of rivers
26	6	Harbour Seal; Ranger Seal			Heard from elders that they're here. They stay all year long
27	6	Harbour Seal; Ranger Seal			Once in a while
28	7	Harbour Seal; Ranger Seal			Swim up the river in the spring and summer
29	7	Harbour Seal; Ranger Seal			Stay year-round
30	7	Harbour Seal; Ranger Seal			Swim up the river in the spring and summer
31	7	Harbour Seal; Ranger Seal			Swim up the river in the spring and summer
32	8	Harbour Seal; Ranger Seal	Summer		
33	8	Harbour Seal; Ranger Seal	Summer		

Figure 276 - Harp Seal, Ringed Seal, and other seal Areas of Occurrence

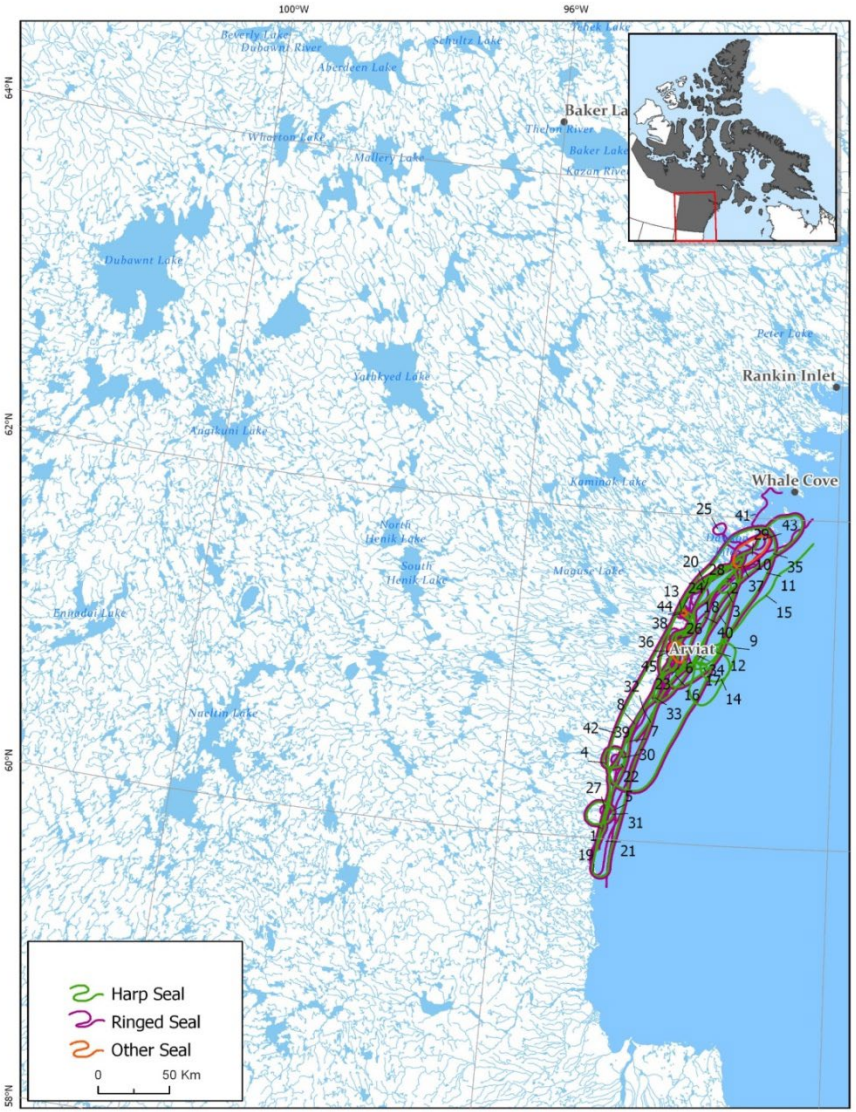


Table 414 - Harp Seal, Ringed Seal, and other seal Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	1	Harp Seal			Only a few
2	1	Harp Seal			Only a few
3	2	Harp Seal	Summer		
4	3	Harp Seal			
5	3	Harp Seal			
6	3	Harp Seal			
7	3	Harp Seal			
8	3	Harp Seal			
9	4	Harp Seal			Big ones
10	4	Harp Seal		Nursery	Pups
11	4	Harp Seal			
12	4	Harp Seal			
13	4	Harp Seal			
14	5	Harp Seal			In deeper water. From the side they look like a dog
15	5	Harp Seal			In deeper water. From the side they look like a dog
16	6	Harp Seal	Winter		At the floe edge
17	7	Harp Seal	Summer		
18	8	Harp Seal	Spring, summer		
19	1	Ringed Seal			
20	1	Ringed Seal			
21	2	Ringed Seal	Spring		All along the coast
22	2	Ringed Seal	Summer		
23	2	Ringed Seal	Summer		Can find pups here
24	2	Ringed Seal	Summer		

Map #	Inter-view	Category	Time of Year	Details	Comments
25	2	Ringed Seal	Summer		
26	2	Ringed Seal	Summer		
27	2	Ringed Seal	Summer		
28	2	Ringed Seal		Abundant	
29	2	Ringed Seal		Abundant	
30	3	Ringed Seal			Late spring and summer
31	3	Ringed Seal			Late spring and summer
32	3	Ringed Seal			
33	3	Ringed Seal			
34	4	Ringed Seal		Nursery	Pups
35	4	Ringed Seal			
36	4	Ringed Seal			
37	4	Ringed Seal			
38	4	Ringed Seal			
39	5	Ringed Seal	May,Jun,Jul,Aug,Sep,Oct		
40	6	Ringed Seal	Winter		At the floe edge
41	7	Ringed Seal			
42	8	Ringed Seal	Spring, summer		
43	4	Seal	Summer		Seal called "Nayangak" - one that stays small even as an adult
44	4	Seal	Summer		Seal called "Nayangak" - one that stays small even as an adult
45	4	Seal	Summer		Seal called "Nayangak" - one that stays small even as an adult

Figure 28 - Bowhead Whale, Killer Whale, other whale and unknown marine mammal Areas of Occurrence

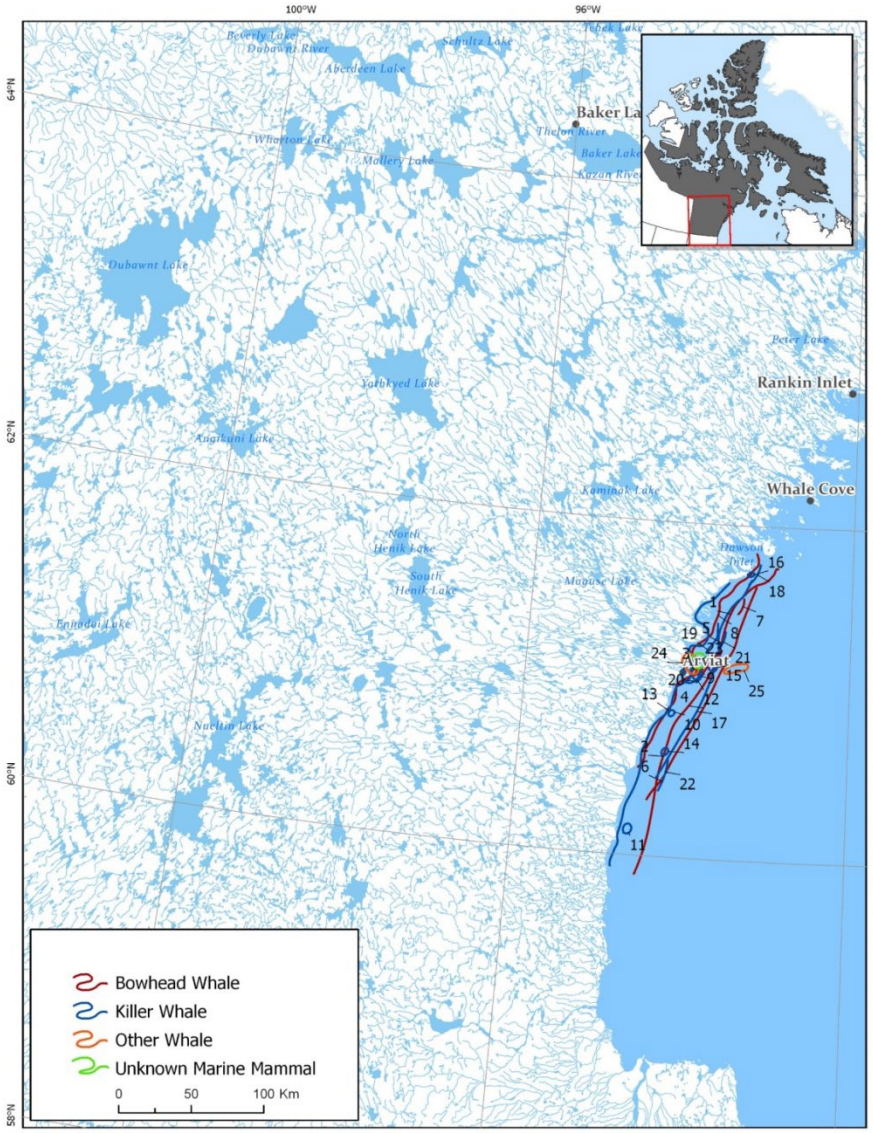


Table 25 - Bowhead Whale, Killer Whale, other whale and unknown marine mammal Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Bowhead Whale			Once and a while you can see them by the small island in this area.
2	3	Bowhead Whale	Summer		
3	5	Bowhead Whale	Summer		In deep spots
4	6	Bowhead Whale			Once in a long while
5	7	Bowhead Whale			
6	7	Bowhead Whale			
7	7	Bowhead Whale			Saw 3 here together
8	7	Bowhead Whale			Saw 3 here together
9	2	Killer Whale			Mostly seen here following Beluga
10	2	Killer Whale			See them here, once in a long while
11	2	Killer Whale			Mostly seen here following Beluga
12	3	Killer Whale			You can see them from town
13	3	Killer Whale			They come around every year
14	5	Killer Whale			Will eat just the blubber of beluga
15	5	Killer Whale			Will eat just the blubber of beluga
16	5	Killer Whale			Will eat just the blubber of beluga
17	6	Killer Whale			Once in a while
18	7	Killer Whale	Summer		
19	7	Killer Whale	Summer		
20	7	Killer Whale	Summer		
21	7	Killer Whale	Summer		
22	7	Killer Whale	Summer		

23	3	Unknown Marine Mammal		Historic	20 years ago someone saw a group of ~15 porpoises or dolphins on the east side of Centre Island. You don't see them very often.
24	4	Whale		Unknown	A whale that was smaller and faster than a beluga. Looked sort of like a bottlenose whale
25	7	Whale	Summer	Unknown	Either a dolphin or porpoise in deep water, not sure what it was. It was very fast

Figure 29 - Eel Grass, Goose Grass and Semaphore Grass Areas of Occurrence

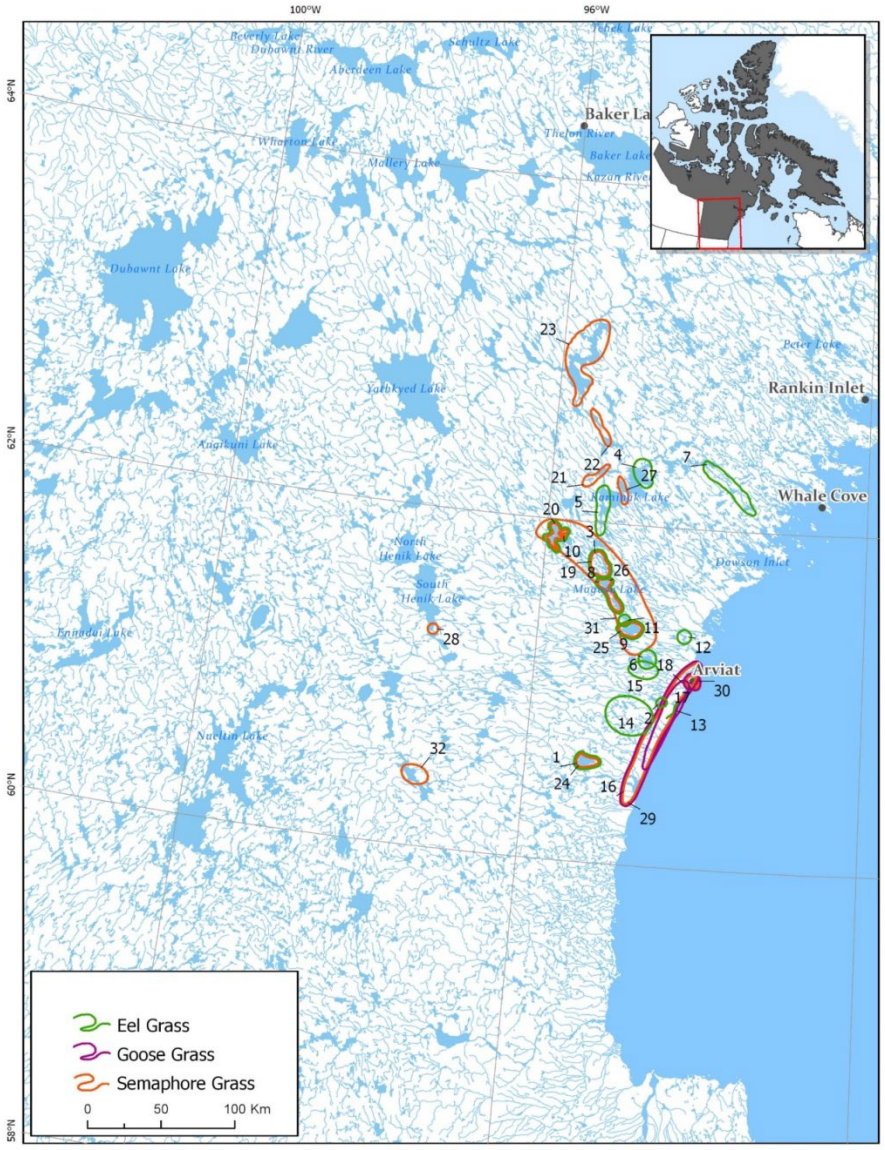


Table 2642 - Eel Grass, Goose Grass and Semaphore Grass Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	2	Eel Grass		
2	2	Eel Grass		
3	2	Eel Grass		
4	2	Eel Grass		
5	2	Eel Grass		
6	2	Eel Grass		
7	2	Eel Grass		
8	2	Eel Grass		
9	2	Eel Grass		
10	2	Eel Grass		
11	5	Eel Grass		Where there's not much moving ice and just steady water
12	5	Eel Grass		Where there's not much moving ice and just steady water
13	7	Eel Grass		
14	8	Eel Grass		
15	8	Eel Grass		
16	5	Goose Grass		
17	5	Goose Grass		
18	7	Goose Grass		
19	2	Semaphore Grass		
20	2	Semaphore Grass		
21	2	Semaphore Grass		
22	2	Semaphore Grass		
23	2	Semaphore Grass		
24	2	Semaphore Grass		
25	2	Semaphore Grass		
26	2	Semaphore Grass		

27	2	Semaphore Grass
28	3	Semaphore Grass
29	5	Semaphore Grass
30	5	Semaphore Grass
31	7	Semaphore Grass
32	7	Semaphore Grass

Figure 30 - Bladder Wrack/Rockweed, Floating Buttercup, Green Sea Fingers, Mare's Tail, Pondweed and Robbin's Pondweed Areas of Occurrence

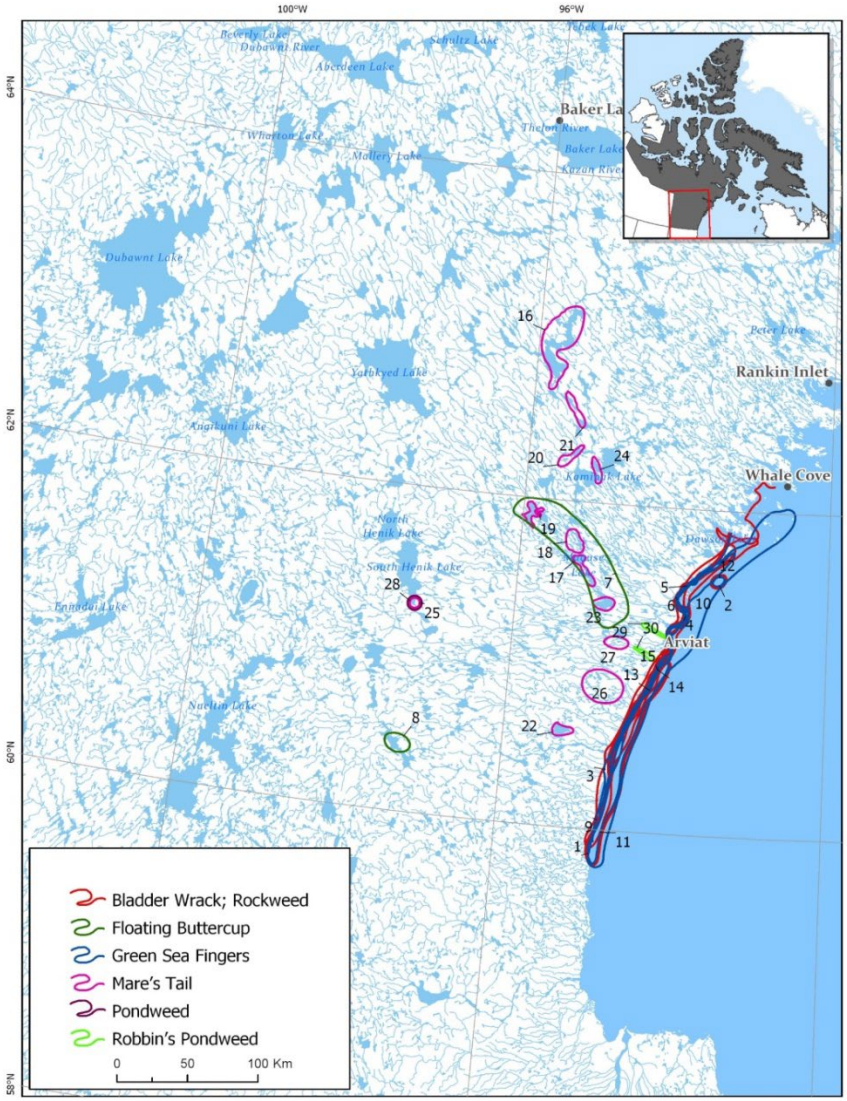


Table 27 - Bladder Wrack/Rockweed, Floating Buttercup, Green Sea Fingers, Mare's Tail, Pondweed and Robbin's Pondweed Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Bladder Wrack; Rockweed			
2	2	Bladder Wrack; Rockweed			
3	5	Bladder Wrack; Rockweed			Dried up on shore
4	6	Bladder Wrack; Rockweed			
5	7	Bladder Wrack; Rockweed	Summer		
6	8	Bladder Wrack; Rockweed			
7	7	Floating Buttercup			
8	7	Floating Buttercup			
9	1	Green Sea Fingers		Abundant	
10	1	Green Sea Fingers		Abundant	
11	2	Green Sea Fingers			
12	2	Green Sea Fingers			
13	3	Green Sea Fingers			
14	6	Green Sea Fingers			
15	8	Green Sea Fingers			
16	2	Mare's Tail			
17	2	Mare's Tail			
18	2	Mare's Tail			
19	2	Mare's Tail			
20	2	Mare's Tail			
21	2	Mare's Tail			
22	2	Mare's Tail			
23	2	Mare's Tail			
24	2	Mare's Tail			

25	3	Mare's Tail
26	8	Mare's Tail
27	8	Mare's Tail
28	3	Pondweed
29	6	Robbin's Pondweed
30	6	Robbin's Pondweed

Figure 31 - Edible Kelp, Hollow Stemmed Kelp, Sea Colander, Spiny Sour Weed and Variableleaf Pondweed Areas of Occurrence

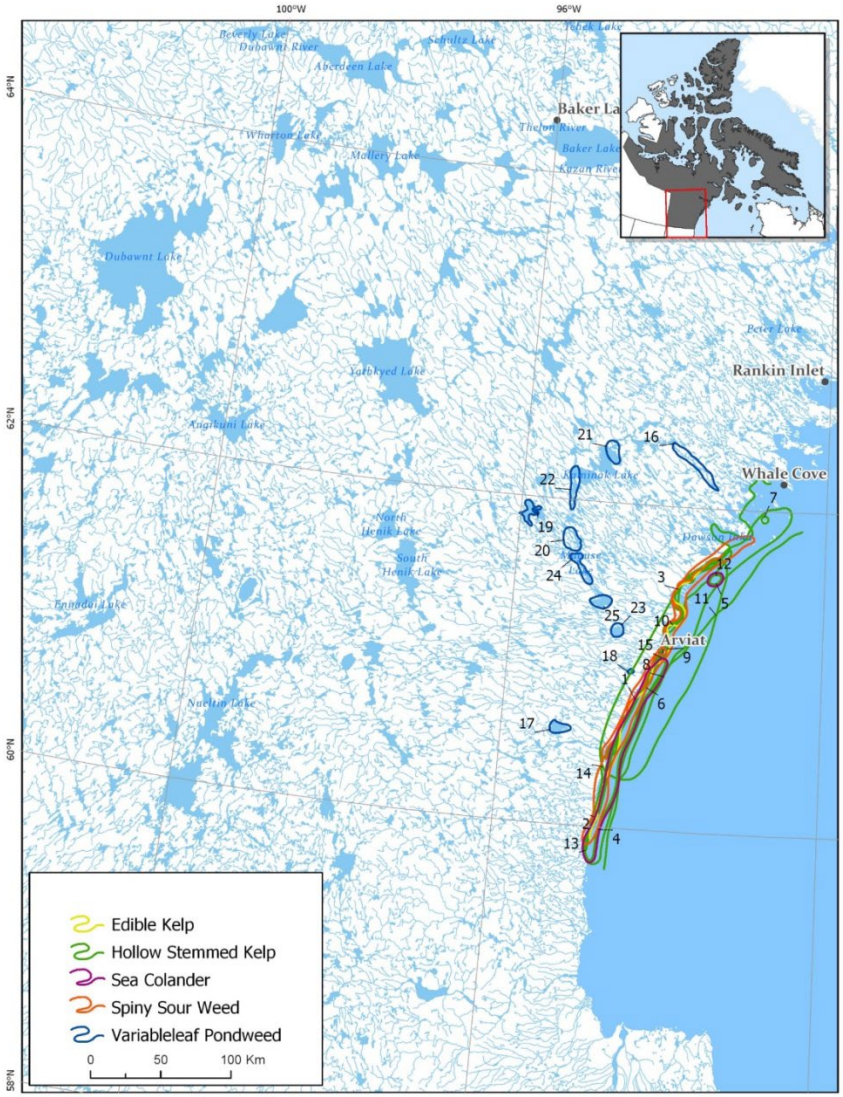


Table 2843 - Edible Kelp, Hollow Stemmed Kelp, Sea Colander, Spiny Sour Weed and Variableleaf Pondweed Areas of Occurence

Map #	Inter-view	Category	Details	Comments
1	3	Edible Kelp		
2	1	Hollow Stemmed Kelp		Get washed up on shore
3	1	Hollow Stemmed Kelp		Get washed up on shore
4	2	Hollow Stemmed Kelp		
5	2	Hollow Stemmed Kelp		
6	3	Hollow Stemmed Kelp		
7	5	Hollow Stemmed Kelp	Abundant	So many that you can't see the bottom. They get very big
8	5	Hollow Stemmed Kelp		In deeper water
9	6	Hollow Stemmed Kelp		
10	7	Hollow Stemmed Kelp		
11	8	Hollow Stemmed Kelp		
12	2	Sea Colander		
13	2	Sea Colander		
14	5	Spiny Sour Weed		Gets tangled in fish nets
15	6	Spiny Sour Weed		
16	2	Variableleaf Pondweed		
17	2	Variableleaf Pondweed		
18	2	Variableleaf Pondweed		
19	2	Variableleaf Pondweed		
20	2	Variableleaf Pondweed		
21	2	Variableleaf Pondweed		
22	2	Variableleaf Pondweed		
23	2	Variableleaf Pondweed		
24	2	Variableleaf Pondweed		

25	2	Variableleaf Pondweed

Figure 32 - Canada Goose, Greater White-fronted Goose, Ross's Goose and Snow Goose Areas of Occurrence

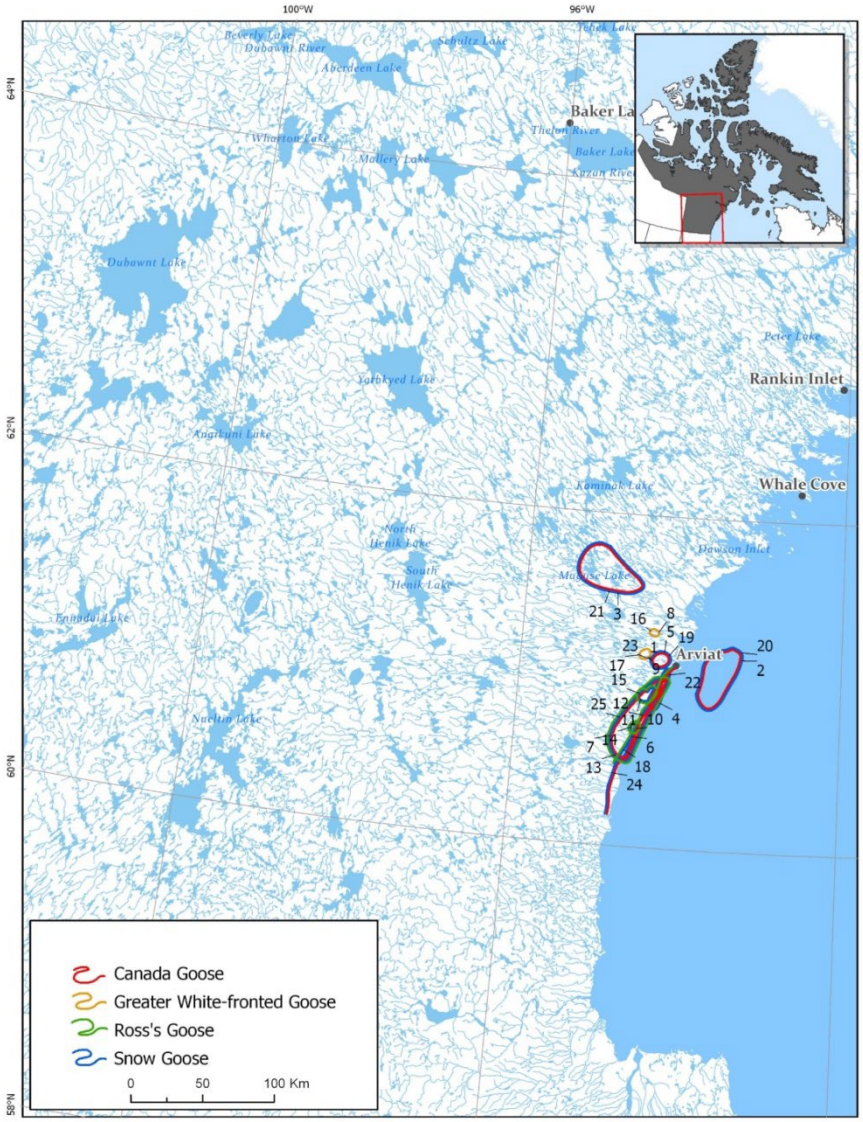


Table 449 - Canada Goose, Greater White-fronted Goose, Ross's Goose and Snow Goose Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	4	Canada Goose			Arrive in March to nest
2	4	Canada Goose			Arrive in March to nest
3	4	Canada Goose			Arrive in March to nest
4	4	Canada Goose			Arrive in March to nest
5	4	Canada Goose	Spring		
6	5	Canada Goose	Jun	Abundant, Nesting	Go here for goose hunting and egg picking. There are so many eggs you can't even walk without stepping on them. There are so many you can fill a box in 2 minutes
7	8	Canada Goose		Nesting	
8	2	Greater White-fronted Goose	Jun,Jul	Nesting	They are nesting in June and July
9	2	Greater White-fronted Goose	Jun,Jul	Nesting	They are nesting in June and July
10	2	Ross's Goose	Jun,Jul	Nesting	They are nesting in June and July
11	2	Ross's Goose	Jun,Jul	Nesting	They are nesting in June and July
12	2	Ross's Goose	Jun,Jul	Nesting	They are nesting in June and July
13	8	Ross's Goose		Nesting	
14	2	Snow Goose	Jun,Jul	Nesting	They are nesting in June and July
15	2	Snow Goose	Jun,Jul	Nesting	They are nesting in June and July
16	2	Snow Goose	Jun,Jul	Nesting	They are nesting in June and July
17	2	Snow Goose	Jun,Jul	Nesting	They are nesting in June and July
18	2	Snow Goose	Jun,Jul	Nesting	They are nesting in June and July
19	4	Snow Goose			Arrive in March to nest
20	4	Snow Goose			Arrive in March to nest
21	4	Snow Goose			Arrive in March to nest

22	4	Snow Goose			Arrive in March to nest
23	4	Snow Goose	Spring		
24	5	Snow Goose	Jun	Abundant, Nesting	Go here for goose hunting and egg picking. There are so many eggs you can't even walk without stepping on them. There are so many you can fill a box in 2 minutes
25	8	Snow Goose		Nesting	

Figure 33 - American White Pelican, Arctic Loon, Arctic Tern, Bald Eagle, Black/American Scoter and Common Eider Areas of Occurrence

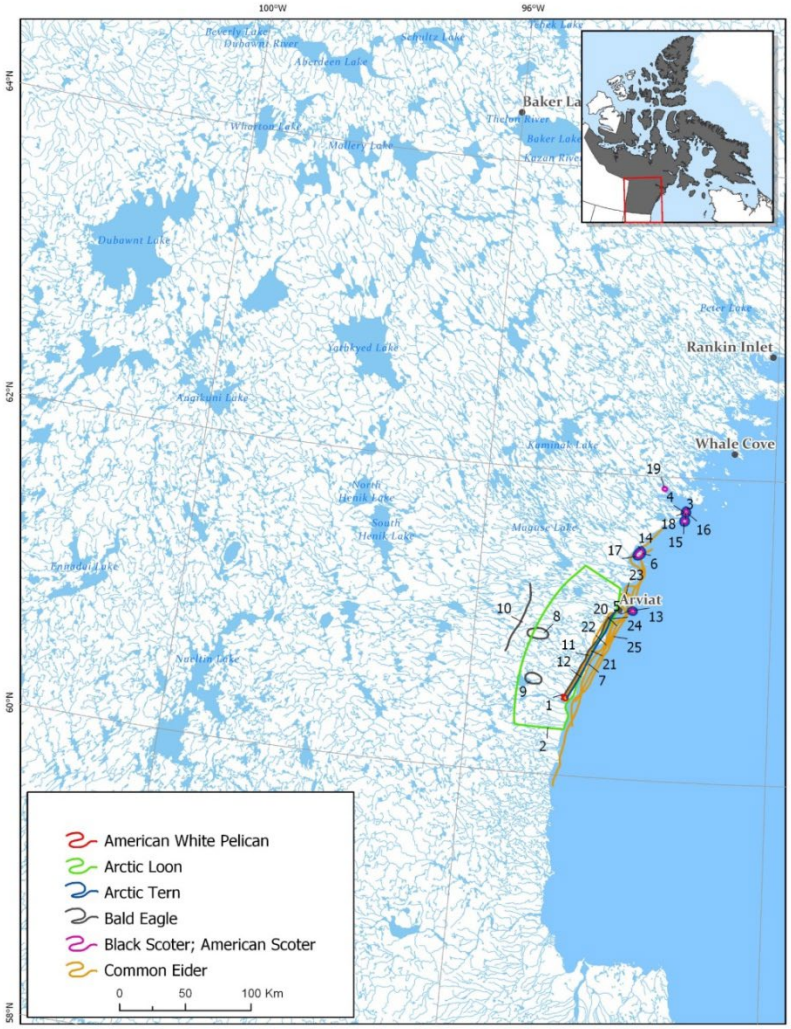


Table 30 - American White Pelican, Arctic Loon, Arctic Tern, Bald Eagle, Black/American Scoter and Common Eider Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	7	American White Pelican			Saw 6 pelicans here once
2	8	Arctic Loon			
3	2	Arctic Tern			
4	2	Arctic Tern			
5	2	Arctic Tern			
6	2	Arctic Tern			
7	8	Arctic Tern			
8	2	Bald Eagle			
9	2	Bald Eagle			
10	2	Bald Eagle			
11	2	Bald Eagle			
12	8	Bald Eagle		Change, Feeding, Nesting	They are more common now. Never used to see them. They are now all along the coast. You can see them in groups of 5 or more.
13	2	Black Scoter; American Scoter			
14	2	Black Scoter; American Scoter			
15	2	Black Scoter; American Scoter			
16	2	Black Scoter; American Scoter			
17	2	Black Scoter; American Scoter		Abundant	
18	2	Black Scoter; American Scoter		Abundant	
19	2	Black Scoter; American Scoter		Abundant	
20	2	Common Eider	Spring		At the floe edge
21	2	Common Eider	Spring		At the floe edge
22	3	Common Eider		Feeding	Feeding on mussels
23	4	Common Eider			

24	4	Common Eider	Nesting	Nests
25	8	Common Eider		At the floe edge in the spring

Figure 34 - Common Murre, Common Raven, Dovekie, Glaucous Gull and Golden Eagle Areas of Occurrence

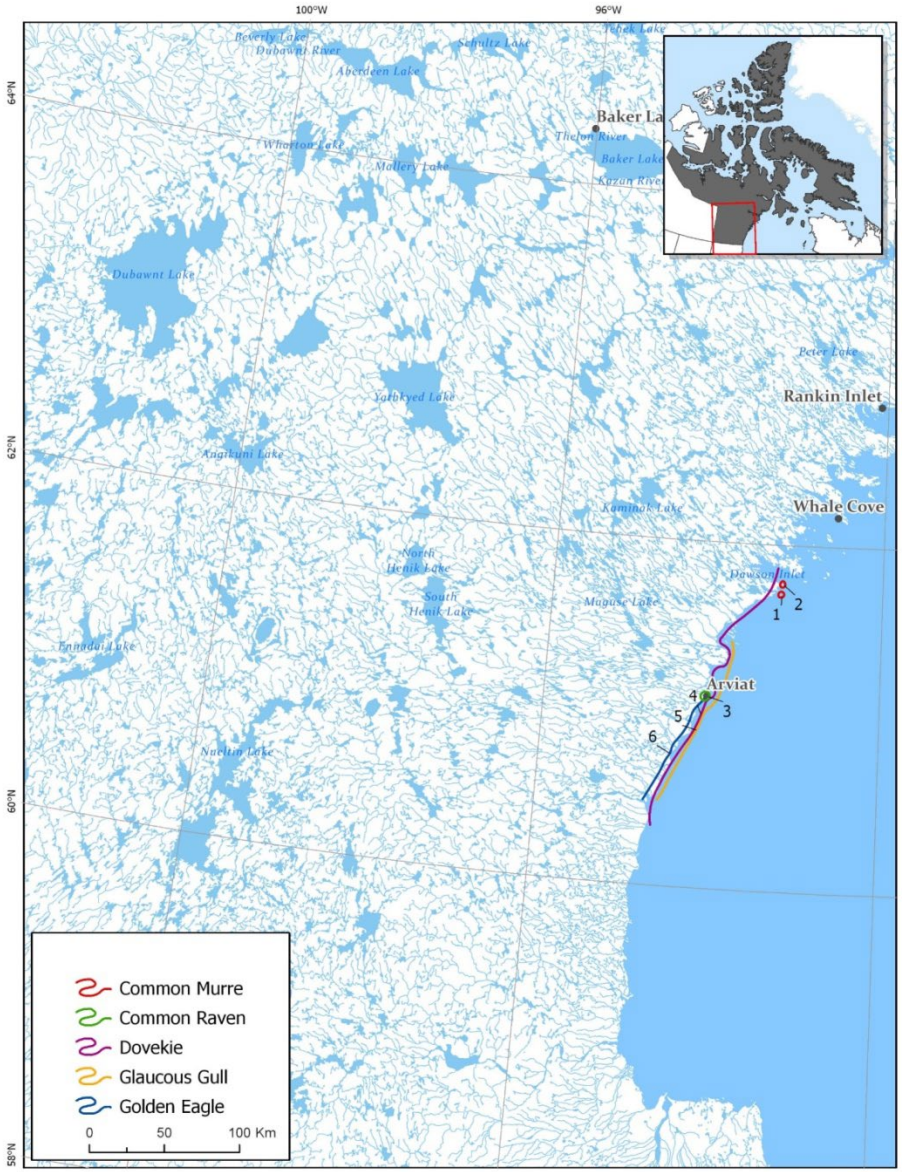


Table 31 - Common Murre, Common Raven, Dovekie, Glaucous Gull and Golden Eagle Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Common Murre			
2	2	Common Murre			
3	2	Common Raven			Only in the winter. In the summer there are hardly any around
4	8	Dovekie		Nesting	Makes their nests under rocks
5	2	Glaucous Gull	May,Jun		At the floe edge
6	2	Golden Eagle			Usually seen with bald eagles along the coast

Figure 35 - Peregrine Falcon, Mallard, Lapland Longspur, Parasitic Jaeger, Gyrfalcon, and Killdeer Areas of Occurrence

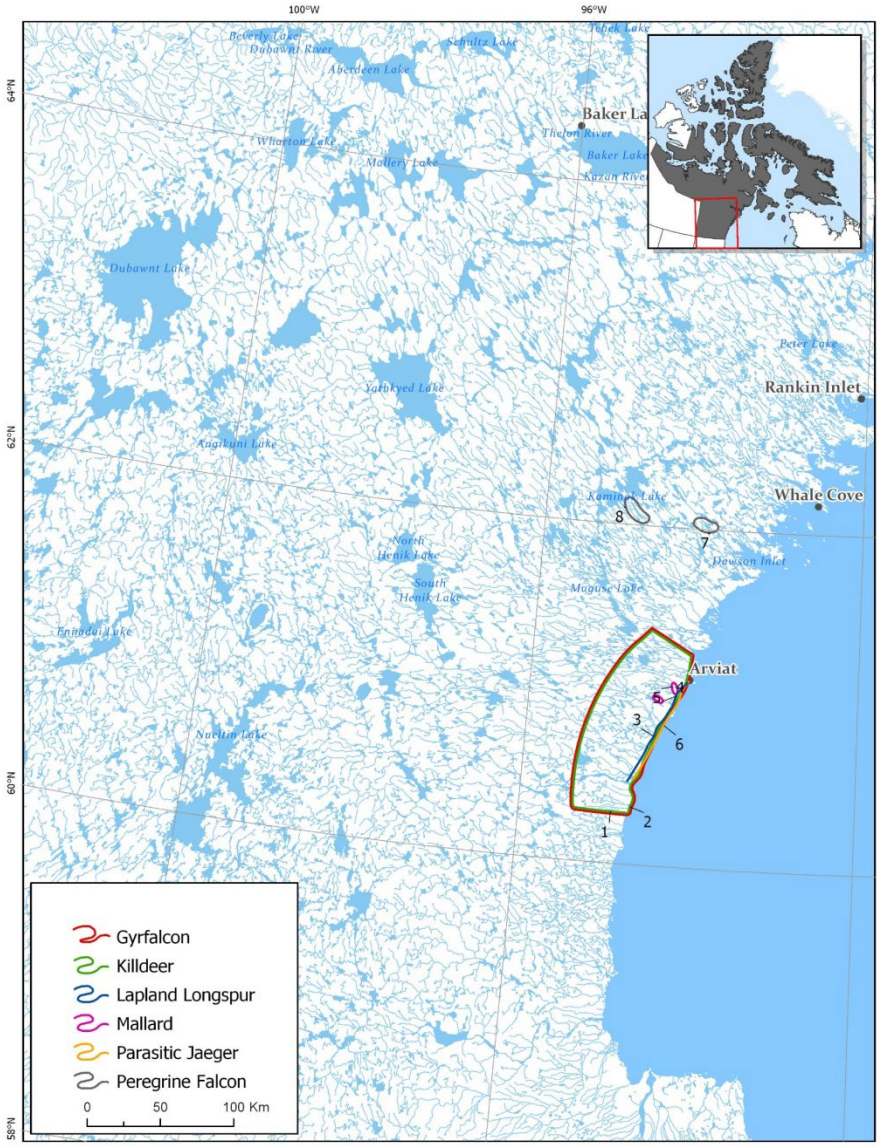


Table 32 - Peregrine Falcon, Mallard, Lapland Longspur, Parasitic Jaeger, Gyrfalcon, and Killdeer Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	8	Gyrfalcon	Summer	
2	8	Killdeer		
3	2	Lapland Longspur		
4	2	Mallard	Jul,Aug	
5	8	Mallard		
6	8	Parasitic Jaeger		
7	2	Peregrine Falcon		
8	2	Peregrine Falcon		

Figure 36 - Pomarine Jaeger, Red-throated Loon, Rock Ptarmigan, Sandhill Crane, Sandpiper and Snow Bunting Areas of Occurrence

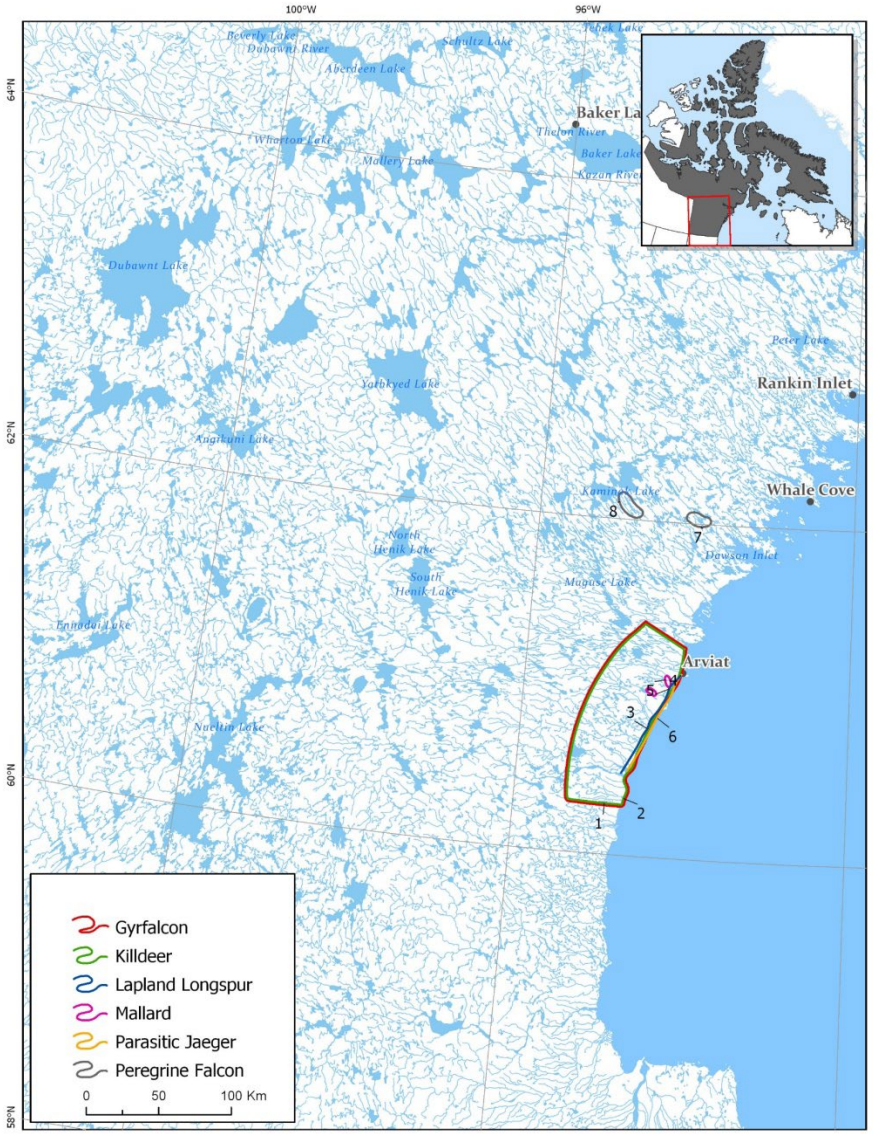


Table 33 - Pomarine Jaeger, Red-throated Loon, Rock Ptarmigan, Sandhill Crane, Sandpiper and Snow Bunting Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Comments
1	2	Pomarine Jaeger		
2	2	Pomarine Jaeger		
3	2	Pomarine Jaeger		
4	2	Pomarine Jaeger		
5	8	Pomarine Jaeger		
6	2	Red-throated Loon		
7	2	Red-throated Loon		
8	2	Red-throated Loon		
9	8	Red-throated Loon		
10	8	Rock Ptarmigan	Spring/summer	
11	2	Sandhill Crane		
12	2	Sandhill Crane		
13	2	Sandhill Crane		
14	2	Sandhill Crane		
15	2	Sandhill Crane		
16	2	Sandhill Crane		
17	2	Sandhill Crane		
18	2	Sandhill Crane		
19	2	Sandhill Crane		
20	2	Sandhill Crane		
21	8	Sandhill Crane		
22	2	Sandpiper		
23	2	Sandpiper		
24	2	Snow Bunting		
25	2	Snow Bunting		
26	8	Snow Bunting		

Figure 77 - Snowy Owl, Stilt Sandpiper, Tundra Swan, Unknown Bird, Whimbrel and Willow Ptarmigan Areas of Occurrence

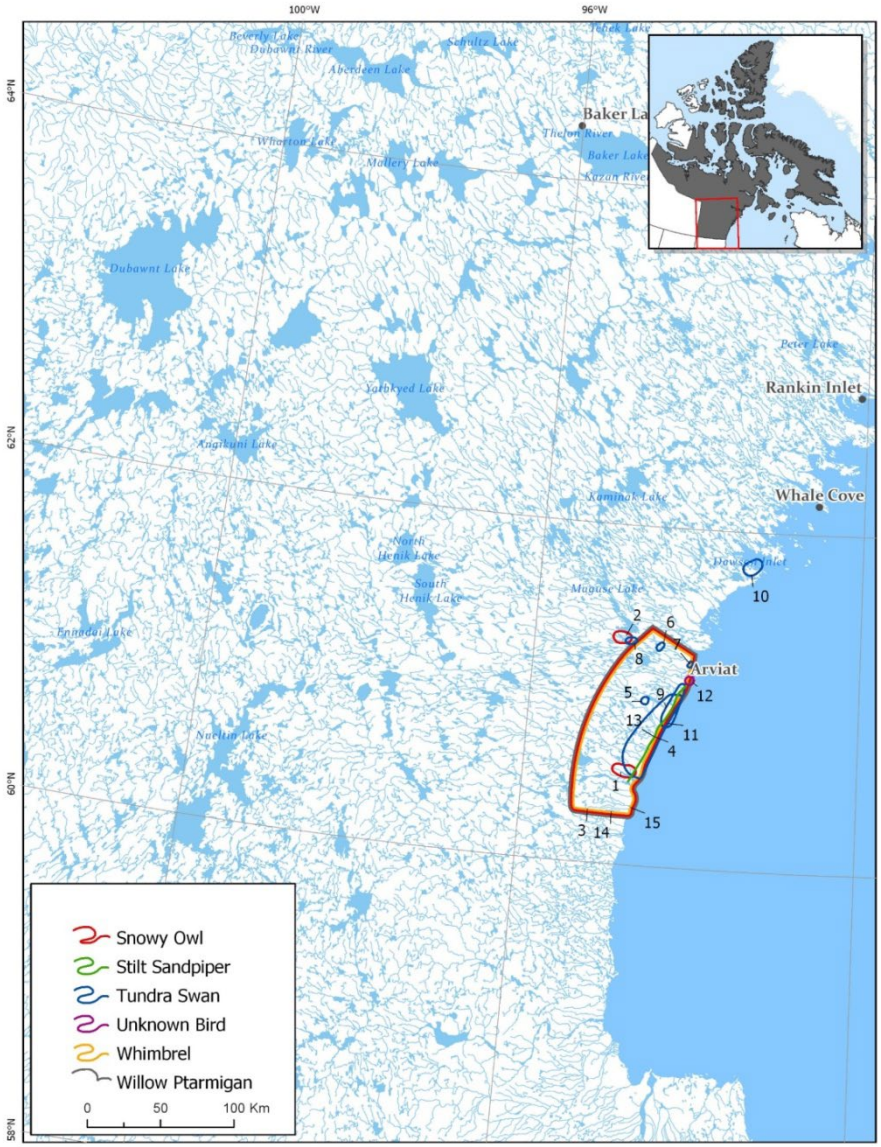


Table 34 - Snowy Owl, Stilt Sandpiper, Tundra Swan, Unknown Bird, Whimbrel and Willow Ptarmigan Areas of Occurrence

Map #	Inter-view	Category	Time of Year	Details	Comments
1	2	Snowy Owl			Lots in the summer
2	2	Snowy Owl			Lots in the summer
3	8	Snowy Owl	Year-round		
4	2	Stilt Sandpiper			
5	2	Tundra Swan	Jul	Nesting	
6	2	Tundra Swan	Jul	Nesting	
7	2	Tundra Swan	Jul	Nesting	
8	2	Tundra Swan	Jul	Nesting	
9	4	Tundra Swan		Nesting	
10	4	Tundra Swan		Nesting	
11	8	Tundra Swan		Nesting	They will nest in the same area but not close to each other
12	8	Unknown Bird			Small yellow birds
13	2	Whimbrel			
14	8	Whimbrel			
15	8	Willow Ptarmigan	Spring/summer		

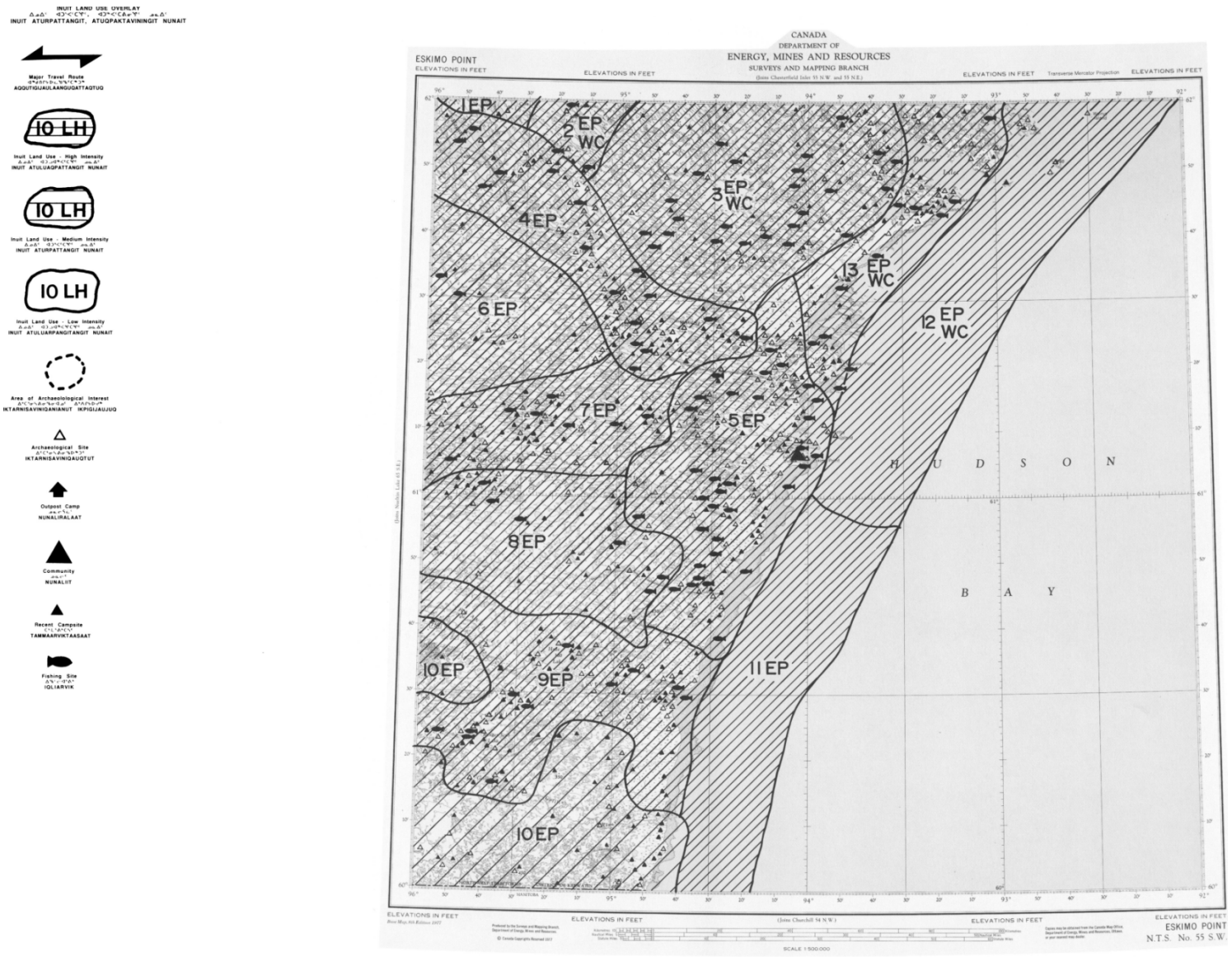


Figure 38 Nunavut Atlas – Inuit Land Use Map

ESKIMO POINT

NUNAVUT ATLAS: INUIT LAND USE

1EP

Hunters or trappers camped on Turquetil or Maguse lakes sometimes search this area for caribou or Arctic fox.

2EP & WC

The area surrounding Kaminak Lake is rich in game and is a favorite hunting and trapping area. Access to the area is usually by the Maguse River system. Caribou are hunted during spring and fall migrations and in some years during winter. Trapping for Arctic fox occurs in early and late winter. Domestic fishing is common.

3EP & WC

This area receives its heaviest use in winter when Eskimo Point and Whale Cove residents trap Arctic fox. Most trapping activity is concentrated in November and December, or March and April. Barren-ground caribou are hunted during spring and fall migrations and occasionally during the winter. In summer, travel is chiefly along the Copperneedle and Wallace rivers. In winter, skidoos cover much of the area to reach caribou herds or traplines. Many of the camps situated on lakes are occupied in spring and summer when fishing is good.

4EP

The Maguse Lake and River system receives heavy year-round use by many Eskimo Point residents. Many of the camps are active in spring and summer when fishing is excellent. Hunting for caribou occurs year-round; by canoe along shorelines in summer, at crossings during spring and fall migrations and to a lesser extend throughout the winter. In late summer and fall, it is common for caribou meat to be cached for winter use. Hunting also occurs for wolves, Arctic hare, ptarmigan and, in spring, for geese. Trapping for Arctic fox is heavy in November-December and March-April, often in association with caribou hunting. The area also serves as a travel route from Eskimo Point to the Padlei area.

5EP

The spring arrival of waterfowl in the Eskimo Point area encourages many local people to move to traditional camps on the coastal lowlands to hunt geese and ducks and to collect eggs. Domestic fishing is also heavy at this time. The favorite areas are at the mouth of the Maguse

River, Dionne Lake and along the McConnell River. Hunting for barren-ground caribou occurs year-round, and trapping for Arctic fox occurs from November to April.

6EP

These areas are used most regularly in winter for trapping Arctic fox. Caribou may also be hunted during spring and fall migrations.

7EP

The lake-studded lowlands along the McConnell River are favorite hunting and trapping areas for Eskimo Point residents. Heavy hunting for barren-ground caribou occurs during the spring and fall migrations; in some years wintering caribou may be hunted. Trapping for Arctic fox occurs in early and late winter. Domestic fishing occurs in support of hunting and trapping, and separately in early spring and late fall when fishing is best.

8EP

Arctic fox are trapped in this area from November to April in most years. When scattered groups of barren-ground caribou winter in the area, they are hunted. Wolves are hunted when encountered.

9EP

Residents of Eskimo Point regularly use the area surrounding the Tha-anne and Thlewiaza river systems, which is rich in game. Domestic fishing is common in early spring and late fall, and many camps are occupied at this time. Camps set up at the mouths of rivers are used as bases for hunting beluga whale in July and August. Seal hunting is also common both along the coast and along the Thlewiaza River. Barren-ground caribou are usually hunted in early spring and late fall as they migrate across the rivers. Stray caribou may be hunted in winter. Arctic fox are trapped in the area in November-December and March-April. Wolves are hunted when encountered.

10EP

These areas are used less intensively than area 9EP. Hunters or trappers who camp along the Tha-anne or Thlewiaza rivers often extend their caribou hunting or fox trapping activities into these areas.

11EP

Residents of Eskimo Point hunt year-round in the inshore zone of Hudson Bay. Ringed seal and bearded seals are hunted from boats in summer and from snowmobiles in the winter. Seal

hunting is concentrated in the northern part of the area in winter but is extended south to the Thlewiaza River in spring and summer. Ranger seals and beluga whales are hunted along the whole coast in summer, but especially near the mouths of the Tha-anne and Thlewiaza rivers.

12EP & WC

The offshore area is used intensively year-round by residents of Eskimo Point and Whale Cove. Ringed and bearded seals are hunted in summer and fall, and occasionally well out onto the sea ice in spring. Seal hunting in winter is generally carried out at the floe edge. Walrus are occasionally hunted from Walrus Island in the north to Betty Island. In summer, white whales are hunted along the coast and up to 35 km offshore.

13EP & WC

The coastal area is intensively used for hunting and trapping by residents of Eskimo Point and Whale Cove. Several camps are located within this area and are used primarily in spring and summer for fishing and seal hunting. Austin Island and the mouths of the Wallace and Copperneedle rivers are important areas for hunting geese and ducks, and for collecting eggs in spring. Trapping during the winter is supplemented by fishing and caribou hunting. Polar bears are also hunted throughout this area.

NOTES ON DOMESTIC AND COMMERCIAL FISHERIES

The most popular spring fishing area for Eskimo Point Inuit is along the Maguse River, from its mouth to Padlei.

Domestic fishing, which is an important source of protein, continues to be an inexpensive form of food production that requires only small amounts of capital and equipment. Domestic fishing by residents of Eskimo Point is a year-round activity, restricted only by break-up and freeze-up. Fishing activity is most extensive in spring and early summer when weekend or holiday camps are established on favorite lakes or rivers. Fall and winter fishing occurs on selected lakes, often in support of hunting or trapping activity. Jigging through the ice is the most common fishing technique in spring and winter, whereas netting and casting are popular in summer and fall. Lake trout make up the bulk of the catch but Arctic char and whitefish are also taken. In spring and summer, residents of Eskimo Point catch fish for domestic use at Kuunaaq (Smaller Maguse River) and Sandy Point.

Ocean-net fishing for Arctic char is carried out in early summer in the Tha-anne-Thlewiaza estuary and north along the coast to Eskimo Point, where beluga and seal are occasionally caught in fishermen or women's nets, all the way to Sandy Point.

In the fall, the lower Maguse River is an important char fishing area for Eskimo Point residents.

Some commercial fishing occurs in the Eskimo Point area, where an annual quota of 4,500 kg of sea-run Arctic char has been established.

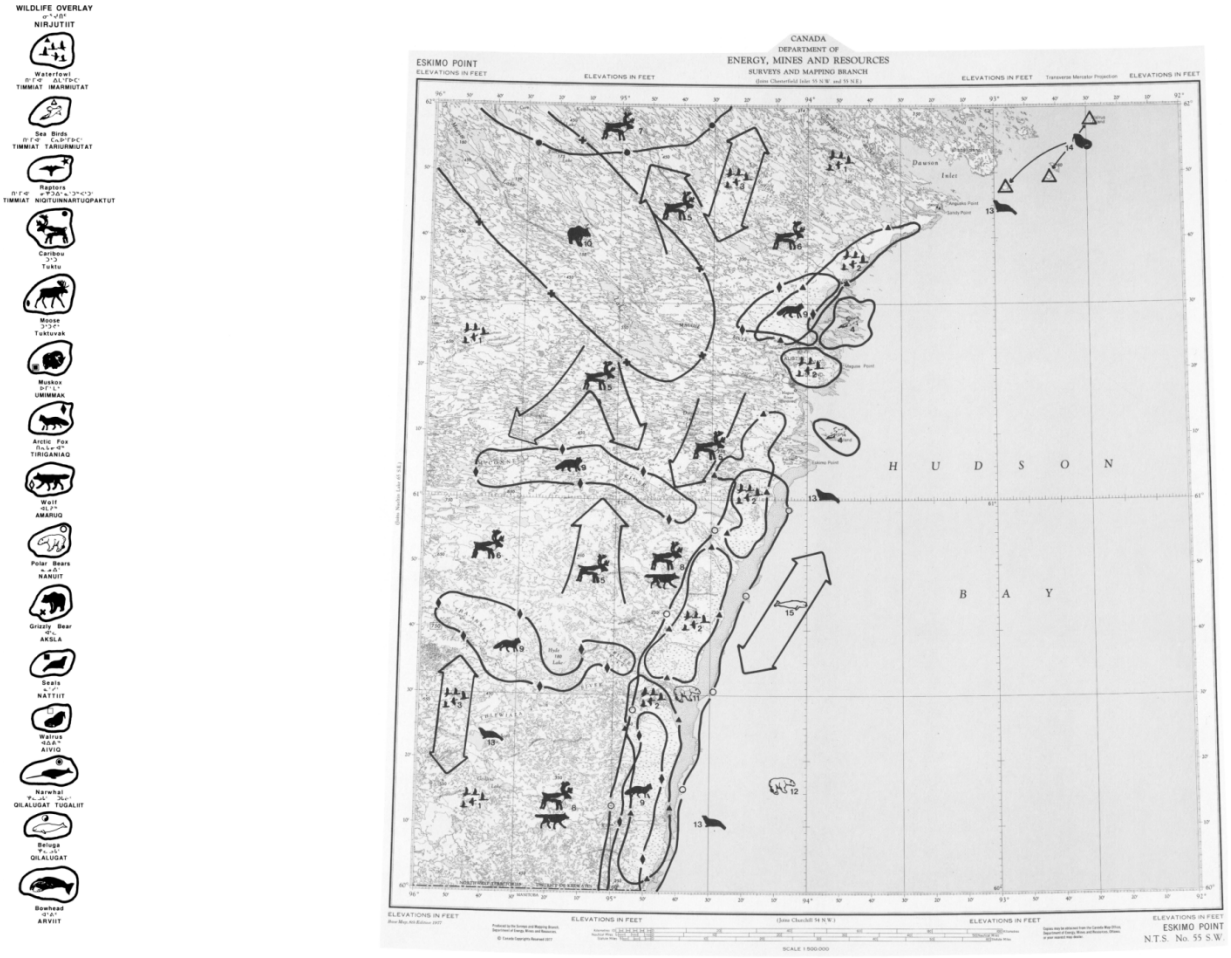


Figure 39 Nunavut Atlas – Wildlife Map

NUNAVUT ATLAS: WILDLIFE

1 WATERFOWL

This area, part of a larger area that extends onto adjacent map sheets, provides important habitat for many species of waterfowl. Ducks, including merganser, scaup, pintail and oldsquaw, and snow and Canada geese stage, nest and molt throughout this entire wildlife area during spring and fall. Large numbers of snow geese stage in this area during the fall migration.

2 WATERFOWL

Thousands of snow geese nest in these areas, which are therefore considered to be critical.

3 WATERFOWL

Many species of waterfowl, including thousands of snow geese and lesser numbers of Canada geese, migrate north in spring and south in fall through this map sheet area.

4 SEABIRDS

A colony of black guillemots has been reported nesting on Sentry Island and on smaller islands between Eskimo Point and Maguse River.

5 CARIBOU

Barren-ground caribou of the Kaminuriak herd migrate north and northwest through this area in early spring to reach the calving area around Kaminuriak Lake. This spring migration of the pregnant cows is especially critical and should not be disturbed. In fall, the caribou move south and southeast. In late spring, summer and early fall, the caribou may move randomly throughout the map sheet area.

6 CARIBOU

Caribou of the Kaminuriak herd use this entire map sheet area in spring, and often in summer and fall. In recent years, the Kaminuriak caribou have used the eastern half of the map sheet area as tundra wintering range. There is no boundary associated with this symbol.

7 CARIBOU

This area, which extends onto adjacent map sheets, is the calving ground of the Kaminuriak caribou herd. Only certain sections of the calving area may be used in any one year and some of the caribou may calve outside the boundary indicated. The majority of the herd usually calves in the area from the east side of Kaminuriak Lake to around Banks and MacQuoid lakes, and east to Gibson Lake, but the entire area should be considered critical for the survival of the herd.

8 CARIBOU AND WOLVES

The eastern half of this map sheet area, part of a large area that extends onto adjacent map sheets, is tundra wintering range for the Kaminuriak herd of caribou. Only certain sections of the winter range may be used in any one year. Wolves are often found throughout this winter range in close association with the caribou, often following the movements of the herd.

9 ARCTIC FOXES

Foxes den in these areas.

10 GRIZZLY BEARS

Barren-ground grizzly bear live and perhaps den in this area.

11 POLAR BEARS

The coastal lowlands provide summer habitat for polar bear.

12 POLAR BEARS

In the fall, polar bear move out to the edge of the new ice to feed on seals.

13 SEALS

Numerous ringed and lesser numbers of bearded seals are found off the coast. Harbor seals are most commonly found in the brackish water of estuaries and throughout the Thlewiaza, Maguse and Copperneedle river systems. Harbor seals and otter are also found in Ranger Seal Lake. In winter, ringed seals are most abundant in the vicinity of ice pressure ridges. Seals are very important in the economy of the Inuit for they provide meat for men and dogs, and skins for clothing. The sale of seal skins is also an important source of income. No boundary is associated with this symbol.

14 WALRUS

The islands in these areas are used by a small number of walrus for haul-outs.

15 BELUGAS

Thousands of beluga whales migrate northwards through the coastal shallows of Hudson Bay during the summer months.

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Community of Arviat

Arviat HTO Board Members and Chairpersons

Department of Environment, Government of Nunavut

Interviewees –Arviat

David Aglukark Sr., Thomas Alikaswa, Leo Ikakhik, Andrew Muckpah, Dominic Pingushat, Jack Irkok, Ludovic Issumatarjuak Onerk, and Angelina Suluk.

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APPENDIX 1 INTERVIEWEE BIOGRAPHIES

INTERVIEW	NAME	BIOGRAPHY
1	David Aglukark Sr.	David was born in 1942 in Chesterfield Inlet and grew up in that area. He has lived in Arviat since around 1963. He started hunting when he was 18 years old and is still an active hunter.
2	Thomas Alikaswa	Thomas was born in 1956 approximately 100 miles west of Arviat. He has lived his whole life in the Arviat area. He started hunting when he was 9-10 years old with his grandfather and is still an active harvester.
3	Leo Ikakhik	Leo was born in 1962 in Whale Cove and has lived in Arviat for 51 years. He started hunting with his father when he was 9 or 10 years old. Leo has done several wildlife surveys all across Nunavut in his lifetime and has been a polar bear monitor in Arviat for the past 7 years.
4	Andrew Muckpah Wayne Muckpah	Andrew was born in 1995 in Winnipeg, MB and has lived in Arviat his whole life. Wayne was born in 2000 in Churchill, MB and has lived in Arviat his whole life. He started hunting when he was 7 or 8 years old. Andrew and Wayne are hunting partners.
5	Dominic Pingushat	Dominic was born in 1956 in an igloo at Catch Lake and grew up in that area. He has spent most of his life in Arviat with some years living in Whale Cove, Rankin Inlet and Winnipeg. He was 4 or 5 years old when he began hunting or fishing and is still an active hunter when the weather is not too cold.
6	Jack Irkok	Jack was born in 1962 at Eskimo Point and grew up in that area too. He has lived his whole life in the Arviat area. He was 8 or 9 years old when he started hunting or fishing and is still an active harvester.
7	Ludovic Issumatarjuak Onerk	Ludovic was born in 1955 in the Big River area and grew up in Whale Cove. He has lived in Arviat since 1966. He started hunting and fishing with his dad when he was 6 years old and is still an active hunter.

INTERVIEW	NAME	BIOGRAPHY
8	Angelina Suluk	Angelina was born in 1957 in Arviat and has lived in Arviat her whole life. She started hunting when she was 20 years old and is still an active harvester.

APPENDIX 2 ACRONYMS AND ABBREVIATIONS

CRI – COASTAL RESOURCE INVENTORY

DOE – DEPARTMENT OF ENVIRONMENT

GIS – GEOGRAPHIC INFORMATION SYSTEM

HTO – HUNTER/TRAPPER ORGANIZATION

IHT – INUIT HERITAGE TRUST

INAC – INDIGENOUS AND NORTHERN AFFAIRS CANADA, GOVERNMENT OF CANADA

IQ – INUIT QAUJIMAJATUQANGIT

IPCC – INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

NTI – NUNAVUT TUNNGAVIK INCORPORATED

NWMB – NUNAVUT WILDLIFE MANAGEMENT BOARD