EXECUTIVE SUMMARY

This report is derived from the Hamlet of Clyde River and represents one component of the Nunavut Coastal Resource Inventory (NCRI). The term “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 is ultimately presented in map format.

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. Following the success of this project further communities were approached and agreed to take part in the inventory process, they are as follows:

- 2008 Kugluktuk and Chesterfield Inlet
- 2009 Arctic Bay and Kimmirut
- 2010 Sanikiluaq
- 2011 Qikitarjuaq and Gjoa Haven
- 2012 Iqaluit, repulse Bay, and Grise Fiord
- 2013 Pangnirtung
- 2014 Coral Harbour, Clyde River, and Taloyoak

This report focuses on the data collected during the interviews of the elders and hunters of the community of Clyde River conducted in January, 2014.

Inventory deliverables include:
• A final report summarizing all of the activities undertaken as part of this project;
• Provision of the coastal resource inventory in a GIS database;
• Large-format resource inventory maps for the Hamlet of Clyde River and eastern Baffin Island, Nunavut;
• Key recommendations on both the use of this study as well as future initiatives.

During the course of this project, Clyde River was visited on two separate occasions. The first was to perform community consultations, occurring in December of 2013. The second was to conduct the interviews themselves, which occurred from January 6, 2014, to January 10, 2014.

A total of ten interviews were conducted. Five individuals were present for each interview: the interviewee, an interviewer, a recorder, a student intern, and an interpreter. The interviewer followed a predetermined and defined set of questions, utilizing photo references of the species in question. The interview process varied in length from 1.5 to 3.5 hours depending on the individuals being interviewed. Information collected through interviews and research was plotted on working maps when appropriate. Once the inventory was completed, a database was generated and maps were digitized and analyzed.

An array of maps, drawn from the interviews is provided in this report. Data are organized into the following categories: Marine Mammals, Fish, Birds, Invertebrates, Marine Plants, Areas of High Diversity, and Other. Additional maps illustrate the territory of Nunavut, the extent of the study area, and a reproduction of the study area extracted from the Nunavut Atlas. The map format was chosen to provide a synoptic view of the collected data. In addition, the maps are complimented by extensive tabular information.

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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 26 of Nunavut's coastal communities. Although interviews with elders have become commonplace throughout the territory, community differences are sufficiently important to warrant an individual and focused approach in the manner in which this information is elicited. Each community is unique in terms of its physical environment, oceanographic setting, organisms present, and the interests and approaches of its hunters and trappers. One might even suggest that each community has been and should be treated independently in a series of pilot projects. This approach significantly limits those things that can be taken for granted and simultaneously encourages a continuous process of refinement of interview materials and methodologies.

THE COASTAL RESOURCE INVENTORY

A coastal resource inventory, as used in this report, is an information compendium on coastal 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. Defining the extent of resources varies by community and "near the coast" may include species and activities 50 miles or up to 100 miles inland (mainly lakes and river systems).

The information obtained is then augmented with additional data acquired from scientific articles, unpublished reports, government documents, environmental assessments, maps, etc. 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 margins, notably on our Atlantic and Pacific coasts where the information gained from this approach was used to provide: the foundation for an integrated coastal management plan; essential insights to assist with the protection of important coastal areas; and information 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 principle source of information for community-based coastal inventories is traditional knowledge (Inuit Qaujimajatuqangit in Inuktitut, or IQ) gathered through interviews. Over the past fifty years, Inuit have gone from a resource-based nomadic life style to a wage-based economy. Nevertheless, coastal and land-based activities are still extremely important, contributing to Inuit quality of life, providing income and food, and as a significant part of Inuit culture. To ensure we retain this traditional knowledge and the above associated benefits,

knowledgeable individuals (usually community elders) were engaged using a defined survey that addresses the presence, distribution, and characteristics of various coastal resources. In addition, visual surveys of the coastline and the community provide diverse information on important coastal features, including the type and condition of infrastructure (wharves and fish plants) and the location of a variety of coastal activities or impacts (town dumps or sewage sites).

Figure 1. Map of Nunavut

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. Establishment of a new fishery requires reliable information

on species-specific abundance and distribution of fish stocks in order to determine both the feasibility of the initiative as well as its long-term sustainability. Community resource information gathered in one central location can be an important first step toward fishery commercialization. This information could also lead to the identification of potential coastal parks and related tourism opportunities, including sensitive coastal areas, breeding grounds, important species, and unique habitats.

Traditional knowledge (IQ) embodies both historical and contemporary information. 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. From February to November 2007, the Intergovernmental Panel on Climate Change released four reports, in which they reinforced and extended all of their earlier predictions regarding both the potential for change and the impacts expected when those changes occur (IPCC 2007 a, b, c, and d). Conclusions drawn from these documents indicate that the Inuit can expect significant environmental changes in sea ice, fast ice, coastal erosion, animal behaviour, and population abundances, to mention but 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.

ORIGIN OF THE COASTAL INVENTORY

The Fisheries and Sealing Division of the Department of Environment, Government of Nunavut initiated the development and implementation of a community-based coastal zone inventory for Nunavut. In their April 2007 report, *Nunavut Coastal Resource Inventory: Assessment and Planning*, a consulting team from Dalhousie University recommended that the Nunavut Coastal Resource Inventory Project begin with a pilot project in order to define, test, and document methodologies, primarily those dealing with the critical process of documenting IQ. During community consultations in Igloolik in February 2007, community members, including the local Hunters and Trappers Organization, met with the NCRI staff and consultants to discuss the potential of this initiative for the community. The outcome of that meeting, supported by additional later communications, was keen interest in and support for the pilot project. Igloolik was chosen as the pilot community as it possesses resources that were deemed to offer support to the project's success, including a satellite office of the Nunavut Research Institute (NRI). This office is home to the IQ and Oral History project, which has been underway for more than two decades. The staff of this remarkable unit has extensive experience in the collection of IQ, which is stored in a computer-accessible database. Collaboration with NRI, especially the

opportunity to learn from their experience, was judged an important initial benefit. In addition, officials of the Hamlet of Igloolik were very positive in regards to the potential benefits to their community, as well as providing important administrative support for the project.

The pilot project was an intense learning process. The primary goals were to create a database comprising an assemblage of IQ that would contain depth and breadth, as well as developing a well-vetted process for interviews, data recording, range of topics, data reduction, digitization, analysis, GIS integration, and presentation. Although the pilot project was judged successful, subsequent phases of this project have demonstrated the need for continuous adjustment and adaptation of the process, in order to improve its efficiency and better adhere to project goals.

PERSONNEL AND PROJECT DELIVERABLES

The Coastal Resource Inventory of Clyde River was conducted by Department of Environment (DOE) staff with the assistance of the Marine Institute of Memorial University of Newfoundland. Overall project leadership was provided by Devin Imrie, Acting Director, Fisheries and Sealing Division, and his staff: Ron Brown, Manager, Policy and Programs; and Angela Young, Program 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 and;
- Recommendations on the use of this study and future initiatives

METHODOLOGY

This section is composed of two parts: a broad introductory overview of the philosophy, approach, and execution of the interview process, followed by a more detailed examination of the methodology.

AN OVERVIEW OF THE PROCESS

The process began with the selection of a community that would be prepared to participate in the interview process. Criteria to assist in the selection were devised early in the development of the project, but as one might expect, undergo continuous revision. Once a provisional choice was made, the community was visited with the purpose of determining whether it wished to participate in the inventory, and if so, which individuals would be most appropriate for the interviews. The above questions were directed principally at the local Hunters and Trappers Organization (HTO), who provided an annotated list of potential candidates. Further, queries were made and discussions held with individuals who might serve as interpreters and translators in conjunction with the interview process. Suitable dates and venues were then selected for the interviews.

The interview team was made up of five individuals: the interviewee, an interviewer, a translator, a recorder, and a student observer. The process varied from 1.5 – 3.5 hours, depending on the amount of detail in the interviewee's responses and the amount of clarification required. Each interview followed the same format. The first round of questions requested information about the interviewee's early life history as well as their general knowledge of and familiarity with the local area. This was followed by resource-based questions that referred to specific animals and plants observed in the area. Responses were documented during the interview, with spatial information recorded using maps prepared in advance that were annotated by the interviewee. The entire proceedings, with permission, were recorded using audio and video equipment. Upon completion of the interviews, data was compiled into spreadsheets, and the map information was scanned, digitized, and prepared for data analysis.

DETAILS OF THE PROCESS

Community Selection

Criteria to guide community selection were established prior to the start of the NCRI process and were based on a series of interviews with a broad range of individuals, all of whom had some prior experience working with traditional knowledge and/or communities. Criteria were subject to continuous refinement as knowledge and insights improved. Community selection did not depend on meeting the requirements of every single criterion, but rather on the general picture conveyed by the responses to these queries. The present criteria are as follows:

- Is the selected community willing to participate in the project?

- Is the community considered to be an important source of data on coastal resources?
- Are any other projects underway in the community that might be complementary to the coastal inventory?
- Does the community possess an existing repository of oral history that could be made available to the project?
- Does the community have a strong but under-utilized or under-managed connection with a particular resource animal, such that inventory data could prove useful?
- Does the community wish to acquire or use any of the coastal inventory data produced by the project?
- Is the community presently involved in a commercial fishery?
- Is the community currently seeking infrastructure for which the coastal inventory study might prove supportive?
- Does the community have a strong and broadly-accepted leadership available to assist the project?
- Does the community have a close association with a park or a protected area?

Community Visits

Communities are visited on three occasions: an initial scoping/consultation meeting (December, 2014), followed by on-site interview sessions (January 6-10, 2014), and finally a follow-up visit to present the finished report and supporting material to the community. The scoping session was designed to put into place all of the elements that were required to properly conduct the interviews. This process depended on the support and participation of the Clyde River Hunters and Trappers Organization (HTO) and the Hamlet office. The HTO formally agreed to support this initiative by providing an annotated 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 seven 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. These individuals were contacted, and tentative interview schedules were established. The next step was to select a venue that would accommodate the interview process.

Interview Preparation

Preparations for the interviews focused on the definition and acquisition of all the information and equipment that was necessary to compile the resource inventory. This ranged from digital voice and video recorders to coloured pencils. The latter would be used by both interviewees and project personnel to draw and code information on prepared maps. It also involved defining the subject matter to be addressed in the interviews including: contextual material such as early life history or the location of camp sites, the geographic extent of the maps, the species of interest (animal and plant), and supporting environmental information such as time

of occurrence and condition at occurrence (breeding, migrating, feeding, etc.). Once these decisions were made the results were translated into maps of the area normally used by hunters and fishers (Fig. 2).

Figure 2: The study area extent discussed in the Clyde River interviews.

Interview Strategy

The manner in which the interviews would be conducted was repeatedly discussed over a lengthy period and ultimately reflected the advice that NCRI personnel received from many different sources. The goal of the interview process was to allow Inuit hunters to speak in comfortable surroundings on the subject of living coastal resources, based on their life experiences. Recording this information recognizes the finite nature of human life, the wealth of information held by individuals, and the importance of that information from both cultural and management standpoints. Considerable attention was devoted to the realization of these goals. Over the years, Inuit hunters have often been interviewed; however, this time they were pleased to learn that the process would comprehensively embrace a broad range of living marine resources and that the NCRI staff would provide each HTO with a copy of all data collected from the interviews in its community.

The Interviews

Six individuals were present during each interview: the interviewee, an interviewer, a translator, a recorder, a science consultant, and a student observer. The interviewer followed a defined protocol that placed a strong emphasis on a series of predetermined questions and photographs of various living resources known to occur in the area. Maps covering the area of interest and colour coded pencils were provided for 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; locations 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).

Every annotation on the maps was 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 audio tapes. The interview process varied from 1.5 – 3.5 hours, depending on the individual being interviewed.

Post-Interview Methodology

During and immediately following each interview, rigorous file management protocols were employed. All recording modes (audio, video, and manual) were carefully synchronized with the information noted on the maps. All of the manually recorded data was entered on a spreadsheet, which was updated as clarifying information became available. The maps used in the interviews were scanned and the hand drawn data was digitized. The end result was the

creation of a coherent and workable database, which when used with the maps provides a complementary visualization of that data. From the outset, the maps were planned to form the cornerstone of the interview process and of the resulting community reports.

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 as to residency and land use. The resulting study contains 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 document is the *Nunavut Atlas* co-published in 1992 by the Canadian Circumpolar Institute and the Tunngavik Federation of Nunavut. This atlas relies largely on data collected for the Inuit Land Use and Occupancy Study and although the presentation of resource data and maps is reasonably accessible, the information is approximately 35 years old. Relevant maps from this volume are presented in this report (Figures 47-48).

The third document is the *Nunavut Wildlife Harvest Study* produced by the Nunavut Wildlife Management Board in August 2004 as mandated by the Nunavut Land Claim Agreement. Harvest data was collected monthly from Inuit hunters for a total of five years from 1996 to 2001. The purpose of the study was to determine current harvesting levels (at that time) 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 plotted, when appropriate, on working maps, while the final representations are presented on all inventory maps. The scale is small, in keeping with the size of the geographic area under discussion. 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 geographic information system (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 species name, source, population level, etc. Mapped data are linked to additional information in the corresponding database. Photos accompany the data where applicable.

MARINE RESOURCES IN A PHYSICAL SETTING

INTRODUCTION

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 ocean 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 ephemeral conditions. Sites formed in this manner are largely unpredictable and of limited usefulness to animals and humans. On the other hand, recurrent open water sites are the physical manifestation of one or several predictable physical processes that result in spatial and

temporal reliability. The different processes that contribute to this reliability are reviewed below.

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. The reasons for this observed correlation are many, varied, and not mutually exclusive. 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.

The availability of food, the product of primary production in phytoplankton, ice algae, and marine plants, is a major contributing factor in the abundance of marine organisms observed at recurrent open water sites. Bradstreet and Cross (1982) believe the aggregation of food items available to invertebrates and vertebrates on the under-ice surface is a factor of significance. Algal groups are important, although 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; Harrisson and Cota, 1991; Legendre et al 1992). Plant material is grazed and enters into the food web, supplying energy to invertebrates (e.g. copepods, amphipods, and shellfish), fish (e.g. Arctic Cod), mammals (e.g. seals, Narwhal, Walrus, and Polar Bears), and birds (e.g. 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 the sea ice thinning faster and earlier in the spring, 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.

In addition, these open water sites appear to have been of great importance to the native peoples that have occupied the Arctic for several thousand years. Zooarchaeological 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 Hamlet of Clyde River is located on the Northeastern coast of Baffin Island adjacent to the Davis Strait and Baffin Bay. Its location is approximately 70.484°N, 68.516°W

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 breath, 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 obvious 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. These mechanisms are not mutually exclusive and sometimes work in concert. The first process involves a continuous transfer of warmer, deeper water to the surface, which slows or eliminates ice formation. The second process is controlled by wind and/or ocean currents, which remove any ice formed at the site. Additionally, the ice formation process gives off some heat, which further slows subsequent ice development. Hannah et al (2009) review these mechanisms and point out several additional factors, such as turbulence from surface waves or currents that can inhibit ice formation, and adjacent coastlines, shore-fast ice or ice bridges that may prevent ice from drifting into polynyas.

Recurring polynyas typically occur between near shoals and islands, within the land-fast ice. As the name implies, they occur regularly each year due to a combination of upwelling, winds and tidal currents, which prevent the formation of ice. By and large, there are two types of recurring polynyas: those that freeze over for one or two of the coldest months of the year, only to re-

open in the early spring; and those that remain open all year long. Animals such as seals, walrus and some migratory sea birds use these polynyas as important over-wintering areas.

No major polynyas exist in the vicinity of the community of Clyde River.

Landfast Leads (or Flaw Leads)

Extensive systems of land-fast leads occur throughout the Arctic. Stirling (1981) summarizes their many characteristics. 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. George (2004) suggests that the physical presence of this ice cover modifies tidal and wind energy, dramatically changing circulation. At some point, a fracture or crack may develop between the attached ice and the free-floating pack ice due to offshore winds, or to a lesser extent 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, landfast 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 landfast 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 landfast ice (McLaughlin et al. 2005);
- Ringed seals and polar bears are the only marine animals that regularly occupy extensive landfast 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, landfast 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 landfast 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 landfast 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 warmer, 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 warmer 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, Johannesen et al. 1983) and off the coast of Newfoundland (Tang and Ikeda 1989).

In addition to a greater heat flux to the surface, 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 Global Warming

Over the past 20 years, many Arctic researchers have commented on the impending probability of global warming, 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). Many changes may occur potentially impacting the role that recurrent open water sites play in the coastal resources. 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. In other words, change may occur in our physical world that could, in turn, alter the biological system, including the human component.

RESOURCE INVENTORY

The community interviews contain two kinds of information: that elicited from direct questions and anecdotal context, which provides additional depth or breadth, colours a response, or

offers an interpretation of the species under discussion. The first type has specific geographic coordinates or involves quantitative estimates that lend themselves to eventual representation within a GIS format. The second, in the form of individual opinions, assumptions, and conclusions, offers qualitative information that helps to humanize the responses and mappings. These observations were generally made without any additional information or corroboration and sometimes suggested a correlation to some other environmental change. However, a correlation does not necessarily signify causality. Nevertheless, the observations below provide highly personal and very useful insights that could be worthy of additional investigation.

MARINE ENVIRONMENT

The geographic area identified by interviewees as the normal range of their hunting and fishing activities spans approximately 75 km out to sea, 200 km along the coast to the south, and 270 km along the coast to the north from Clyde River.

HUNTING/FISHING

Clyde River 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.

- Participants noted that species abundance varies from year to year.
- Some interviewees indicated that the number of polar bears in the region are increasing due to greater hunting restrictions, and that the bears are now entering the mountains in greater numbers.
- It was noted that Greenland sharks are moving with the turbot.

HEALTH, SIZE, AND PRESENCE

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

- A reduction of polar bears fearing humans was noted by interviewees.
- Disease was noted in some populations of char, and interviewees indicated that the diseased fish had a poorer taste to them.
- Interviewees noted that fish at different lakes have either thicker or thinner skin.
- Interviewees noted an increase in the numbers of bearded seals in the area.
- It was noted that walrus were more plentiful during the forties than they are today, believed to be a result of white people hunting.

CHANGES UNDERWAY

Participants commented on changes in their local area regarding species and climate change.

- Nearly all interviewees were concerned by the lack of snow. Noted that this was making travel over land more difficult.
- Some interviewees were concerned about the current state of the sea ice. They said that the flow edge was safe for less time in recent years and worried that it would become worse for hunting.
- Interviewees expressed concerned about weather fluctuations becoming more rapid and decreasing their ability to effectively hunt.
- Most interviewees expressed concerns about the effects of shipping and seismic testing on animals in the region. They indicated that the animals that encountered the ships were afraid.

ECONOMIC DEVELOPMENT

In general the Clyde River interviewees discussed the following with regards to social changes and economic development in their area.

- All interviewees expressed concern about the state of the community freezer. They stated that the community freezer is too small and in disrepair. They also stated that large quantities of meat were spoiling due to these problems.
- All the interviewees indicated that a new docking facility was needed for the community. The current one is too small and does not meet the community's requirements. It was noted that the HTO used to have a large community boat but because of the improper dock size the boat did not last very long.
- Mixed feelings were expressed on the subject of more tourism in the community. Some interviewees felt that more tourism would help the local economy while others believed that they would not be enough to make a difference and as such it is not worth pursuing.
- Interviewees indicated that a fish processing plant specifically for turbot and char would be beneficial to the community and boost commercial fisheries start-up.
- Some participants indicated that the community would benefit from a new store and the addition of a cafe or restaurant. They believe that this would help draw people to the community.
- Interviewees expressed the need for a better road system around the community especially better roads leading out to fishing and hunting locations. They believe better access to the fishing grounds would benefit the local economy.

GUIDE TO MAPS AND TABLES

The following group of maps summarizes the geographic context, species locations, and information from earlier studies (derived from the *Nunavut Atlas*). The maps are accompanied

by data in tabular form, which provides additional detail, along with descriptive information, when available. Table 1 interprets the map codes provided in the tables accompanying the maps. All historic data is presented at the end of this section.

Table 1. Guide to maps and tables.

Category	Map Code
Anything unsure or unreliable	Appended with a lower case 'u'
Present {since year 2000}	Appended with 'P'
Historic {before year 2000}	Appended with an 'H'
Everywhere (seen all over/no specific place/only where they go)	Appended with a upper case 'E'
High Abundance	Appended with an 'A'
Migration (use arrows to indicate direction)	Appended with an 'M'
Spawning / Nesting / Denning / Calving / Pupping areas	Appended with an 'S'
Nursery Area	Appended with an 'N'
Significant Area of High Diversity	SADP
Significant Unique Area	SAUP
Significant Area for Other Reason	SAOP
Other	OTH
Area Known Best (area most familiar with or a travel route)	AKB
Camp / Cabin (typically modern)	CAMP

Generally, maps comprise groupings of several species or a single species as reported in multiple interviews. Species and interviews are normally color-coded and locations are accompanied by a numeric label. The first number in the label refers to a specific interview while the second is a location identifier. These labels can be used to look-up relevant information in the table associated with each map.

Locations reported by the interviewee as “unsure” have not been included in this report.

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 not represented on the maps, but is provided as a table of data following the maps.

Some species were described by a portion of the interviewees as being “Everywhere” while other interviewees provided specific locations for the same species. In these cases, an asterisk

has been placed after the species name in the title of the map. For example, Arctic char is written as “Arctic Char*” in the map title because it was reported in specific locations, as well as being “Everywhere”. The asterisk simply provides a visual cue that the species has two designations.

Please note that the data presented on birds has been further qualified in Appendix 3. Of all the species presented to the interviewees, birds (e.g. sandpipers or gulls) present the greatest challenge in proper identification; a challenge often encountered by even the keenest observers. To assist in interpreting the data, Appendix 3 compares observations recorded through the inventory with literature and sightings by other authors. In the future, inventory work will endeavour to qualify all species reported in a similar way.

MAPS – PRESENT

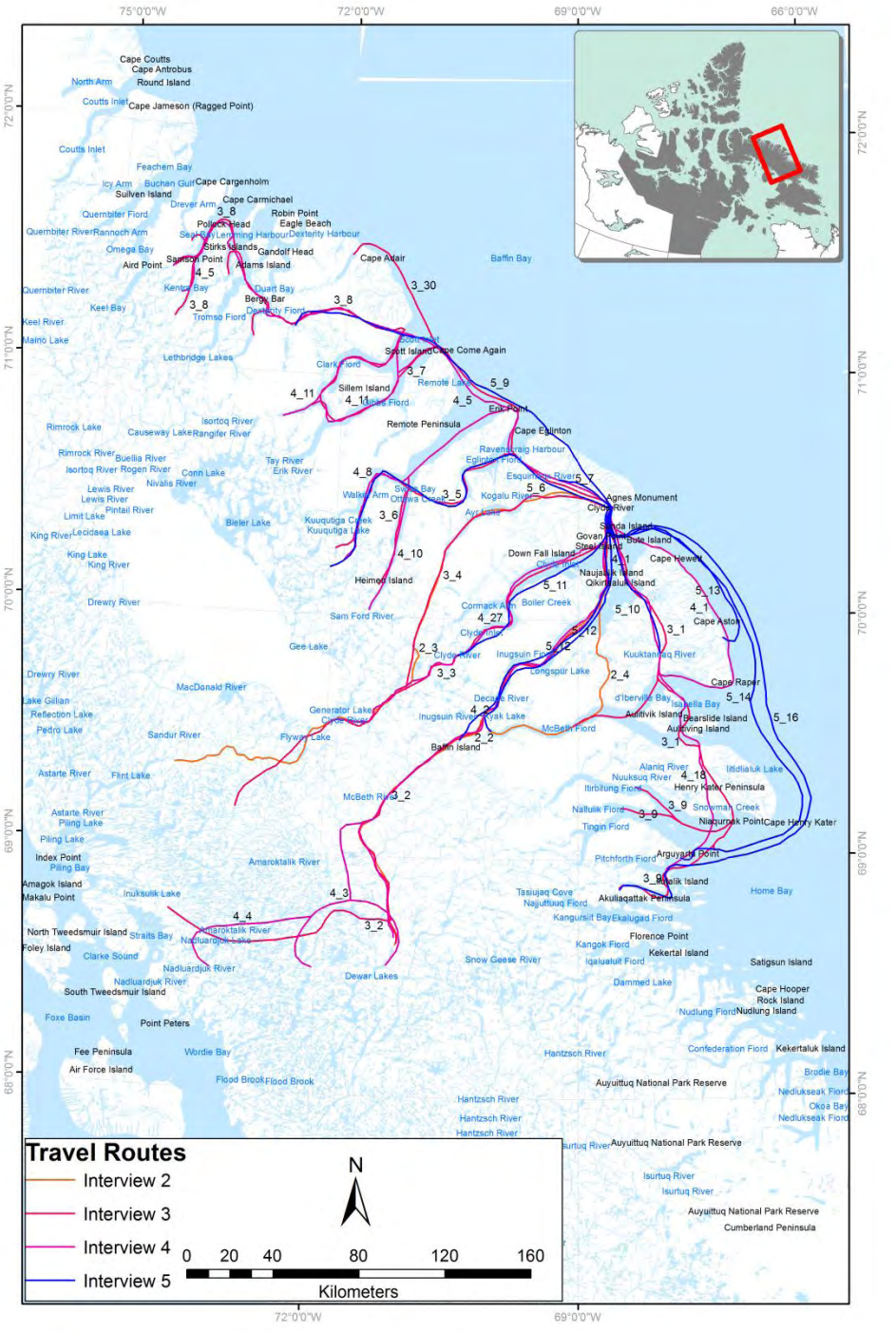

Figure 3. Travel routes interviews 1 to 5

Table 2. Travel routes interviews 1 to 5

Map Code	Interview Code	Category	Comments
1_4	CLYD_01_0114	Travel Route	Old travel route for seal hunting
1_5	CLYD_01_0114	Travel Route	Caribou hunting travel route
1_6	CLYD_01_0114	Travel Route	Seal hunting travel route
1_7	CLYD_01_0114	Travel Route	Fishing travel route
2_2	CLYD_02_0114	Travel Route	Not using this travel route this year (2014) because there is less snow
2_3	CLYD_02_0114	Travel Route	New route this year (2014)
2_4	CLYD_02_0114	Travel Route	Caribou hunting travel route
3_1	CLYD_03_0114	Travel Route	Hunting polar bears, seal pups, and narwhal
3_2	CLYD_03_0114	Travel Route	Caribou
3_3	CLYD_03_0114	Travel Route	Caribou
3_4	CLYD_03_0114	Travel Route	Caribou
3_5	CLYD_03_0114	Travel Route	Fishing
3_6	CLYD_03_0114	Travel Route	Caribou
3_7	CLYD_03_0114	Travel Route	Caribou, seal pups, narwhal
3_8	CLYD_03_0114	Travel Route	Fishing, caribou, pups
3_9	CLYD_03_0114	Travel Route	Young seal (silver jars) and pup, Polar bear, narwhal, fishing
3_30	CLYD_03_0114	Travel Route	Fishing
4_1	CLYD_04_0114	Travel Route	Travel route by skidoo, early spring fishing
4_2	CLYD_04_0114	Travel Route	Caribou hunting travel route, has used in a while
4_3	CLYD_04_0114	Travel Route	General hunting area for caribou
4_4	CLYD_04_0114	Travel Route	General hunting area for caribou
4_5	CLYD_04_0114	Travel Route	Caribou hunting
4_8	CLYD_04_0114	Travel Route	Caribou hunting
4_10	CLYD_04_0114	Travel Route	Caribou hunting
4_11	CLYD_04_0114	Travel Route	Caribou hunting
4_18	CLYD_04_0114	Travel Route	Polar bear hunting
4_19	CLYD_04_0114	Travel Route	Polar bear hunting
4_28	CLYD_04_0114	Travel Route	Caribou
5_6	CLYD_05_0114	Travel Route	Char fishing winter/spring
5_7	CLYD_05_0114	Travel Route	Char fishing winter/spring
5_8	CLYD_05_0114	Travel Route	Char fishing winter/spring
5_9	CLYD_05_0114	Travel Route	Fishing
5_10	CLYD_05_0114	Travel Route	May, June, and winter fishing
5_11	CLYD_05_0114	Travel Route	Fishing
5_12	CLYD_05_0114	Travel Route	Fishing, caribou
5_13	CLYD_05_0114	Travel Route	Summer char
5_14	CLYD_05_0114	Travel Route	Summer char
5_15	CLYD_05_0114	Travel Route	Summer char

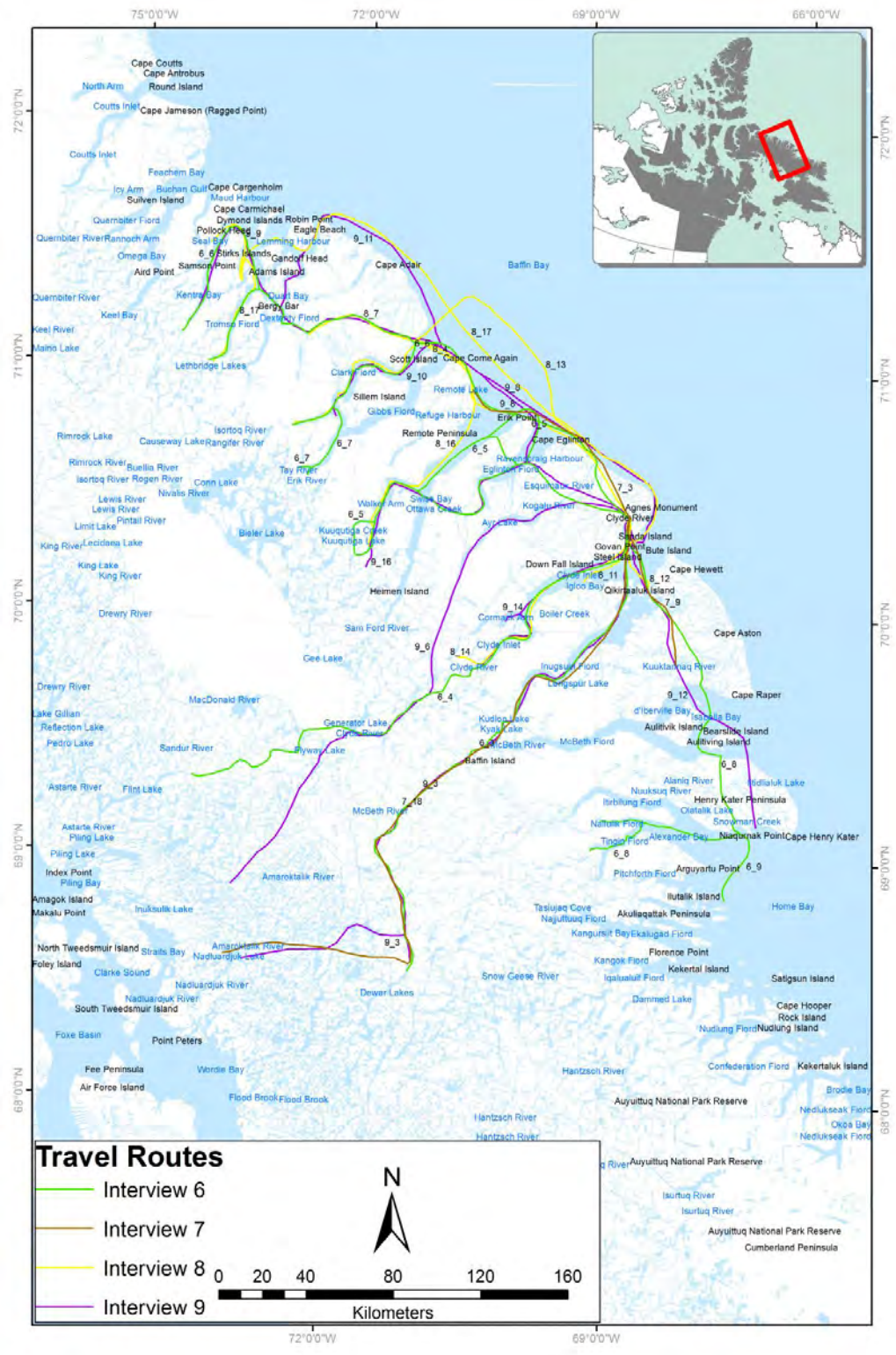

Figure 4. Travel routes interviews 6 to 10

Table 3. Travel routes interviews 6 to 10

Map Code	Interview Code	Category	Comments
6_3	CLYD_06_0114	Travel Route	Caribou early winter to spring
6_4	CLYD_06_0114	Travel Route	Caribou early winter to spring
6_5	CLYD_06_0114	Travel Route	Fish and caribou. Route we take depends on weather / ice. If too much ice built up at Erik Point then take the other route indicated on the map.
6_6	CLYD_06_0114	Travel Route	Winter to spring caribou, fish
6_7	CLYD_06_0114	Travel Route	Cabin Dec to May/June
6_8	CLYD_06_0114	Travel Route	Seal and caribou winter to spring
6_9	CLYD_06_0114	Travel Route	Floe edge
7_3	CLYD_07_0114	Travel Route	Halibut fishing
7_7	CLYD_07_0114	Travel Route	Char fishing
7_9	CLYD_07_0114	Travel Route	Fishing
7_11	CLYD_07_0114	Travel Route	Summer
7_12	CLYD_07_0114	Travel Route	Summer
7_14	CLYD_07_0114	Travel Route	Narwhal
7_16	CLYD_07_0114	Travel Route	Caribou
7_18	CLYD_07_0114	Travel Route	Day trip to check rangers equipment 3 times a year Dec, Feb, Mar
8_4	CLYD_08_0114	Travel Route	Caribou, early spring
8_7	CLYD_08_0114	Travel Route	Fishing, early spring
8_10	CLYD_08_0114	Travel Route	Seal hunting when ice is present
8_11	CLYD_08_0114	Travel Route	Summer, seal
8_12	CLYD_08_0114	Travel Route	Summer, seal
8_13	CLYD_08_0114	Travel Route	Male polar bears
8_14	CLYD_08_0114	Travel Route	Caribou
8_16H	CLYD_08_0114	Travel Route	When lived at 8_2 would hunt caribou in early spring with dog teams
8_17	CLYD_08_0114	Travel Route	Summer, caribou
9_3	CLYD_09_0114	Travel Route	Caribou Dec-Apr
9_6	CLYD_09_0114	Travel Route	Caribou Dec-Apr
9_8	CLYD_09_0114	Travel Route	Caribou Dec-Apr
9_10	CLYD_09_0114	Travel Route	Caribou, summer
9_11	CLYD_09_0114	Travel Route	Narwhal, caribou, summer
9_12	CLYD_09_0114	Travel Route	Young seals, polar bear, winter and spring
9_14	CLYD_09_0114	Travel Route	Whales, summer
9_16	CLYD_09_0114	Travel Route	Winter-spring, char
10_3	CLYD_10_0114	Travel Route	Winter and early spring caribou and fishing area
10_4	CLYD_10_0114	Travel Route	
10_8	CLYD_10_0114	Travel Route	Caribou hunting
10_11	CLYD_10_0114	Travel Route	Fishing, caribou, and seal hunting
10_14	CLYD_10_0114	Travel Route	Caribou hunting
10_16	CLYD_10_0114	Travel Route	Seal hunting

Figure 5. Campsites interview 1 to 5

Table 4. Camps interviews 1 to 5

Map Code	Interview Code	Category	Comments
1_1	CLYD_01_0114	Camp	Was born here
1_2	CLYD_01_0114	Camp	Grew up here
1_3	CLYD_01_0114	Camp	Where he later moved in 1951
1_8	CLYD_01_0114	Camp	Cabin
1_9	CLYD_01_0114	Camp	Spring seal hunting camp
1_10	CLYD_01_0114	Camp	Camping area when ice is gone
2_1	CLYD_02_0114	Camp	Parents camp
2_5	CLYD_02_0114	Camp	Tent site for caribou hunting
2_6	CLYD_02_0114	Camp	Caribou hunting campsite
2_7	CLYD_02_0114	Camp	Caribou hunting campsite
2_8	CLYD_02_0114	Camp	Rangers cabin
2_9	CLYD_02_0114	Camp	
3_10	CLYD_03_0114	Camp	Winter for polar bear
3_11	CLYD_03_0114	Camp	Narwhal, seal
3_12	CLYD_03_0114	Camp	Young seal, spring
3_13	CLYD_03_0114	Camp	Narwhal
3_14	CLYD_03_0114	Camp	Young seal
3_15	CLYD_03_0114	Camp	Young seal
3_16	CLYD_03_0114	Camp	Caribou
3_17	CLYD_03_0114	Camp	Narwhal, seal
3_18	CLYD_03_0114	Camp	Caribou
3_19	CLYD_03_0114	Camp	Caribou
3_20	CLYD_03_0114	Camp	Cabin
3_21	CLYD_03_0114	Camp	Cabin
3_22	CLYD_03_0114	Camp	Cabin, young seal, caribou
3_23	CLYD_03_0114	Camp	Caribou
3_24	CLYD_03_0114	Camp	Caribou
3_25	CLYD_03_0114	Camp	Fishing, cabin
3_26	CLYD_03_0114	Camp	Caribou, polar bear, cabin
3_27	CLYD_03_0114	Camp	Fish, caribou
3_28	CLYD_03_0114	Camp	Caribou
3_29	CLYD_03_0114	Camp	Narwhal, caribou
3_31	CLYD_03_0114	Camp	Tent, fishing
3_32	CLYD_03_0114	Camp	Caribou
3_33	CLYD_03_0114	Camp	Caribou
3_34	CLYD_03_0114	Camp	Caribou
3_35	CLYD_03_0114	Camp	Caribou
3_36	CLYD_03_0114	Camp	Caribou
4_6	CLYD_04_0114	Camp	Cabin - Caribou and fishing camp
4_7	CLYD_04_0114	Camp	Cabin - Caribou and fishing camp
4_9	CLYD_04_0114	Camp	Cabin for caribou hunting
4_12	CLYD_04_0114	Camp	Cabin for caribou hunting
4_13	CLYD_04_0114	Camp	Cabin for caribou hunting
4_14	CLYD_04_0114	Camp	Cabin for caribou hunting

Map Code	Interview Code	Category	Comments
4_15	CLYD_04_0114	Camp	Cabin to Pond Inlet
4_16	CLYD_04_0114	Camp	Cabin, seal pups
4_17	CLYD_04_0114	Camp	Cabin, Polar bear, seal
4_20	CLYD_04_0114	Camp	Narwhal
4_21	CLYD_04_0114	Camp	
4_22	CLYD_04_0114	Camp	
4_23	CLYD_04_0114	Camp	
4_24	CLYD_04_0114	Camp	Fishing/caribou
4_25	CLYD_04_0114	Camp	Fishing/caribou
4_26	CLYD_04_0114	Camp	Caribou
4_27	CLYD_04_0114	Camp	Caribou
4_29	CLYD_04_0114	Camp	Cabin not used frequently
5_16	CLYD_05_0114	Camp	Fishing
5_17	CLYD_05_0114	Camp	Fishing
5_18	CLYD_05_0114	Camp	Fishing
5_19	CLYD_05_0114	Camp	Fishing
5_20	CLYD_05_0114	Camp	Fishing
5_21	CLYD_05_0114	Camp	Fishing
5_22	CLYD_05_0114	Camp	Fishing
5_23	CLYD_05_0114	Camp	Fishing
5_24	CLYD_05_0114	Camp	Fishing, cabin

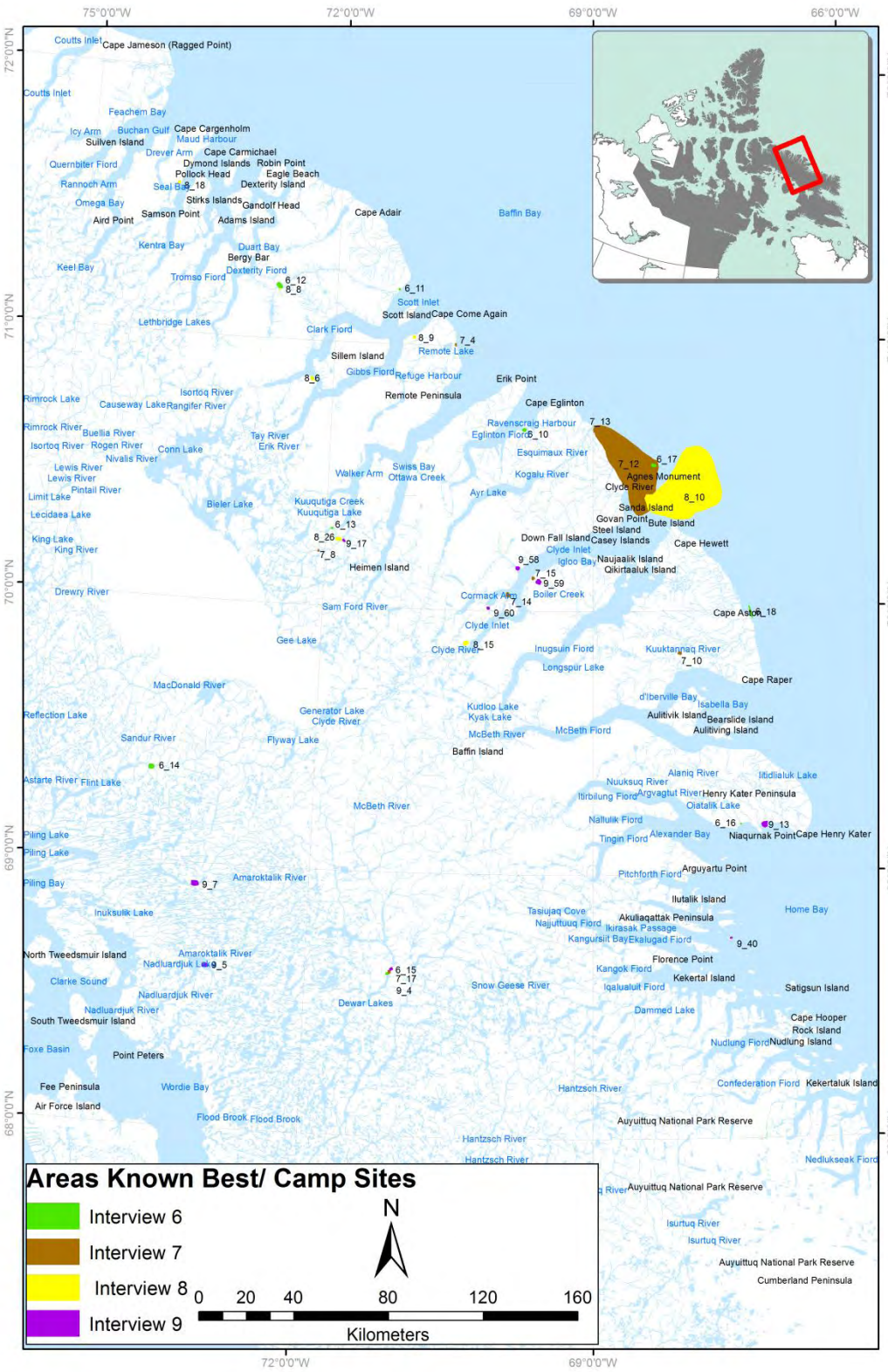

Figure 6. Areas known best and campsites interviews 6 to 10

Table 5. Areas known best and campsites interviews 6 to 10

Map Code	Interview Code	Category	Comments
7_12	CLYD_07_0114	AKB	Summer
8_10	CLYD_08_0114	AKB	Seal hunting when ice is present
6_10	CLYD_06_0114	Camp	Cabin, winter short days
6_11	CLYD_06_0114	Camp	Caribou, Polar bear, cabin
6_12	CLYD_06_0114	Camp	Caribou, fish, winter and spring
6_13	CLYD_06_0114	Camp	Cabin, fish, caribou, winter to spring
6_14	CLYD_06_0114	Camp	Tents
6_15	CLYD_06_0114	Camp	National Defence camper - Dewer Lake
6_16	CLYD_06_0114	Camp	Caribou, seal, fish, polar bear, narwhal (summer)
6_17	CLYD_06_0114	Camp	Permanent camp, used to relax
6_18	CLYD_06_0114	Camp	Should be no island here
7_4	CLYD_07_0114	Camp	For halibut
7_8	CLYD_07_0114	Camp	For char
7_10	CLYD_07_0114	Camp	Char fishing in summer
7_13	CLYD_07_0114	Camp	Char fishing
7_15	CLYD_07_0114	Camp	Narwhal
7_17	CLYD_07_0114	Camp	Rangers cabin
8_1	CLYD_08_0114	Camp	Where he was born
8_2	CLYD_08_0114	Camp	Where he grew up
8_3	CLYD_08_0114	Camp	His fiancé lived here in 1963
8_5	CLYD_08_0114	Camp	Caribou early spring
8_6	CLYD_08_0114	Camp	Caribou early spring
8_8	CLYD_08_0114	Camp	Fishing early spring
8_9	CLYD_08_0114	Camp	Seal
8_15	CLYD_08_0114	Camp	
8_18	CLYD_08_0114	Camp	Caribou
8_26	CLYD_08_0114	Camp	Fishing early spring
9_4	CLYD_09_0114	Camp	Caribou Dec-Apr
9_5	CLYD_09_0114	Camp	Caribou Dec-Apr
9_7	CLYD_09_0114	Camp	Caribou Dec-Apr
9_9	CLYD_09_0114	Camp	Caribou Dec-Apr
9_13	CLYD_09_0114	Camp	Caribou, winter & spring
9_13	CLYD_09_0114	Camp	Char winter & spring
9_17	CLYD_09_0114	Camp	Char winter & spring
9_40	CLYD_09_0114	Camp	Polar bear, would take dog sled to this cabin
9_58	CLYD_09_0114	Camp	Narwhal
9_59	CLYD_09_0114	Camp	Narwhal
9_60	CLYD_09_0114	Camp	Narwhal
10_1	CLYD_10_0114	Camp	Born here
10_2	CLYD_10_0114	Camp	Grew up here
10_5	CLYD_10_0114	Camp	
10_6	CLYD_10_0114	Camp	
10_7	CLYD_10_0114	Camp	Caribou hunting camping area
10_9	CLYD_10_0114	Camp	Caribou hunting camping area

Map Code	Interview Code	Category	Comments
10_10	CLYD_10_0114	Camp	Caribou hunting camping area
10_12	CLYD_10_0114	Camp	
10_13	CLYD_10_0114	Camp	Caribou hunting camping area

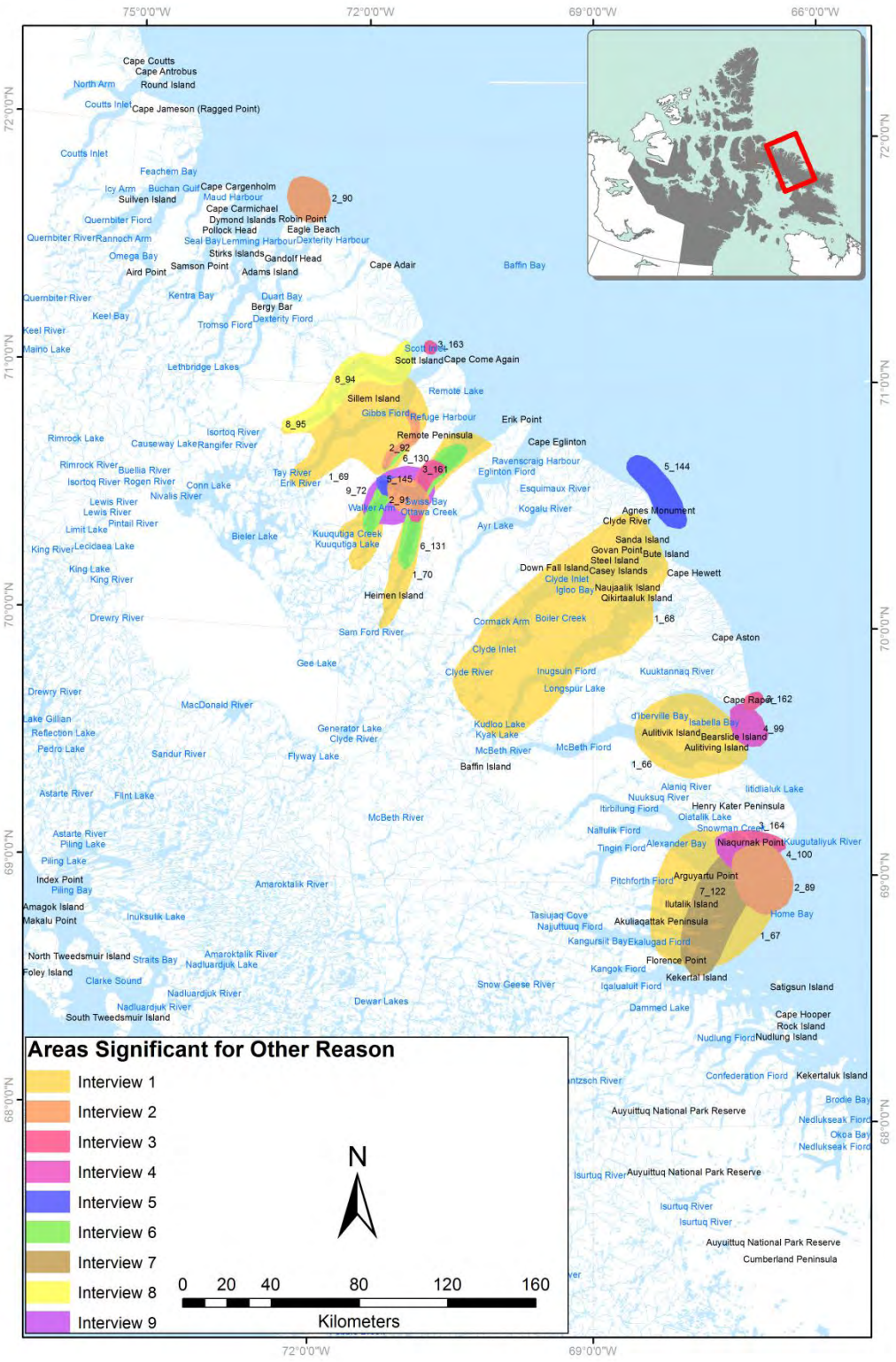

Figure 7. Areas of significance other reasons

Table 6. Areas of significance other reasons

Map Code	Interview Code	Category	Months	Comments
1_66	CLYD_01_0114	Special Places		Not hunted regularly so there are more animals, similar to between Clyde & Pond
1_67	CLYD_01_0114	Special Places		Not hunted regularly so there are more animals, similar to between Clyde & Pond
1_68	CLYD_01_0114	Special Places		Beautiful area
1_69	CLYD_01_0114	Special Places		
1_70	CLYD_01_0114	Special Places		Area used for tourism
2_89	CLYD_02_0114	Special Places		Walrus, Polar Bears, Narwhal, Seals, and foxes in the area
2_90	CLYD_02_0114	Special Places		Walrus, Polar Bears, Narwhal, Seals, and foxes in the area
2_91	CLYD_02_0114	Special Places		High Cliff
2_92	CLYD_02_0114	Special Places		
3_161	CLYD_03_0114	Special Places		Beautiful Place
3_162	CLYD_03_0114	Special Places		Tourist attraction, you can see birds and mammals
3_163	CLYD_03_0114	Special Places		Beautiful rock face
3_164	CLYD_03_0114	Special Places		Birds, foxes
4_99	CLYD_04_0114	Special Places	Jul, Aug	When Narwhal hunting concentrated there seem to be many seal in summer. In winter with flow edge close by, seals congregated. Congregation of whales
4_100	CLYD_04_0114	Special Places	May, Jun, Jul	Area his parents used to live, with high diversity
5_144	CLYD_05_0114	Special Places		Birds, seals, seagulls, at floe edge
5_145	CLYD_05_0114	Special Places		Because of the mountains
6_130	CLYD_06_0114	Special Places		To high, scary
6_131	CLYD_06_0114	Special Places		Popular sports -> high rock face `6000ft
7_122	CLYD_07_0114	Special Places		Beautiful, many islands, tourism + high diversity
8_94	CLYD_08_0114	Special Places		He likes scenery where he grew up
8_95	CLYD_08_0114	Special Places		Beautiful terrestrial plants, look like gardens
9_72	CLYD_09_0114	Special Places		Beautiful scenery

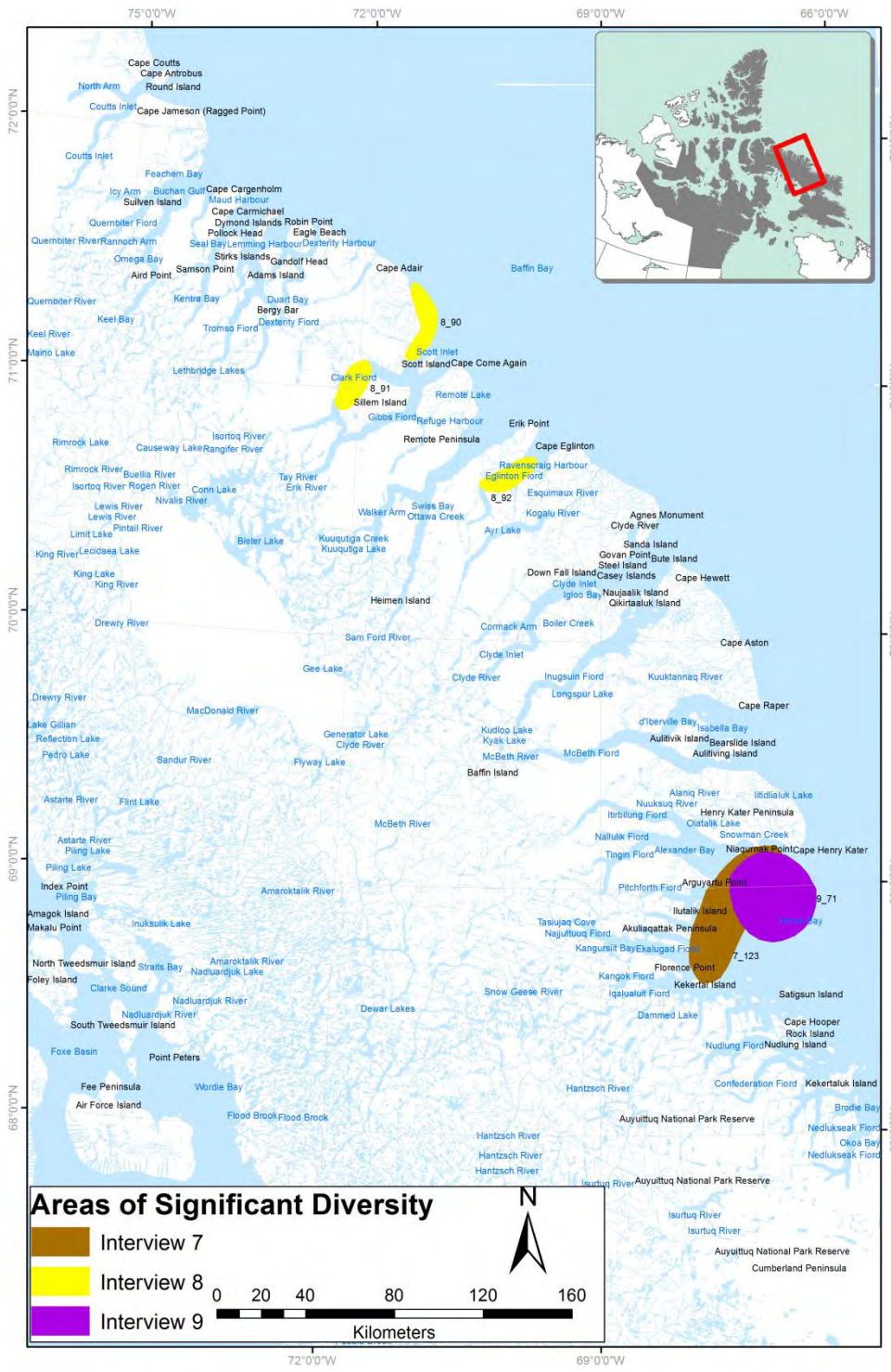

Figure 8. Areas of significant diversity

Table 7. Areas of significant diversity

Map Code	Interview Code	Category	Months	Comments
7_123	CLYD_07_0114	Special Places		
8_90	CLYD_08_0114	Special Places		Many birds, if KW around also many seals (ring, bearded, harp) along shore
8_91	CLYD_08_0114	Special Places		Birds
8_92	CLYD_08_0114	Special Places		Seals (mostly ringed seal) in the past, there were many RS. Use to have ice until August in 50-60's
9_71	CLYD_09_0114	Special Places	July, August	Whale, seals, walrus, fish

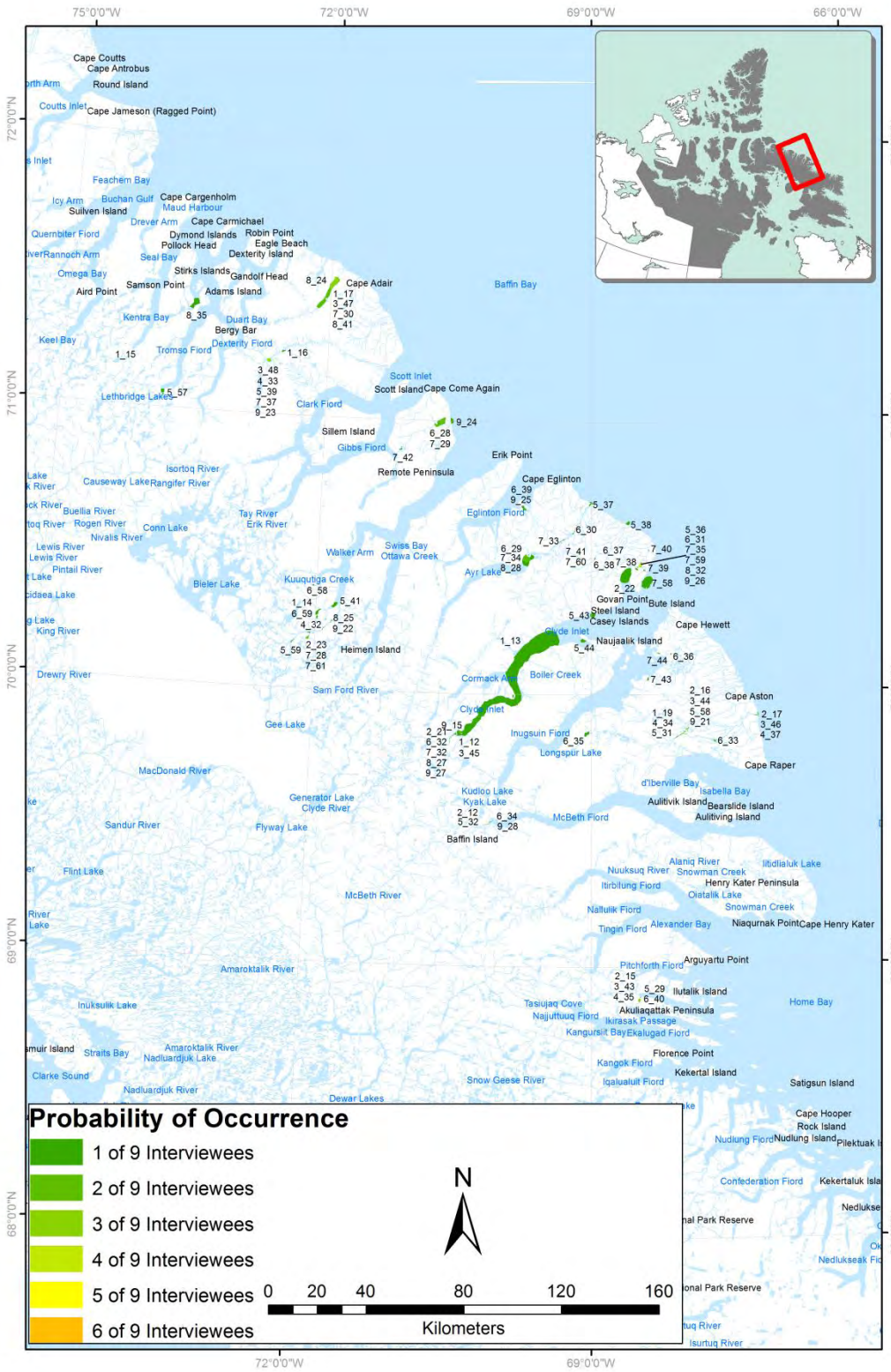

Figure 9. Probability of occurrence for Arctic Char*

Table 8. Probability of occurrence for Arctic Char*

Map Code	Interview Code	Species	Months	Comments
1_12	CLYD_01_0114	Arctic Char	Jul, Aug, Sep, Oct, Nov	
1_13	CLYD_01_0114	Arctic Char	Jul, Aug, Sep, Oct, Nov	
1_14	CLYD_01_0114	Arctic Char	Jul, Aug	
1_15	CLYD_01_0114	Arctic Char		Lots of fish
1_16	CLYD_01_0114	Arctic Char		Still as many fish as in the past (most active)
1_17	CLYD_01_0114	Arctic Char	Apr, May	Only went once and found lots of char (most active)
1_19	CLYD_01_0114	Arctic Char	Jul, Aug, Sep, Oct	Fishing derby (most active)
2_12s	CLYD_02_0114	Arctic Char	Nov, Dec	The char seems to be less now, due to the water (river) charging course
2_13S	CLYD_02_0114	Arctic Char	Nov, Dec	
2_14S	CLYD_02_0114	Arctic Char	Nov, Dec	
2_15S	CLYD_02_0114	Arctic Char	Mar, Apr	
2_16S	CLYD_02_0114	Arctic Char	Mar, Apr	
2_17S	CLYD_02_0114	Arctic Char		
2_21S	CLYD_02_0114	Arctic Char	Sep, Oct	
2_22S	CLYD_02_0114	Arctic Char	Aug, Sep	
2_23S	CLYD_02_0114	Arctic Char	Jan, Feb, Mar, Apr, Aug, Sep, Oct, Nov, Dec	Has the most fish, the fish have seem to run out
3_40	CLYD_03_0114	Arctic Char	Apr, May	High abundance
3_41	CLYD_03_0114	Arctic Char	Nov, Dec, Jan, Feb	
3_42	CLYD_03_0114	Arctic Char	Jan, Feb, May, Jun, Dec	
3_43	CLYD_03_0114	Arctic Char	Dec, Jan, Feb	
3_44	CLYD_03_0114	Arctic Char	Apr, May, Jun	
3_45	CLYD_03_0114	Arctic Char	Apr, May, Jun	Flesh is more red - earthly taste
3_46	CLYD_03_0114	Arctic Char	Jan, Feb, Aug, Sept, Oct, Nov, Dec	
3_47	CLYD_03_0114	Arctic Char	Jul, Aug	
3_48	CLYD_3_0114	Arctic Char	Jan, Feb, Apr, May, June, Dec	

Map Code	Interview Code	Species	Months	Comments
3_49	CLYD_03_0114	Arctic Char	Jan, Feb, Apr, May, June, Dec	
4_32	CLYD_04_0114	Arctic Char	May, June	Char have stronger taste and thicker skin here
4_33	CLYD_04_0114	Arctic Char	Mar, Apr, May	Thin skin, weaker taste here
4_34	CLYD_04_0114	Arctic Char	May, June	Thin skin, fish coming from 4_32, caught some with eggs
4_35	CLYD_04_0114	Arctic Char	May, June	
4_37	CLYD_04_0114	Arctic Char	Jul, Aug	
5_29	CLYD_05_0114	Arctic Char	Jul, Aug, Sept	
5_31	CLYD_05_0114	Arctic Char	May, Jun, Jul, Nov, Dec, Jan	
5_32	CLYD_05_0114	Arctic Char	Jan, Nov, Dec	
5_33	CLYD_05_0114	Arctic Char	Jan, Nov, Dec	
5_34	CLYD_05_0114	Arctic Char	Jan, Nov, Dec	
5_35	CLYD_05_0114	Arctic Char	Jan, Apr, May, Jul, Aug, Nov, Dec	
5_37	CLYD_05_0114	Arctic Char	Apr, May, Jun, Jul, Aug, Sep, Oct	Catch at mouth of river
5_38	CLYD_05_0114	Arctic Char	Apr, May, Jun, Jul, Aug, Sep, Oct	
5_39	CLYD_05_0114	Arctic Char	March, April, may	Fish here have red spots
5_40	CLYD_05_0114	Arctic Char	Jan, Feb, Apr, May, Jun, Dec	Fish have thickest skin and strongest taste
5_41	CLYD_05_0114	Arctic Char	Jul, Aug, Sept	
5_43	CLYD_05_0114	Arctic Char	Jul, Aug	
5_44	CLYD_05_0114	Arctic Char	Jul, Aug	
6_24A	CLYD_06_0114	Arctic Char	May, June	Spawning, high abundance and better taste most common for local consumption
6_25A	CLYD_06_0114	Arctic Char	May, June	High abundance and better taste most common for local consumption
6_28	CLYD_06_0114	Arctic Char	May, June	
6_29	CLYD_06_0114	Arctic Char		

Map Code	Interview Code	Species	Months	Comments
6_30	CLYD_06_0114	Arctic Char		
6_31	CLYD_06_0114	Arctic Char		
6_32	CLYD_06_0114	Arctic Char		
6_33	CLYD_06_0114	Arctic Char		
6_34	CLYD_06_0114	Arctic Char	Jan, Feb, Mar, Apr, May, Dec	
6_35	CLYD_06_0114	Arctic Char	Mar, Apr, Dec	
6_36	CLYD_06_0114	Arctic Char	Jul, Aug, Sept, Oct	
6_37	CLYD_06_0114	Arctic Char	Jul, Aug, Sept, Oct	
6_38	CLYD_06_0114	Arctic Char	Jul, Aug, Sept, Oct	
6_39	CLYD_06_0114	Arctic Char	May, Sep, Oct	
6_40	CLYD_06_0114	Arctic Char	May	
7_28	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	Story of fish-> red char(will say there's lots to eat in ocean but it's cold) have thinner nose then lighter char
7_29	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	Char- during summer, in all fjords. Winter only in lakes
7_30	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_31	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_32	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_33	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_34	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_35	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_37	CLYD_07_0114	Arctic Char	May, Jun, Jul, Aug	
7_38	CLYD_07_0114	Arctic Char	Apr, Nov	
7_39	CLYD_07_0114	Arctic Char	Apr, Nov	
7_40	CLYD_07_0114	Arctic Char	Apr, Nov	
7_41	CLYD_07_0114	Arctic Char	Apr, Nov	
7_42	CLYD_07_0114	Arctic Char	Apr, Nov	
7_43	CLYD_07_0114	Arctic Char	Apr, Nov	
7_44	CLYD_07_0114	Arctic Char	Apr, Nov	
8_22	CLYD_08_0114	Arctic Char	Sept, Oct	
8_23	CLYD_08_0114	Arctic Char	Sept, Oct	Went for red male
8_24	CLYD_08_0114	Arctic Char	Apr, May	

Map Code	Interview Code	Species	Months	Comments
8_25A	CLYD_08_0114	Arctic Char	Apr, May	High abundance
8_27	CLYD_08_0114	Arctic Char		
8_28	CLYD_08_0114	Arctic Char	Apr, May, Jul, Aug	Test fishery in this lake
8_32S	CLYD_8_0114	Arctic Char	Apr, May, Jun	
8_41A	CLYD_8_0114	Arctic Char	May, Jun	High abundance
8_42A	CLYD_8_0114	Arctic Char	Sep, Oct	High abundance
9_21	CLYD_09_0114	Arctic Char	Apr, May, Jun	
9_22A	CLYD_09_0114	Arctic Char	Jan, Feb, Mar, Apr, May, Dec	
9_23A	CLYD_09_0114	Arctic Char	Jan, Feb, Mar, Apr, May, Dec	
9_24	CLYD_09_0114	Arctic Char	June	
9_25S	CLYD_09_0114	Arctic Char	Sept, Oct	
9_26	CLYD_09_0114	Arctic Char	Apr, May, Jun, Sept, Oct	
9_27	CLYD_09_0114	Arctic Char	May, Nov, Dec	
9_28	CLYD_09_0114	Arctic Char	Apr, May	
9_29	CLYD_09_0114	Arctic Char	Apr, May	

Table 9. Arctic char everywhere data

Map Code	Interview Code	Species	Months	Comments
4_38E	CLYD_4_0114	Arctic Char		

Figure 10. Areas of Occurrence for Land Locked Char and Atlantic Salmon

Table 10. Areas of Occurrence for Land Locked Char and Atlantic Salmon

Map Code	Interview Code	Species	Months	Comments
1_20		Landlocked Char		Knows they're there but doesn't fish them
2_26	CLYD_02_0114	Landlocked Char	Aug, Sep	
2_27	CLYD_02_0114	Landlocked Char	Aug, Sep, Oct	
2_28	CLYD_02_0114	Landlocked Char	Jan, Feb, Nov, Dec	
3_50	CLYD_03_0114	Landlocked Char	Apr, May, Jun	
3_51	CLYD_03_0114	Landlocked Char	Apr, May, Jun	
4_39	CLYD_04_0114	Landlocked Char	Oct, Nov	
5_45	CLYD_05_0114	Landlocked Char	Oct, Nov	
5_46	CLYD_05_0114	Landlocked Char	Oct, Nov	
6_41	CLYD_06_0114	Landlocked Char	Sep, Oct	
6_42	CLYD_06_0114	Landlocked Char	Sep, Oct	
6_43	CLYD_06_0114	Landlocked Char	Sep, Oct	
6_44	CLYD_06_0114	Landlocked Char	Sep, Oct	
6_45	CLYD_06_0114	Landlocked Char	Sep, Oct	
8_28	CLYD_08_0114	Landlocked Char	Oct, Nov	
8_29	CLYD_08_0114	Landlocked Char	Oct, Nov	
8_30	CLYD_08_0114	Landlocked Char	Apr, May, Jun	
9_30	CLYD_09_0114	Landlocked Char	Oct, Nov, Dec	
1_21	CLYD_1_0114	Atlantic Salmon	Jul, Aug	Gave fish to friend from Newfoundland
2_29	CLYD_2_0114	Atlantic Salmon	Aug, Sep	
3_52	CLYD_3_0114	Atlantic Salmon	Sep, Oct	Fall
3_53	CLYD_3_0114	Atlantic Salmon	Jan, Feb, Dec	His friend saw a new sighting here
4_40	CLYD_4_0114	Atlantic Salmon	Sep, Oct	
4_41	CLYD_4_0114	Atlantic Salmon	Sep, Oct	
5_47	CLYD_5_0114	Atlantic Salmon	Sep, Oct	
5_48	CLYD_5_0114	Atlantic Salmon		Get a big fish have -> with gun -> line keep breaking
7_45	CLYD_7_0114	Atlantic Salmon	Aug, Sep,	

Map Code	Interview Code	Species	Months	Comments
			Oct	
7_46	CLYD_7_0114	Atlantic Salmon	Aug, Sep, Oct	
7_47	CLYD_7_0114	Atlantic Salmon	Aug, Sep, Oct	
8_33	CLYD_8_0114	Atlantic Salmon	Aug, Sep	
9_31	CLYD_9_0114	Atlantic Salmon	Dec	Caught one
9_32	CLYD_9_0114	Atlantic Salmon	Aug, Sep, Oct	

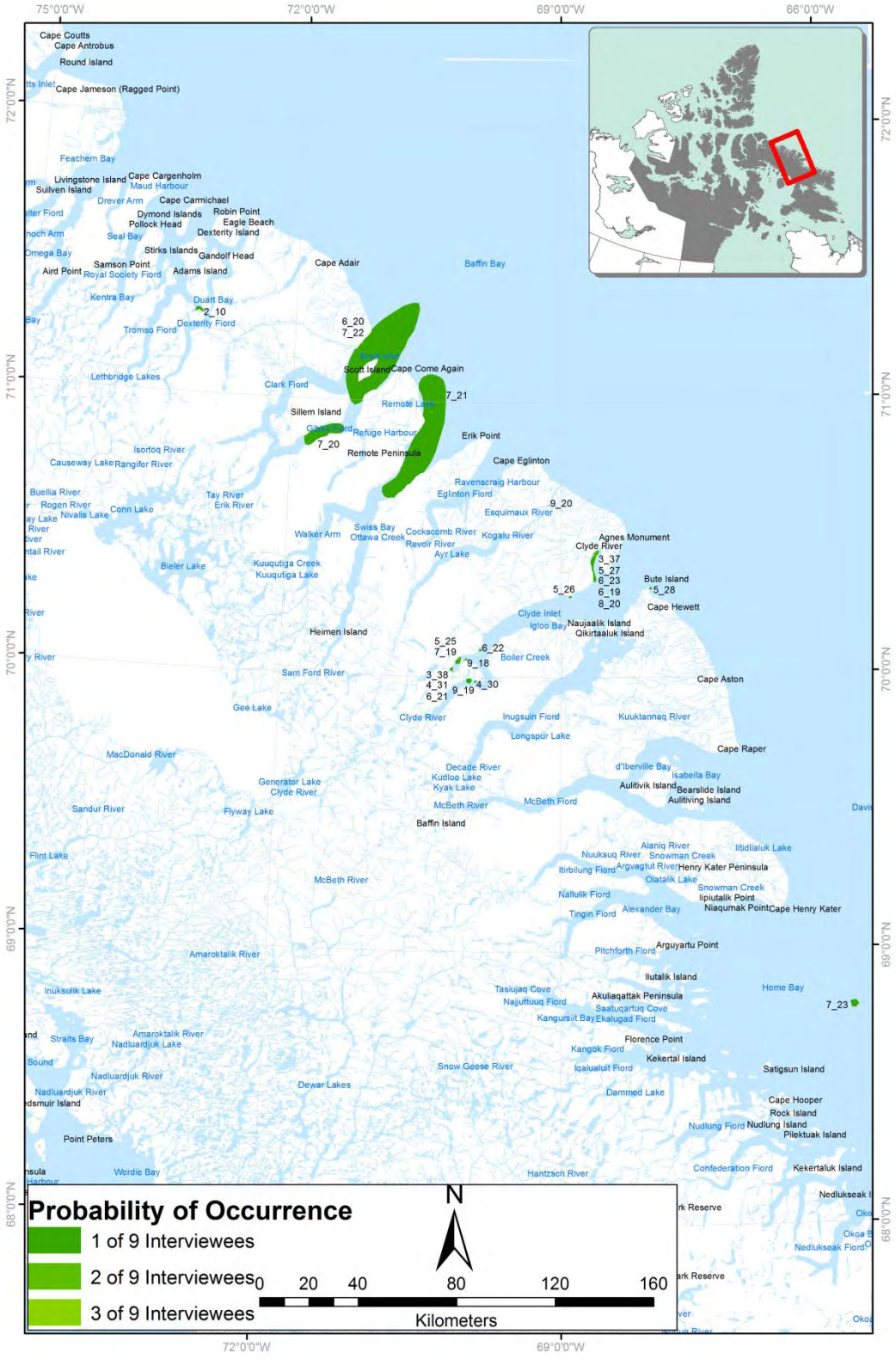

Figure 11. Probability of occurrence for Greenland Shark*

Table 11. Probability of occurrence for Greenland Shark*

Map Code	Interview Code	Species	Months	Comments
2_10	CLYD_02_0114	Greenland Shark	Aug, Sep	
3_37	CLYD_03_0114	Greenland Shark	Jul, Aug	Don't hunt them
3_38	CLYD_03_0114	Greenland Shark	Jul, Aug	
4_30	CLYD_04_0114	Greenland Shark	Jul, Aug	Caught 7 sharks in one day here in whale nets, the sharks were very large
4_31	CLYD_04_0114	Greenland Shark	Jul, Aug	Not to many sharks in Clyde
5_25	CLYD_05_0114	Greenland Shark	Jul, Aug, Sep	
5_26	CLYD_05_0114	Greenland Shark	Jul, Aug, Sep	
5_27	CLYD_05_0114	Greenland Shark	Jul, Aug, Sep	
5_28	CLYD_05_0114	Greenland Shark	Jul, Aug, Sep	
6_19	CLYD_06_0114	Greenland Shark	Jul, Aug	
6_20	CLYD_06_0114	Greenland Shark	Jul, Aug	
6_21	CLYD_06_0114	Greenland Shark	Jul, Aug	
6_22	CLYD_06_0114	Greenland Shark	Jul, Aug	
6_23	CLYD_06_0114	Greenland Shark	Jul, Aug	
7_19	CLYD_07_0114	Greenland Shark	Jul, Aug	
7_20	CLYD_07_0114	Greenland Shark		Tagging research. Sharks have young here
7_21	CLYD_07_0114	Greenland Shark	Jun	(Summer- go up fjords) move with halibut, lines cut by sharks
7_22	CLYD_07_0114	Greenland Shark		Abundant- deeper part
7_23	CLYD_07_0114	Greenland Shark	Apr	
8_21	CLYD_08_0114	Greenland Shark	Jul, Aug	
9_18	CLYD_09_0114	Greenland Shark	Jul, Aug	Nets
9_19	CLYD_09_0114	Greenland Shark	Jul, Aug	Nets
9_20	CLYD_09_0114	Greenland Shark	Sep, Oct	

Table 12. Greenland Shark everywhere data

Map Code	Interview Code	Species	Months	Comments
1_11E	CLYD_01_0114	Greenland Shark	Aug, Sep, Oct	Doesn't hunt them because it's not food , but they get caught in seal nets

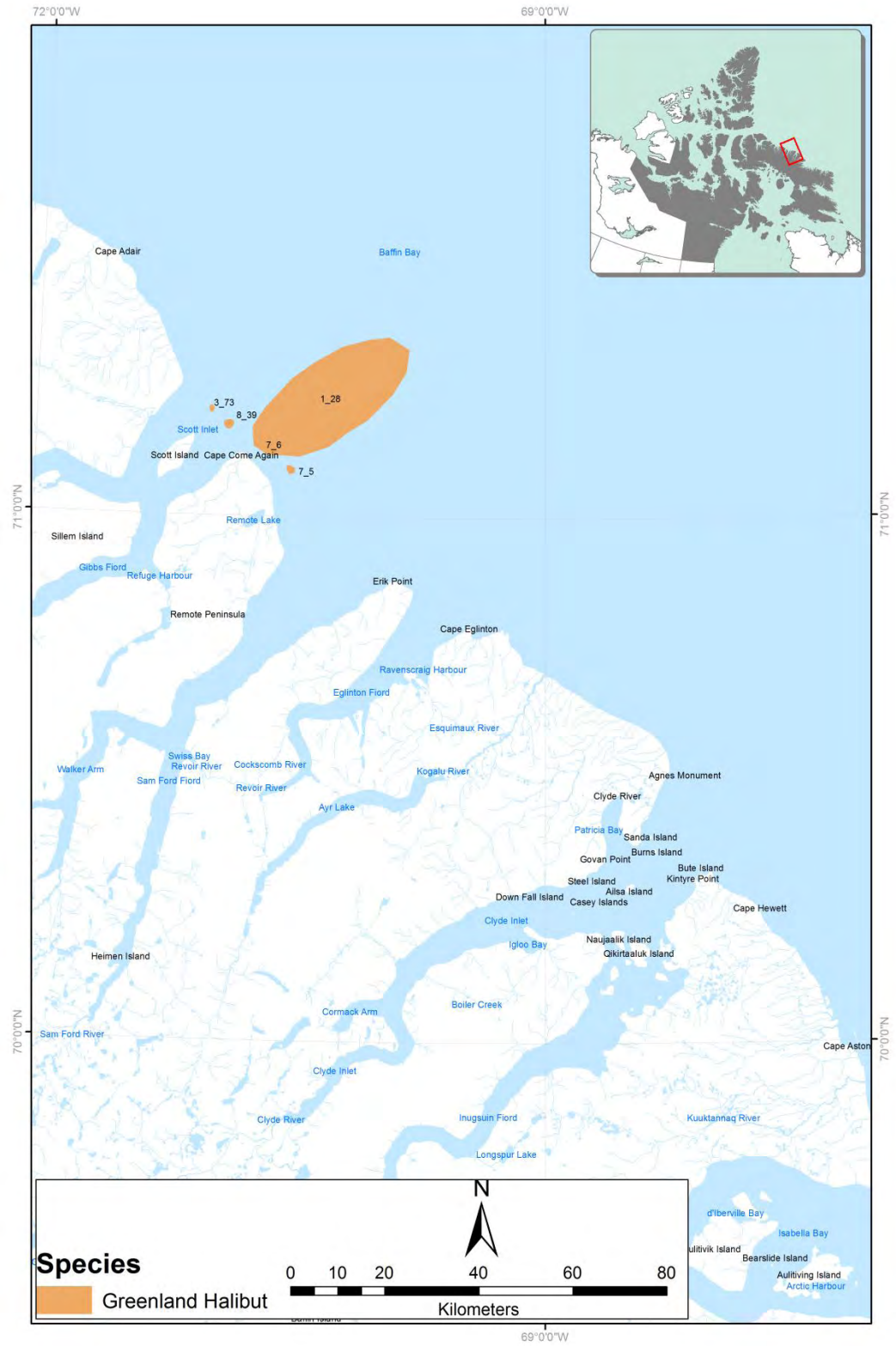

Figure 12. Areas of occurrence for Greenland Halibut

Table 13. Areas of occurrence for Greenland Halibut

Map Code	Interview Code	Species	Months	Comments
1_28	CLYD_01_0114	Greenland Halibut	May	There's only enough for them to eat
3_73	CLYD_03_0114	Greenland Halibut	Apr, May	
7_5	CLYD_07_0114	Greenland Halibut	Mar, Apr, May	Deeper than 300m
7_6	CLYD_07_0114	Greenland Halibut	Mar, Apr, May	Deeper than 300m
8_39	CLYD_08_0114	Greenland Halibut	Feb, Mar, Apr, May, Jun	

Figure 13. Areas of occurrence for Arctic Cod, Atlantic Cod, and Greenland Cod

Table 14. Areas of occurrence for Arctic Cod, Atlantic Cod, and Greenland Cod

Map Code	Interview Code	Species	Months	Comments
1_22	CLYD_01_0114	Atlantic Cod	Apr, May	High abundance
2_32	CLYD_02_0114	Arctic Cod	May, Jun, Jul	
2_33	CLYD_02_0114	Arctic Cod	May, Jun, Jul	
3_54	CLYD_03_0114	Greenland Cod	May	
4_42	CLYD_04_0114	Greenland Cod	Apr, May, Jun	

Table 15. Burbot everywhere data

Map Code	Interview Code	Species	Months	Comments
1_23E	CLYD_01_0114	Burbot		In ocean when fishing for sculpin

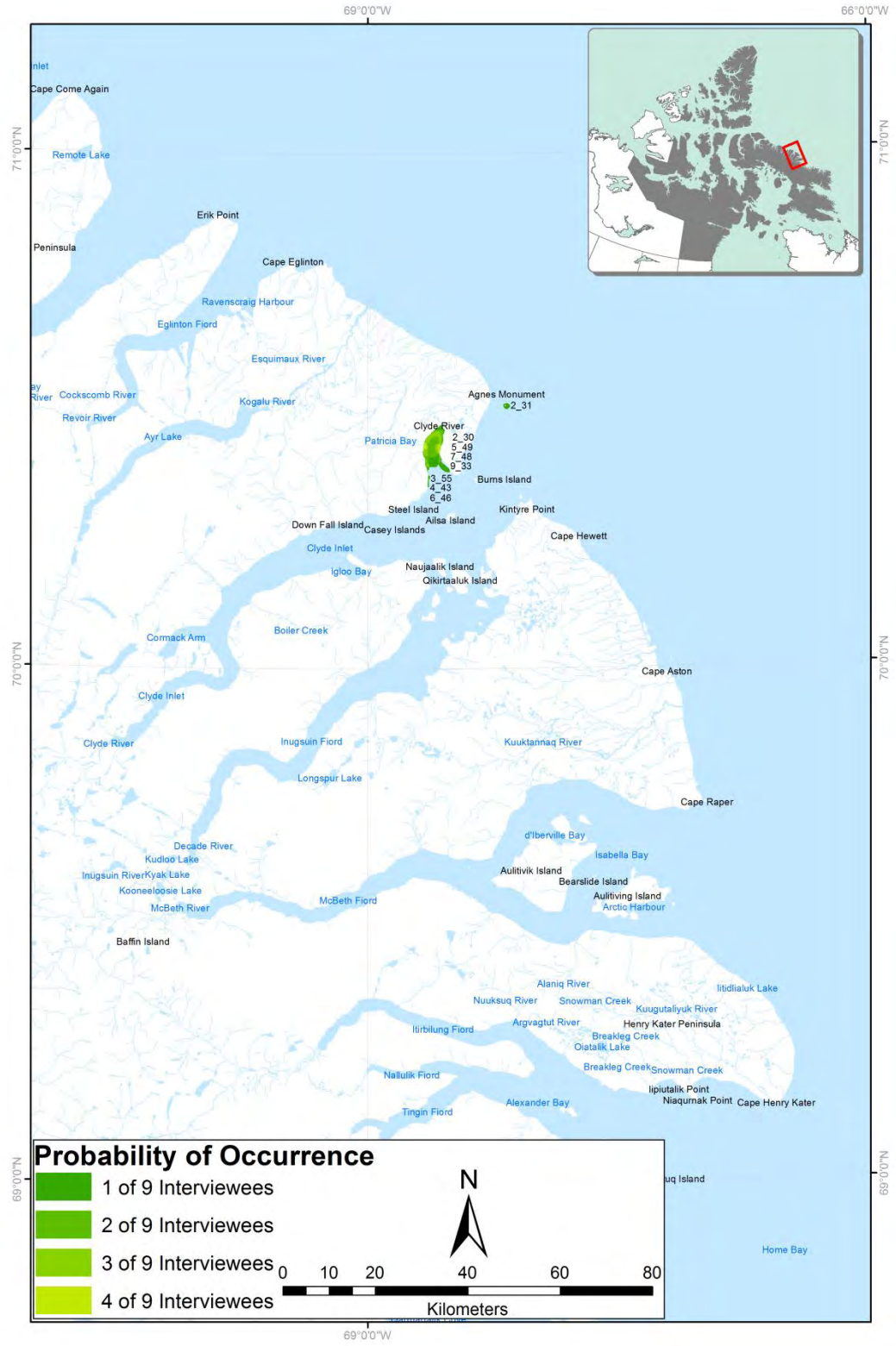

Figure 14. Probability of occurrence for Toothed Cod

Table 16. Probability of occurrence for Toothed Cod

Map Code	Interview Code	Species	Months	Comments
2_30	CLYD_02_0114	Toothed Cod	May, Jun, Jul	
2_31	CLYD_02_0114	Toothed Cod	May, Jun, Jul	
3_55	CLYD_03_0114	Toothed Cod	May	
4_43	CLYD_04_0114	Toothed Cod	Apr, May, Jun	
5_49	CLYD_05_0114	Toothed Cod		Many fish
6_46	CLYD_06_0114	Toothed Cod	Apr, May, Jun	
7_48	CLYD_07_0114	Toothed Cod	May, Jun	
9_33	CLYD_09_0114	Toothed Cod	May, Jun	

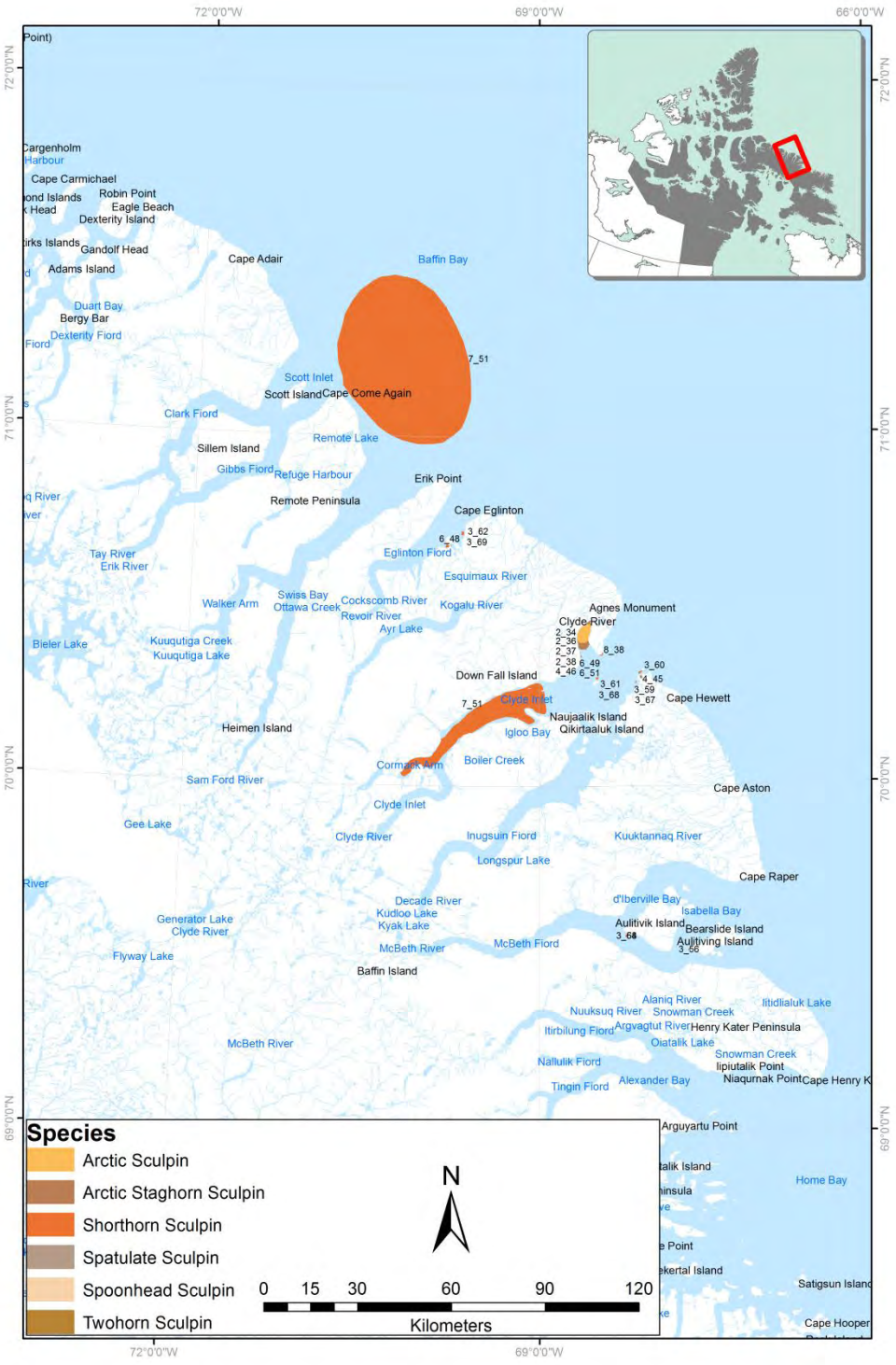

Figure 15. Areas of occurrence for Arctic Sculpin, Arctic Staghorn Sculpin*, Shorthorn Sculpin*, Spatulate Sculpin, Spoonhead Sculpin, and Twohorn Sculpin*

Table 17. Areas of occurrence for Arctic Sculpin, Arctic Staghorn Sculpin*, Shorthorn Sculpin*, Spatulate Sculpin, Spoonhead Sculpin, and Twohorn Sculpin*

Map Code	Interview Code	Species	Months	Comments
2_34	CLYD_02_0114	Arctic Staghorn Sculpin	Apr, May, Jun	
4_45	CLYD_04_0114	Arctic Staghorn Sculpin	Apr, May, Jun, Jul, Aug	
4_46	CLYD_04_0114	Arctic Staghorn Sculpin	Apr, May, Jun, Jul, Aug	
2_36	CLYD_02_0114	Arctic Sculpin	Apr, May, Jun	
2_37	CLYD_02_0114	Shorthorn Sculpin	Apr, May, Jun	
3_56	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_57	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_58	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_59	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_60	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_61	CLYD_03_0114	Shorthorn Sculpin	April, May	
3_62	CLYD_03_0114	Shorthorn Sculpin	April, May	
6_48	CLYD_06_0114	Shorthorn Sculpin	Apr, May, Jun	
6_49	CLYD_06_0114	Shorthorn Sculpin	Apr, May, Jun	Larger fish
7_51	CLYD_07_0114	Shorthorn Sculpin	Apr, May, Jun	Could get them year round if went fishing winter ice
8_38	CLYD_08_0114	Shorthorn Sculpin	Jun, Jul	
2_38	CLYD_02_0114	Spoonhead Sculpin	Apr, May, Jun	
3_63	CLYD_03_0114	Twohorn Sculpin	April, May	
3_67	CLYD_03_0114	Twohorn Sculpin	April, May	
3_68	CLYD_03_0114	Twohorn Sculpin	April, May	
3_69	CLYD_03_0114	Twohorn Sculpin	April, May	
6_51	CLYD_06_0114	Spatulate Sculpin	Apr, May, Jun	

Table 18. Arctic Staghorn Sculpin, Shorthorn Sculpin, Spatulate Sculpin, Thornhorn Sculpin, and Twohorn Sculpin everywhere data

Map Code	Interview Code	Species	Months	Comments
1_24E	CLYD_01_0114	Arctic Staghorn Sculpin	Jun	
4_44E	CLYD_04_0114	Arctic Staghorn Sculpin	Apr, May, Jun, Jul, Aug	Fish caught with eggs
1_25E	CLYD_01_0114	Shorthorn Sculpin	Year-round	When young look like skinny sculpin
4_47E	CLYD_04_0114	Shorthorn Sculpin	May, Jun, Jul	
5_50E	CLYD_05_0114	Shorthorn Sculpin	Mar, Apr, May, Jul, Aug	

Map Code	Interview Code	Species	Months	Comments
6_47E	CLYD_06_0114	Shorthorn Sculpin	Apr, May, Jun	
8_37E	CLYD_08_0114	Shorthorn Sculpin	Jun, Jul	
9_34E	CLYD_09_0114	Shorthorn Sculpin	May, Jun	
1_27E	CLYD_01_0114	Thornhorn Sculpin	Year-round	
4_48E	CLYD_04_0114	Twohorn Sculpin		
6_50E	CLYD_06_0114	Spatulate Sculpin	Apr, May, Jun	

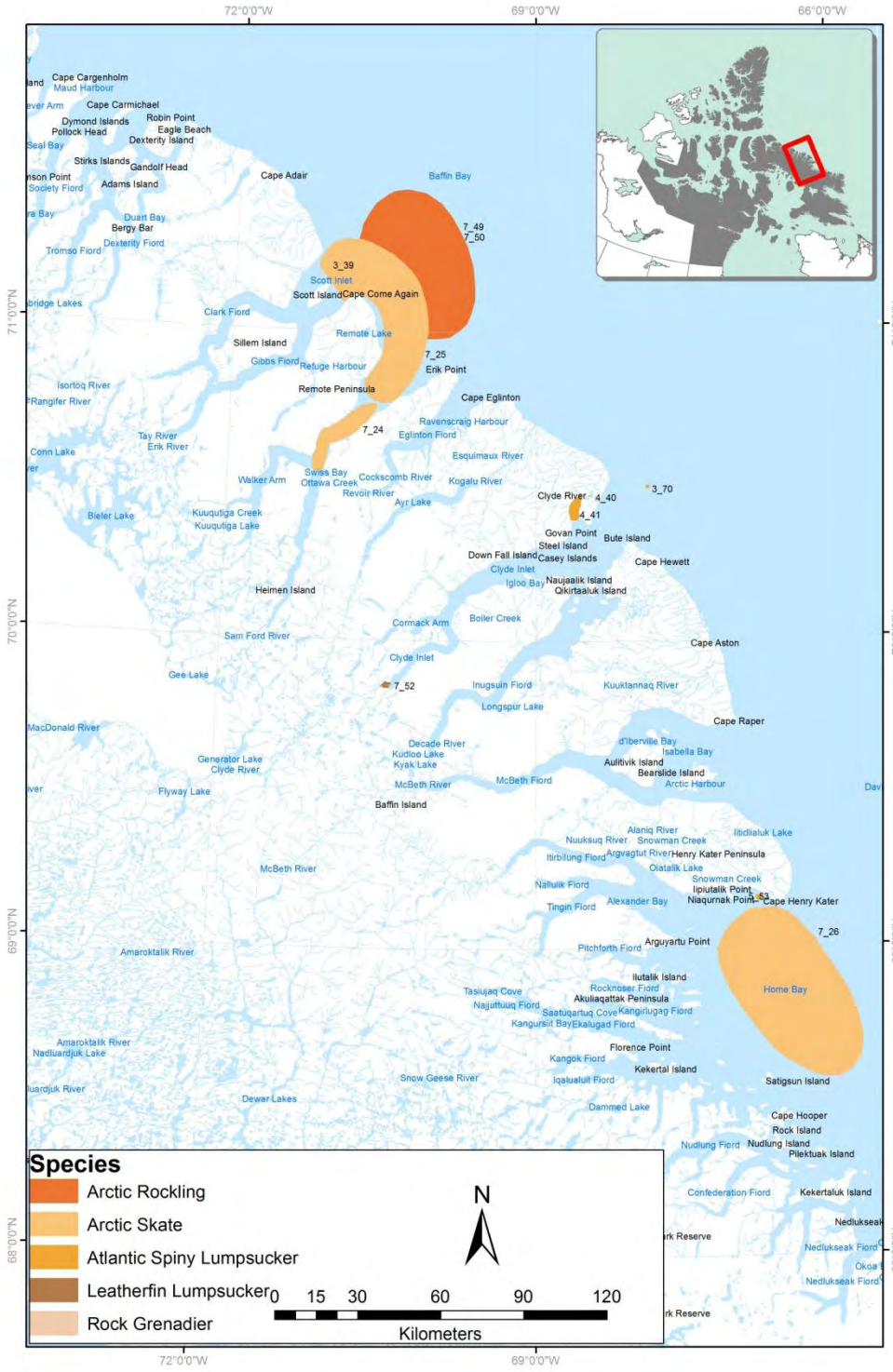

Figure 16. Areas of occurrence for Arctic Rockling, Arctic Skate, Atlantic Spiny Lumpsucker, Leatherfin Lumpsucker, and Rock Grenadier

Table 19. Areas of occurrence for Arctic Rockling, Arctic Skate, Atlantic Spiny Lumpsucker, Leatherfin Lumpsucker, and Rock Grenadier

Map Code	Interview Code	Species	Months	Comments
3_39	CLYD_03_0114	Arctic Skate	Apr, May	
7_24	CLYD_07_0114	Arctic Skate	Mar, Apr, May	Seen in different forms (maybe male + female)-> told carries diamond shape where eggs are held (grow larger & darker in colour as they age)
7_25	CLYD_07_0114	Arctic Skate	Mar, Apr, May	
7_26	CLYD_07_0114	Arctic Skate	Mar, Apr, May	
3_70	CLYD_03_0114	Atlantic Spiny Lumpsucker	Jan, Feb, Dec	
5_53	CLYD_5_0114	Atlantic Spiny Lumpsucker	Mar, Apr, May	In breathing hole
7_52	CLYD_07_0114	Leatherfin Lumpsucker		Fish caught with 2 eyes & mouth in front
7_49	CLYD_07_0114	Arctic Rockling	Mar, Apr, May	
7_50	CLYD_07_0114	Rock Grenadier	Mar, Apr, May	

Table 20. Arctic Skate, Thorny Skate, Lumpsucker, Atlantic Spiny Lumpsucker, Leatherfin Lumpsucker Arctic Flounder, Arctic Rockling, Rock Grenadier everywhere data.

Map Code	Interview Code	Species	Months	Comments
5_51E	CLYD_05_0114	Thorny Skate	Mar, Apr, May, Jul, Aug	

Figure 17. Areas of occurrence for Capelin, Fourline Snakeblenny, Arctic Eelpout, Shulupaoluk*, and Rainbow Smelt

Table 21. Areas of occurrence for Capelin, Fourline Snakeblenny, Arctic Eelpout, Shulupaoluk*, and Rainbow Smelt

Map Code	Interview Code	Species	Months	Comments
3_71	CLYD_03_0114	Capelin	Aug, Sep, Oct	
3_72	CLYD_03_0114	Capelin	Aug, Sep, Oct	
5_55	CLYD_05_0114	Capelin	Jul, Aug	Sometimes can't see bottom because they are so thick
5_56	CLYD_05_0114	Capelin	Jul, Aug	Sometimes can't see bottom because they are so thick
7_56	CLYD_07_0114	Capelin	Sept, Oct	
7_57	CLYD_07_0114	Capelin	Sept, Oct	
8_40	CLYD_8_0114	Capelin	Apr, May, Jun	Also used to hunt as kid with spear
2_35	CLYD_02_0114	Fourline Snakeblenny	Apr, May, Jun	
2_41	CLYD_02_0114	Arctic Eel Pout		
6_53	CLYD_06_0114	Shulupaoluk	Apr, May, Jun	Inuit fear these because of legend saying they will eat your arm
6_54	CLYD_06_0114	Shulupaoluk	Apr, May, Jun	
6_55	CLYD_06_0114	Shulupaoluk	Apr, May, Jun	
7_54	CLYD_07_0114	Shulupaoluk		Front part of nose is flat
6_57	CLYD_06_0114	Rainbow Smelt	Aug, Sep, Oct	

Table 22. Shulupaoluk everywhere data

Map Code	Interview Code	Species	Months	Comments
6_53	CLYD_06_0114	Shulupaoluk	Apr, May, Jun	Inuit fear these because of legend saying they will eat your arm

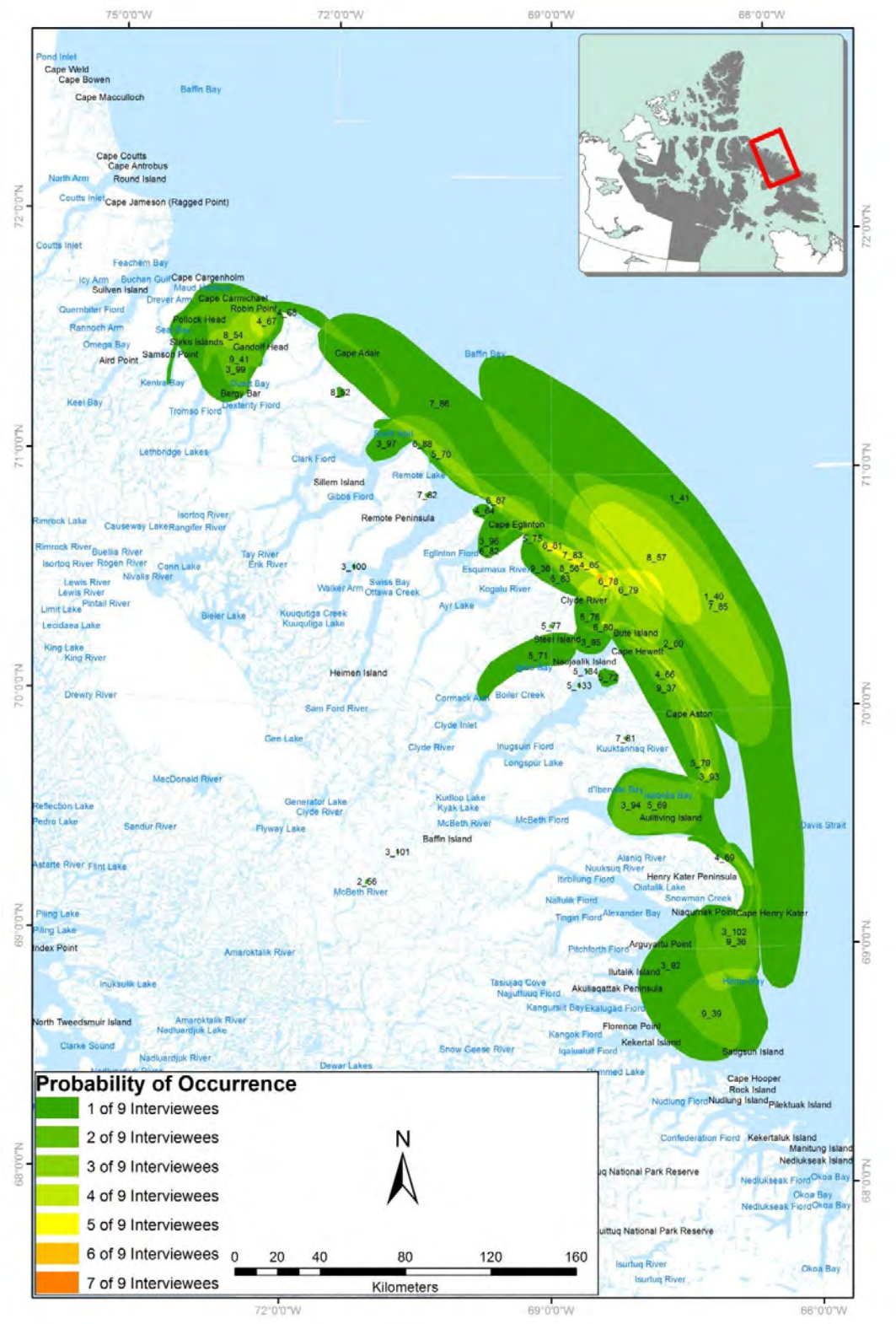

Figure 18. Probability of occurrence for Polar Bear

Table 23. Probability of occurrence for Polar Bear

Map Code	Interview Code	Species	Months	Comments
1_40	CLYD_01_0114	Polar Bear	Year-round	
1_41	CLYD_01_0114	Polar Bear		More polar bears in the area now. High abundance, in spring polar bears come in fiords looking for baby seals, denning inland where there is much snow
2_56	CLYD_02_0114	Polar Bear	Mar, Apr	Travelling to the west
2_60	CLYD_02_0114	Polar Bear	Mar, Apr	Very large bear, hunting seal pups. It seemed to be dragging its hind legs.
3_92	CLYD_03_0114	Polar Bear	Jan, Feb, Aug, Jul, Aug, Dec	Sport Hunting location
3_93	CLYD_03_0114	Polar Bear	Jan, Feb, Apr, May, Jun, Jul, Aug, Sep, Oct, Dec	Sport Hunting location
3_94	CLYD_03_0114	Polar Bear	Mar, Apr, May	Sport Hunting location
3_95	CLYD_03_0114	Polar Bear	Jan, Feb, Apr, May, Jun, Sep, Oct, Nov, Dec	Sport Hunting location
3_96	CLYD_03_0114	Polar Bear	Jan, Feb, Apr, May, Jun, Dec	Sport Hunting location
3_97	CLYD_03_0114	Polar Bear	Jan, Feb, Apr, May, Jun, Dec	Sport Hunting location
3_99	CLYD_03_0114	Polar Bear	Apr, May, Jun, Jul, Aug	Sport Hunting location
3_101	CLYD_03_0114	Polar Bear	Jan, Feb, Dec	Sport Hunting location, Saw a small male bear while caribou hunting
3_102	CLYD_03_0114	Polar Bear	Jan, Feb, Apr, May, Jun, Jul, Aug, Dec	Sport Hunting location
4_64	CLYD_04_0114	Polar Bear		
4_65	CLYD_04_0114	Polar Bear	Jul, Aug, Sep, Oct	
4_66	CLYD_04_0114	Polar Bear	Jul, Aug, Sep, Oct	At flow edge -> rare
4_67	CLYD_04_0114	Polar Bear		More plentiful here
4_69	CLYD_04_0114	Polar Bear	Jan, Feb, Mar, Dec	Flow edge closer to land = polar bears here
5_69	CLYD_05_0114	Polar Bear	Apr, May,	

Map Code	Interview Code	Species	Months	Comments
			Jun, Aug, Sept	
5_70	CLYD_05_0114	Polar Bear	Apr	
5_71	CLYD_05_0114	Polar Bear	Aug, Sept	
5_72	CLYD_05_0114	Polar Bear	Aug, Sept	
5_75S	CLYD_05_0114	Polar Bear	Jan, Feb, Mar, Nov, Dec	Younger ones come out in March, older mothers arrive in April for fat seal pups
5_76S	CLYD_05_0114	Polar Bear	Jan, Feb, Mar, Nov, Dec	Younger ones come out in March, older mothers arrive in April for fat seal pups
5_77S	CLYD_05_0114	Polar Bear	Jan, Feb, Mar, Nov, Dec	Younger ones come out in March, older mothers arrive in April for fat seal pups
5_79S	CLYD_05_0114	Polar Bear	Jan, Feb, Mar, Nov, Dec	Younger ones come out in March, older mothers arrive in April for fat seal pups
5_133	CLYD_05_0114	Polar Bear		Found dead starved bear
5_134	CLYD_05_0114	Polar Bear		Found skinny starving bear
6_78	CLYD_06_0114	Polar Bear	Jan, Feb, Mar, Dec	
6_79	CLYD_06_0114	Polar Bear	Jan, Feb, Mar, Dec	
6_80	CLYD_06_0114	Polar Bear	Jan, Feb, Mar, Dec	
6_81	CLYD_06_0114	Polar Bear	Jul, Aug, Sep, Oct	
6_82	CLYD_06_0114	Polar Bear	Jul, Aug, Sep, Oct	
6_85	CLYD_06_0114	Polar Bear	Mar, Apr	Wandering bears looking for mates don't head north
6_87	CLYD_06_0114	Polar Bear	Apr	Cubs feeding in this area with basking seals
6_88	CLYD_06_0114	Polar Bear	Apr	Used for feeding with cubs -> many together
7_81S	CLYD_07_0114	Polar Bear		Seen den, mothers go up to have cubs, head to sea in March, as ice form to go on ocean.
7_82S	CLYD_07_0114	Polar Bear		Bears stay with mother until 3-4 years old, elders compare PB with humans, how long children stay with parents
7_83	CLYD_07_0114	Polar Bear	Jul, Aug	
7_85	CLYD_07_0114	Polar Bear	Apr	Males come in to meet + male with females
7_86	CLYD_07_0114	Polar Bear	Year-round	This summer, PB not as plentiful
8_52	CLYD_08_0114	Polar Bear	Sep, Oct	
8_54	CLYD_08_0114	Polar Bear	Jul, Aug	
8_56	CLYD_08_0114	Polar Bear	Mar, Apr	
8_57	CLYD_08_0114	Polar Bear	Mar, Apr	
9_36A	CLYD_09_0114	Polar Bear	Apr	
9_37	CLYD_09_0114	Polar Bear	Sep, Oct	

Map Code	Interview Code	Species	Months	Comments
9_38	CLYD_09_0114	Polar Bear	Oct	Has taken hunters here (3) and they all caught bears Mar-Apr- bears start to head out to ocean
9_39	CLYD_09_0114	Polar Bear		
9_41	CLYD_09_0114	Polar Bear		

Table 24. Polar Bear everywhere data

Map Code	Interview Code	Species	Months	Comments
2_59E	CLYD_02_0114	Polar Bear	Year-round	
3_91E	CLYD_03_0114	Polar Bear	Jan, Feb, Aug, Sep, Dec	Sport Hunting location
4_63E	CLYD_4_0114	Polar Bear	Jul, Aug	
6_77E	CLYD_06_0114	Polar Bear	Jan, Feb, Mar, Dec	

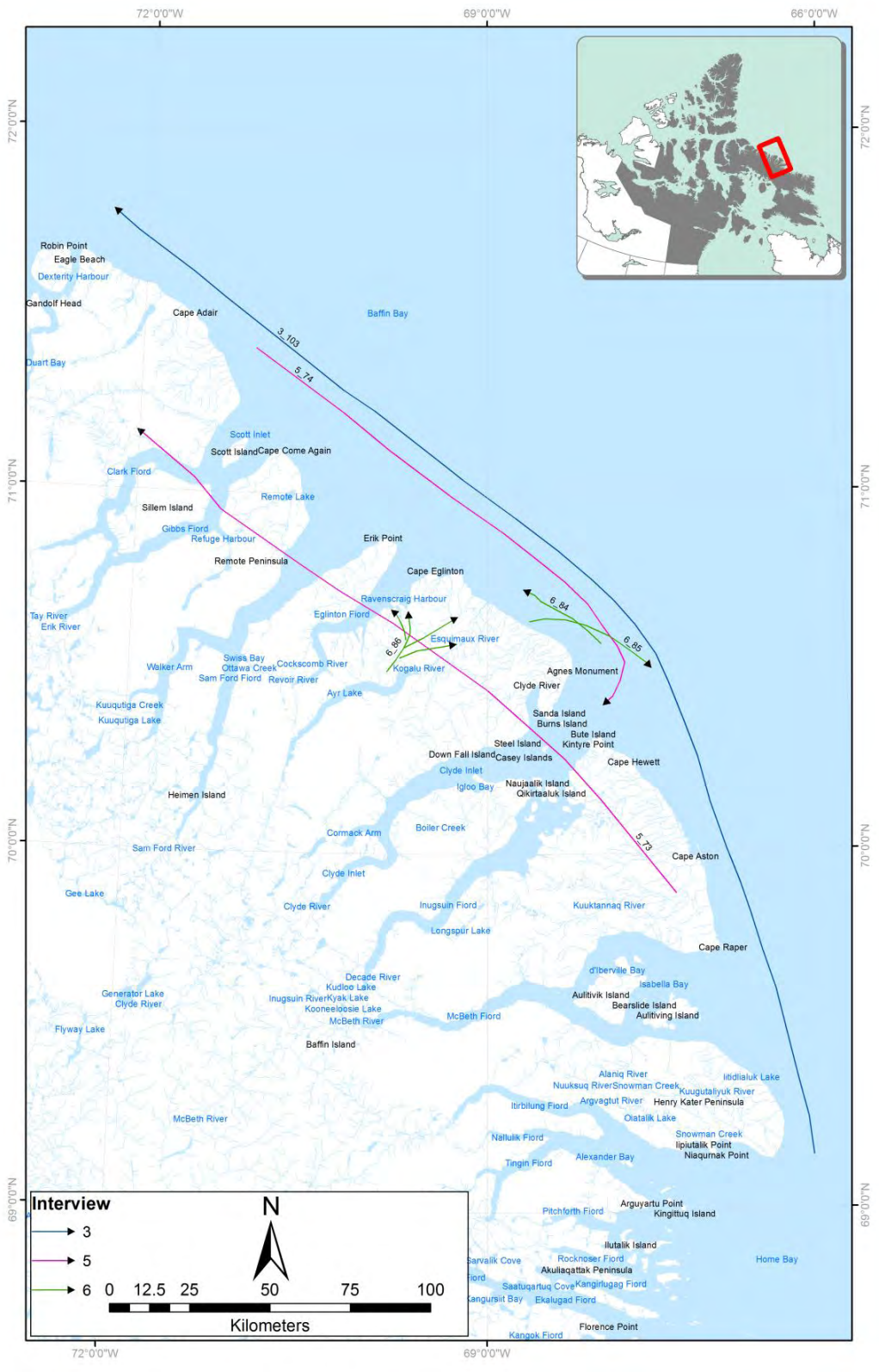

Figure 19. Migration routes for Polar Bear

Table 25. Migration routes for Polar Bear

Map Code	Interview Code	Species	Months	Comments
3_103M	CLYD_03_0114	Polar Bear	Apr, May, Jun	Ice drifts coming from Grise Fiord, polar bears drifts with ice
5_73M	CLYD_05_0114	Polar Bear	Oct	PB travel on land North (fall)
5_74M	CLYD_05_0114	Polar Bear	Aug	Come back with ice
6_86M	CLYD_06_0114	Polar Bear	Mar, Apr	With cubs
7_84M	CLYD_07_0114	Polar Bear	Sep, Oct	

Figure 20. Probability of occurrence for Walrus

Table 26. Probability of occurrence for Walrus

Map Code	Interview Code	Species	Months	Comments
1_42	CLYD_01_0114	Walrus	Jul, Aug	When there's no snow, not much walrus around, only place he know / was high abundance before he was born
2_61	CLYD_02_0114	Walrus	May, Jun, Jul, Aug	
2_62	CLYD_02_0114	Walrus	May, Jun, Jul, Aug	
2_63	CLYD_02_0114	Walrus	May, Jun, Jul, Aug	
3_104	CLYD_03_0114	Walrus	Sep, Oct, Nov	Not very common
3_105	CLYD_03_0114	Walrus	Apr, May, Jun	
3_106	CLYD_03_0114	Walrus	Apr, May, Jun, Jul, Aug	
3_107	CLYD_03_0114	Walrus	Apr, May, Jun	
3_108	CLYD_03_0114	Walrus	Apr, May, Jun	
4_70	CLYD_04_0114	Walrus	Apr, May, Jun	At flow edge -> rare
5_80	CLYD_05_0114	Walrus	Aug	Doesn't normally hunt walrus
5_81	CLYD_05_0114	Walrus	Aug	
5_82	CLYD_05_0114	Walrus	Aug	
5_83	CLYD_05_0114	Walrus	Aug	
5_96H	CLYD_05_0114	Walrus	Jul, Aug	Walrus use to be plentiful in 1940's, many killed by white people
5_97H	CLYD_05_0114	Walrus	Sep, Oct	Long whiskers feeding on seals, short whiskers feeding on bottom (clams)
6_89A	CLYD_06_0114	Walrus	Apr, May	Saw one with 3 tusk, one on one side, two on the other (one slightly longer)
6_90A	CLYD_06_0114	Walrus	Jul, Aug	
6_91	CLYD_06_0114	Walrus	Apr, May	
6_92	CLYD_06_0114	Walrus	Jul, Aug	
6_93	CLYD_06_0114	Walrus	Aug, Sep, Oct	
7_87	CLYD_07_0114	Walrus	Jul, Aug	Coming in from when ice breaks up
7_88	CLYD_07_0114	Walrus	Apr	
7_89	CLYD_07_0114	Walrus	Jul, Aug	If a walrus is around seal wouldn't be around
7_90	CLYD_07_0114	Walrus	Sep, Oct	If a walrus is around seal wouldn't be around
7_91	CLYD_07_0114	Walrus	Aug	
7_92	CLYD_07_0114	Walrus	Jul, Aug	
8_58	CLYD_08_0114	Walrus	Jul, Aug	Rare in area
8_59H	CLYD_08_0114	Walrus	Jul, Aug	
9_42	CLYD_09_0114	Walrus	Aug	Rare, caught one once

Map Code	Interview Code	Species	Months	Comments
9_43	CLYD_09_0114	Walrus	Jul, Aug	Rare

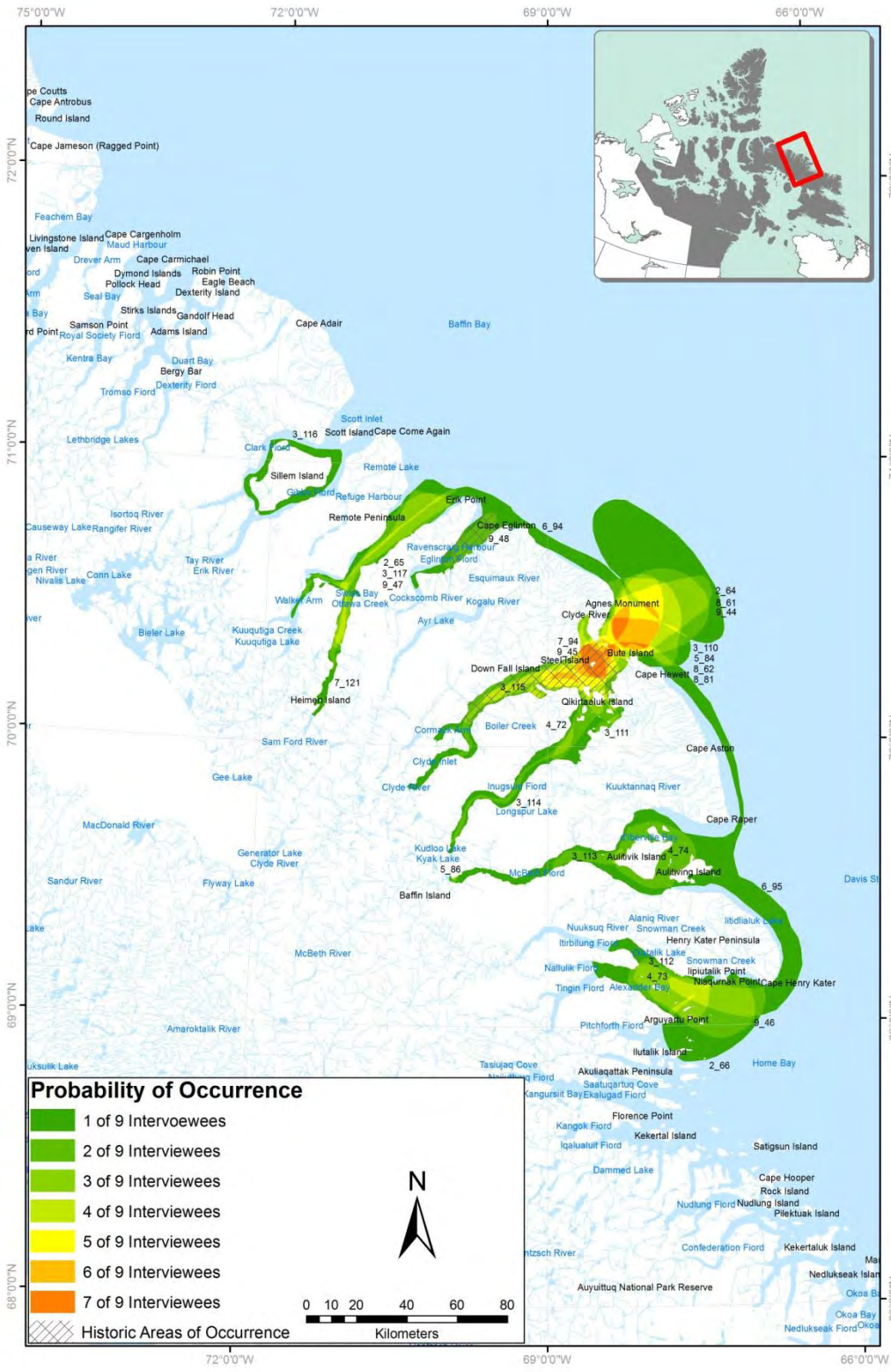

Figure 21. Probability of occurrence for Ring Seal

Table 27. Probability of occurrence for Ringed Seal

Map Code	Interview Code	Species	Months	Comments
2_65	CLYD_02_0114	Ringed Seal	Mar, Apr, May, Jun	
2_66	CLYD_02_0114	Ringed Seal	May, Jun	
3_110	CLYD_03_0114	Ringed Seal	Apr to Oct	
3_111	CLYD_03_0114	Ringed Seal	Apr to Oct	
3_112	CLYD_03_0114	Ringed Seal	Mar, Apr, May, Jul, Aug, Sep, Oct	
3_113	CLYD_03_0114	Ringed Seal	Mar, Apr, May, Jul, Aug, Sep, Oct	
3_114	CLYD_03_0114	Ringed Seal	Mar, Apr, May, Jul, Aug, Sep, Oct	
3_115	CLYD_03_0114	Ringed Seal	Mar, Apr, May, Jul, Aug, Sep, Oct	
3_116	CLYD_03_0114	Ringed Seal	Apr, May, Jun	
3_117	CLYD_03_0114	Ringed Seal	Apr, May, Jun	
4_72	CLYD_04_0114	Ringed Seal	Year-round	Young seals
4_73	CLYD_04_0114	Ringed Seal	Spring	
4_74	CLYD_04_0114	Ringed Seal	Spring	Also further north, but rarely hunts them, Young seals
5_84	CLYD_05_0114	Ringed Seal	Jan, Feb, Mar, Apr, Dec	May, start hunting in fiords -> young seals
5_86	CLYD_05_0114	Ringed Seal	Jul, Aug	basking in land in summer
6_94	CLYD_06_0114	Ringed Seal	Year round	
6_95	CLYD_06_0114	Ringed Seal	May, Jun	
7_94H	CLYD_07_0114	Ringed Seal	Apr, May, Jun	More people come in. Now people have outboard motors. March-April have young where snow is most plentiful
7_121	CLYD_07_0114	Ringed Seal	Jul, Aug	Abundance of seal
8_61A	CLYD_08_0114	Ringed Seal	Jan, Feb, Dec	
8_62	CLYD_08_0114	Ringed Seal	Year round	
8_81	CLYD_08_0114	Ringed Seal	Apr, May	Doesn't go seal hunting as much anymore because he doesn't have dogs
9_44	CLYD_09_0114	Ringed Seal	Jan, Feb, Mar, Dec	
9_45	CLYD_09_0114	Ringed Seal	Jul, Aug	
9_46	CLYD_09_0114	Ringed Seal	Apr, May, Jun	For young seals
9_47	CLYD_09_0114	Ringed Seal	Apr, May, Jun	
9_48HA	CLYD_09_0114	Ringed Seal	Apr, May, Jun	When he was 15-16 yr old

Table 28. Ringed seal everywhere data

Map Code	Interview Code	Species	Months	Comments
1_43E	CLYD_01_0114	Ringed Seal	Year-round	Come up in the fiord in June and July, hunts in the fall
2_64E	CLYD_02_0114	Ringed Seal	Year-round	
3_109E	CLYD_03_0114	Ringed Seal		
4_71E	CLYD_04_0114	Ringed Seal	Year round	
5_85E	CLYD_05_0114	Ringed Seal	Year-round	
7_93E	CLYD_07_0114	Ringed Seal	Year-round	Every fiord is where they have young
8_60E	CLYD_08_0114	Ringed Seal		

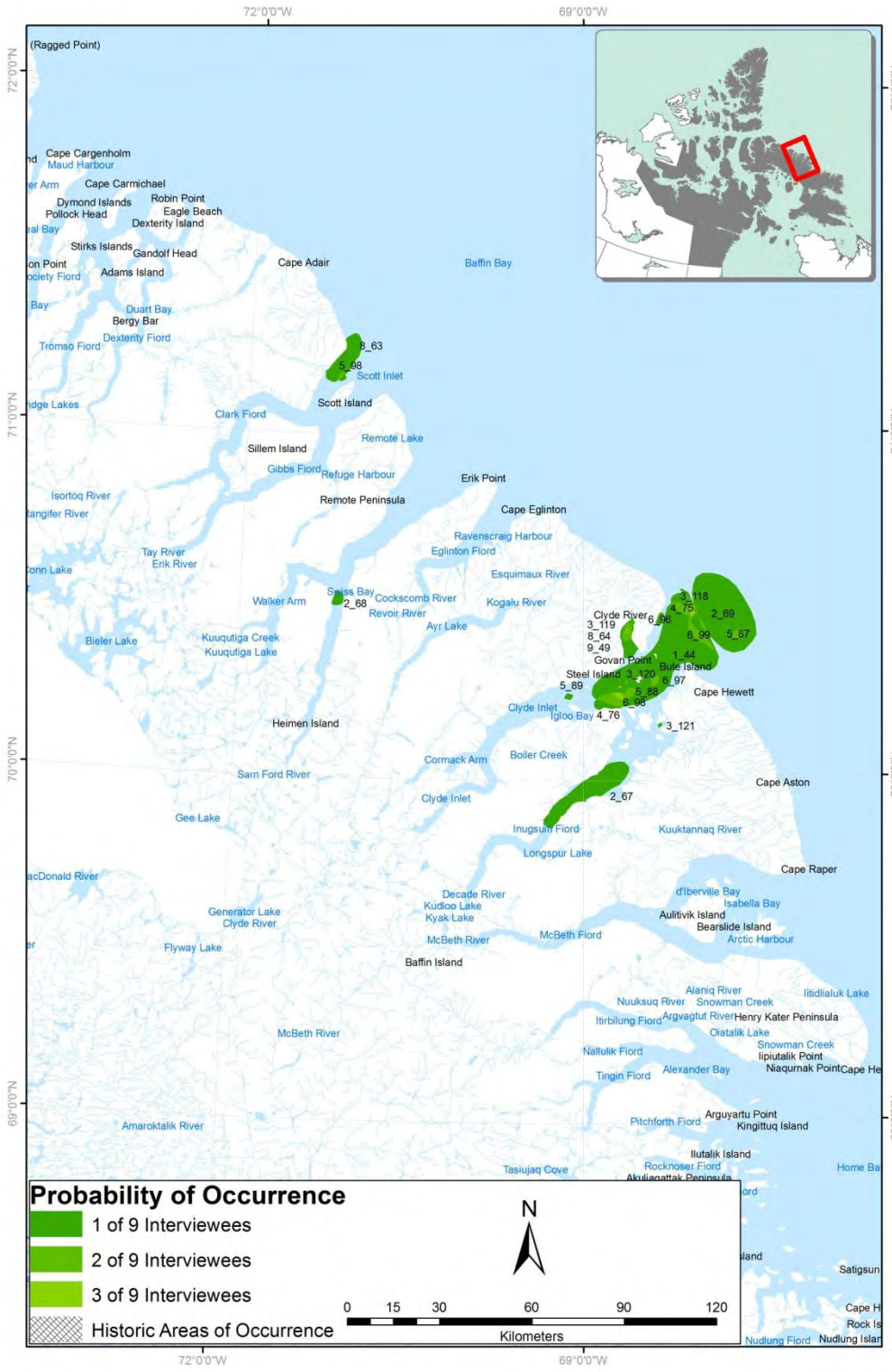

Figure 22. Probability of occurrence for Harp Seal

Table 29. Probability of occurrence for Harp Seal

Map Code	Interview Code	Species	Months	Comments
1_44	CLYD_01_0114	Harp Seal	Sep, Oct	Fall
2_67	CLYD_02_0114	Harp Seal	Aug, Sep, Oct	Basking
2_68	CLYD_02_0114	Harp Seal	Nov, Dec, Jan, Feb	
2_69	CLYD_02_0114	Harp Seal	May ,Jun	Floe edge
3_118	CLYD_03_0114	Harp Seal	Mar, Apr, May	Not common, flow edge, spring
3_119	CLYD_03_0114	Harp Seal	Sep, Oct	
3_120	CLYD_03_0114	Harp Seal	Sep, Oct	
3_121	CLYD_03_0114	Harp Seal	Sep, Oct	
4_75	CLYD_04_0114	Harp Seal	Jul, Aug	
4_76	CLYD_04_0114	Harp Seal	Oct, Nov	Most seen here
5_87	CLYD_05_0114	Harp Seal	Mar, Apr, May	
5_88	CLYD_05_0114	Harp Seal	Sep, Oct	
5_89	CLYD_05_0114	Harp Seal	Sep, Oct	
6_96	CLYD_06_0114	Harp Seal	Sep, Oct	Not commonly hunted
6_97	CLYD_06_0114	Harp Seal	Sep, Oct	
6_98	CLYD_06_0114	Harp Seal	Sep, Oct	
6_99	CLYD_06_0114	Harp Seal	May, Jun	At floe edge
7_97	CLYD_07_0114	Harp Seal		
8_63	CLYD_08_0114	Harp Seal	Jul, Aug	
8_64	CLYD_08_0114	Harp Seal	Sep, Oct	Young seals
9_49	CLYD_09_0114	Harp Seal	Sep, Oct	Doesn't see them at flow edge

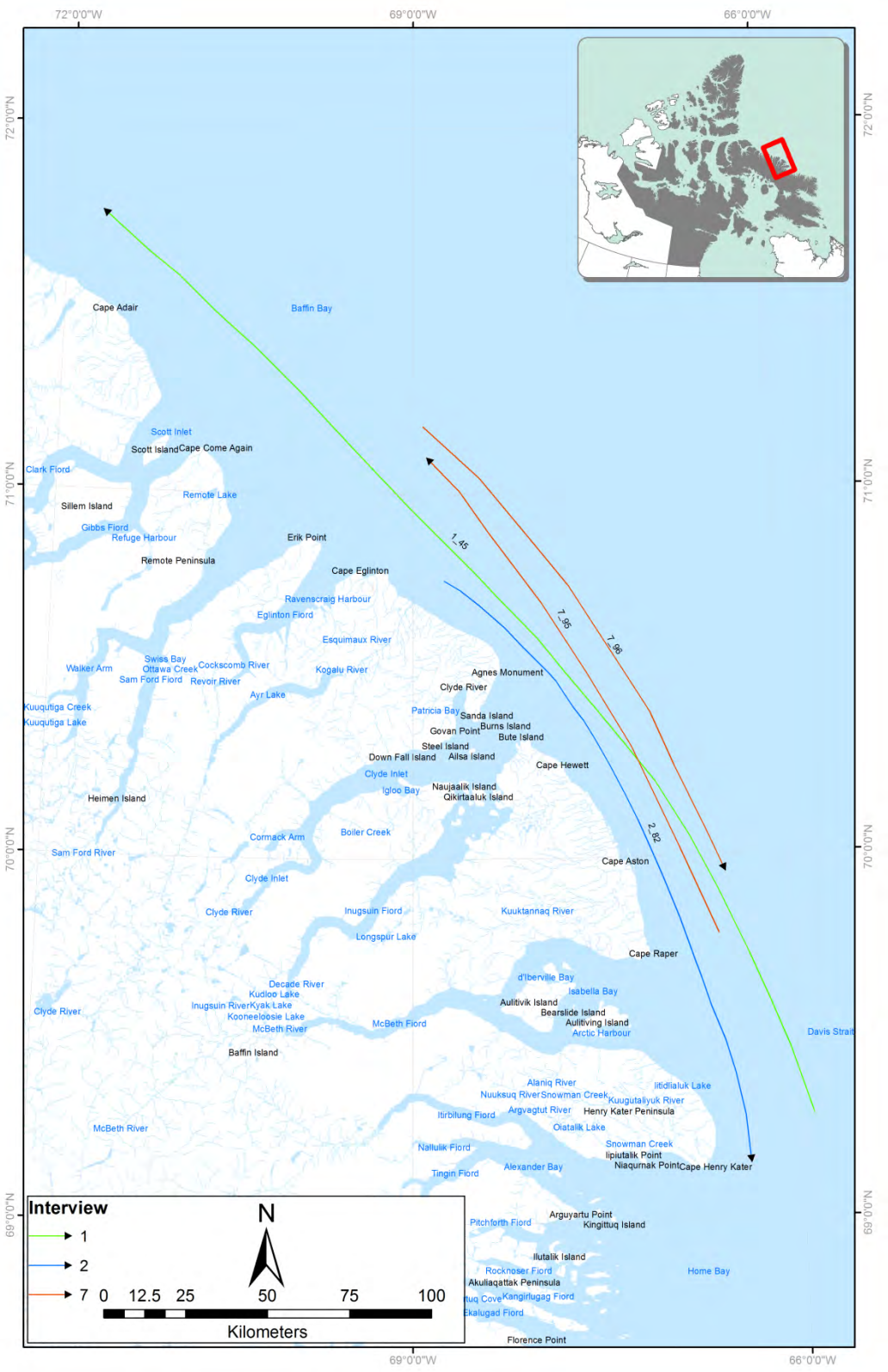

Figure 23. Migration routes for Harp Seal

Table 30. Migration routes for Harp Seal

Map Code	Interview Code	Species	Months	Comments
1_45M	CLYD_01_0114	Harp Seal	Apr, May	Along floe edge
2_82M	CLYD_02_0114	Harp Seal		
7_95M	CLYD_07_0114	Harp Seal	Apr, May, Jun	
7_96M	CLYD_07_0114	Harp Seal	Sep, Oct	

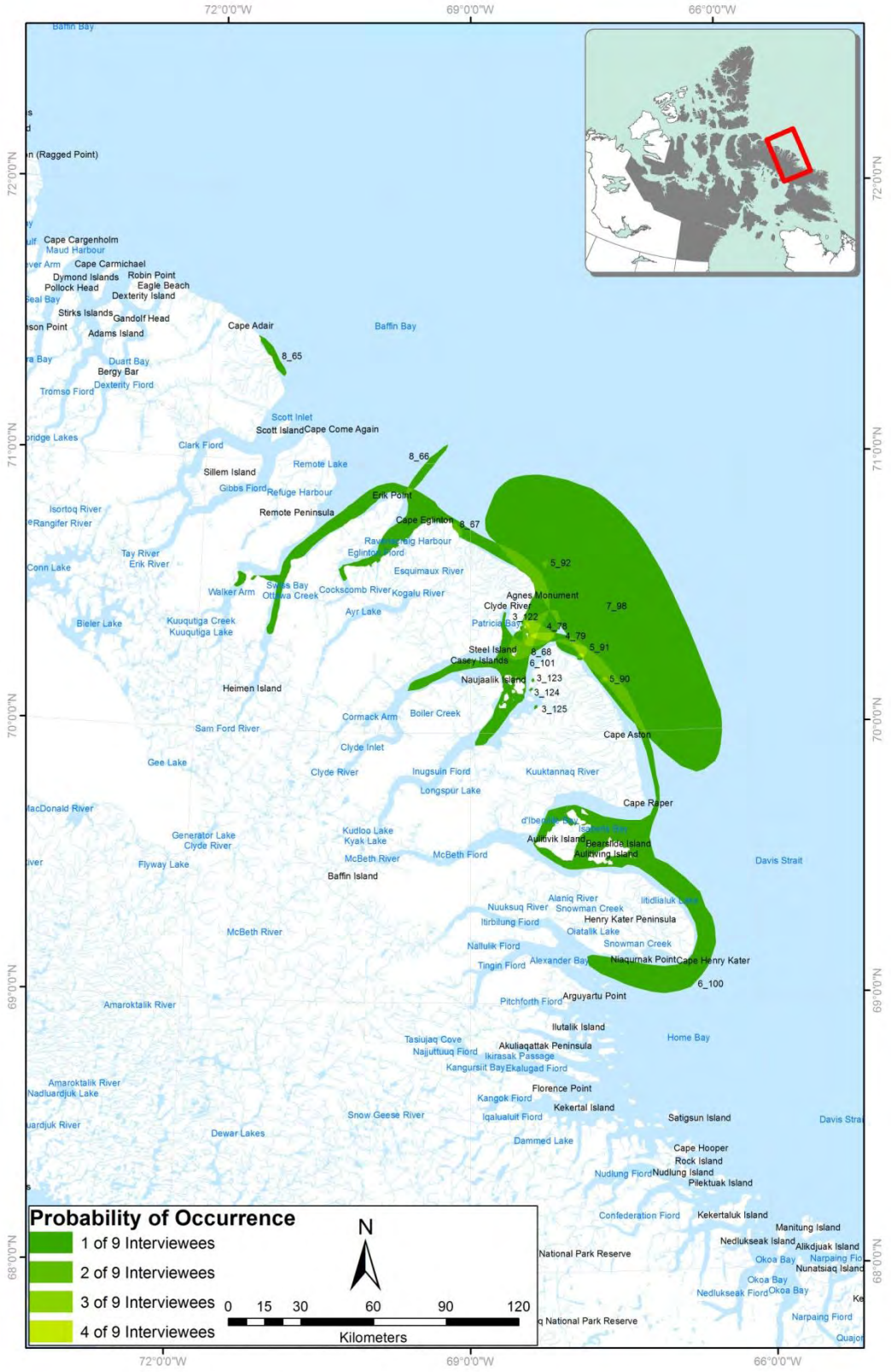

Figure 24. Probability of occurrence for Bearded Seal

Table 31. Probability of occurrence for Bearded Seal

Map Code	Interview Code	Species	Months	Comments
3_122	CLYD_03_0114	Bearded Seal	Jul, Aug, Sep, Oct	
3_123	CLYD_03_0114	Bearded Seal	Jul, Aug, Sep, Oct	
3_124	CLYD_03_0114	Bearded Seal	Jul, Aug, Sep, Oct	
3_125	CLYD_03_0114	Bearded Seal	Jul, Aug, Sep, Oct	
4_78	CLYD_04_0114	Bearded Seal	Oct, Nov	More plentiful this year
4_79	CLYD_04_0114	Bearded Seal	Summer	
5_90	CLYD_05_0114	Bearded Seal	Jul, Aug, Sep, Oct	
5_91	CLYD_05_0114	Bearded Seal	Jul, Aug, Sep, Oct	
5_92	CLYD_05_0114	Bearded Seal	Jul, Aug, Sep, Oct	
6_100	CLYD_06_0114	Bearded Seal	Jul, Aug	Not as plentiful as RS
6_101	CLYD_06_0114	Bearded Seal	Jul, Aug	This fall was most sighting for BS (oct-nov)
7_98	CLYD_07_0114	Bearded Seal	Apr, May, Jun	Summer in fiords
8_65	CLYD_08_0114	Bearded Seal	May, Jun, Jul	In the past, we use to hunt BS for skin, for ropes in spring for dog teams
8_66	CLYD_08_0114	Bearded Seal	May, Jun, Jul	In shallow sandy shoreline. Crack on ice
8_67	CLYD_08_0114	Bearded Seal	May, Jun, Jul	More bearded seals this year. Use to hunt with dog team
8_68	CLYD_08_0114	Bearded Seal	May, Jun, Jul	

Table 32. Bearded Seal everywhere data.

Map Code	Interview Code	Species	Months	Comments
1_46E	CLYD_01_0114	Bearded Seal	Year-round	High abundance in fall
2_70E	CLYD_02_0114	Bearded Seal	Aug, Sept	
4_77E	CLYD_04_0114	Bearded Seal	Jul, Aug	Not in great numbers
5_94E	CLYD_05_0114	Bearded Seal		

Figure 25. Areas of occurrence for Harbour Seal, and Hooded Seal

Table 33. Areas of occurrence for Harbour Seal, and Hooded Seal

Map Code	Interview Code	Species	Months	Comments
3_128	CLYD_03_0114	Harbour Seal	Sep, Oct	
2_71	CLYD_02_0114	Hooded/Crested Seal	Aug, Sep	
3_126	CLYD_03_0114	Hooded/Crested Seal	Jul, Aug	Not common
5_95	CLYD_05_0114	Hooded/Crested Seal	Apr	Not common
6_102	CLYD_06_0114	Hooded/Crusted Seal	Jul, Aug	Not very common in area - something to do with their diet
6_103	CLYD_06_0114	Hooded/Crusted Seal	Jul, Aug	
7_100	CLYD_07_0114	Hooded/Crested Seal	Nov, Dec	
8_69	CLYD_08_0114	Hooded/Crested Seal	Jul, Aug	Not common

Table 34. Harbour Seal everywhere data

Map Code	Interview Code	Species	Months	Comments
1_47E	CLYD_01_0114	Harbour Seal	Jul, Aug	

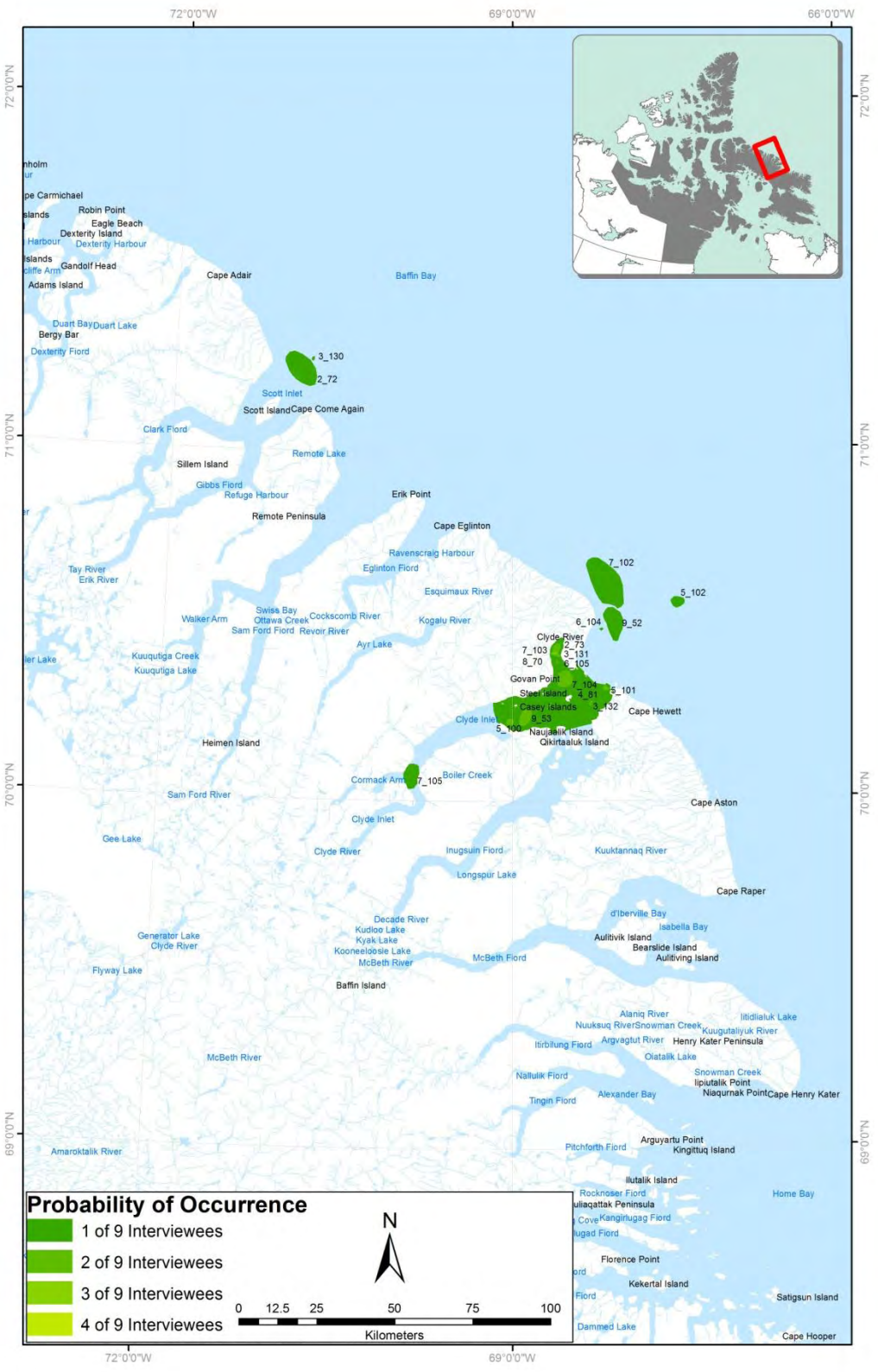

Figure 26. Probability of occurrence for Orca

Table 35. Probability of occurrence for Orca

Map Code	Interview Code	Species	Months	Comments
2_72	CLYD_02_0114	Orca	Aug, Sep	
2_73	CLYD_02_0114	Orca	Jul, Aug, Sep	
3_130	CLYD_03_0114	Orca	Jul, Aug, Sep, Oct	
3_131	CLYD_03_0114	Orca	Jul, Aug, Sep, Oct	
3_132	CLYD_03_0114	Orca	Jul, Aug, Sep, Oct	
4_81	CLYD_04_0114	Orca	Jul, Aug	
5_100	CLYD_05_0114	Orca	Jul, Aug	
5_101	CLYD_05_0114	Orca	Jul, Aug	
5_102	CLYD_05_0114	Orca	Jul, Aug	
6_105	CLYD_06_0114	Orca	Jul, Aug	
7_102	CLYD_07_0114	Orca	Jul, Aug	
7_103	CLYD_07_0114	Orca	Jul, Aug	
7_104	CLYD_07_0114	Orca	Jul, Aug	
7_105	CLYD_07_0114	Orca	Jul, Aug	
8_70	CLYD_08_0114	Orca	Jul, Aug	
9_52	CLYD_09_0114	Orca	Apr, May, Jun	
9_53	CLYD_09_0114	Orca	Jul, Aug	

Table 36. Orca everywhere data

Map Code	Interview Code	Species	Months	Comments
1_48E	CLYD_01_0114	Orca	Apr, May, Sep, Oct	Sees killer whale everywhere but not common

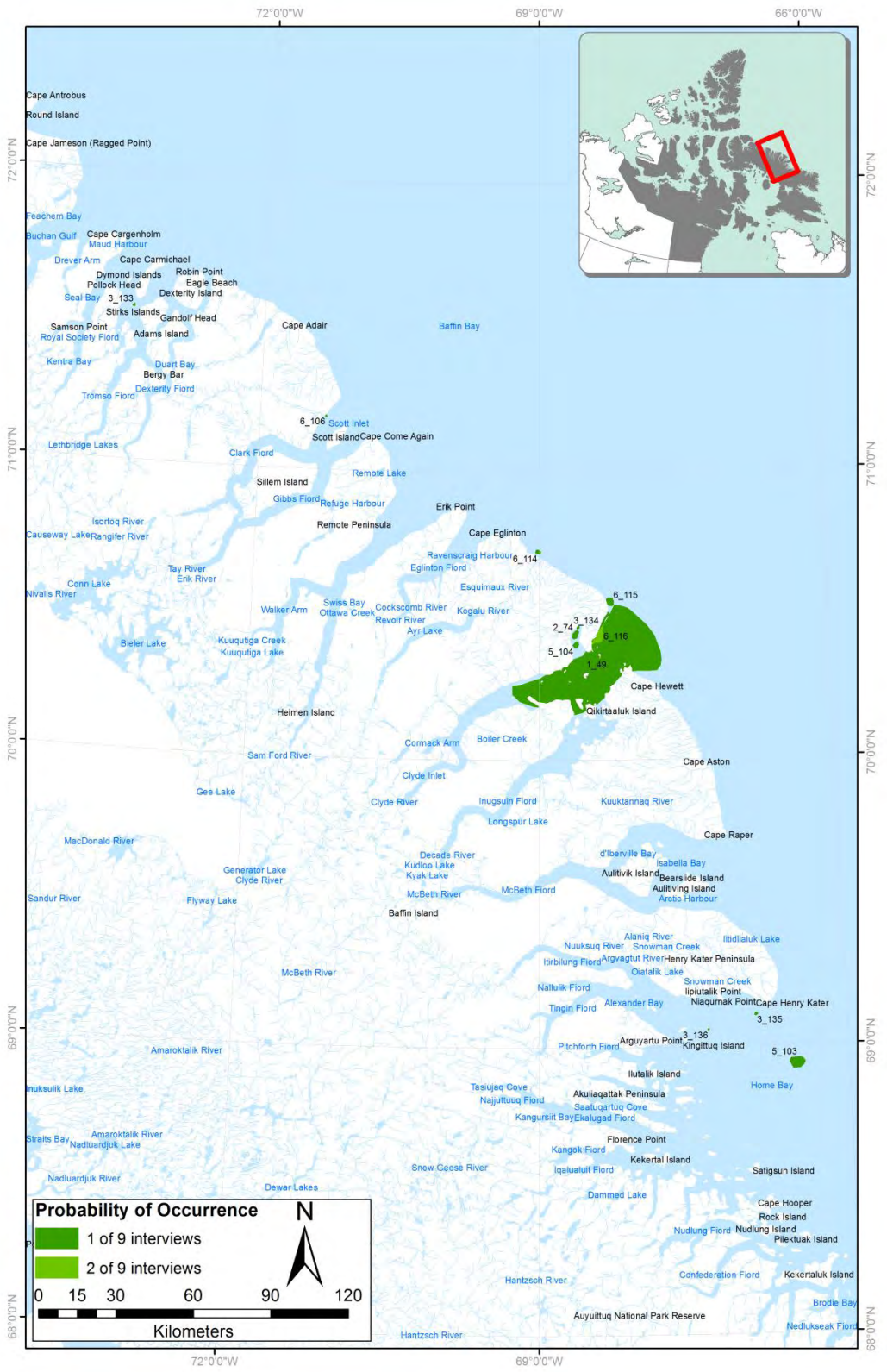

Figure 27. Probability of occurrence for Beluga Whale

Table 37. Probability of occurrence for Beluga Whale

Map Code	Interview Code	Species	Months	Comments
1_49	CLYD_01_0114	Beluga	Jul, Aug	Not common here
2_74	CLYD_02_0114	Beluga		Not common here
3_133	CLYD_03_0114	Beluga	Jul, Aug	
3_134	CLYD_03_0114	Beluga	Jul, Aug	
3_135	CLYD_03_0114	Beluga	Jul, Aug	
3_136	CLYD_03_0114	Beluga	Apr, May, Jun, Jul, Aug	
5_103	CLYD_05_0114	Beluga	Jul	
5_104	CLYD_05_0114	Beluga	Aug	
6_106H	CLYD_06_0114	Beluga	Jul, Aug	Saw one as a kid
6_114	CLYD_06_0114	Beluga	Jul, Aug	Resting place
6_115	CLYD_06_0114	Beluga	Jul, Aug	Mate in this area
6_116	CLYD_06_0114	Beluga	Jul, Aug	

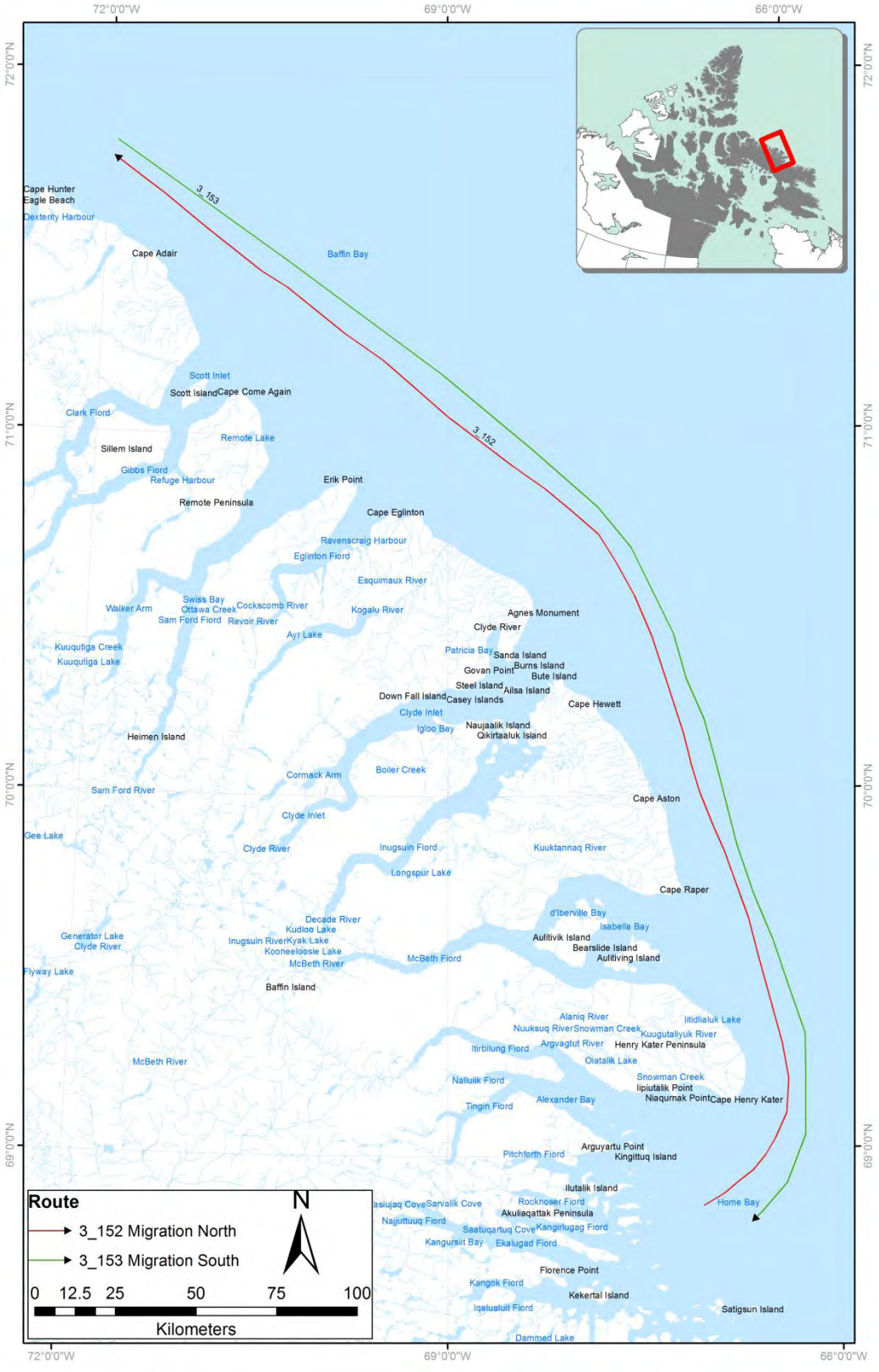

Figure 28. Migration routes for Beluga Whale

Table 38. Migration routes for Beluga Whale

Map Code	Interview Code	Species	Months	Comments
3_152M	CLYD_03_0114	Beluga	Apr, May, Jun	
3_153M	CLYD_03_0114	Beluga	Sep, Oct	

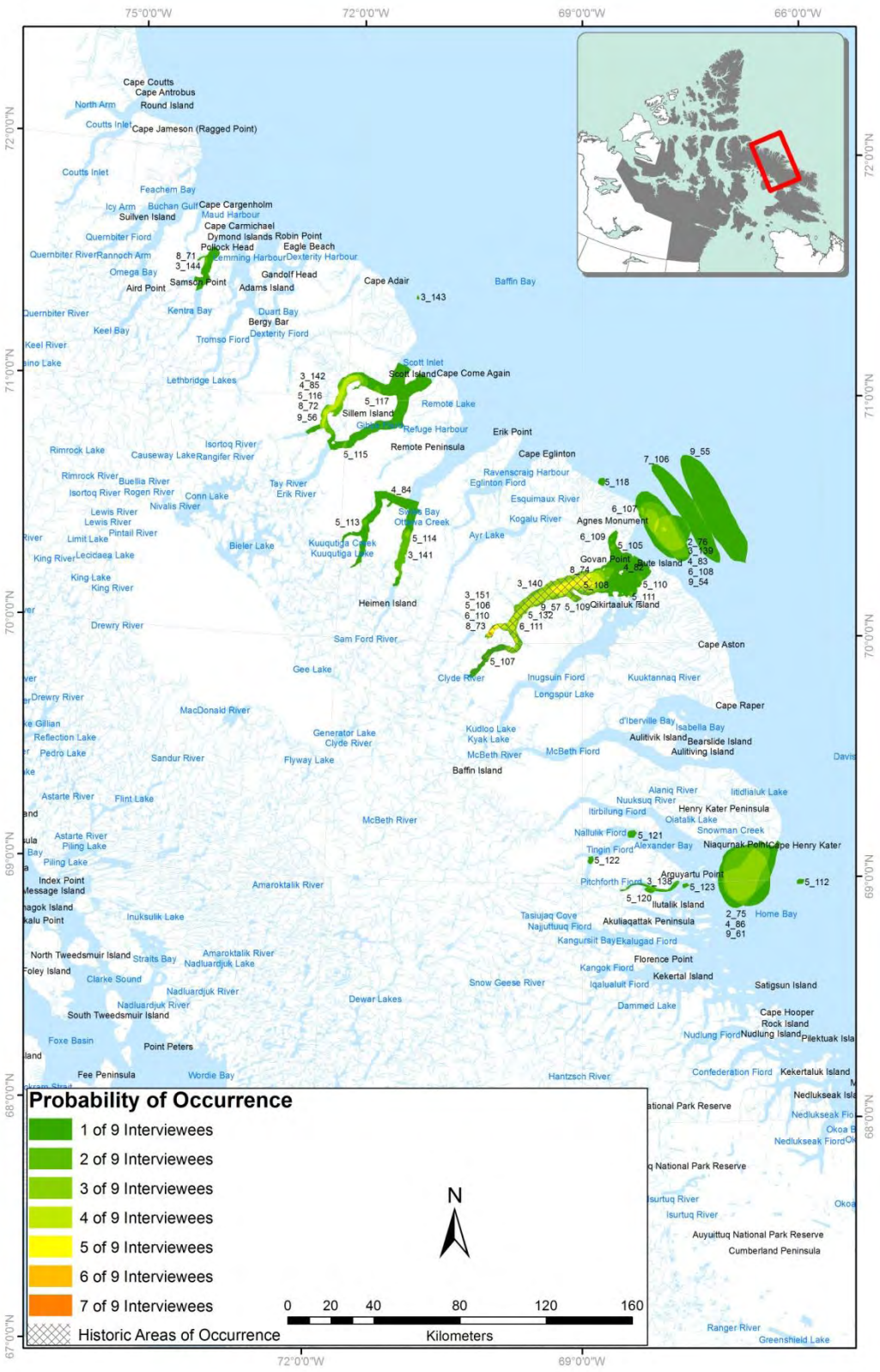

Figure 29. Probability of occurrence for Narwhal*

Table 39. Probability of occurrence for Narwhal

Map Code	Interview Code	Species	Months	Comments
2_75	CLYD_02_0114	Narwhal	Apr, May	
2_76	CLYD_02_0114	Narwhal	Apr, May	
3_138	CLYD_03_0114	Narwhal	Jul, Aug	
3_139	CLYD_03_0114	Narwhal	Apr, May, Jun	
3_141	CLYD_03_0114	Narwhal	Jul, Aug	
3_142	CLYD_03_0114	Narwhal	Jul, Aug	
3_143	CLYD_03_0114	Narwhal	Jul, Aug	
3_144	CLYD_03_0114	Narwhal	Jul, Aug	
4_82	CLYD_04_0114	Narwhal	Jul, Aug	
4_83	CLYD_04_0114	Narwhal	Jul	Flow edge
4_84	CLYD_04_0114	Narwhal	Summer	More people hunt here, late spring/early break up NW start going up fiords
4_85	CLYD_04_0114	Narwhal	Jul, Aug	Same route as NW, but will stay behind month later, out in open ocean
4_86	CLYD_04_0114	Narwhal	May, Jun, Jul	
5_105	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_106	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_107	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_108	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_110	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_111	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_112	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_113	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_114	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_115	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_116	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_117	CLYD_05_0114	Narwhal	Aug, Sep, Oct	
5_118	CLYD_05_0114	Narwhal		
5_120	CLYD_05_0114	Narwhal	Aug	
5_121	CLYD_05_0114	Narwhal	Aug, Sept	
5_122	CLYD_05_0114	Narwhal	Aug, Sept	
5_123	CLYD_05_0114	Narwhal	Aug, Sept	
5_132H	CLYD_5_0114	Narwhal	Sept, Oct	Don't see it as much since the 80's
6_107	CLYD_6_0114	Narwhal	May, Jun	Seem to pass though -> don't really have a place they stay
6_108	CLYD_06_0114	Narwhal	May, Jun	
6_109	CLYD_06_0114	Narwhal	May, Jun	
6_110	CLYD_06_0114	Narwhal	Jul, Aug	
6_111	CLYD_06_0114	Narwhal	Jul, Aug	
7_106	CLYD_07_0114	Narwhal	Apr	
8_71	CLYD_08_0114	Narwhal	Jul, Aug	In different fjords every summer
8_72	CLYD_08_0114	Narwhal	Jul, Aug	Come into fiords as ice breaks up

Map Code	Interview Code	Species	Months	Comments
8_73	CLYD_08_0114	Narwhal	Jul, Aug	
8_74	CLYD_08_0114	Narwhal	Jul, Aug	
9_54	CLYD_09_0114	Narwhal	Jun, Jul	
9_55	CLYD_09_0114	Narwhal	Jun, Jul	
9_56A	CLYD_09_0114	Narwhal	Aug	
9_57	CLYD_09_0114	Narwhal	Aug	
9_61	CLYD_09_0114	Narwhal	May, Jun	

Table 40. Narwhal everywhere data

Map Code	Interview Code	Species	Months	Comments
2_77E	CLYD_02_0114	Narwhal	Jul, Aug	During the summer
5_124E	CLYD_05_0114	Narwhal	Aug, Sep	

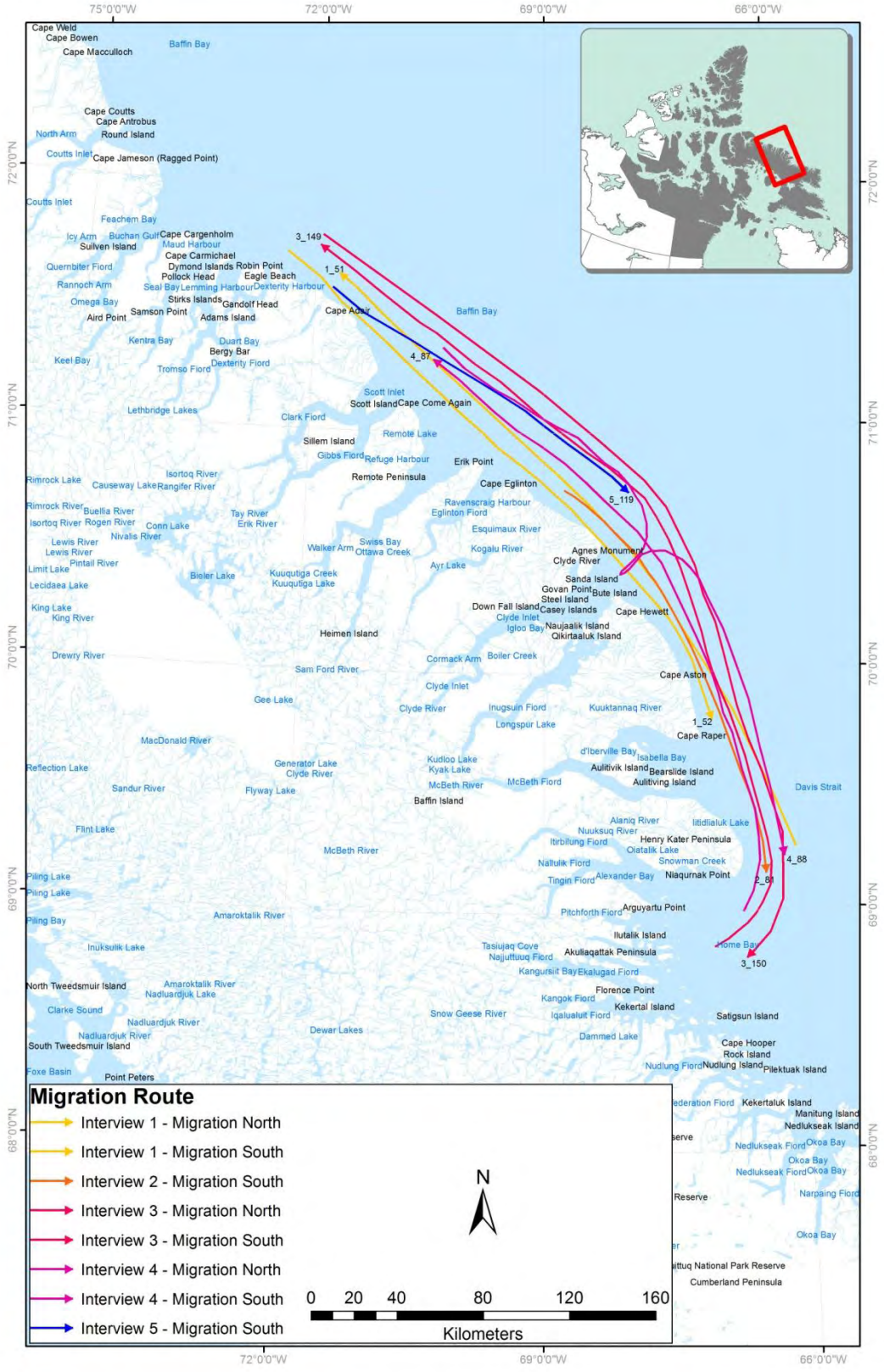

Figure 30. Migration routes for Narwhal interviews 1 to 5

Table 41. Migration routes for Narwhal interviews 1 to 5

Map Code	Interview Code	Species	Months	Comments
1_51M	CLYD_01_0114	Narwhal	Apr, May	
1_52M	CLYD_01_0114	Narwhal	Sep, Oct	
3_149M	CLYD_03_0114	Narwhal	Apr, May, Jun	
3_150M	CLYD_03_0114	Narwhal	Sep, Oct	
3_151M	CLYD_03_0114	Narwhal	Jul, Aug	
4_87M	CLYD_04_0114	Narwhal	Spring	Migrate to the North
4_88M	CLYD_04_0114	Narwhal	Aug, Sep	Will stay in fiords if KW are around mouth
5_119M	CLYD_05_0114	Narwhal	Aug	

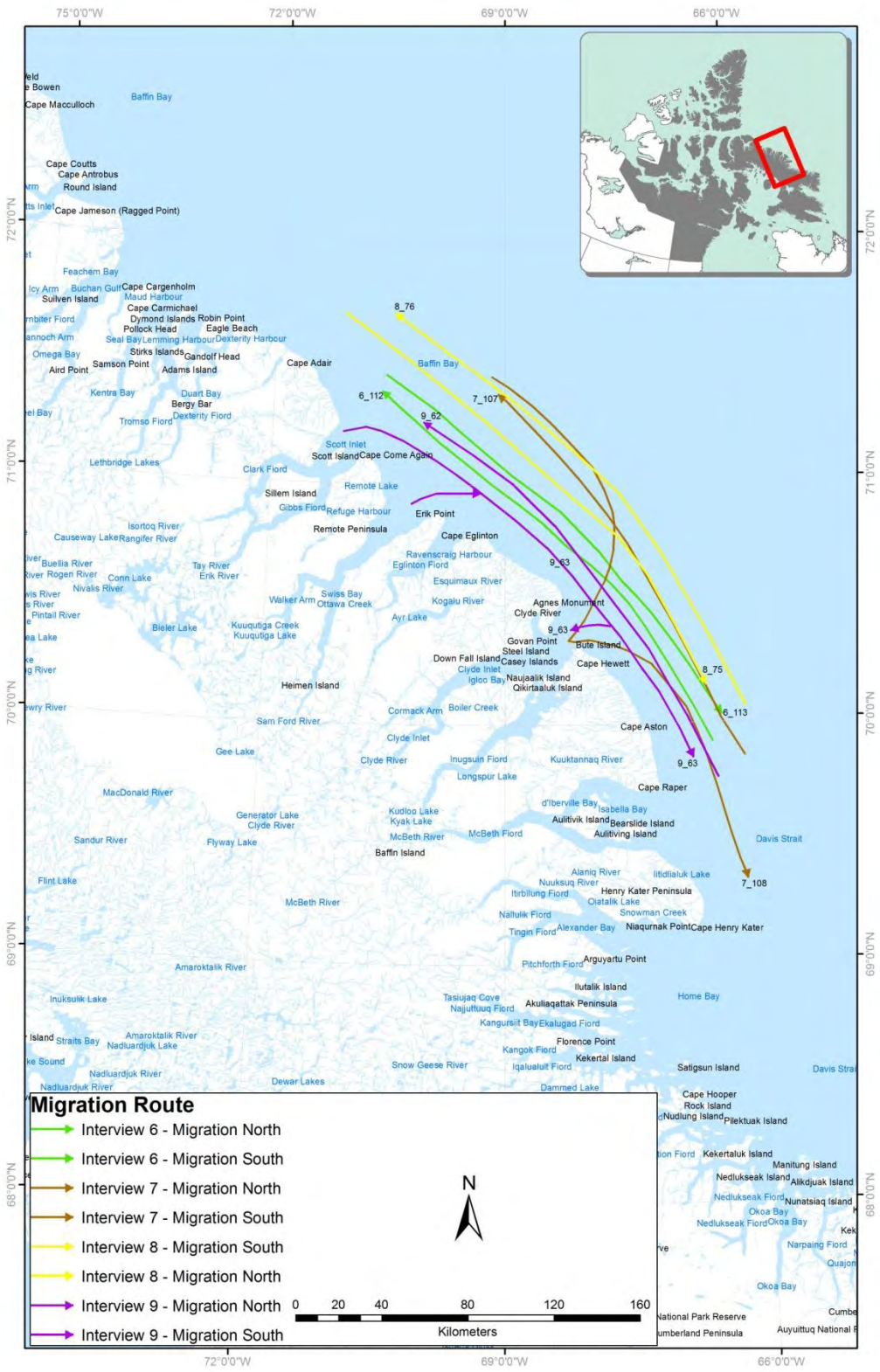

Figure 31. Migration routes for Narwhal interviews 6 to 9

Table 42. Migration routes for Narwhal interviews 6 to 9

Map Code	Interview Code	Species	Months	Comments
6_112M	CLYD_06_0114	Narwhal	May, Jun	
6_113M	CLYD_06_0114	Narwhal	Sep, Oct	Will stop in fiords, some years there aren't many last year, there weren't many, didn't come into Clyde River
7_107M	CLYD_07_0114	Narwhal	Jun, Jul	
7_108M	CLYD_07_0114	Narwhal	Sep, Oct	Females come in fiords. Coming with calves
8_75M	CLYD_08_0114	Narwhal	Sep, Oct	
8_76M	CLYD_08_0114	Narwhal	Apr, May	
9_62M	CLYD_09_0114	Narwhal	Apr, May, Jun	
9_63M	CLYD_09_0114	Narwhal	Sep, Oct	

Figure 32. Probability of occurrence for Bowhead Whale

Table 43. Probability of occurrence for Bowhead Whale

Map Code	Interview Code	Species	Months	Comments
1_53	CLYD_01_0114	Bowhead Whale	Jul, Aug	Drive there by vehicle in the summer to see bowheads
1_54	CLYD_01_0114	Bowhead Whale	Sep, Oct	Lots in fall, researchers were studying them and found high abundance
1_55	CLYD_01_0114	Bowhead Whale		Feeding ground
2_78	CLYD_2_0114	Bowhead Whale	Aug, Sep	
2_79	CLYD_2_0114	Bowhead Whale	Aug, Sep	
3_145	CLYD_03_0114	Bowhead Whale	Jul, Aug	
3_147	CLYD_03_0114	Bowhead Whale	Jul, Aug, Sep, Oct	
3_148	CLYD_03_0114	Bowhead Whale	Sep, Oct	
4_89	CLYD_04_0114	Bowhead Whale	Summer, early fall	
4_90	CLYD_04_0114	Bowhead Whale	Summer, early fall	
5_125	CLYD_05_0114	Bowhead Whale	Aug, Sep	
5_126A	CLYD_05_0114	Bowhead Whale	Aug, Sep	
5_127A	CLYD_05_0114	Bowhead Whale	Aug, Sep	32 in a group one summer
5_128A	CLYD_05_0114	Bowhead Whale	Aug, Sep	
5_129	CLYD_05_0114	Bowhead Whale	Aug, Sep	
7_109	CLYD_07_0114	Bowhead Whale	Jul, Aug	Used to be station studying whales
7_110	CLYD_07_0114	Bowhead Whale		Spring more common sight, in fall follow ice formation
7_111	CLYD_07_0114	Bowhead Whale	Jul, Aug, Sep, Oct	Observation area
9_64	CLYD_09_0114	Bowhead Whale	Jul, Aug, Sep	
9_65	CLYD_09_0114	Bowhead Whale	Aug, Sep	Biologist studying them here

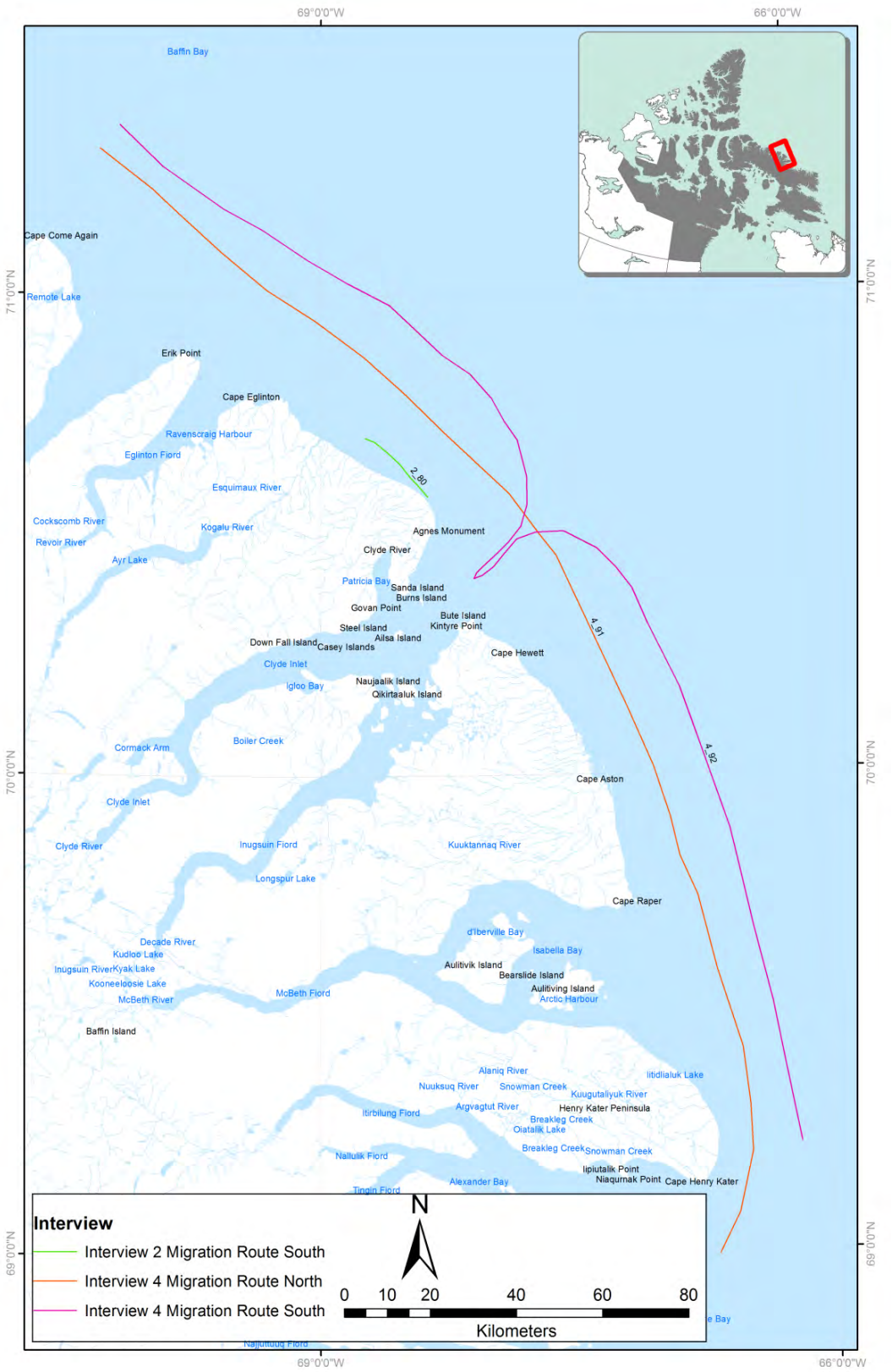

Figure 33. Migration routes for Bowhead Whale

Table 44. Migration routes for Bowhead Whale

Map Code	Interview Code	Species	Months	Comments
4_91M	CLYD_04_0114	Bowhead Whale	May, Jun, Jul	
4_92M	CLYD_04_0114	Bowhead Whale	Sept	
2_80M	CLYD_02_0114	Bowhead Whale	Jun, Jul, Aug, Sep	

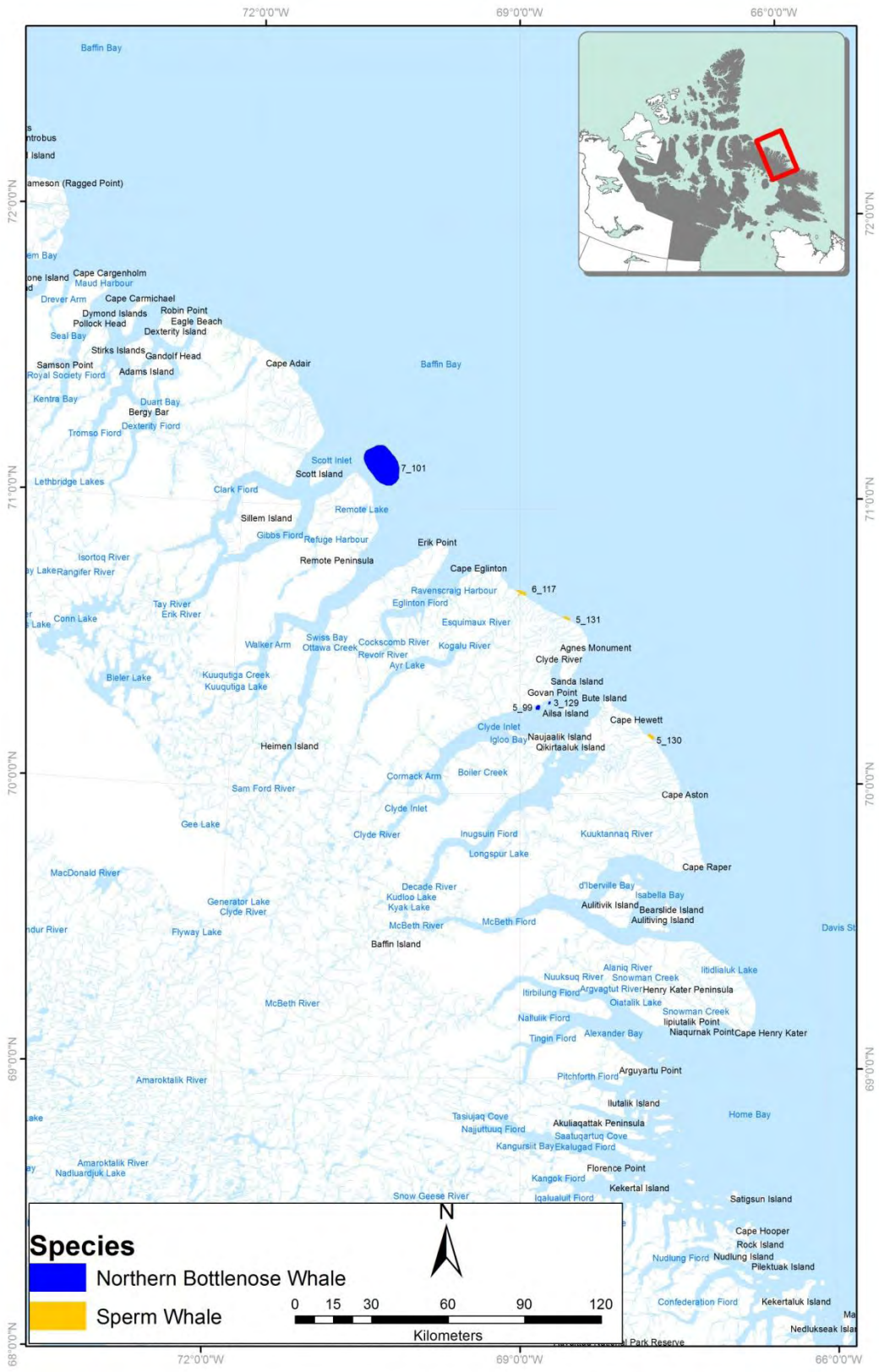

Figure 34. Areas of occurrence for Northern Bottlenose Whale and Sperm Whale

Table 45. Areas of occurrence for Northern Bottlenose Whale and Sperm Whale

Map Code	Interview Code	Species	Months	Comments
3_129	CLYD_03_0114	Northern Bottlenose Whale	Sept, Oct	This last fall
5_99	CLYD_05_0114	Northern Bottlenose Whale	Sep	
7_101	CLYD_07_0114	Northern Bottlenose Whale	Aug, Sep	LFPW or NBW_7_101
5_130	CLYD_05_0114	Sperm Whale	Aug, Sep	Found dead carcass on a beach, 13 polar bears were feeding
5_131	CLYD_05_0114	Sperm Whale	Aug, Sep	Not common alive in this area, believes whale floated in from elsewhere, too cold for them to survive here
6_117H	CLYD_06_0114	Sperm Whale	Jul, Aug	Saw one beached 10-15 years ago. Had someone carve walrus into sperm whale teeth

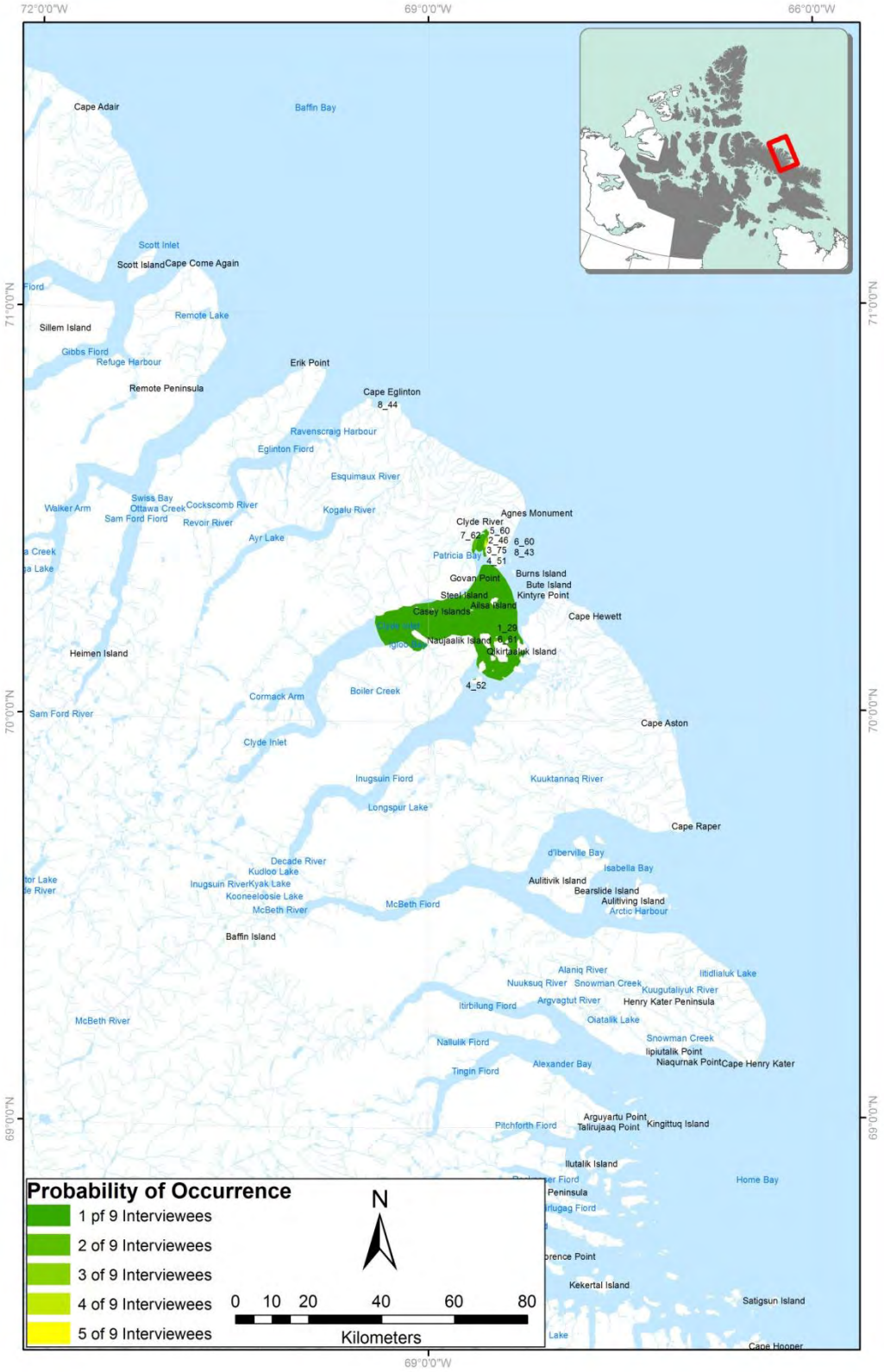

Figure 35. Probability of occurrence for Truncate Softshell Clam

Table 46. Probability of occurrence for Truncate Softshell Clam

Map Code	Interview Code	Species	Months	Comments
1_29	CLYD_01_0114	Truncate Softshell Clam	Apr, May, Jun, Jul, Aug	Nobody harvest these
2_46	CLYD_02_0114	Truncate Softshell Clam	Sep, Oct, Nov	
3_75	CLYD_03_0114	Truncate Softshell Clam	Apr, May, Jun, Jul, Aug	
4_51	CLYD_04_0114	Truncate Softshell Clam	Late spring, summer	There is a huge boulder in the water where they are more plentiful
4_52	CLYD_04_0114	Truncate Softshell Clam	Late spring, summer	
5_60	CLYD_05_0114	Truncate Softshell Clam	Feb, Apr, May, Jun, Set, Oct	Got 1 bag full in Feb once
6_60	CLYD_06_0114	Truncate Softshell Clam	Jul, Aug	Most abundant but don't hunt them
6_61	CLYD_06_0114	Truncate Softshell Clam	Jul, Aug	Abundant
7_62	CLYD_07_0114	Truncate Softshell Clam	May, Jun, Jul, Aug, Sep, Oct	Familiar with these because they are close, knows there are more elsewhere. Never had test fishery for clams. Use plungers to take out clams, there's only 4ft max tide in Clyde
8_43	CLYD_08_0114	Truncate Softshell Clam	May, Jun, Sep, Oct	
8_44A	CLYD_08_0114	Truncate Softshell Clam	Jul, Aug	Winds wash up clams

Figure 36. Areas of occurrence for Blue Mussel, Cockle, and Scallop

Table 47. Areas of occurrence for Blue Mussel, Cockle, and Scallop

Map Code	Interview Code	Species	Months	Comments
3_78	CLYD_03_0114	Cockle	May, Jun, Jul, Aug	
7_65	CLYD_07_0114	Blue Mussel	Jul, Aug	
6_62	CLYD_06_0114	Scallop	Jul, Aug	Test fishery found these in 1982-1985 with uncle John Boat

Table 48. Cockle, Blue Mussel, Northern Horse Mussel everywhere data

Map Code	Interview Code	Species	Months	Comments
1_30E	CLYD_01_0114	Cockle		
7_63E	CLYD_07_0114	Cockle		Not as numerous as clams
3_76E	CLYD_03_0114	Blue Mussel	Aug, Sep	
7_64E	CLYD_07_0114	Blue Mussel	Jul, Aug	
3_77E	CLYD_03_0114	Northern Horsemussel	Aug, Sep	

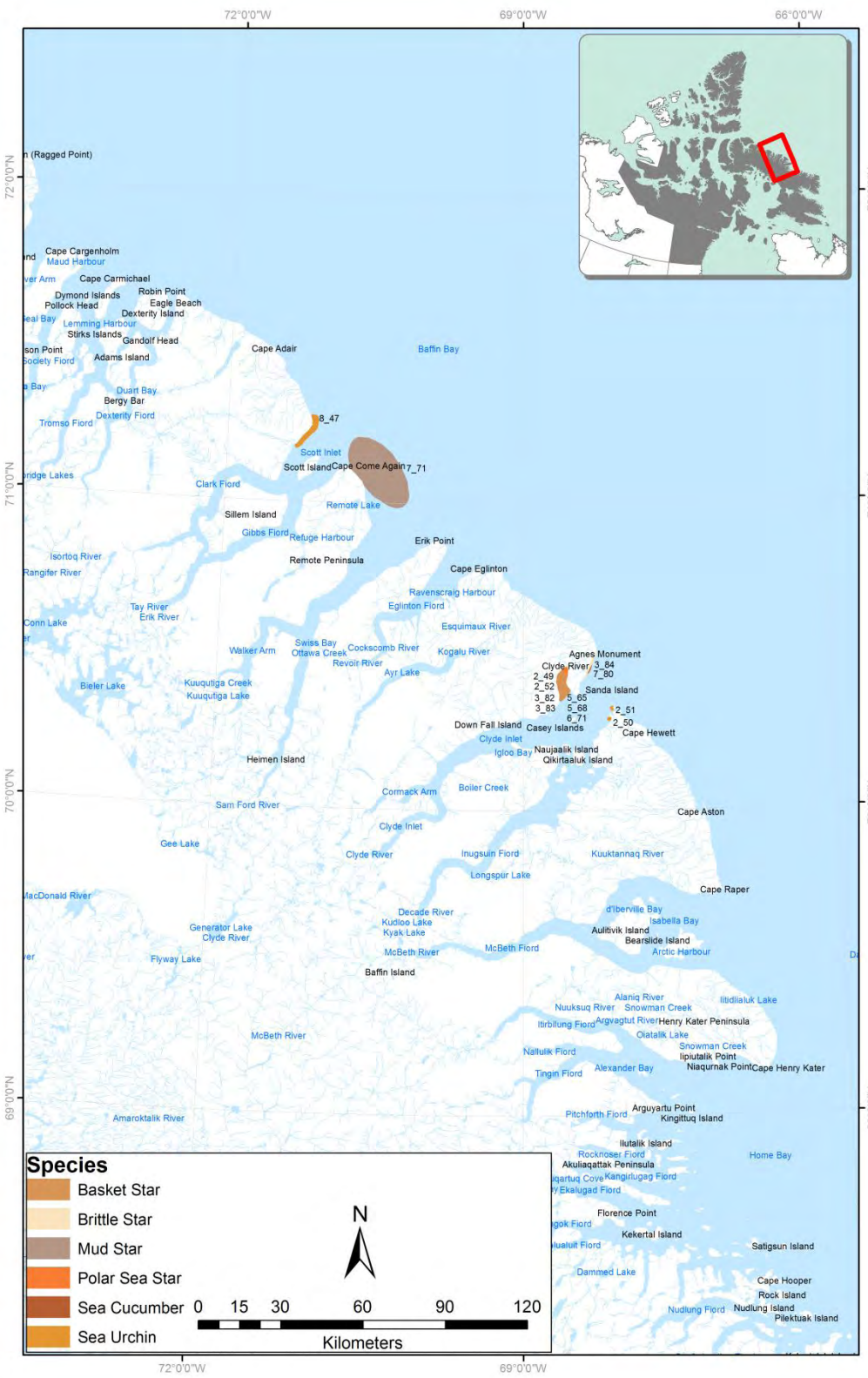

Figure 37. Areas of occurrence for Sea Urchin, Polar Sea Star, Basket Star, Sea Cucumber, Brittle Star, and Mud Star

Table 49. Areas of occurrence for Sea Urchin, Polar Sea Star, Basket Star, Sea Cucumber, Brittle Star, and Mud Star

Map Code	Interview Code	Species	Months	Comments
2_49	CLYD_02_0114	Sea Urchin	Apr, May, Jun	
2_50	CLYD_02_0114	Sea Urchin	Apr, May, Jun	
2_51	CLYD_02_0114	Sea Urchin	Apr, May, Jun	
3_82	CLYD_03_0114	Sea Urchin	Apr, May, Jun, Jul, Aug	
8_47	CLYD_08_0114	Sea Urchin	Apr, May, Jun, Jul, Aug	
2_52	CLYD_02_0114	Polar Sea Star	Apr, May, Jun, Jul	
3_83	CLYD_03_0114	Polar Sea Star	Apr, May, Jun, Jul, Aug	
5_65	CLYD_05_0114	Polar Sea Star	Jan, Jul, Aug, Sep, Oct, Dec	Found in nets
5_68	CLYD_05_0114	Basket Star	May, Jun, Jul, Aug	Seen in nets
3_84	CLYD_03_0114	Sea Cucumber	Aug, Sep, Oct	
6_71	CLYD_06_0114	Sea Cucumber	Apr, May	
7_80	CLYD_07_0114	Brittle Star	Jul, Aug, Sep, Oct	
7_71	CLYD_07_0114	Mud Star	Mar, Apr, May, Jun	

Table 50. Sea Urchin, Polar Seastar, Basket Star, Sea Cucumber, Brittle Star, Mud Star everywhere data.

Map Code	Interview Code	Species	Months	Comments
1_33E	CLYD_01_0114	Sea Urchin		Finds them in the spring in seal nets
5_63E	CLYD_05_0114	Sea Urchin	Jul, Aug, Sep, Oct	
6_67E	CLYD_06_0114	Sea Urchin	May, Jun, Jul, Aug	
7_69E	CLYD_07_0114	Sea Urchin	Mar, Apr, May, Jun, Jul, Aug	
1_34E	CLYD_01_0114	Polar Sea Star	Year-round	Seen big one seastar near CAMP_08
4_58E	CLYD_04_0114	Polar Sea Star	May, Jun, Jul, Aug, Sep, Oct	Has seen starfish with arms damaged with arms growing back
6_70E	CLYD_06_0114	Polar Sea Star		
7_70E	CLYD_07_0114	Polar Sea Star	Mar, Apr, May, Jun, Jul, Aug	
8_46E	CLYD_08_0114	Polar Sea Star	Apr, May, Jun	
3_90E	CLYD_03_0114	Basket Star	May, Jun, Jul, Aug	

Figure 38. Areas of occurrence for Naked Sea Butterfly, Arctic Moonsnail, Whelk, and Amphipod

Table 51. Areas of occurrence for Naked Sea Butterfly, Arctic Moonsnail, Whelk, and Amphipod

Map Code	Interview Code	Species	Months	Comments
2_48	CLYD_02_0114	Naked Sea Butterfly	Jul, Aug, Sep	
3_79	CLYD_03_0114	Naked Sea Butterfly		
3_80	CLYD_03_0114	Naked Sea Butterfly	Apr, May, Aug, Sep	
3_81	CLYD_03_0114	Arctic Moonsnail	Apr, May, Jun, Jul, Aug	
2_47	CLYD_02_0114	Welk	Jul, Aug	
7_66	CLYD_07_0114	Welk	May, Jun, Jul	Mobile test fishery found many of these.
3_85	CLYD_03_0114	Amphipod	Year-round	
3_86	CLYD_03_0114	Amphipod	Year-round	
3_87	CLYD_03_0114	Amphipod	Year-round	
5_66	CLYD_05_0114	Amphipod		Anywhere there is open water, sometimes so plentiful that they can eat a whole seal in a night
6_74	CLYD_06_0114	Amphipod	Jan, Feb, Dec	
7_72	CLYD_07_0114	Amphipod	Apr, May	
7_73	CLYD_07_0114	Amphipod	Mar, Apr, May	
7_74	CLYD_07_0114	Amphipod	Apr, May	
8_48	CLYD_08_0114	Amphipod	Jan, Feb, Dec	
8_49	CLYD_08_0114	Amphipod	Jan, Feb, Dec	

Table 52. Naked Sea Butterfly, Arctic Moonsnail, and Whelk everywhere data

Map Code	Interview Code	Species	Months	Comments
1_31E	CLYD_01_0114	Naked Sea Butterfly		
4_55E	CLYD_04_0114	Naked Sea Butterfly	Late summer, early fall	
5_62E	CLYD_05_0114	Naked Sea Butterfly	Aug, Sep, Oct	
6_65E	CLYD_06_0114	Naked Sea Butterfly	Nov	Abundant as ice starts to form
7_68E	CLYD_07_0114	Naked Sea Butterfly		
1_32E	CLYD_01_0114	Arctic Moonsnail	Year-round	
4_56E	CLYD_04_0114	Arctic Moonsnail	Jul, Aug	Not as plentiful as Whe_4_54
6_66E	CLYD_06_0114	Arctic Moonsnail	May, Jun	Abundant - observed lowering hook and they eat meat
4_54E	CLYD_04_0114	Whelk		Seen shells along shore
5_61E	CLYD_05_0114	Whelk	Jul, Aug, Sep	
6_64E	CLYD_06_0114	Whelk	Jul, Aug	Attached to kelp

Map Code	Interview Code	Species	Months	Comments
7_67E	CLYD_07_0114	Whelk	Jul, Aug	Grow very large in deep sea (~40 cm)
1_35E	CLYD_01_0114	Toad Crab		Seen in spring
6_63E	CLYD_6_0114	Toad Crab	Jul, Aug	On beach
1_37E	CLYD_01_0114	Amphipod	Year-round	
2_53E	CLYD_02_0114	Amphipod	Year-round	
4_59E	CLYD_04_0114	Amphipod	Apr, May, Jun	
4_60E	CLYD_04_0114	Amphipod	Apr, May, Jun	More plentiful in spring than in summer, if you lower meat into the water they will come out in great numbers
6_73E	CLYD_06_0114	Amphipod	Jan, Feb, Dec	Seen in seal nets, wife took photo there were so many >1 million, the whole area was just moving there were so many
7_75E	CLYD_07_0114	Amphipod		
6_75E	CLYD_06_0114	Barnacle		More common on full mood when water goes out, not part of diet

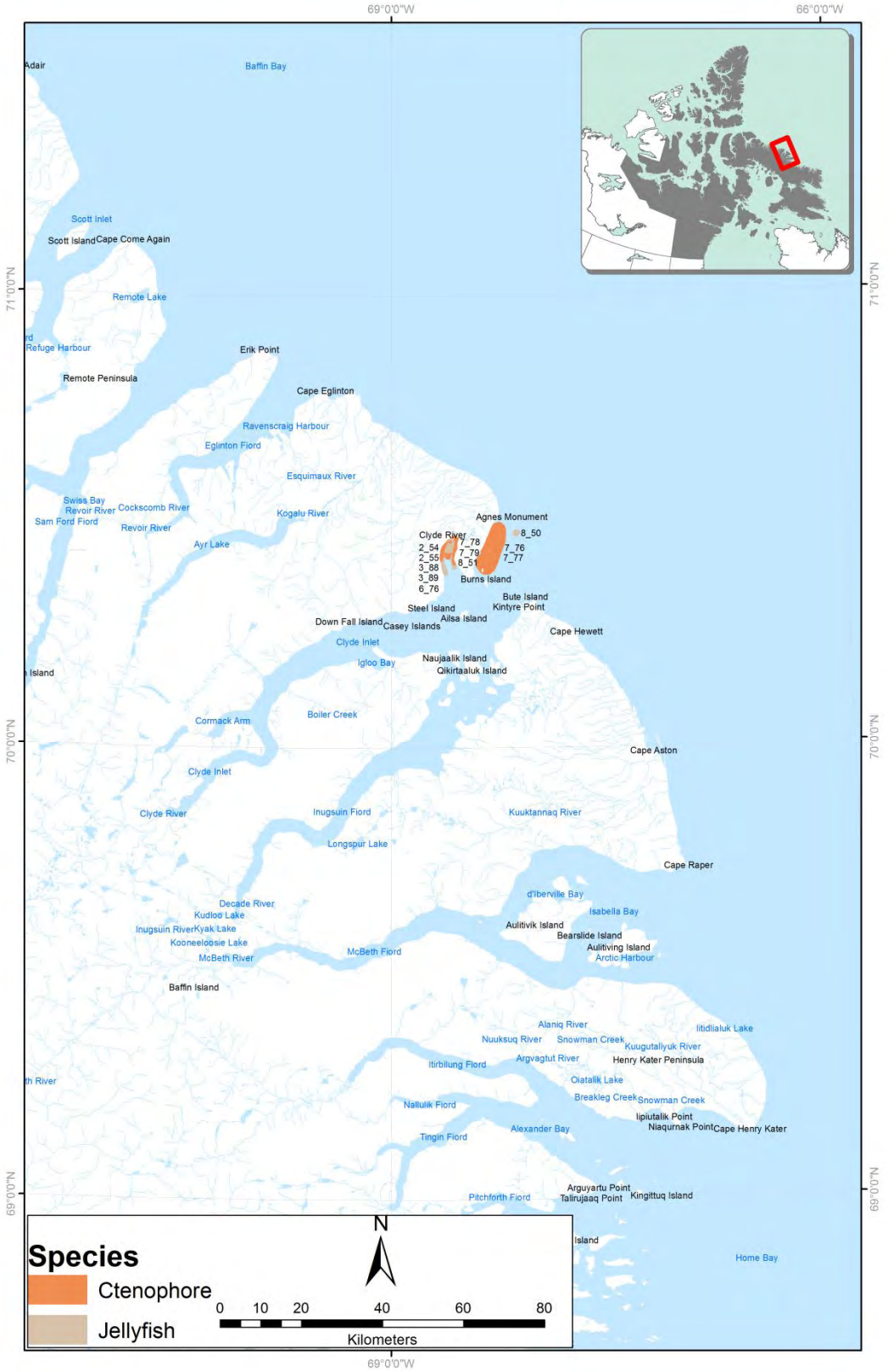

Figure 39. Areas of occurrence for Jellyfish and Ctenophore

Table 53. Areas of occurrence for Jellyfish and Ctenophore

Map Code	Interview Code	Species	Months	Comments
2_54	CLYD_02_0114	Jellyfish	Jul, Aug, Sep	
3_88	CLYD_03_0114	Jellyfish	Jul, Aug, Sep, Oct	
3_89	CLYD_03_0114	Jellyfish	Jul, Aug, Sep, Oct	
7_76	CLYD_07_0114	Jellyfish	Sep, Oct	
7_78	CLYD_07_0114	Jellyfish	Sep, Oct	
8_50	CLYD_08_0114	Jellyfish	Apr, May, Jun	
8_51	CLYD_08_0114	Jellyfish	Sep, Oct	
2_55	CLYD_02_0114	Ctenophore	Jul, Aug, Sep	
6_76	CLYD_06_0114	Ctenophore	Jul, Aug	
7_77	CLYD_07_0114	Ctenophore	Sep, Oct	
7_79	CLYD_07_0114	Ctenophore	Sep, Oct	

Table 54. Jellyfish and Ctenophore everywhere data

Map Code	Interview Code	Species	Months	Comments
4_61	CLYD_04_0114	Jellyfish	Summer	
1_39	CLYD_01_0114	Ctenophore	Jul, Aug, Sep, Oct	
4_62	CLYD_04_0114	Ctenophore	Summer	

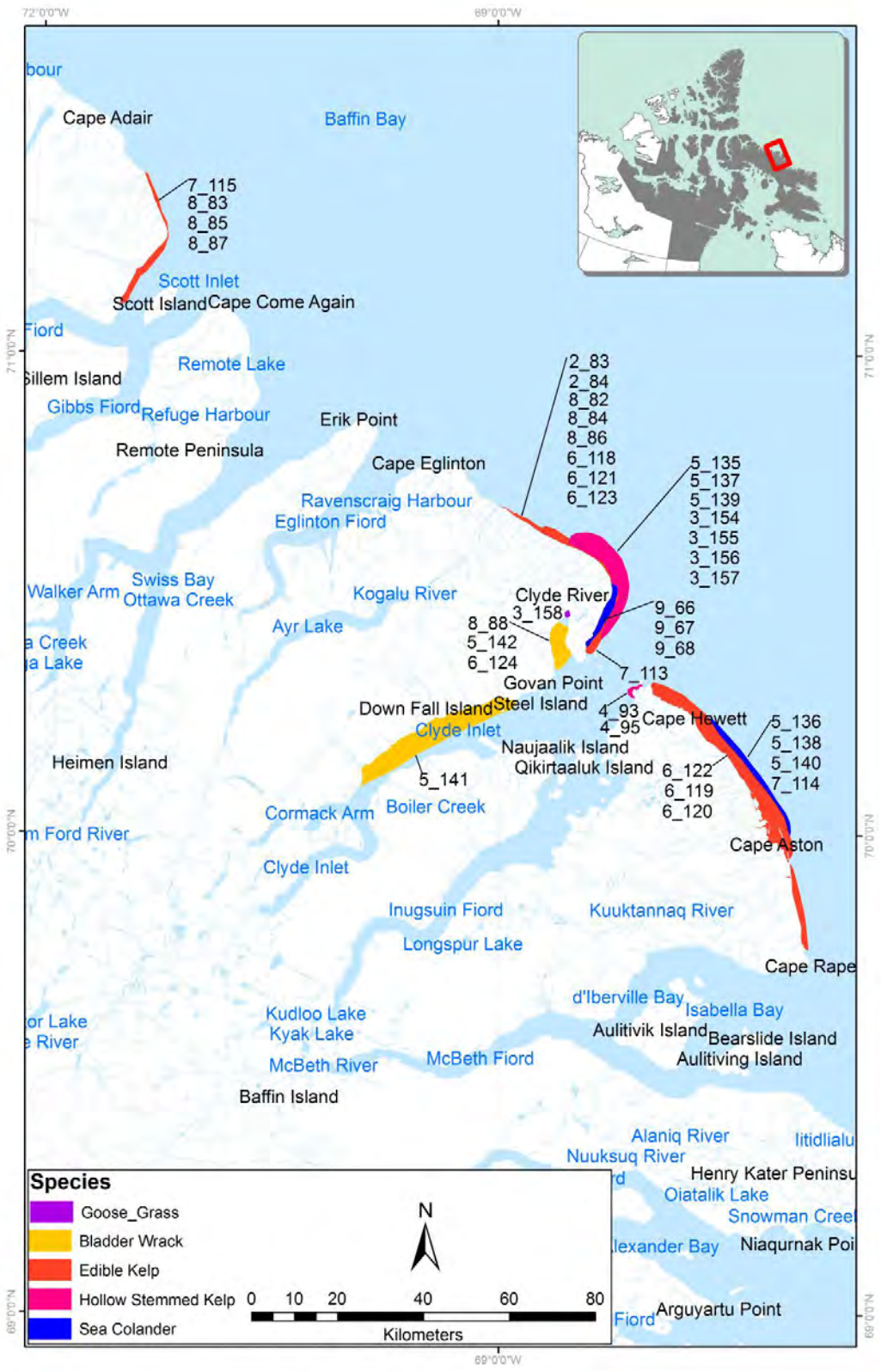

Figure 40. Areas of occurrence for Edible Kelp, Hollow Stemmed Kelp, Sea Colander, Bladder Wrack, and Goose Grass

Table 55. Areas of occurrence for Edible Kelp, Hollow Stemmed Kelp, Sea Colander, Bladder Wrack, and Goose Grass

Map Code	Interview Code	Species	Months	Comments
2_83	CLYD_02_0114	Edible Kelp		
3_154	CLYD_03_0114	Edible Kelp	Sep, Oct	
4_93	CLYD_04_0114	Edible Kelp	Apr, May, Jun, Jul, Aug, Sep, Oct	
5_135	CLYD_05_0114	Edible Kelp	Aug, Sep, Oct	
5_136	CLYD_05_0114	Edible Kelp	Aug, Sep, Oct	
6_118	CLYD_06_0114	Edible Kelp	Jul, Aug	Gather kelp from these areas, after ice has moved out
6_119	CLYD_06_0114	Edible Kelp	Jul, Aug	Gather kelp from these areas, after ice has moved out
7_113	CLYD_07_0114	Edible Kelp	Aug, Sep	Used to use a wooden cross to harvest Edible kelp, twist it to remove stem
7_114	CLYD_07_0114	Edible Kelp	Aug, Sep	EK, HSK, Scol normally found together
7_115	CLYD_07_0114	Edible Kelp	Aug, Sep	
8_82	CLYD_08_0114	Edible Kelp	Jul to Oct	Use racks to break them off
8_83	CLYD_08_0114	Edible Kelp	Aug, Sep, Oct	
9_66	CLYD_09_0114	Edible Kelp	Sep, Oct	
2_84	CLYD_02_0114	Hollow Stemmed Kelp		
3_155	CLYD_03_0114	Hollow Stemmed Kelp	Sep, Oct	
4_95	CLYD_04_0114	Hollow Stemmed Kelp	Apr, May, Jun, Jul, Aug, Sep, Oct	
4_96	CLYD_04_0114	Hollow Stemmed Kelp	Apr, May, Jun, Jul, Aug, Sep, Oct	
5_137	CLYD_05_0114	Hollow Stemmed Kelp	Aug, Sep, Oct	
5_138	CLYD_05_0114	Hollow Stemmed Kelp	Aug, Sep, Oct	
6_120	CLYD_06_0114	Hollow Stemmed Kelp	Jul, Aug	
6_121	CLYD_06_0114	Hollow Stemmed Kelp	Jul, Aug	
8_84	CLYD_08_0114	Hollow Stemmed Kelp	May, Jun, Jul, Aug, Sep, Oct	Don't eat
8_85	CLYD_08_0114	Hollow Stemmed Kelp	May, Jun, Jul, Aug, Sep, Oct	Don't eat
9_67	CLYD_09_0114	Hollow Stemmed Kelp	Sep, Oct	
3_156	CLYD_03_0114	Sea Colander	Sep, Oct	
5_139	CLYD_05_0114	Sea Colander	Aug, Sep, Oct	

Map Code	Interview Code	Species	Months	Comments
5_140	CLYD_05_0114	Sea Colander	Aug, Sep, Oct	
6_122	CLYD_06_0114	Sea Colander	Jul, Aug	
6_123	CLYD_06_0114	Sea Colander	Jul, Aug	
7_118	CLYD_07_0114	Sea Colander	Aug, Sep	
8_86	CLYD_08_0114	Sea Colander	May, Jun, Jul, Aug, Sep, Oct	Don't eat
8_87	CLYD_08_0114	Sea Colander	May, Jun, Jul, Aug, Sep, Oct	Don't eat
9_68	CLYD_09_0114	Sea Colander	Sep, Oct	
3_157	CLYD_03_0114	Bladder Wrack	Sep, Oct	
5_141	CLYD_05_0114	Bladder Wrack	Aug, Sep, Oct	
5_142	CLYD_05_0114	Bladder Wrack	Aug, Sep, Oct	
6_124	CLYD_06_0114	Bladder Wrack	May, Jun, Jul, Aug	
8_88	CLYD_08_0114	Bladder Wrack	May, Jun, Jul, Aug, Sep, Oct	
3_158	CLYD_3_0114	Goose Grass		

Table 56. Edible Kelp, Hollow Stemmed Kelp, Sea Colander, Bladder Wrack, Dulse, Semaphore Grass, Goose Grass, Floating Buttercup, Mare's Tail, and Sea Lungwort everywhere data

Map Code	Interview Code	Species	Months	Comments
1_56E	CLYD_01_0114	Edible Kelp	End of Jun to Aug	
7_116E	CLYD_07_0114	Edible Kelp	Aug, Sep	
1_57E	CLYD_01_0114	Hollow Stemmed Kelp	End of Jun to Aug	In shallow water
7_117E	CLYD_07_0114	Hollow Stemmed Kelp	Aug, Sep	
1_58E	CLYD_01_0114	Sea Colander	End of Jun to Aug	In shallow water
2_85E	CLYD_02_0114	Sea Colander		
4_97E	CLYD_04_0114	Sea Colander	Apr, May, Jun, Jul, Aug, Sep, Oct	
7_118E	CLYD_07_0114	Sea Colander	Aug, Sep	
1_59E	CLYD_01_0114	Bladder Wrack	End of Jun to Aug	
2_86E	CLYD_02_0114	Bladder Wrack		
4_98E	CLYD_04_0114	Bladder Wrack	Apr, May, Jun, Jul, Aug, Sep, Oct	
5_143E	CLYD_05_0114	Bladder Wrack	Aug, Sep, Oct	
6_125E	CLYD_06_0114	Bladder Wrack	May, Jun, Jul, Aug	

Map Code	Interview Code	Species	Months	Comments
7_119E	CLYD_07_0114	Bladder Wrack		
8_89E	CLYD_08_0114	Bladder Wrack	May, Jun, Jul, Aug, Sep, Oct	
9_69E	CLYD_09_0114	Bladder Wrack	May, Jun, Jul, Aug, Sep, Oct	
1_60E	CLYD_01_0114	Dulse	End of Jun to Aug	
2_87E	CLYD_02_0114	Dulse		
6_126E	CLYD_06_0114	Dulse	Jul, Aug	
1_61E	CLYD_01_0114	Semaphore Grass	End of Jun to Aug	Lakes
1_62E	CLYD_01_0114	Goose Grass	End of Jun to Aug	
2_88E	CLYD_02_0114	Goose Grass		
1_64E	CLYD_01_0114	Floating Buttercup	End of Jun to Aug	Lakes
6_128E	CLYD_06_0114	Floating Buttercup	Jul, Aug	In sandy areas
1_65E	CLYD_01_0114	Mare's Tail	End of Jun to Aug	
1_63E	CLYD_01_0114	Sea Lungwort	End of Jun to Aug	
6_127E	CLYD_06_0114	Sea Lungwort	Jul, Aug	In sandy areas
7_120E	CLYD_07_0114	Sea Lungwort		

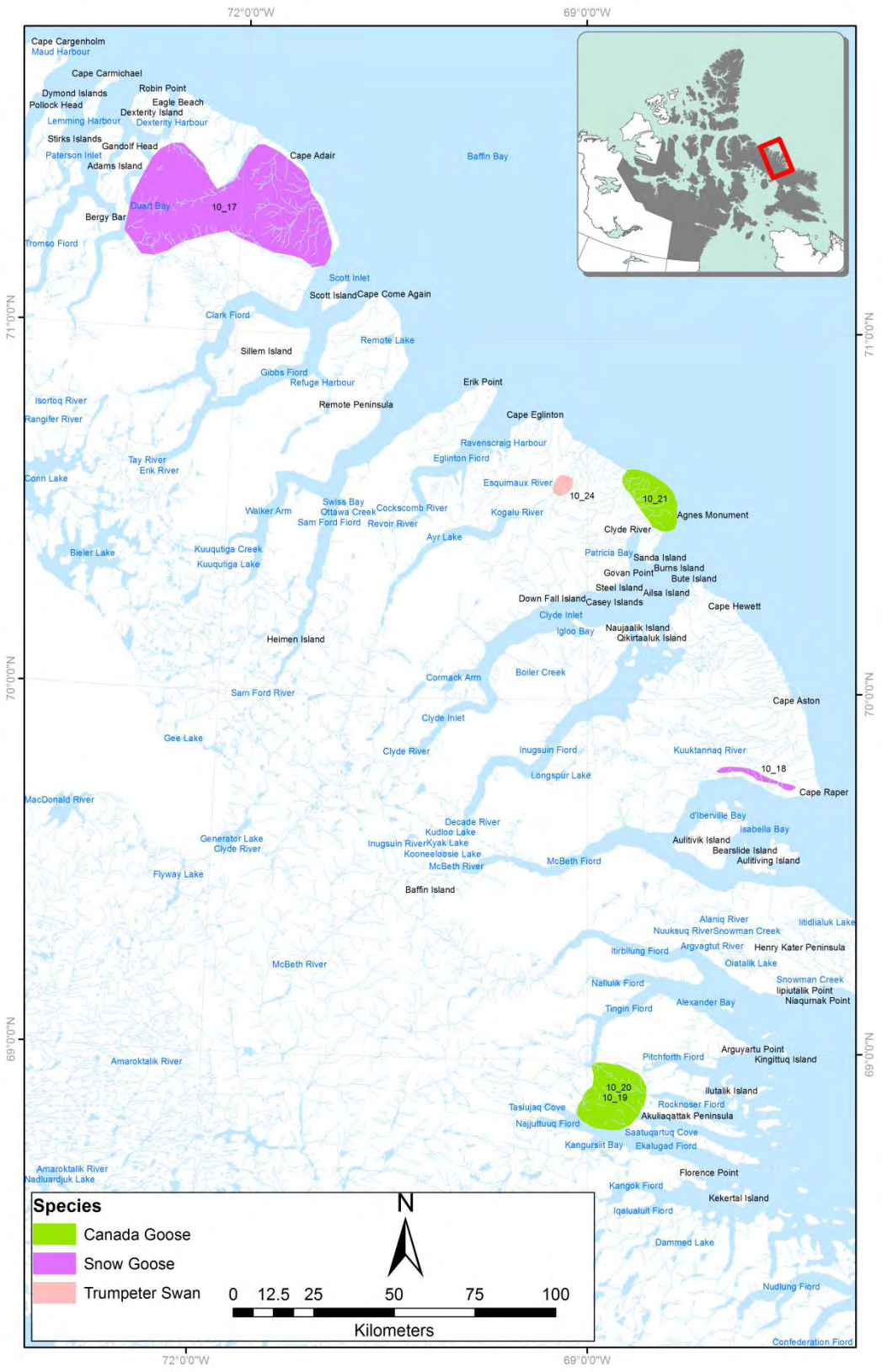

Figure 41. Areas of occurrence for Snow Goose, Canada Goose, and Trumpeter Swan

Table 57. Areas of occurrence for Snow Goose, Canada Goose, and Trumpeter Swan

Map Code	Interview Code	Species	Months	Comments
10_17	CLYD_10_0114	Snow Goose	May, Jun	
10_18	CLYD_10_0114	Snow Goose	May, Jun	
10_19	CLYD_10_0114	Snow Goose	May, Jun	
10_20	CLYD_10_0114	Canada Goose	May, Jun	
10_21	CLYD_10_0114	Canada Goose	Sep	
10_24	CLYD_10_0114	Trumpeter Swan	May, Jun	Rare

Table 58. Canada Goose everywhere data

Map Code	Interview Code	Species	Months	Comments
10_23E	CLYD_10_0114	Canada Goose	May, Jun, Jul, Aug, Sep	

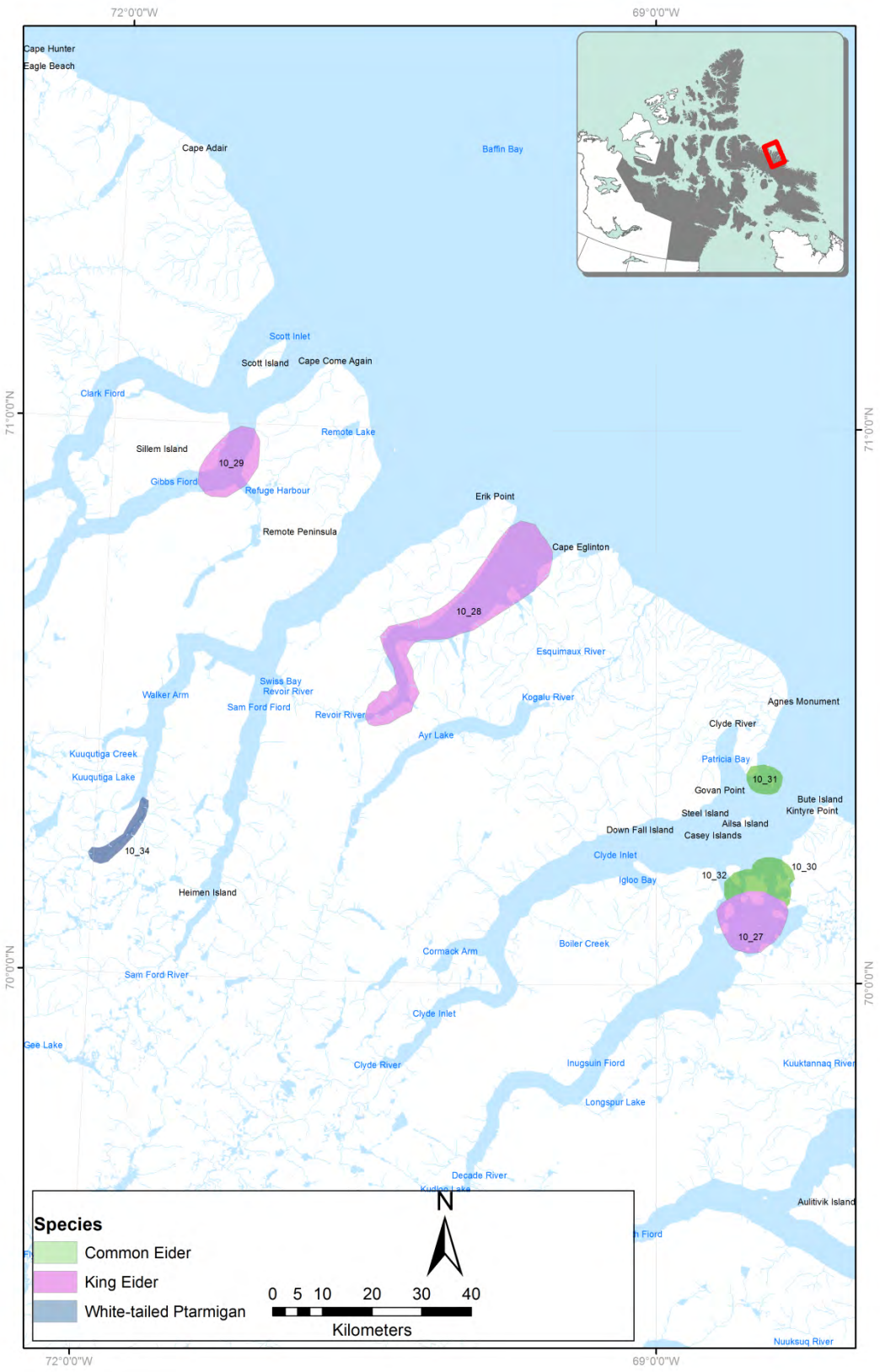

Figure 42. Areas of occurrence for Common Eider, King Eider, and White-tailed Ptarmigan

Table 59. Areas of occurrence for Common Eider, King Eider, and White-tailed Ptarmigan

Map Code	Interview Code	Species	Months	Comments
10_27	CLYD_10_0114	King Eider	May, Jun, Jul, Aug, Sep, Oct, Nov	Were nesting at one point (go here to grow new feathers)
10_28	CLYD_10_0114	King Eider	May, Jun, Jul, Aug, Sep, Oct, Nov	Taste better than 10_27 (go here to grow new feathers)
10_29	CLYD_10_0114	King Eider	May, Jun, Jul, Aug, Sep, Oct, Nov	Go there are not about to fly -> they didn't have a chance to nest because eggs have been eaten (10_27 10_28 10_29). Large birds gain much weight
10_30	CLYD_10_0114	Common Eider	Jun, Jul	
10_31	CLYD_10_0114	Common Eider	Apr, May	
10_32	CLYD_10_0114	Common Eider	Apr, May	
10_34	CLYD_10_0114	White-tailed Ptarmigan	May	Feed over large areas

Table 60. King eider everywhere data

Map Code	Interview Code	Species	Months	Comments
10_26E	CLYD_10_0114	King Eider	May, Jun, Jul, Aug, Sep, Oct, Nov	

Figure 43. Areas of occurrence for Bald Eagle, Golden Eagle, Gyrfalcon, Peregrin Falcon, and Snowy Owl

Table 61. Areas of occurrence for Bald Eagle, Golden Eagle, Gyrfalcon, Peregrin Falcon, and Snowy Owl

Map Code	Interview Code	Species	Months	Comments
10_44	CLYD_10_0114	Golden Eagle	Sep, Oct	
10_45	CLYD_10_0114	Bald Eagle	Sep, Oct	
10_46S	CLYD_10_0114	Peregrine Falcon	Jul, Aug	
10_47	CLYD_10_0114	Gyrfalcon	Jul, Aug	
10_48S	CLYD_10_0114	Gyrfalcon	Jul, Aug	
10_49S	CLYD_10_0114	Gyrfalcon	Jul, Aug	
10_64S	CLYD_10_0114	Snowy Owl	May, Jun, Jul, Aug	
10_65S	CLYD_10_0114	Snowy Owl	May, Jun, Jul, Aug	
10_66S	CLYD_10_0114	Snowy Owl	May, Jun, Jul, Aug	

Figure 44. Areas of occurrence for Mallard, Long-tailed Duck, Red-throated Loon, Pacific Loon, and Ring-necked Duck

Table 62. Areas of occurrence for Mallard, Long-tailed Duck, Red-throated Loon, Pacific Loon, and Ring-necked Duck

Map Code	Interview Code	Species	Months	Comments
10_22	CLYD_10_0114	Mallard	Nov	Only saw 2
10_33	CLYD_10_0114	Long-Tailed Duck	Sep, Oct	Not in large numbers
10_37S	CLYD_10_0114	Red-throated Loon	May, Jun, Jul, Aug, Sep, Oct	
10_38S	CLYD_10_0114	Red-throated Loon	May, Jun, Jul, Aug, Sep, Oct	Nest in June
10_39S	CLYD_10_0114	Red-throated Loon	May, Jun, Jul, Aug, Sep, Oct	
10_40S	CLYD_10_0114	Red-throated Loon	May, Jun, Jul, Aug, Sep, Oct	
10_41	CLYD_10_0114	Pacific Loon	Jul, Aug	Don't have fixed place like RTLO
10_25S	CLYD_10_0114	Ring-necked Duck	May, Jun, Jul, Aug	

Table 63. Red-throated Loon everywhere data

Map Code	Interview Code	Species	Months	Comments
10_36E	CLYD_10_0114	Red-throated Loon	May, Jun, Jul, Aug, Sep, Oct	Lay 2 eggs -> go to same lake every year (stay in same place, have their own lake)

Figure 45. Areas of occurrence for Common Raven, Red Knot, and Sandhill Crane

Table 64. Areas of occurrence for Common Raven, Red Knot, and Sandhill Crane

Map Code	Interview Code	Species	Months	Comments
10_50	CLYD_10_0114	Sandhill Crane	Jul, Aug	
10_54	CLYD_10_0114	Red Knot	May, Jun, Jul, Aug	
10_67S	CLYD_10_0114	Common Raven	Apr	
10_68S	CLYD_10_0114	Common Raven	Apr	

Table 65. Sanderling, Snow Bunting, Common Raven, and Lapland Longspur everywhere data.

Map Code	Interview Code	Species	Months	Comments
10_53E	CLYD_10_0114	Sanderling	May, Jun	
10_69E	CLYD_10_0114	Common Raven	Year-round	
10_70E	CLYD_10_0114	Lapland Longspur	Apr, May, Jun	
10_71E	CLYD_10_0114	Snow Bunting	Apr, May, Jun	

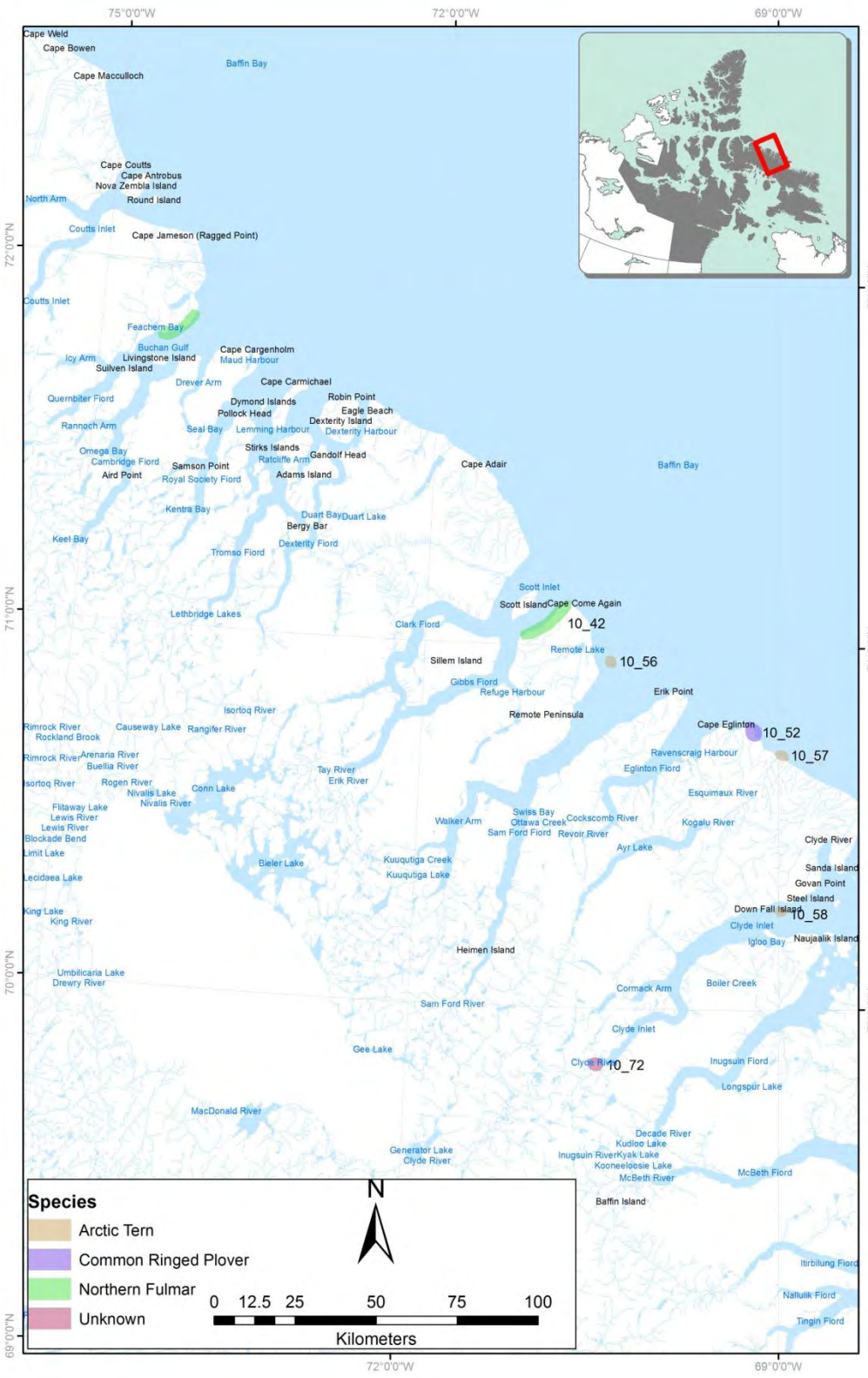

Figure 46. Areas of occurrence for Arctic Tern, Common Ringed Plover, Northern Fulmar, Unknown

Table 66. Areas of occurrence for Arctic Tern, Common Ringed Plover, Northern Fulmar, and Unknown

Map Code	Interview Code	Species	Months	Comments
10_52	CLYD_10_0114	Common Ringed Plover	May, Jun, Jul, Aug	
10_56	CLYD_10_0114	Arctic Tern	May, Jun, Jul, Aug, Sep, Oct	One of last to come in
10_57	CLYD_10_0114	Arctic Tern	May, Jun, Jul, Aug, Sep, Oct	
10_58	CLYD_10_0114	Arctic Tern	May, Jun, Jul, Aug, Sep, Oct	
10_42A	CLYD_10_0114	Northern Fulmar	Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	Have fixed home like RTLO
10_43A	CLYD_10_0114	Northern Fulmar	Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	
10_72	CLYD_10_0114	Unknown	Year-round	Small Brown and grey bird

Table 67. American Golden Plover, and Rock Ptarmigan, Pomarine Jaeger, Thick-billed Murre, Long-tailed Jaeger, Black Guillemont, and Unknown everywhere data

Map Code	Interview Code	Species	Months	Comments
10_51E	CLYD_10_0114	American Golden Plover	May, Jun, Jul, Aug	
10_35E	CLYD_10_0114	Rock Ptarmigan	Year-round	Come back in May (become more numerous) coming from somewhere though Hall Beach area. Find pairs throughout. Disperse over winter
10_73E	CLYD_10_0114	Unknown	May, Jun, Jul, Aug, Sep, Oct	Small Brown and grey bird
10_74E	CLYD_10_0114	Unknown	May, Jun, Jul, Aug, Sep, Oct	Small Brown and grey bird
10_59E	CLYD_10_0114	Pomarine Jaeger	Apr, May, Jun, Jul, Aug	
10_61E	CLYD_10_0114	Common Murre		
10_62E	CLYD_10_0114	Thick-billed Murre		
10_63E	CLYD_10_0114	Black Guillemot		
10_60E	CLYD_10_0114	Long-Tailed Jaeger		

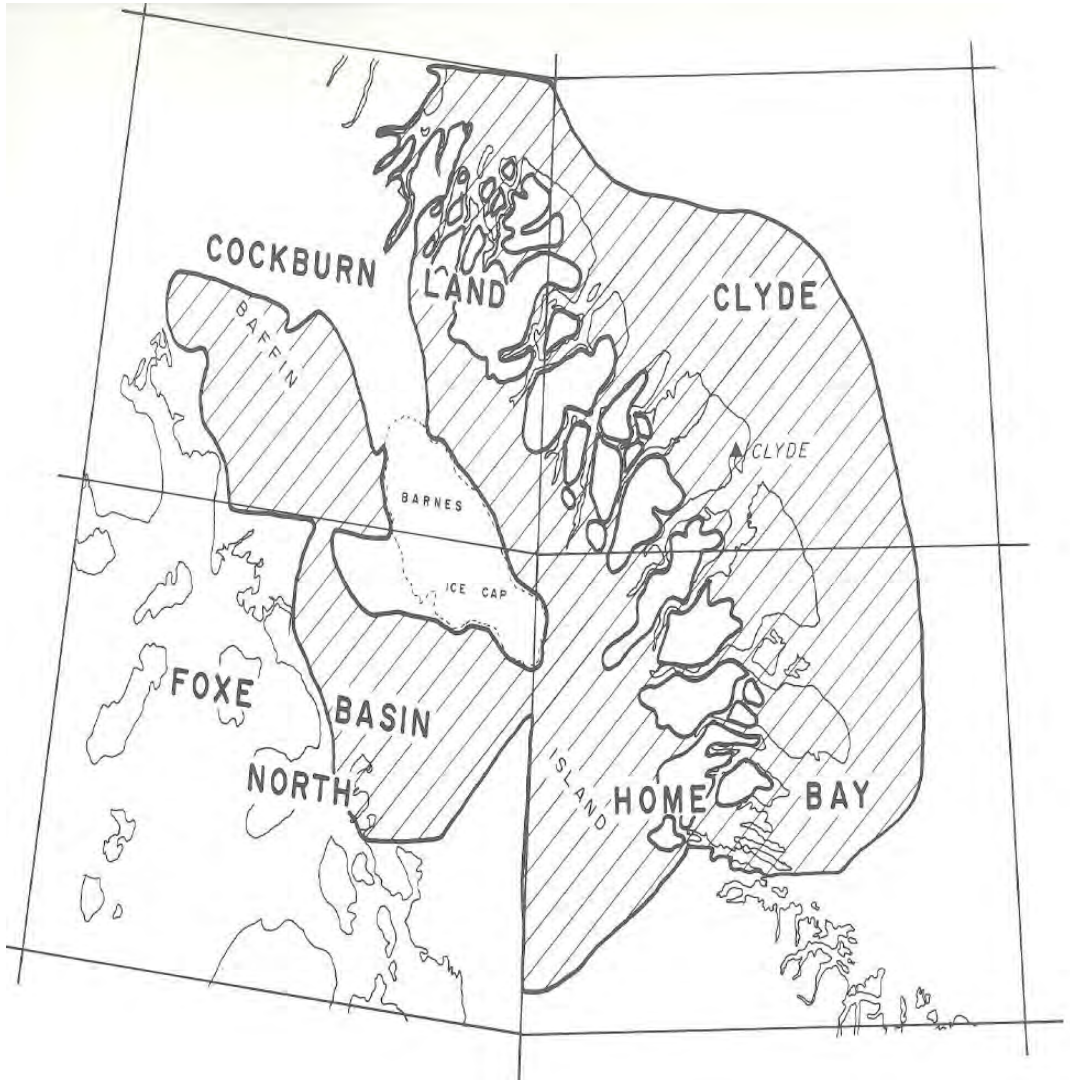

Figure 47. Nunavut Atlas map for Clyde River and Cockburn Land

Figure 48. Nunavut Atlas land use map for Clyde River

Clyde River Atlas Content

Inuit Land Use

1CR This marine area, which includes all adjacent fiords, bays, and inlets is extensively utilized by Inuit hunters from Clyde River. Polar bears and ringed and bearded seals are hunted on the fast ice and at the floe edge from December to June. In particular, seals are hunted during fall and winter in Eglinton Fiord and at the mouth of Clyde Inlet. Cape Christian is a popular sealing area. Ringed seal pups are taken during spring in Sam Ford Fiord (including Walker Arm) and Scott Inlet. Harp seals are hunted in Clyde Inlet during summer. The area off the mouth of Clyde Inlet is used almost daily, year round. Narwhals, and to a lesser extent belugas, are hunted near the head of Clyde Inlet during summer. Eider ducks are hunted in Inugsuin Fiord in summer and fall.

2CR The presence of mountainous and glaciated terrain imposes a considerable constraint on land use by Clyde River residents in the area represented by this map. On land, Clyde River residents intensively utilize the narrow coastal strip adjacent to the fiords for hunting and camping and the mountain passes for travel. Extensive headland areas of lower relief are used for fishing and, on the northwest side of Scott Inlet, for caribou hunting year-round. The area around the head of Sam Ford Fiord is used for caribou hunting during spring and summer, and caribou are hunted near the head of Clyde Inlet and the head of Eglinton Fiord during summer.

Nesting Snow geese are hunted in the vicinity of Igloo Bay Outpost Camp.

3CR & PI These are the skidoo and dog team routes between Pond Inlet and Clyde River.

4CR & BI These are the winter-spring routes between Clyde River and Broughton Island.

5 These areas are not utilized owing to the mountains and glaciated terrain.

Notes on Domestic Fisheries

Wildlife

1 Waterfowl

Snow goose nesting has been reported for this area near the Igloo Bay Outpost Camp.

2 Waterfowl

Eiders are numerous in this area in late summer and early fall.

3 Seabirds

About 25,000 pairs of fulmars nest of Baffin Island just south of Scott Island. Glaucous gulls are scattered in this area with a colony of about 100 pairs located on the southern side of Scott Island.

4 Caribou

The lush vegetation growing on the flat marshy areas at the heads of fiords in the region provides good summer range for caribou. The caribou move to the highland areas in winter where vegetation is sparse, but windswept of snow.

5 Polar Bears

Cape Adair is an important denning area for polar bears in fall and winter.

6 Polar Bears

Polar bear hunt ringed seals during winter and spring throughout the nearshore marine areas of this map sheet, especially at the floe edge and in the loose offshore pack ice.

7 Polar Bears

The area around Inugsuin Fiord is a summer-fall retreat for polar bears.

8 Seals

The inlets, fiords, and small bays of this map-sheet support good populations of ringed seal year round.

9 Seals and Narwhals

Harp seals and narwhals returning from summering areas in the Lancaster Sound-Jones Sound area migrate south through this area in the fall.

10 Narwhals and Seals

The Clyde Inlet-Inugsuin Fiord is frequented by several hundred narwhals as well as any bearded and harp seals, during late summer and fall. It is home to ringed seal year-round.

11 Narwhals

Narwhals have been observed in Scott Inlet in small numbers during summer.

12 Bowheads

A few Bowhead whales are observed each summer along the Coast of Baffin Island between Cape Hewett and Eglinton Fiord.

13 Narwhals

Narwhals spend the winter in small groups scattered throughout the offshore pack ice of southern Baffin Bay and northern Davis Strait.

FINAL THOUGHTS

INTERVIEW PROCESS

Despite a relaxed format and execution the interview process was judged to be successful. The same series of photos and maps were utilized from one interview to the next, ensuring a consistent and reliable output. The interview process lasted from 1.5 to 3.5 hours depending on the individual interviewee, and the depth and extent of the knowledge they were conveying to the interview team. Since the process was focused on coastal resources, it generally excluded mammals considered primarily terrestrial, such as caribou, muskoxen, or Arctic fox, while embracing polar bears and a broad array of birds that range widely over both coastal and terrestrial areas.

Although the process elicited the general satisfaction of the interviewers some reservations warrant comment. The first concern being that the interview was conducted implicitly in the present tense, and observations provided by the interviewees were assumed to be recent unless otherwise specified. Hunters who have traveled and hunted these areas for decades could provide responses drawn from observations made indiscriminately in the short, medium, or long term. For these reasons, interviewees were routinely informed that contemporary data was those observations made since 2000.

A second issue addresses the designation “Everywhere”. Sometimes an interviewee, in response to a question about an animal’s distribution, indicated that they were observed to be present “Everywhere”. This is a very subjective descriptor that, without additional qualifiers, is not very useful. Essentially, it refers to the geographic extent of the respondent’s knowledge, and unless that knowledge is further defined, its utility is limited. Consequently, all interviewees were asked at some point to delineate the extent of their travels. That information was recorded and subsequently displayed (see Figure 4) where it can be located and used to identify what is meant by “Everywhere” for a specific interviewee.

MAPS AND DATA

Given the broad geographic reach of the interviewees’ responses, the map format was chosen to provide a synoptic view of the collected data. In order to make interview observations more discernible, map scales were chosen that best reflected the geographic range of the data in question. Where species were observed to have large overarching ranges the breadth of the map encompassed the entirety of the survey area. For more localized species’ the encompassing map areas were much smaller.

The scale used in maps obtained from the *Nunavut Atlas* (1992) is larger because the geographic area of interest is smaller. In addition, one must keep in mind that the data collected for the *Nunavut Atlas* was actually collected in the early 1970’s and represents

conditions that were extant 35 years ago. Some comparisons are possible but they must be made with caution.

Harvest data available from the Nunavut Wildlife Management Board (NWMB) Study (NWMB 2004) is not represented in this report. The difference between these two studies is that the Nunavut Coastal Resource Inventory (NCRI) was attempting to ascertain the qualitative geographic distribution of species while the NWMB's primary concern was harvest statistics. Additional inventories should, where possible, document harvest data in the study area.

The present dataset was never conceived as a standalone product. It represents a snapshot in time of observations made by individuals within a community who have considerable experience hunting, fishing, and trapping in the region surrounding that community. These data are considered within the context provided by other studies but have limitations, just as those did that preceded it. For a full picture it is necessary to view these findings as one of many complementary datasets.

GOVERNANCE

Collection of resource information through the process of IQ interviews can have many different values for a community, including cultural, social, historical, and economic. All of these, with the exception of the economic value, are more or less self-evident. However, translating a living marine resource into an economic benefit, while simultaneously addressing the issue of sustainability, requires some consideration of resource governance.

Acquiring knowledge about available resources can be empowering and the acquisition of those resources could lead to prosperity and well-being. The NCRI attempts to identify the location and abundance of mammals, fish, birds, invertebrates, and plants for a number of reasons, including the potential for economic development. However, the exploitation of a resource requires important decision making, a reasonable definition of expectations and limits, empowerment of individuals, and accountability. In other words, a sustainable approach to resource utilization requires a vision or goals, coupled with an implementation plan. The resource should be thoughtfully governed from the outset.

COMBINING INUIT QAUJIMAJATUQANGIT AND SCIENTIFIC KNOWLEDGE

Inuit Qaujimajatuqangit (IQ) is unique in that it is qualitative, intuitive, holistic, spiritual, empirical, personal, and often based on a long time-series of observations (Berkes 2002). Some of these characteristics are often cited as limitations, due to the reliance on long-term memory or that it is subjective. Conversely, IQ 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. This combination of knowledge may produce important synergies resulting in a very powerful tool.

The scientific approach embraces all available evidence and postulates a theory that attempts to predict future changes. The accuracy of the prediction is a measure of the completeness of

scientific knowledge. Understanding the reasons for change is important because that information is central to any attempt to mitigate or influence long term effects, such as climate change. Addressing the root cause is a more certain approach than attempting to influence the symptoms. A critical factor in the scientific method is the availability and reliability of data available for analysis. The Arctic, because of its size, complexity, and manpower limitations, does not often have an adequate supply of scientific observations. However, one underutilized data source is traditional knowledge where species, locations, processes, and events have been monitored for generations. By bringing traditional knowledge and science together into a complementary working relationship there will be significant benefits for all stakeholders.

CLIMATE CHANGE

Over the past 20 years, an increasing number of Arctic researchers have commented on the possibility of climate change and global warming and the predicted impacts on the marine environment (Tynan and DeMaster 1997, Michel et al. 2006, Ford et al. 2008a and 2008b, Moore and Huntington 2008). Many changes may occur in recurrent open water sites, with the potential to affect various coastal resources. Specific impacts can be expected 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 then 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. In other words, we expect changes to occur in our physical world that could alter the biological system, including the human component.

The Nunavut Coastal Resource Inventory initiative was undertaken to provide information that could inform decision-making in the areas of resource management, economic development, conservation, environmental assessment, and the mitigation of anticipated climate change effects. In order to be effective, each intervention will require baseline resource information plus knowledge about the factors that are driving change. Assessment of environmental change will be considered for both direct human activity (resource extraction) and significant systemic changes (climate change). Climate change will exert its influence through warmer average temperatures, altered wind patterns, changes in precipitation, increasing freshwater input, and modified ocean circulation. Alteration of these factors will directly affect the physical marine environment and, ultimately, coastal marine resources as well. In order to mitigate, ameliorate, or influence these anticipated changes a considerable amount of information about the factors that drive both the physical and biological environments, as well as their interconnectedness is required. There are two immediate sources for that information: traditional ecological knowledge and scientific knowledge.

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Community of Clyde River

Hamlet of Clyde River

Clyde River HTO Board Members and Chairpersons

Department of Environment, Government of Nunavut

Interviewees — Clyde River

Salomonie Natanine, Esa Palituq, Leslie Ashevak, Apiusie Apak, Abraham Tiqullaraq, Elijah Palituq, Ilkoo Angutiqjuaq, Jacobie Iqalukjuaq, Esa Piungituq, and Isa Piugituaq.

Inuit Heritage Trust (IHT), Iqaluit

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Fisheries and Marine Institute of Memorial University of Newfoundland, Newfoundland

Nunavut Wildlife Management Board, Iqaluit

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APPENDIX 1 INTERVIEWEE BIOGRAPHIES

CLYD_1_0114	Salomonie Natanine	Salomonie was born January 28, 1942 in Kangiqtugaapirulu (Camp_1_1). He grew up in the area surrounding Camp_1_2 and Camp_1_3. He has lived in Clyde River since 1959 and has been hunting and fishing since eight years old. He is still an active hunter and fisher though not as often as before.
CLYD_2_0114	Esa Palituq	Esa was born in 1971 in the city of Iqaluit. He grew up in Clyde River and has lived there all of his life. He does not remember how old he was when he began actively fishing and hunting but he is still and active hunter and fisher.
CLYD_3_0114	Leslie Ashevak	Leslie was born in Clyde River in 1973 and has lived in the community all of his life. He was very young when he began to fish and hunt. Currently he is a far more active hunter than he is a fisherman.
CLYD_4_0114	Apiusie Apak	Aipusie was born October 29, 1973 in Clyde River. He has lived in the community his entire life and was between 13 and 14 when he began fishing and hunting. He is still an active hunter and fisherman.
CLYD_5_0114	Abraham Tiqullaraq	Abraham was born April 13, 1951 in the community of Clyde River. He grew up traveling between the different camps in the area, and has lived in the community for the past 52 years. He began fishing and hunting at the age of 9 and is still actively doing both.
CLYD_6_0114	Elijah Palituq	Elijah was born December 7, 1953 at Supiqajuktu (Camp_6_1) and grew up at Nattiqsuju (Camp_6_2) He began living in the community in 1968 and was between 8 and 9 years old when he began fishing and hunting. He is still an active hunter and fisher.
CLYD_7_0114	Ilkoo Angutiqjuaq	Ilkoo was born October 8, 1942 at Sam Fiord (Camp_7_1) where he also grew up. He was 6 years old when he began actively hunting and fishing which he still does to this day.
CLYD_8_0114	Jacobie Iqalukjuaq	Jacobie was born in 1943 at Camp_8_1 and grew up at Camp_8_2. He has lived in Clyde River since 1964 and has been hunting and fishing since he was 6 years old. He is still an

		active hunter and fisher.
CLYD_9_0114	Esa Piungituq	Esa was born in 1969 at Camp_9_1 and grew up at Camp_9_2. He moved to Clyde River when he was between 15 and 16 years old and began hunting between the ages of 5 and 7. He is still an active hunter and fisher.
CLYD_10_0114	Isa Piugituaq	Isa was born in 1954 at Camp_10_1. He grew up in the area of Camp_10_2 and started fishing and hunting when he was between 4 and 5 years old. He moved to Clyde river in the early 1980's and is still actively hunting and fishing.

APPENDIX 2 ACRONYMS AND ABBREVIATIONS

CRI – COASTAL RESOURCE INVENTORY

CLEY – DEPARTMENT OF CULTURE, LANGUAGE, ELDERS AND YOUTH

CWS – CANADIAN WILDLIFE SERVICE

DFO – DEPARTMENT OF FISHERIES AND OCEANS

DOE – DEPARTMENT OF ENVIRONMENT

DSD – DEPARTMENT OF SUSTAINABLE DEVELOPMENT

ED & T – DEPARTMENT OF ECONOMIC DEVELOPMENT AND TRANSPORTATION

GC – GOVERNMENT OF CANADA

GN – GOVERNMENT OF NUNAVUT

HTO – HUNTER/TRAPPER ORGANIZATION

INAC – INDIAN AND NORTHERN AFFAIRS, GOVERNMENT OF CANADA

IQ – INUIT QAUJIMAJATUQANGIT

IPCC – INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

NRCAN – NATURAL RESOURCES CANADA

NRI – NUNAVUT RESEARCH INSTITUTE

NTI – NUNAVUT TUNNGAVIK INCORPORATED

NWMB – NUNAVUT WILDLIFE MANAGEMENT BOARD

TK – TRADITIONAL KNOWLEDGE

TEK – TRADITIONAL ECOLOGICAL KNOWLEDGE

APPENDIX 3 BIRD EVALUATION

Species	Godfrey (1986)	Snyder (1957)	CWS	Dalgety (1934	Wynne-Edwards (1952b)	Richards & White (2008)	Misc.	NCRI Interview ID's	Comments: J. Richards
Snow Goose	B	B	x		B	MB		x	ok
Brant		B			x	MB			
Canada Goose					x			x	ok - would be rare
King Eider	B	B		B	B	MB	x	x	ok
Common Eider	B	B	x	x	x	MB	x	x	ok
Harlequin Duck						MBw	x		
Long-tailed Duck	B	B	x	B	B	MB		x	ok
Rock Ptarmigan	B	B		x	B	PB		x	ok
Red-throated Loon	B	B	x	x	B	MB	x	x	ok
Pacific Loon			x			MB		x	ok – very uncommon here
Common Loon		B	x			MB			
Black-browed Albatross						-	x		
Northern Fulmar	B	B	x	x		MBw	B	x	ok
Rough-legged Hawk	B					MB			
Gyrfalcon	B	B			B	PB		x	ok
Peregrine Falcon	B	B			B	MB	x	x	ok
Sandhill Crane	B	B			x	MB		x	ok
Common Ringed Plover	B	B		x	x	MB	x	x	ok
Semipalmated Plover	B		x		B	MB			
Sanderling						MB	x	x	ok – very uncommon here
White-rumped Sandpiper					x	MB	x		
Red Phalarope	B			B		MB			
Black-legged Kittiwake	B	B	x	x	x	MB	B	x	ok

Species	Godfrey (1986)	Snyder (1957)	CWS	Dalgety (1934	Wynne-Edwards (1952b)	Richards & White (2008)	Misc.	NCRI Interview ID's	Comments: J. Richards
Sabine's Gull				x		MB	x		
Ring-billed Gull						V	x		
Herring Gull		B			x	MB	x		surprised this not listed
Thayer's Gull						MB	x		
Iceland Gull	B					MB	x		
Glaucous Gull	B	B	x	B	B	MBw	x		surprised this not listed
Arctic Tern	B			x	x	MB		x	ok
Pomarine Jaeger	B			x	x	MB		x	ok
Parasitic Jaeger	B	B			x	MBw			
Long-tailed Jaeger	B	B		x	x	MB		x	ok
Dovekie				x	x	MBw	x	x	(see note in discussion below)
Thick-billed Murre	B	B			x	MBw	B	x	ok
Black Guillemot	B	B	x	B	x	MBw	B	x	ok
Snowy Owl	B	B		x	x	PB		x	ok
Common Raven	B	B	x	x	x	PB		x	ok
Horned Lark	B	B	x		B	MB			surprised this not listed
Northern Wheatear	B	B		B	B	MB			surprised this not listed
Water Pipit	B	B		x	x	MB			surprised this not listed
Lapland Longspur	B	B		b	B	MB	x	x	ok
Snow Bunting	B		x	b	B	MB		x	ok
Common Redpoll	B	B			B	MB			
Hoary Redpoll	B	B			B	MBw			

Richards & White codes:

P = Present: all or part of the population present throughout the year
M = Migrant: migrates to/from or through the region on a regular basis
V = Vagrant: uncommon migrant, or outside of normal range
A = Accidental: rare; very few records
E = Extinct
B = Breeding confirmed: active nest or flightless young
b = Breeding suspected: pair in suitable habitat or in courtship
w = Winter records available when /where open water, ice floe-edge, polynyas exist

Codes for species list:
B = breeding
b = breeding suspected
x = reliably observed

Baseline Bibliography

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Richards and White. 2008. Birds of Nunavut: A Checklist. 22 pp
Snyder, L. L. 1957. Arctic Birds of Canada. University of Toronto Press. 310 pp

Godfrey & Snyder – 'B' in these two columns denote breeding range for each species. It does not mean that the species has actually been recorded as breeding in the specific checklist area itself.

Richards & White (2008) – denotes general status for the geographic area (ie; Arctic Islands (north of 60), James Bay Islands, or Mainland), and does not imply that a record exists for each species in the specific checklist area.

Names and arrangement according to: American Ornithologists Union Check-List of North American Birds, 1998, and annual Supplements.
Canada Goose was split by the AOU in 2004 into Canada Goose and Cackling Goose. The literature prior to 2004 does not always differentiate between the two. For current breeding range, I have used a map presented by Mallory, *et al,* 2005*,* as well as a map presented by Sibley, 2004, as follows:
Mallory, M. L., A. J. Fontaine, and H. Boyd. 2005. 'Breeding and non-breeding range of Canada, *Branta canadensis*, and Cackling geese, *Branta hutchinsii*, in the eastern Canadian arctic. *Canadian Field-Naturalist* 119(4):483-489.
Sibley, D. A. 2004. Identification of Canada and Cackling Goose, updated Oct. 7, 2004. 14pp
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Supporting bibliography:

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Black Guillemot, Ring-billed Gull)

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western Baffin Bay. *Arctic* 35(1):118-125 (Dovekie)

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348. ((Red-throated Loon, Common Eider, Peregrine Falcon, Common Ringed Plover, White-rumped Sandpiper, Sanderling, Black-legged Kittiwake,
Sabine's Gull, Thick-billed Murre, Dovekie, Lapland Longspur)

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Note: this report covers bird species encountered in the Ninginganiq National Wildlife Area and the Ninginganiq IBA.

- The Black-browed Albatross was found and photographed on June 26, 2012. This was the first Nunavut record, and the first specimen evidence for Canada.