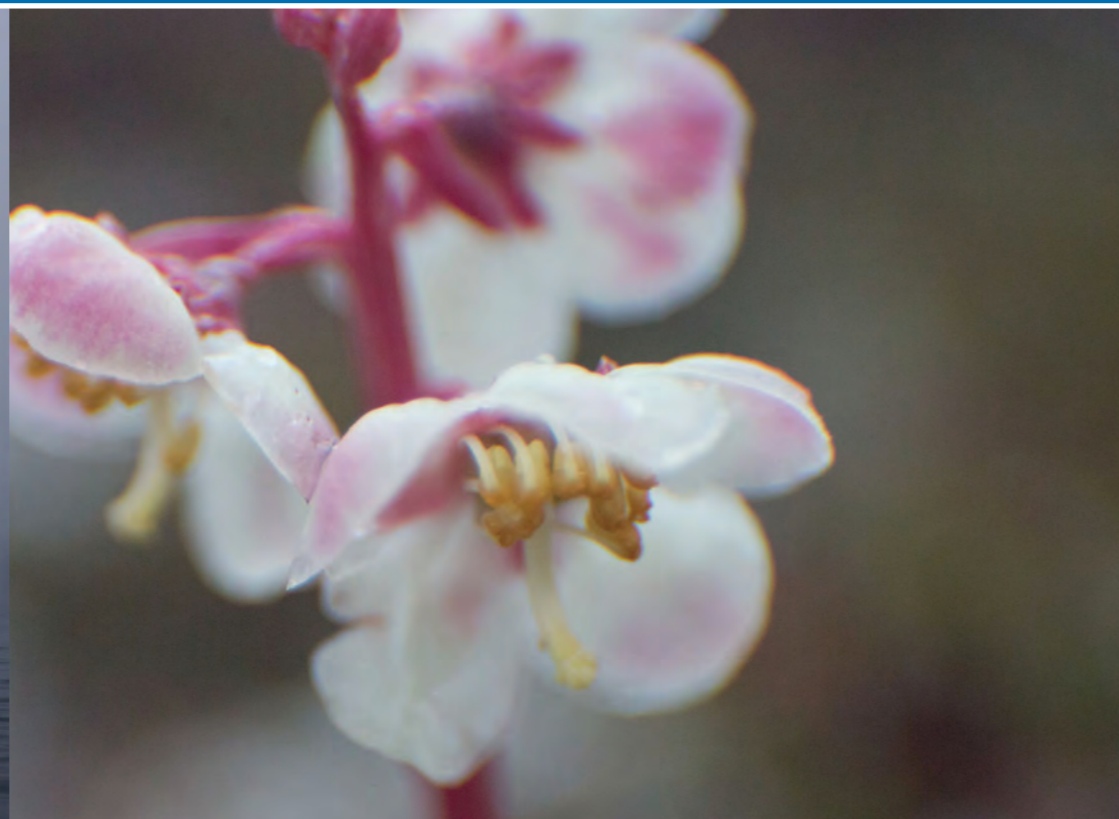


NUNAVUT COASTAL RESOURCE INVENTORY



Cambridge Bay



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Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement



Nunavut Coastal Resource Inventory – Cambridge Bay
2015



Department of Environment
Fisheries and Sealing Division
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EXECUTIVE SUMMARY

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

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

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

- 2008 Kugluktuk and Chesterfield Inlet
- 2009 Arctic Bay and Kimmirut
- 2010 Sanikiluaq
- 2011 Qikiqtarjuaq and Gjoa Haven
- 2012 Iqaluit, Repulse Bay, and Grise Fiord
- 2013 Pangnirtung
- 2014 Coral Harbour, Clyde River, and Taloyoak
- 2015 Kugaaruk and Cambridge Bay

This report presents the findings of the coastal resource inventory of Cambridge Bay, which was conducted in March 2015.

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 Cambridge Bay, Nunavut;
- Key recommendations on both the use of this study as well as future initiatives.

During the course of this project, Cambridge Bay was visited on one occasion in March 2015 to conduct on-site interview sessions. Community consultations were conducted through phone conferencing and emails. A total of eight interviews were conducted. During the interviews we asked participants about the coastal species they currently observe or have previously observed in the area and had them draw the location of their observations on the maps that we provided. We used photographs to help participants identify the species they have seen. The interviews varied from 1.5-6.0 hours, depending on the participant. The data collected throughout the interviews was compiled into a database and the maps were digitized and analyzed.

The maps produced in the interviews are presented here, organized into the following categories: Marine Mammals, Fish, Birds, Invertebrates, Marine Plants, Areas of High Diversity, and Other.



TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
LIST OF FIGURES	4
LIST OF TABLES	5
INTRODUCTION.....	6
METHODOLOGY	8
RESOURCE INVENTORY.....	9
MARINE RESOURCES IN A PHYSICAL SETTING.....	10
GUIDE TO MAPS AND TABLES.....	13
MAPS AND TABLES	14
ACKNOWLEDGEMENTS	83
COLLECTED REFERENCES	83
APPENDIX 1 INTERVIEWEE BIOGRAPHIES	84
APPENDIX 2 ACRONYMS AND ABBREVIATIONS	85
APPENDIX 3 BIRD EVALUATION	86

LIST OF FIGURES

Figure 1. Map of Nunavut.....	6	Figure 31. Polar Bear Probability of Occurrence.....	49
Figure 2. The study area extent discussed in the Cambridge Bay interviews.....	8	Figure 32. Polar Bear Areas of Occurrence.....	49
Figure 3. Map of known polynyas in Nunavut.....	11	Figure 33. Walrus Areas of Occurrence.....	51
Figure 4. Historic camps and travel routes.....	14	Figure 34. Ringed Seal Probability of Occurrence.....	52
Figure 5. Current camps and travel routes.....	14	Figure 35. Ringed Seal Areas of Occurrence.....	52
Figure 6. Historic areas known best.....	18	Figure 36. Bearded Seal Probability of Occurrence.....	54
Figure 7. Current areas known best.....	18	Figure 37. Bearded Seal Probability of Occurrence.....	54
Figure 8. Areas with significant diversity and areas important for other reasons.....	22	Figure 38. Harp Seal and unidentified seal Areas of Occurrence.....	56
Figure 9. Arctic Char Probability of Occurrence.....	24	Figure 39. Beluga Whale Probability of Occurrence.....	57
Figure 10. Arctic Char Areas of Occurrence (interviews 1-5).....	24	Figure 40. Beluga Whale Areas of Occurrence.....	57
Figure 11. Arctic Char Areas of Occurrence (interviews 6-10).....	25	Figure 41. Narwhal Whale Probability of Occurrence.....	59
Figure 12. Landlocked Char Probability of Occurrence.....	28	Figure 42. Narwhal Whale Areas of Occurrence.....	59
Figure 13. Landlocked Char Areas of Occurrence.....	28	Figure 43. Killer Whale Probability of Occurrence.....	61
Figure 14. Lake Trout Probability of Occurrence.....	30	Figure 44. Killer Whale Areas of Occurrence.....	61
Figure 15. Lake Trout Areas of Occurrence.....	30	Figure 45. Bowhead Whale and unidentified whale Areas of Occurrence.....	63
Figure 16. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence.....	33	Figure 46. Edible, Hollow Stemmed and unidentified kelp and Sea Lungwort Areas of Occurrence.....	64
Figure 17. Broad, Lake, and Round Whitefish Areas of Occurrence.....	34	Figure 47. Bladder Wrack, Goose Grass, Green Sea Fingers and Mare's Tail Areas of Occurrence.....	65
Figure 18. Arctic and Lake Cisco Areas of Occurrence.....	35	Figure 48. Canada and Greater White-fronted Goose Areas of Occurrence.....	66
Figure 19. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Areas of Occurrence.....	36	Figure 49. Brant, Cackling, Ross's and Snow Goose Areas of Occurrence.....	68
Figure 20. Capelin and Pacific and Atlantic Herring Areas of Occurrence.....	38	Figure 50. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence.....	70
Figure 21. Arctic Flounder, Arctic Skate and Greenland Shark Areas of Occurrence.....	39	Figure 51. Arctic Tern and Glaucous-winged, Sabine's and Thayer's Gull Areas of Occurrence.....	71
Figure 22. Arctic Staghorn, Fourhorn, Shorthorn and unidentified Sculpin Areas of Occurrence.....	40	Figure 52. Common and King Eider, Common Murre, Dovekie and Arctic, Red-throated and yellow-billed Loon Areas of Occurrence.....	72
Figure 23. Atlantic, Spotted, and unidentified Wolfish, Banded gunnel, Lump sucker, Northern Hagfish, unidentified Sucker and unidentified Eel Areas of Occurrence.....	41	Figure 53. Snowy Owl, Gyrfalcon, Peregrine Falcon, Bald and Golden Eagle and Rough-legged Hawk Areas of Occurrence.....	74
Figure 24. Tortoise Limpet, Arctic Moonsnail and Whelk Areas of Occurrence.....	42	Figure 54. American Goldfinch, American Robin, Barn and Chipping Sparrow, Hoary Redpoll, Eastern Yellow Wagtail, Mountain Bluebird, and Pine Grosbeak Areas of Occurrence.....	75
Figure 25. Truncate Softshell Clam, Cockle and Icelandic Scallop Areas of Occurrence.....	43	Figure 55. Blue Jay, Northern Waterthrush, Yellow Warbler, Long-billed Curlew, Rock and White-tailed Ptarmigan and unidentified bird Areas of Occurrence.....	76
Figure 26. Blue and Northern Horse Mussel and unidentified Bivalve Areas of Occurrence.....	44	Figure 56. Cambridge Bay Community Map.....	77
Figure 27. Deep Sea King, Hermit, Snow, and Toad Crab, Northern Shrimp and unidentified shellfish Areas of Occurrence.....	45	Figure 57. Cambridge Bay Land Use Map.....	77
Figure 28. Shelled Naked Sea Butterfly, Naked Sea Butterfly and Boreal Armhook Squid Areas of Occurrence.....	46	Figure 58. Cambridge Bay Wildlife Map.....	78
Figure 29. Jellyfish, Polar Sea Star and Sea Urchin Areas of Occurrence.....	47		
Figure 30. Amphipod, Crayfish, Sea Spider, unidentified invertebrates and unidentified crayfish Areas of Occurrence.....	48		



LIST OF TABLES

Table 1. Guide to maps and tables	13	Table 39. Ringed Seal Areas of Occurrence	53
Table 2. Historic and current camps and travel routes	15	Table 40. Ringed Seal Everywhere Data	53
Table 3. Areas known best	19	Table 41. Bearded Seal Areas of Occurrence	55
Table 4. Areas with significant diversity and areas important for other reasons	22	Table 42. Harp Seal and unidentified seal Areas of Occurrence	56
Table 5. Arctic Char Areas of Occurrence	25	Table 43. Beluga Whale Areas of Occurrence	58
Table 6. Landlocked Char Areas of Occurrence	29	Table 44. Narwhal Whale Areas of Occurrence	60
Table 7. Lake Trout Areas of Occurrence	31	Table 45. Killer Whale Areas of Occurrence	62
Table 8. Lake Trout Everywhere Data	32	Table 46. Bowhead Whale and unidentified whale Areas of Occurrence	63
Table 9. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence	33	Table 47. Edible, Hollow Stemmed and unidentified kelp and Sea Lungwort Areas of Occurrence	64
Table 10. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence	33	Table 48. Edible and Sea Lungwort Everywhere Data	64
Table 11. Broad, Lake, and Round Whitefish Areas of Occurrence	34	Table 49. Bladder Wrack, Goose Grass, Green Sea Fingers and Mare's Tail Areas of Occurrence	65
Table 12. Ninespine, Threespine and unidentified Stickleback Everywhere Data	34	Table 50. Alpine and Robin's Pondweed, Bladder Wrack, Eel Grass, Floating Buttercup, Goose and Semaphore Grass, Mare's Tail and Spiny Sour Weed Everywhere Data	65
Table 13. Arctic and Lake Cisco Areas of Occurrence	35	Table 51. Canada and Greater White-fronted Goose Areas of Occurrence	66
Table 14. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Areas of Occurrence	36	Table 52. Canada and Greater White-fronted Goose Everywhere Data	67
Table 15. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Everywhere Data	37	Table 53. Brant, Cackling, Ross's and Snow Goose Areas of Occurrence	68
Table 16. Capelin and Pacific and Atlantic Herring Areas of Occurrence	38	Table 54. Cackling Goose Everywhere Data	69
Table 17. Capelin Everywhere Data	38	Table 55. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence	70
Table 18. Arctic Flounder, Arctic Skate and Greenland Shark Areas of Occurrence	39	Table 56. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence	70
Table 19. Arctic Flounder Everywhere Data	39	Table 57. Arctic Tern and Glaucous-winged, Sabine's and Thayer's Gull Areas of Occurrence	71
Table 20. Arctic Staghorn, Fourhorn, Shorthorn and unidentified Sculpin Areas of Occurrence	40	Table 58. Arctic Tern, Glaucous-winged, Herring, and Sabine's Gull and Pomarine Jaeger Everywhere Data	71
Table 21. Twohorn, Fourhorn, Shorthorn, Spatulate and Mailed Sculpin Everywhere Data	40	Table 59. Common and King Eider, Common Murre, Dovekie and Arctic, Red-throated and Yellow-billed Loon Areas of Occurrence	72
Table 22. Atlantic, Spotted, and unidentified Wolffish, Banded gunnel, Lump sucker, Northern Hagfish, unidentified Sucker and unidentified Eel Areas of Occurrence	41	Table 60. King and Steller's Eider, Arctic, Common, Red-throated and Yellow-billed Loon Everywhere Data	73
Table 23. Arctic Eelpout and Rock Grenadier Everywhere Data	41	Table 61. Snowy Owl, Gyrfalcon, Peregrine Falcon, Bald and Golden Eagle and Rough-legged Hawk Areas of Occurrence	74
Table 24. Tortoise Limpet, Arctic Moonsnail and Whelk Areas of Occurrence	42	Table 62. Gyrfalcon, Peregrine Falcon, Rough-legged Hawk and Snowy Owl Everywhere Data	74
Table 25. Arctic Moonsnail, Ctenophore and Whelk Everywhere Data	42	Table 63. American Goldfinch, American Robin, Barn and Chipping Sparrow, Hoary Redpoll, Eastern Yellow Wagtail, Mountain Bluebird, and Pine Grosbeak Areas of Occurrence	75
Table 26. Truncate Softshell Clam, Cockle and Icelandic Scallop Areas of Occurrence	43	Table 64. Common Redpoll, Gray Phalarope, Horned Lark, Lapland Longspur, Red Knot, Ruddy Turnstone, Red-necked Phalarope and Snow Bunting Everywhere Data	75
Table 27. Truncate Softshell Clam, Cockle and Icelandic Scallop Everywhere Data	43	Table 65. Blue Jay, Northern Waterthrush, Yellow Warbler, Long-billed Curlew, Rock and White-tailed Ptarmigan and unidentified bird Areas of Occurrence	76
Table 28. Blue and Northern Horse Mussel and unidentified Bivalve Areas of Occurrence	44	Table 66. American Golden, Common Ringed and Semipalmated Plover, Common Raven, Baird's, Buff-breasted, unidentified sandpiper and Rock, Willow and White-tailed Ptarmigan Everywhere Data	76
Table 29. Blue and Northern Horse Mussel and unidentified Bivalve Everywhere Data	44		
Table 30. Deep Sea King, Hermit, Snow, and Toad Crab, Northern Shrimp and unidentified shellfish Areas of Occurrence	45		
Table 31. Shelled Naked Sea Butterfly, Naked Sea Butterfly and Boreal Armhook Squid Areas of Occurrence	46		
Table 32. Naked Shelled Sea Butterfly and Naked Sea Butterfly Everywhere Data	46		
Table 33. Jellyfish, Polar Sea Star and Sea Urchin Areas of Occurrence	47		
Table 34. Jellyfish, Polar Sea Star and Sea Urchin Everywhere Data	47		
Table 35. Amphipod, Crayfish, Sea Spider, unidentified invertebrates and unidentified crayfish Areas of Occurrence	48		
Table 36. Amphipod Everywhere Data	48		
Table 37. Polar Bear Areas of Occurrence	50		
Table 38. Walrus Areas of Occurrence	51		

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. Each community is unique in terms of its physical environment, oceanographic setting, organisms present, and the interests and approaches of its hunters and trappers.

THE COASTAL RESOURCE INVENTORY

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

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

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

The principle source of information for community-based coastal inventories is traditional knowledge or, in Inuktitut, Inuit Qaujimajatuqangit (IQ), gathered through interviews. Over the past 50 years, Inuit have transitioned from a

resource-based nomadic life style to a wage-based economy. Coastal and land-based activities remain extremely important, contributing to Inuit quality of life, providing income and food, and as a significant part of the Inuit culture. The NCRI aims to retain some of this valuable knowledge by engaging community elders, hunters and fishers to document the presence, distribution, and characteristics of various coastal resources. IQ is unique in that it is qualitative, intuitive, holistic, spiritual, empirical, personal, and often based on a long time-series of observations (Berkes 2002). It is particularly useful for recording historical data that are unattainable in any other manner. A complementary coupling of IQ and scientific knowledge may provide a means to better understand and manage coastal resources.

Information on coastal resources may provide insights regarding the potential for future fisheries development or other economic opportunities. Given the high unemployment rates in many of Nunavut's coastal communities, it is increasingly important to identify areas of potential economic development. In order to determine both feasibility and long-term sustainability of a new fishery, information on species-specific abundance and distribution of fish stocks (or other coastal resources) must be obtained. Combining communal knowledge of local resources can be a vital step in establishing a commercialized fishery. This information could also lead to the identification of potential coastal parks and related tourism opportunities. This may include sensitive coastal areas, breeding grounds, important species, and unique habitats. Attaining this information comes with much responsibility, however, and should be accompanied by a vision for the resource, coupled with an implementation plan. The resource should be thoughtfully governed from the outset to avoid unsustainable exploitation.

Inuit Qaujimajatuqangit (IQ) embodies both tangible and intangible Inuit knowledge. Conserving this knowledge has importance in its own right and for its potential to inform future management plans. Some communities have expressed an interest in exploring development options

Figure 1. Map of Nunavut





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

PERSONNEL AND PROJECT DELIVERABLES

The Coastal Resource Inventory of Cambridge Bay was conducted by Department of Environment (DOE) staff. Overall project leadership was provided by Janelle Kennedy, Acting Director, Fisheries and Sealing Division, and her staff: Angela Young, NCRI Project Coordinator; Sarah Arnold, Fisheries Sector Specialist Kivalliq Region; Maha Ghazal, Advisor Marine Mammals; and Bradley Pirie, NCRI Logistics Coordinator.

Project deliverables include:

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

METHODOLOGY

COMMUNITY 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. 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

Cambridge Bay was visited in March 2015 for on-site interviews. Correspondence via email and telephone was used before the on-site interviews to put into place all of the elements that were required to properly conduct the interviews. This process was strongly dependent upon the Cambridge Bay Hunter-Trapper Organization (HTO). The HTO formally agreed to support this initiative and provided 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. Eight interviewees were selected by NCRI project personnel (Appendix 1). 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 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 emphasis on a series of predetermined questions and photographs of various living resources thought to occur in the area. Maps covering the area of interest and colour coded pencils were provided 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). Qualitative data was gathered in the form of individual opinions, assumptions, and conclusions.

Figure 2. The study area extent discussed in the Cambridge Bay interviews.





Annotations on the maps were coded to enable future identification and reference. Follow-up questions were asked of the interviewee, clarifications were elicited, and, if appropriate, discussion ensued about the information presented. The entire process was recorded using audio and video equipment, while selected portions were simultaneously manually recorded. Manual recording was used to maintain a running record of all map annotations and codes. This permitted the analysis of interviews to proceed without first transcribing the audiotapes. The interviews varied from 1.5 - 6 hours, depending on the individual being interviewed.

POST-INTERVIEW METHODOLOGY

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

NON-INTERVIEW DATA ACQUISITION

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

1970s). The third volume is an atlas that displays the results. The original research is available in Ottawa at the National Archives and a copy is also available in the Legislative Library in Iqaluit.

The second is the *Nunavut Atlas* co-published in 1992 by the Canadian Circumpolar Institute and the Tunngavik Federation of Nunavut. This atlas is largely data collected for the Inuit Land Use and Occupancy Study. The resource data and maps are great resources but the information is approximately 35 years old. Relevant maps from this volume are presented in this report (Figures 56-58).

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

DATA MANAGEMENT AND ANALYSIS

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

Data management also included protecting the confidentiality of the data. Each interviewee provided their consent to be interviewed, as well as audio and video taped.

Any person or organization wishing to access NCRI data must provide written justification to the NCRI Steering Committee and agree to the terms outlined in the Data Release Form.

GIS INTERFACE

Once the inventory maps and database were completed, they were entered into a GIS which creates computer-generated maps. It also links information to the geographic locations contained in the database. Attributes associated with each piece of data include information such as the species name, the interviewee source, and the time of year it was observed.

INTERACTIVE ATLAS

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

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

RESOURCE INVENTORY

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

MARINE ENVIRONMENT

The geographic area examined by these interviews spans approximately 2220km north to south, 1800km east to west, and includes: Bathurst Inlet, southeast Victoria Island, Queen Maud Gulf, Victoria Strait, and Coronation Sound.

HUNTING/FISHING AND OTHER

Cambridge Bay hunters and fishers rely on a variety of animals to supply themselves both nutritionally and economically. Special emphasis is given to the commercial fishing sector in this community, with the presence of the Kitikmeot foods processing plant, and the ample marine resources. It should also be noted that Cambridge Bay is a major supply link for supplying several mines on the nearby mainland; and is the start of an ice road supply line in the winter.

HEALTH, SIZE, AND PRESENCE

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

- Many interviewees expressed witnessing changes in the state and presence of the regions caribou population. Three interviewees expressed that the caribou population in the area was declining. Reasons proposed included local over hunting, disruption do to mine activity, ice breaking interfering with migrations, climate change, and increased number of predators such as wolves and grizzlies, and an increase in the snow goose population competing for food.

- One interviewee observed that the caribou he used to catch at Wellington Bay have cysts in the muscles
- One interviewee observed that goose chicks survive better in low fox years and theorized that this may have something to do with the population increases.
- One interviewee mentioned that when he was young the caribou on Victoria Island were pure white. Since that time they have interbred with the mainland caribou and have become mostly brown.
- Four interviewees expressed concerns about the numbers of grizzly bears now coming to Victoria Island. They expressed that their behavior was more aggressive. Two interviewees stated that the grizzlies were now denning on the island.
- Two interviewees expressed concerns about the decrease in the muskox population in the area. One interviewee stated that 10 years ago there were 40,000+ muskox and last year there were only 10,000. This same interviewee also observed that many of the muskox caught by sport hunters had lung worms.
- One interviewee observed that the geese were nesting earlier, sometimes by as much as 2 weeks. This has made egg picking more difficult because it is harder to time when the eggs are fresh and without embryos.

CHANGES UNDERWAY

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

- Four interviewees expressed concerns about the changes in the timing of the seasons. They said that spring seemed to start earlier than before and freeze up was occurring later. In some instances it was stated that it was taking up to 2 months longer for the ice to be safe to travel on. One interviewee expressed that many people are having trouble adapting to the new ice conditions.

- Mixed reports were given about the winter snow packs for the area. Two interviewees reported that there was less snow than in previous years and the lack of melt was adversely affecting the river levels and char runs. Two interviewees expressed that there was more snow than in previous years and one of them said that this was contributing to thinner ice through insulation.
- All but two interviewees expressed concerns about icebreaking by ship traffic. They said that it made it harder to cross the ice to hunt and that caribou migrations are adversely affected by ship activity.

ECONOMIC DEVELOPMENT

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

- One interviewee expressed how they felt that commercialization of char fishing would have a positive impact on the community
- One interviewee stated that he hunted seals more when the pelt price was better, and that technology was making it much easier to hunt seals.
- One interviewee expressed his feelings that the government was not implementing traditional Inuit values enough, and instead spends most of its time talking about it.

MARINE RESOURCES IN A PHYSICAL SETTING

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

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

RECURRENT OPEN WATER AND ARCTIC BIOLOGY

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

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

Major contributing factors in the abundance of marine organisms observed at reoccurring open water locations is due to food availability, the product of primary production in phytoplankton, ice algae, and marine plants. Algal groups are important but their relative contributions can vary depending on ice conditions and available light. Ice algae can represent 5 to 30% of the total primary production (Alexander, 1974; Harrisson and Cota, 1991; Legendre et al 1992). Plant material is grazed and enters into the food web, supplying energy to invertebrates, such as copepods, amphipods, and shellfish, to fish such as Arctic Cod, to mammals such as seals, Narwhal, Walrus, and Polar Bears, and to birds such as Thick-Billed Murres, Northern Fulmars, Black-Legged Kittiwakes, and Black Guillemots. This results in a form of oasis or hotspot in an otherwise ice-covered area. With climate change, the sea ice thinning faster and earlier in the spring and sunlight sufficient to drive photosynthesis, especially in ice algae, is available sooner. These conditions are extending both the growing and grazing seasons, in some cases by as much as two months.

These open water sites also appear to have great importance to the peoples that have occupied the Arctic for several thousand years. Archaeological data obtained from historic Inuit habitation sites, coupled with modern sea-ice extremes, have been used to infer a strong causal relationship between polynyas and historic Inuit settlement



Figure 3. Map of known polynyas in Nunavut



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

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 that specialized in hunting marine mammals.

OCEANOGRAPHIC FACTORS THAT CONTRIBUTE TO OPEN WATER

The Hamlet of Cambridge Bay is located on the North end of Cambridge Bay, on the southern shores of Victoria Island. The Hamlet is located at 69.12°N and 105.05°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. 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. The process is controlled by wind and/or ocean currents, which remove any ice formed at the site. Other factors include turbulence from surface waves or currents that can inhibit ice formation, adjacent coastlines, and shore-fast ice or ice bridges that prevent ice from drifting into polynyas (Hannah et al 2009).

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

Although strong tidal currents, sometimes associated with the formation of polynyas, have been observed on the west side of King William Island, there are no known polynyas in this area. This may be due to the lack of a deep basin in the area to act as a reservoir for warm water (Hannah et al 2009).

LAND-FAST LEADS (FLAW LEADS)

Extensive systems of land-fast leads occur throughout the Arctic. Land-fast ice generally comprises first-year ice, possibly mixed with multi-year remnants, that is fixed to the coast. This ice platform extends outward, eventually merging with offshore pack ice (Sterling 1981). The physical presence of this ice cover modifies tidal and wind

energy, dramatically changing circulation (George 2004). Eventually, a fracture or crack may develop between the attached ice and the free-floating pack ice due to offshore winds, or through the actions of coastal currents. These leads are normally linear in shape and run parallel to shorelines. They are recurrent and predictable in their location and are among the areas where open water is found most consistently during winter and early spring. Because of these factors, land-fast lead systems are of great biological importance.

The boundary between the ice edge and the beginning of the lead is an ecosystem that is very important and has been identified as biologically rich and diverse by many elders and previous research. For instance:

- The land-fast ice edge is an important Inuit hunting site (Crawford and Jorgenson 1990)
- During late spring and early summer, large numbers of sea birds and marine mammals congregate at the edges of land-fast ice (McLaughlin et al. 2005)
- Ringed seals and polar bears are the only marine animals that regularly occupy extensive land-fast coastal ice (Tynan and DeMaster 1997)
- Bearded seals prefer relatively shallow water (<150 m) with thin shifting ice and leads kept open by strong currents (Tynan and DeMaster 1997)
- Along with polynyas, land-fast lead systems and ice edges play key roles in influencing the abundance and distribution of marine mammals and sea birds (McLaughlin et al. 2005)
- Satellite observations of polar bears in multi-year ice show that they are often associated with leads (Stirling 1997)

- High densities of arctic cod are found immediately below the edge of land-fast sea ice, linked to the availability of high concentrations of copepod prey (Crawford and Jorgenson 1990)
- Near the ice edge the diet of adult ringed seals and narwhal is composed primarily of arctic cod while amphipods and copepods are consumed in smaller numbers (Bradstreet and Cross 1982)

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

UPWELLING: TOPOGRAPHIC AND ICE-EDGE

Upwelling is a mechanism by which colder, deeper water is moved to the surface, where it can create and/or maintain ice-free open water. Topographic upwelling occurs where a current moving through 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).

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

MARINE RESOURCES IN THE CONTEXT OF CLIMATE CHANGE

Over the past 20 years, many Arctic researchers have commented on the impending 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). Changes may occur affecting water stratification and its role in nutrient renewal, the balance between multi-year and annual ice, the relative importance of ice algae, the timing and magnitude of primary and secondary production, changes in traditional species distributions and hunting sites, amongst others. Each of these changes could exert some influence on the food web and the state of the resources as they are presently defined.



GUIDE TO MAPS AND TABLES

The following 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 tables, which provides additional detail, along with descriptive information, when available. Table 1 describes the map codes used in the tables.

Table 1. Guide to maps and tables

CATEGORY	MAP CODE
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 / Popping 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 labeled with a number. 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.

The species identified by interviewees as being distributed “Everywhere” are not mapped in this report. The designation of “Everywhere” was used when interviewees felt that the

organism under discussion has been observed everywhere throughout their travels and places with which they are very familiar. Giving a species an “Everywhere” designation does not confer any information about abundance nor should it be presumed to be ubiquitous; it is only a measure of distribution relative to where the interviewee has been. “Everywhere” data is provided in the table of data following the maps.

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.

Note: The asterisk (*) after some species names in the titles of the maps indicates that the species was also considered to be seen “Everywhere” by some interviewees. Species identified as being “Everywhere Only” are shown by the use of a solid bullet in the Map legend.

Figure 4. Historic camps and travel routes



Figure 5. Current camps and travel routes

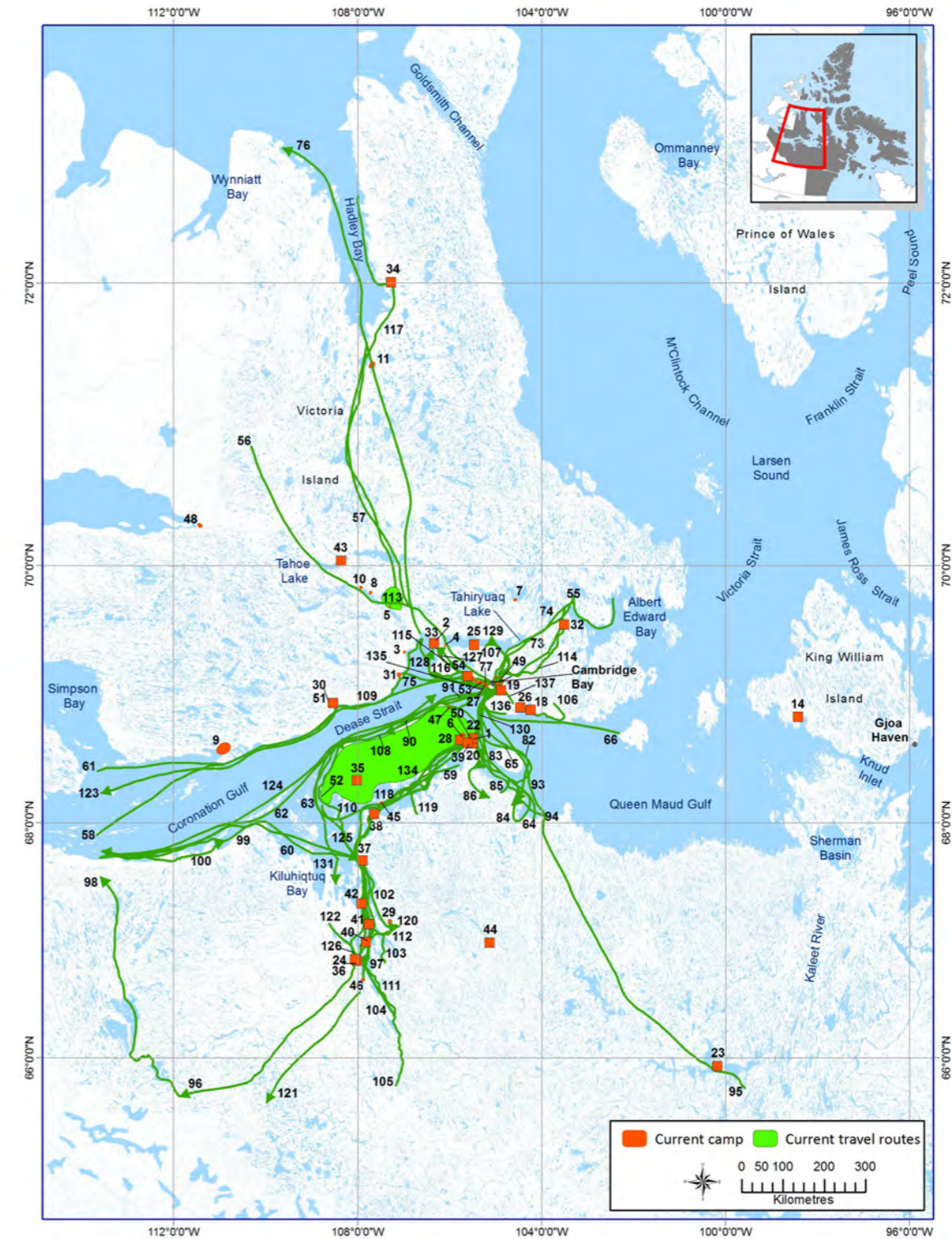




Table 2. Historic and current camps and travel routes

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
1	1		Camp		His cabin.
2	1		Camp		Commercial fishing camp.
3	1		Camp		Commercial fishing camp.
4	1		Camp		Commercial fishing camp.
5	1		Camp		Old camp with a cabin.
6	1		Camp	Spring, Summer	Fishing camp and caribou hunting.
7	1		Camp		Camp here for fishing.
8	1		Camp		Private fishing and hunting camp. Freddie Hamilton takes sports fishermen out here, has 3 planes.
9	2		Camp		Brother in laws outpost camp on the way to Kugluktuk
10	2		Camp	Jul-Sep	Fishing lodge for char and trout. They take out sports fishermen from the south, max the lodge can take at a time is 24.
11	2		Camp		The High Arctic Lodge.
12	3	H	Camp		
13	3	H	Camp		
14	3		Camp		Base camp.
15	3	H	Camp		DEW line, Nutgausi family was there at the time, had 4 children here and spent a lot of time here.
16	3	H	Camp		Old weather station that we wintered at for 3 years.
17	3	H	Camp		Main fishing camp here.
18	4		Camp		Fishing cabin
19	4		Camp		Across from town, has a summer fishing cabin.
20	4		Camp		Camp here while going to and from Cambridge bay because of the fresh water.
21	5	H	Camp		Base camp
22	5		Camp		
23	5		Camp		Cabin for stop overs. Used to be a Catholic church here.
24	5		Camp		Overnight refuelling at Bathurst Inlet
25	5		Camp	Spring	Have a cabin here for char fishing.
26	5		Camp		Cabin where we stay while goose hunting 2-3 week duration.
27	5		Camp	Jul-Aug	Close to a goose colony.

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
28	5		Camp		Call this area "swan highway" have cabin and tents here.
29	5		Camp		Camp in this small bay for a couple of nights, water is warm.
30	5		Camp		Slept at Barn Bay for the night.
31	5		Camp		Camp at 30 Mile River then go home.
32	5		Camp		
33	5		Camp		Cabins at Wellington Bay.
34	5		Camp		Spent 10 days in a tent here because of a storm.
35	5		Camp		Research cabin to study nesting birds.
36	6		Camp		Bathurst Inlet, where his brother and sister were born.
37	6		Camp		Bay Chimo
38	6		Camp		Camp on travel route (Figure 5, Label 118)
39	6		Camp		
40	6		Camp		
41	6		Camp		
42	6		Camp		Became lost here as a child on way to Cambridge Bay.
43	6		Camp		Fishing lodge.
44	6		Camp		Went east to fox trap.
45	7		Camp		His camp "kuvaq" means river. Used to help tag fish here when he was young.
46	7		Camp		Camp on the shore of the lake at Figure 7, Label 147
47	7		Camp		Outpost camp
48	7		Camp		Have fishing camp here.
49	7		Camp		Pitch tents here. Polar bears walk all over so you will see them.
50	7		Camp		Camp for catching whitefish here. Would use jig without hook and Kakivak.
51	8		Camp	Summer	Friend has a camp here in Byron Bay where he runs sports hunts.
52	9		Camp		Old cabins at Gravel Pit.
53	9		Camp		Main fishing camp, many people come here. Has a walk in freezer.
54	10		Camp		Camp on shore just below the hills.

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
55	1		Travel route		Route taken to cache gas at Figure 7, Label 10 last year.
56	2		Travel route	Spring	Route for mostly fishing lake trout, and occasionally some char.
57	2		Travel route		Route for polar bear.
58	2		Travel route		Route to Kugluktuk
59	2		Travel route		Route to go to Bay Chimo, used to be a small community.
60	2		Travel route		Route from Bay Chimo to Kugluktuk.
61	2		Travel route		Alternate route to Figure 5, Label 28
62	2		Travel route		Route to Kugluktuk via cabin.
63	2		Travel route		Travel route taken by boat, opens by August.
64	2		Travel route		Travel here by boat every year because of the good caribou hunting on the island and along the shore.
65	2		Travel route		Alternate route to Figure 5, Label 64
66	2		Travel route		Boating route to Figure 7, Label 65
67	3	H	Travel route		Went by boat twice to Cambridge Bay as a teen.
68	3	H	Travel route		As a teen also went to Gjoa Haven, by dog team.
69	3	H	Travel route		Traveled along this salt river.
70	3	H	Travel route		From Gjoa Haven they would travel past the island with the DEW line site on their way to Cambridge Bay. They travelled by boat and dog team.
71	3	H	Travel route		From Figure 4, Label 94 to Paulik River, extension of Figure 4, Label 70, stopped off at Cambridge Bay for 2 days. Travelled with 4 children and it was a very long trip by dog team.
72	3	H	Travel route		Travel route to the little island.
73	3		Travel route		Travel by Honda, direct route between Cambridge Bay and Figure 6, Label 93
74	3		Travel route		Alternate route to Figure 5, Label 73
75	3		Travel route		Boating from Cambridge Bay to Figure 6, Label 16 in summer, also a winter and spring skidoo route.
76	3		Travel route		Route from Ekalluktuuq (Wellington Bay) to Hadely Bay. Just before Hadely Bay there is a lake with whitefish.
77	3		Travel route		They drive by Honda here.

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
78	4	H	Travel route		Supply run between Cambridge Bay and Figure 4, Label 18.
79	4	H	Travel route		Did hunting on the sea on our way north.
80	4	H	Travel route		Would get supplies in Cambridge Bay then go polar bear hunting.
81	4	H	Travel route		Short cut across the land on way back from hunting, would sometimes get caribou on route.
82	4		Travel route		Travel rout by boat, would hunt around Melbourne Island.
83	4		Travel route		Entering the Bays to hunt, by boat in summer and dog team/skidoo in winter.
84	4		Travel route		Travel route around Conley Bay area.
85	4		Travel route		Travel into foggy bay.
86	4		Travel route		Return route from Conley Bay to Cambridge Bay.
87	4	H	Travel route		Travel route between Cam 2 DEW Line site and Figure 32, Label 21.
88	4	H	Travel route		Travel from Anderson Bay to Cam 2 by dog team. Lived there for a number of years, met the translator there as a child. Moved back to Anderson Bay in late 60's.
89	4	H	Travel route	Summer	Travel south by boat and around islands from Cape Peel.
90	4		Travel route		Route for caribou hunting along the coast if unlucky at Figure 5, Label 86
91	4		Travel route		Return trip from Figure 5, Label 90.
92	5	H	Travel route		
93	5		Travel route		If ice conditions are good take the direct route.
94	5		Travel route		If ice conditions are bad take this longer route.
95	5		Travel route		Use the Elis River heading south to Baker Lake.
96	5		Travel route		Route with an overnight at Figure 7, Label 109 to get gas at Bathurst Inlet.
97	5		Travel route		Alternate route to Figure 5, Label 97 through these islands.
98	5		Travel route		On way north to Kugluktuk.
99	5		Travel route		Route along coast on way back from Kugluktuk.
100	5		Travel route		Overland alternate route to Figure 5, Label 99.
101	5	H	Travel route		Used to walk this route in summer.
102	5		Travel route	Spring	Dangerous route to take.



MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
103	5		Travel route		Route taken to go fishing at Figure 10, Label 75, can't go past mid-June because of the strong current.
104	5		Travel route		Route heading back from Figure 10, Label 76 to Figure 5, Label 24. Bathurst Inlet.
105	5		Travel route		Dog team route through the mountains. Parents once left their belongings because the load was too much for the dogs.
106	5		Travel route		Route taken to get to the egg picking.
107	5		Travel route		Skidoo route through small lakes.
108	5		Travel route		Boat route to look for caribou.
109	5		Travel route		Boat route to look for caribou.
110	5		Travel route		Sometimes go touring by boat. Gas up at Figure 7, Label 109 and overnight at Bathurst.
111	5		Travel route		Route back to Bathurst from the end of the Inlet.
112	5		Travel route		Cutting across to Figure 10, Label 74.
113	5		Travel route		Cross the Strait to Pin 4
114	5		Travel route		Day trip 300-400 km by ATV looking for caribou if it is too windy to go out on the water.
115	5		Travel route	September	ATV route, less bumpy because it is sandy.
116	5		Travel route	September	ATV route.
117	5		Travel route		Travel route north to go bear hunting.
118	6		Travel route		The 10 day dog team route he took to get to Cambridge Bay in 1957.
119	6		Travel route		Route use to make winter road.
120	6		Travel route		People travel by boat to Figure 7, Label 140.
121	7		Travel route		Walked from Figure 7, Label 147 to Hanngayuk in 9 days after their son died.
122	7		Travel route		Travelled by boat from Bathurst, continued to Figure 5, Label 121.
123	7		Travel route		Sometimes goes here, uses route to go to Kugluktuk.
124	7		Travel route		Travel by boat.
125	7		Travel route		Travel by boat to get to Bathurst.
126	7		Travel route		Winter skidoo route to Bathurst.
127	8		Travel route		ATV trail to Wellington Bay.
128	8		Travel route		Along the coast by boat.

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
129	8		Travel route	Early June	Follow the river to Fergusen Lake.
130	8		Travel route	August	Travel by boat to Figure 11, Label 139.
131	8		Travel route		Route to Brown Sound by boat.
132	9	H	Travel route	Mid-Winter	Travel to Figure 6, Label 191.
133	9	H	Travel route	Summer	Boat route along the coast from Hope Bay to Bay Chimo.
134	9		Travel route		Travel through Kent Peninsula
135	10		Travel route	Spring	route to camp at Figure 5, Label 54.
136	10		Travel route		Alternate route to bird nesting areas
137	10		Travel route		Direct route to egg picking.

NUNAVUT COASTAL RESOURCE INVENTORY

Figure 6. Historic areas known best

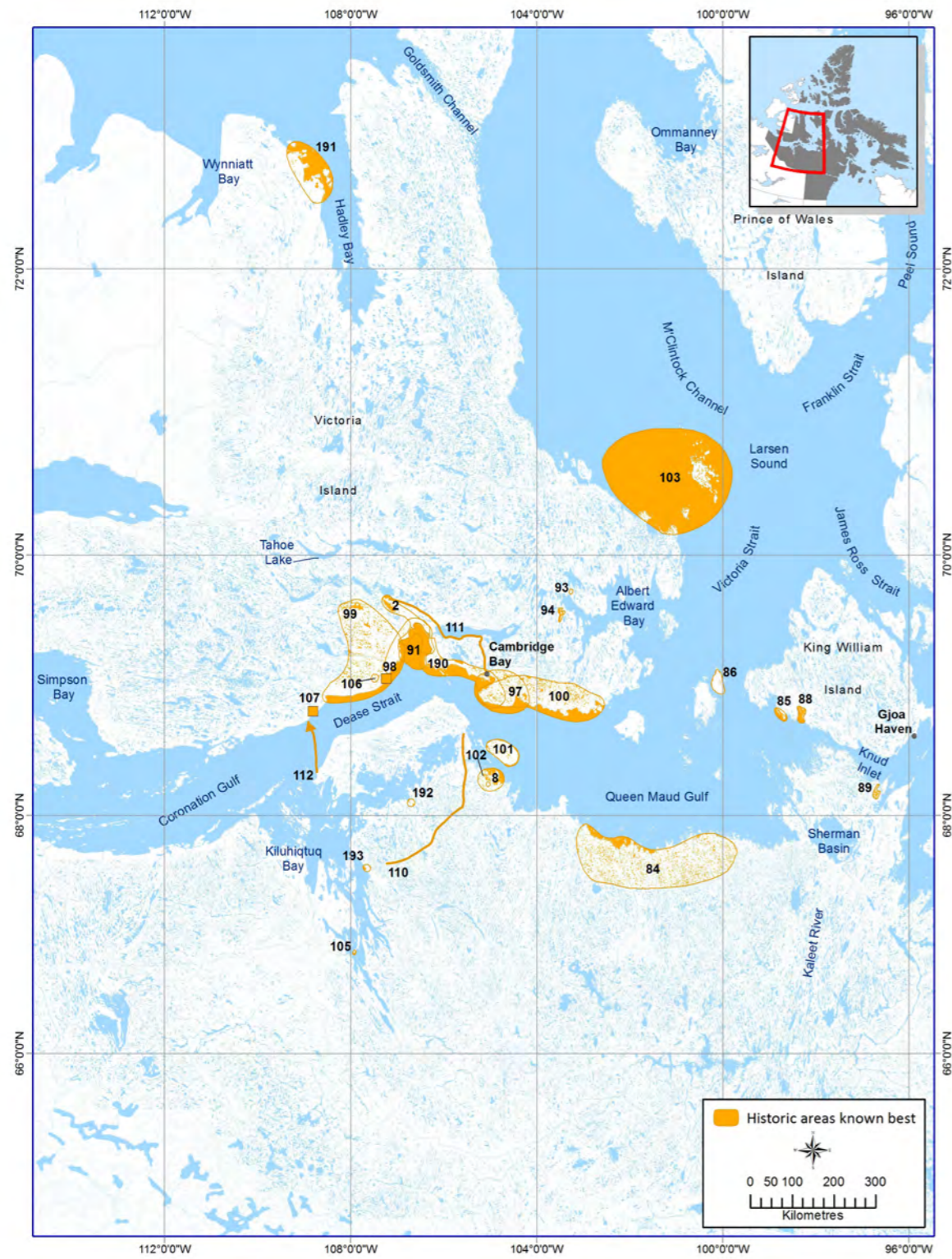


Figure 7. Current areas known best





Table 3. Areas known best

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			Where he was born
2	1	H		Fox trapline he worked with his father, mostly Arctic Fox. Stopped using it we he moved to Cambridge Bay.
3	1		Fall	Commercial fishing for Arctic Char.
4	1		Spring	Surrey River commercial fishing.
5	1		Spring, Fall	30 Mile River, been a while since he has been there but others are still commercial fishing it.
6	1		Fall	Commercial fishing weir
7	1			Far and has a small quota but lots of char here. Stopped going in 2004-2005 because of how far it was.
8	1	H		Used to commercial fish here but too far, stopped in the late 1980's.
9	1			Hunting for muskox and caribou in this area.
10	1			Cache of gas on the bay.
11	1			There were muskox here 3 years ago but now they have moved.
12	1			Where the muskox from Figure 7, Label 11 moved to.
13	1			Used to live here with brother and sister in-law for 2 years.
14	1			HTO Lake HTO commercial fishing, sell to HTO who gives it away or sells it in town. Use Weir here.
15	1			Muskox on Gauge Head Island.
16	1			Set nets along the shore.
17	2			Where he was born.
18	2			Area he hunted by dog team around the community.
19	2			Outpost camp for all year hunting and fishing. Has an underground river, warm water flows out during the winter, and it's nice and cool in the summer.
20	2			Fishes every lake he comes to.
21	2			Elis River. Goes to the rapids in summer, safe to cross by Christmas. Sometimes he can't get there until new year, used to be able to go in October.
22	2			Fishes this lake all the time.
23	2			
24	2			
25	2			
26	2			
27	2			Illu land-locked char lake on the island.
28	2			
29	2			
30	2			
31	2			Catch char, trout, and whitefish
32	2			Charter floats planes to the lakes here.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
33	2			Fish for "Tom cod" believed to be Toothed cod.
34	2			
35	2			
36	2			
37	2			
38	2			
39	2			
40	2			
41	2			
42	2			
43	2		Apr-Sep	Perry River
44	2		Apr-Sep	Perry Lake, do bear monitoring here.
45	2		Apr-Sep	Perry Island
46	2			Fishing areas
47	2			Fishing areas
48	2			Fishing areas
49	2			Fishing areas
50	2			Fishing areas
51	2			
52	2			No vegetation past this line, only rock.
53	2			Polar bear hunting area.
54	2			Wellington River, biggest quota and tagging.
55	2			
56	2			30 Mile River, fish weir on this river and see the odd lake trout in it.
57	2			Barron Bay
58	2			Ferguson River
59	2			Jacko, tagging
60	2			HTA Lake
61	2			
62	2			
63	2			Caribou hunting along the coast.
64	2			Melbourne Island, old DEW line site, good caribou hunting.
65	2			Caribou hunting on Jenny Lynne Island.
66	2			Hunting area for Perry caribou.
67	2			Hunting area for perry caribou.
68	2			Old caribou migration through Cambridge Bay that went north.
69	2			New Caribou migration route that goes south of Cambridge Bay.
70	2			Grizzly denning area, elders never shoot sleeping grizzlies.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
71	2			Grizzly denning area, elders never shoot sleeping grizzlies.
72	2		Summer	Dropped off by float plane for caribou hunting, lots of fat ones.
73	2			Fishing location for the lodge at Figure 5, Label 10
74	2			Fishing location for the lodge at Figure 5, Label 10
75	2			Fishing location for the lodge at Figure 5, Label 10
76	2			Fishing location for the lodge at Figure 5, Label 10
77	2			Fishing location for the lodge at Figure 5, Label 10
78	2			
79	2			
80	2			7-8 years ago a winterkill occurred in this lake.
81	2			This river system flows through the lakes all the way to the ocean.
82	2			30 Mile River, one of the longest rivers.
83	3			Where she grew up (Perry Island).
84	3	H		Many rivers she went to when she was young, doesn't remember how far inland she travelled.
85	3	H		Multi-season campground
86	3	H		Spent one summer on this Island, used to think these two islands were one until I crossed the strait.
87	3			Used to think these two islands were one until I crossed the strait.
88	3	H		
89	3	H		Her husband would leave them at camp to go set nets at this location.
90	3			Would trap Arctic Fox throughout this area, more along the coast because the whole island is made of sand.
91	3	H		Wellington Bay, was a popular fishing spot for personal use but don't fish there anymore.
92	3			Hat Island, it is a relay station for the DEW line site and resting area.
93	3	H		Main fishing area was at the bend in the river.
94	3	H		Char lake near Iritaaruk.
95	3			Muskox and fishing area. Used to be lots of Perry Caribou, but now much less. There are many people travelling through here year-round so the caribou stay away.
96	4			Where he was born
97	4	H		Area where he grew up.
98	4	H		Where he would be picked up to go to residential school.
99	4	H		Fishing and trapping area, goes up to Byron Bay.
100	4	H		Trap lines
101	4	H		Trapping area at Melbourne Island.
102	4	H		Where he traveled with his father to do trapping.
103	4	H	April	Annual polar bear hunting, 3-4 hour trip by dog team.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
104	4			Anderson Bay fishing and sealing area. In the summer fish for char, in the winter fish for whitefish and lake trout.
105	4	H		Burnside river mouth where the houses are (not Bathurst Inlet). His father was born here.
106	4	H		Mother was born on the land here.
107	4	H		Pin 4 DEW Line site, spent some summers fishing here.
108	4			Trapline along 30 Mile River
109	5			Where she lived when she was young.
110	5	H		Trapline, approx 200-300 traps mainly for foxes.
111	5	H		Trapline heading north from town.
112	5	H		Traps around the lake "Pannuqtuuq".
113	5			Goose hunting area right after the frolics.
114	5		June	Snow Goose egg picking area.
115	5			Fishing location for char. Fish through the ice. The char gather where there is water movement.
116	5			Caribou hunting area.
117	5		May-Jun	Goose hunting area.
118	5		May-Jun	Goose hunting area.
119	5		May-Jun	Goose hunting area.
120	5		May-Jun	Goose hunting area.
121	5		May-Jun	Goose hunting area.
122	5			Caribou hunting area.
123	5			Caribou hunting area.
124	5			Goose hunting closer to town if can't get out.
125	5		April	Wolf hunting.
126	6			Wellington Bay
127	6			Ferguson Lake
128	6			Caribou hunting
129	6			Caribou hunting
130	6			Caribou hunting and feeding area
131	6			Camping around this area.
132	6			Grainer Lake fishing area, young people now using GPS to go here.
133	6			Fishing area, young people now using GPS to go here.
134	6		Jul-Aug	Commercial fishing
135	6		Jul-Aug	Commercial fishing
136	6		Jul-Aug	Commercial fishing
137	6			West Bay
138	6			Been with the rangers.
139	6			Been with the rangers.



MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
140	6			All kinds of fish here, char, cod, whitefish, and a fishing weir.
141	6			Fishing weir.
142	6			Fishing weir.
143	6		Winter	Fishing and camping areas.
144	6			Good hunting, wolf and wolverine dens.
145	6			Inukhulik lots of inukshuks on the north side of the lake.
146	7			Kingauq Bathurst Inlet where he was born.
147	7			Spent a spring at this lake, had a camp on shore.
148	7			This river has lots of fish, char and red char.
149	7			Sports fishermen go to this river because of all the char.
150	7			Big river that tourists fish on.
151	7			Lots of fish.
152	7			Lots of fish.
153	7			Fishing for lake trout and whitefish.
154	7			Area has muskox, caribou, grizzly, and wolves
155	7		Summer	Lots of muskox and caribou in this area.
156	7			Coppermine, people go for caribou here, talk with them over the radio.
157	7		August	When caribou hunting in August also catch char in these rivers.
158	7		Summer	Been guiding for 11 summers at High Arctic Lodge.
159	7			Muskox roam around this area.
160	7			Go to this lake by airplane, there is also muskox here.
161	7			Lots of building here for polar bear hunters.
162	7			His travelling areas, and caribou hunting region.
163	7			Caribou hunting.
164	7			Caribou hunting area.
165	7			Grizzlies come from mainland (general direction of movement)
166	7			Lots of pressure ridges and crack are now starting to open.
167	7			All kinds of pressure ridges in this area, polar bears hunt at them.
168	7			Seals at these cracks, tracks at every crack.
169	7			
170	7			Very big crack, go fishing here. How Cambridge Bay got its name at this lake.
171	7			2 fish weirs here.
172	7			Fish weir in the river. Only make weirs for Arctic Char.
173	8		Fall	Fishing with nets. Ferguson Lake.
174	8		Fall	Fishing with nets.
175	8		Fall	Fishing with nets.
176	8		Spring	Fishing for char when they are running along the shore.
177	8			Surrey River, travel here by boat.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
178	8			30 Mile River, travel here by boat.
179	8		Summer	Caribou right near the camp in summer.
180	8		Fall	Caribou hunting along the coast.
181	8		Spring	Spring caribou hunting.
182	8		Winter	Caribou hunting on Melbourne Island.
183	8		Winter	Caribou hunting.
184	8		Early Fall	Seal hunt along the coast, young ones stay closer to shore, but seals are all over.
185	8		Spring	Sealing all over.
186	8		Fall	Sealing all over.
187	9			Wellington Bay where he was born.
188	9			
189	9			
190	9	H		Travel area when he was a child, caribou are around here too.
191	9	H		Once went to Hadely Bay with his Brother but didn't catch anything, about 15 years ago.
192	9	H		Grew up here for about 1 year in his teens.
193	9	H		Bay Chimo, went there in his teens.
194	9			Hope Bay mines project, gold and silver. Has been shut down for the last couple of years.
195	9			Elis River, used to commercial fish here but stopped 3-4 years ago because of the distance.
196	9			Caribou hunting here, caught one 2 years ago.
197	9			Geese hunting all over where there is less snow.
198	9			People take goose eggs, try to stay near the coast.
199	9			Used to do muskox harvest. Family didn't like how hunters would leave all the heads and bones out on the land. Got together with HTO and demanded cleanup, our cabin was infested with worms and bugs because of the waste.
200	10		Spring	Spring fishing at Kitigak Lake.
201	10		Fall	Many lakes around here are good for fall fishing.
202	10			Augustus Hills geese.
203	10			Where the caribou make landfall over the ice in spring.
204	10		Spring	Caribou feeding after crossing Figure 5, Label 203.
205	10		Early June	Egg picking, normally in June but the last few years it's been earlier.
206	10		Fall	Caribou in the fall around Mount Pelly.
207	10			In grandparent's time, in years with plenty of animals the people would gather on an island west just off the map. They would drum dance and sing songs. The gathering would last for several weeks, and would have song competitions. They wouldn't sing the same song twice. Her grandmothers' generation was the last to participate.

Figure 8. Areas with significant diversity and areas important for other reasons

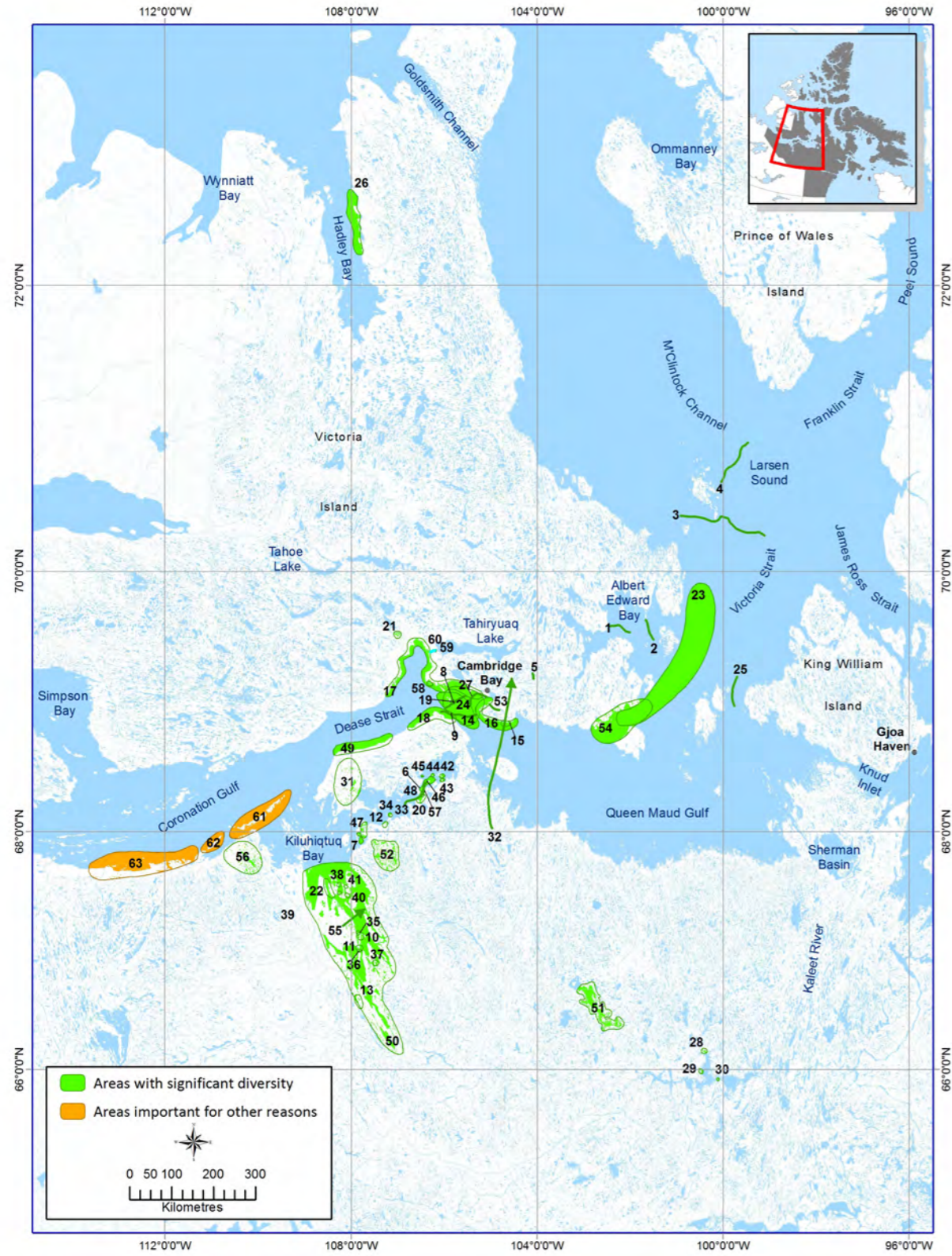


Table 4. Areas with significant diversity and areas important for other reasons

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
1	1		SADP		Pressure ridges that open into cracks in the spring.
2	1		SADP		Pressure ridges that open into cracks in the spring.
3	1		SADP		Pressure ridges that open into cracks in the spring.
4	1		SADP		Pressure ridges that open into cracks in the spring.
5	1		SADP		Always a pressure ridge on this lake.
6	1		SADP		Pressure cracks and thin ice that opens by May with fast currents.
7	1		SADP		Pressure cracks and thin ice that opens by May with fast currents.
8	1		SADP		Pressure ridges
9	1		SADP		Pressure ridges
10	2		SADP		Polynyas open all year
11	2		SADP		Polynyas open all year
12	2		SADP		Mouth of the river is open all year.
13	2		SADP		Mouth of the river is open all year.
14	2		SADP		Pressure ridges, lots all over this year. They start opening in May and get wide pretty quick.
15	2		SADP	May	Fell into a pressure ridge while travelling. Had to pull his wife out of the crack.
16	2		SADP		Pressure ridges and cracks that run perpendicular to the shore.
17	2		SADP		
18	2		SADP		
19	2		SADP		There is snow covering the cracks here, looks like frozen ice to people that don't know the area.
20	2		SADP		Must stick to this point to be safe from thin ice.
21	2		SADP		The mouth of the river going to the ocean is open all year.
22	2		SADP		This channel doesn't freeze.
23	2		SADP	Year-round	Ice pans year-round, they are decreasing.
24	2		SADP		Icebergs coming from Figure 8, Label 23
25	3		SADP		Floe edge
26	3		SADP		Dangerous area, will start to open up soon as the river starts to run. Even dangerous to travel there this time of the year.



Table 4. Areas with significant diversity and areas important for other reasons

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
27	3		SADP		Crack in the ice. King eiders go there and pull crushed shells out of the water. The crack follows shore for a bit then heads out into the ice.
28	5		SADP		These rivers are open year-round.
29	5		SADP		These rivers are open year-round.
30	5		SADP		These rivers are open year-round. The owls here are darker than normal.
31	5		SADP		All kinds of nesting birds.
32	5	M	SADP		General bird migration route.
33	5		SADP		High currents with thin ice.
34	5		SADP		Thin ice that opens early.
35	5		SADP		Polynya
36	5		SADP		Polynya
37	5		SADP		Thin ice that opens early.
38	5		SADP		Polynya
39	5		SADP		Polynya
40	5		SADP		Polynya
41	5		SADP		Polynya
42	5		SADP		Thin ice at -20C start to lose ice and lose road.
43	5		SADP		Thin ice at -20C start to lose ice and lose road.
44	5		SADP		Thin ice at -20C start to lose ice and lose road.
45	5		SADP		Thin ice at -20C start to lose ice and lose road.
46	5		SADP		Avoid this place on route down because of thin ice.
47	5		SADP		High currents and thin ice. On full moon the tides cause fractures. Have lost dozers on route to the mines.
48	5		SADP		
49	5		SADP		
50	5		SADP		The water in this area is warmer
51	5		SADP		Caribou would swim across the lake and according to the elders stories they would start disappearing. Elders said it was a "Iquapilak" giant fish that was attacking them.
52	5		SADP		Similar stories to Figure 8, Label 51 something was attacking and dragging caribou under water as they tried to swim across the lake.

MAP #	INTERVIEW	CODE	CATEGORY	MONTHS	COMMENTS
53	5		SADP	Spring, Summer	Very cold clean water, good for drinking.
54	5		SADP		Strong currents causing big ice pans.
55	5	H	SADP		Used to see caribou migrating across Bathurst Inlet, thousands of them. The caribou stopped migrating once the roads went in for the Lupin mine and others. Concerns had been raised but the mine said it wasn't in writing so it they didn't have to do anything.
56	7		SADP		Soap stone in this area, only sighting he's had.
57	7		SADP		One particular island in this area never freezes "Qikiqtanuaq".
58	9		SADP		Starvation Cove, lots of current here gets thin fast.
59	9		SADP		West side of Ferguson Lake. The current is so strong that ice barely forms and is dangerous even in mid-winter.
60	9		SAOP		A stream coming into Ekalluk River is warm enough to bath in, in summer.
61	2		SAUP		Beautiful area with lots of cliffs
62	2		SAUP		Beautiful area
63	2		SAUP		Beautiful area

Figure 9. Arctic Char Probability of Occurrence

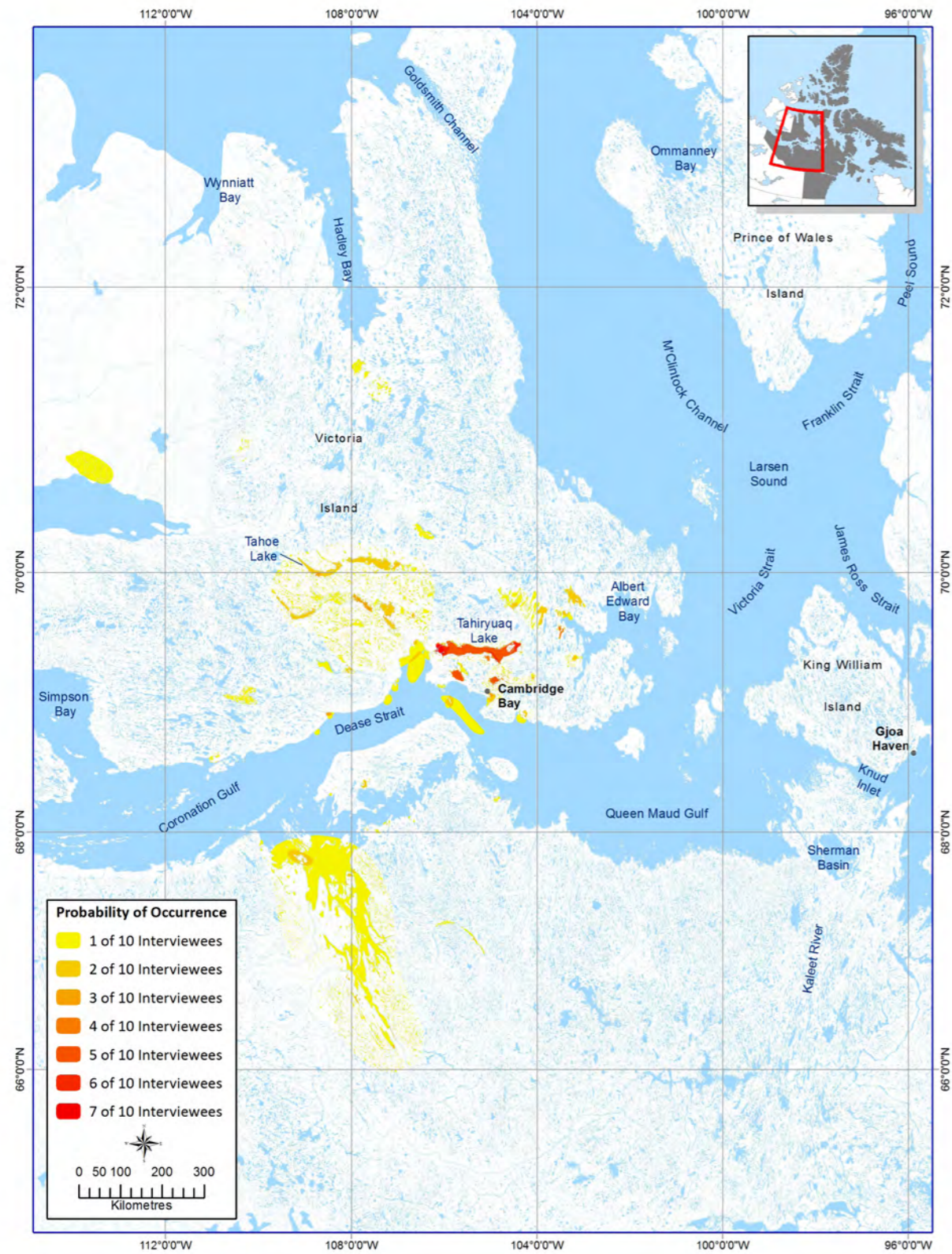


Figure 10. Arctic Char Areas of Occurrence (interviews 1-5)

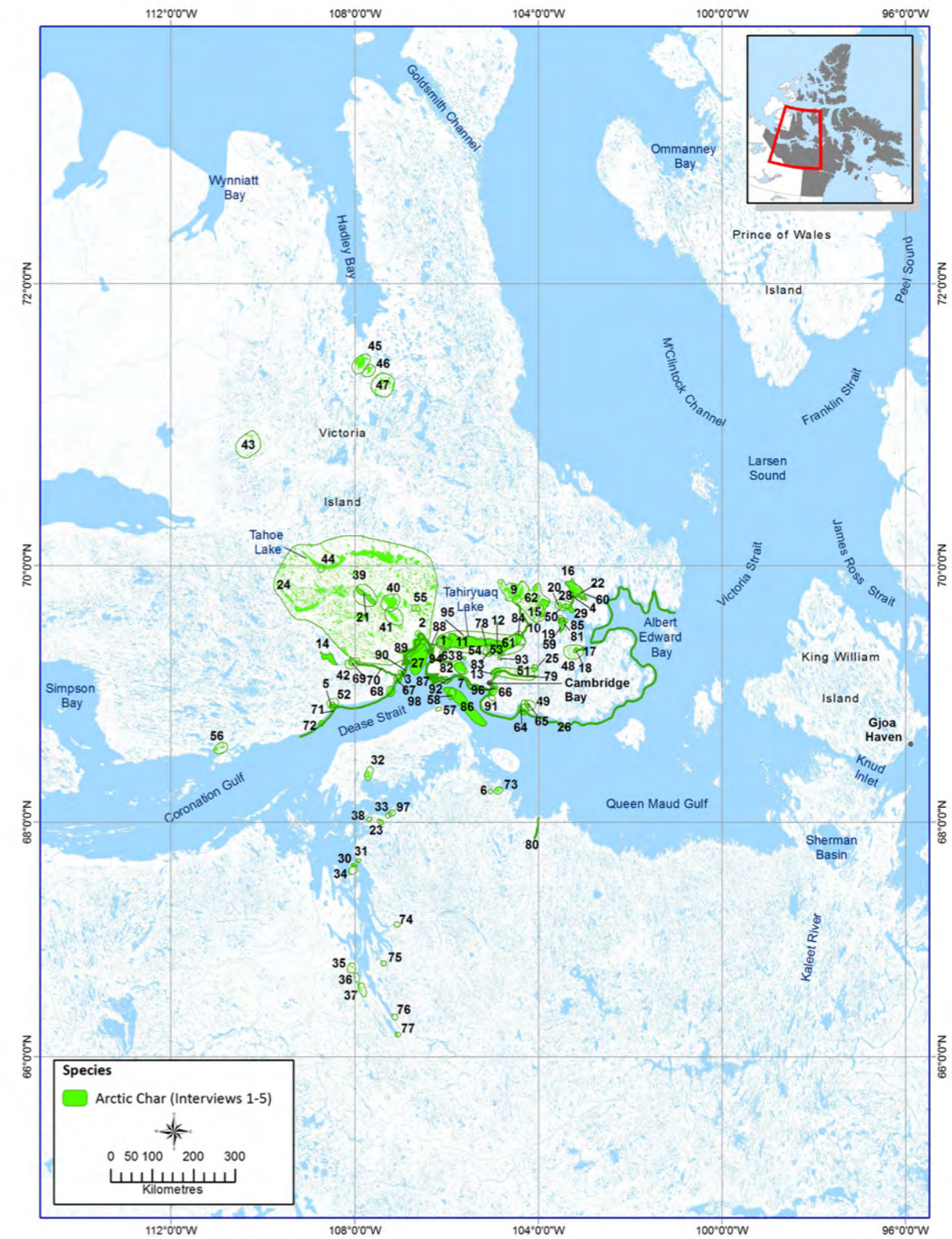




Figure 11. Arctic Char Areas of Occurrence (interviews 6-10)

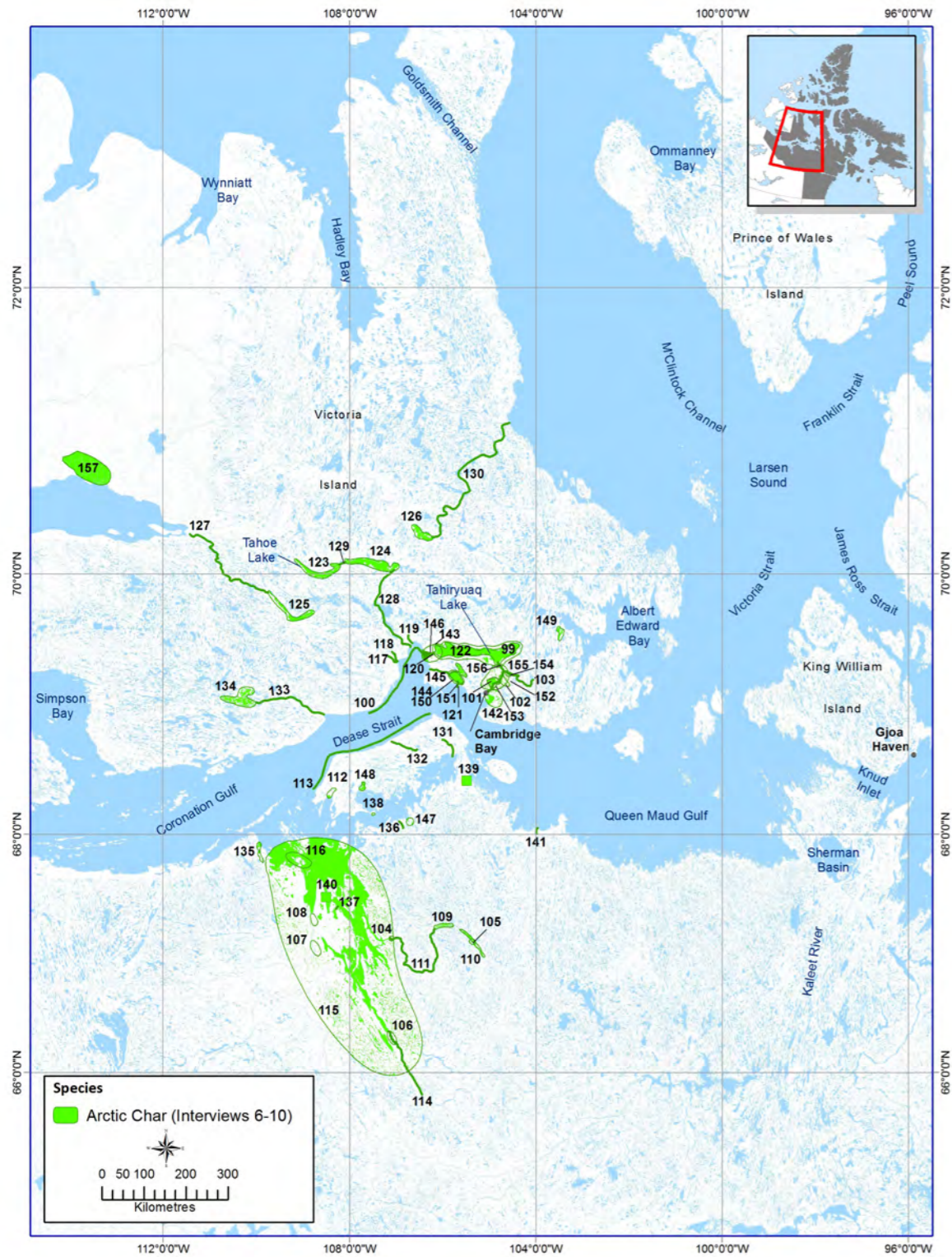


Table 5. Arctic Char Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1	S		Commercial fishing here.
2	1		Spring	Commercial fishing.
3	1			Commercial char fishing on 30 Mile River.
4	1			
5	1			
6	1			
7	1			
8	1			Lots
9	1			Char move from lake to lake.
10	1	M		Migration between Figure 10, Label 9 and Figure 10, Label 11, the fish look the same as we see in Ferguson Lake.
11	1	S		Ferguson Lake
12	1	S		
13	1			
14	1		Spring	Another family fishes here too. The green fishing line always breaks, the char are too big and strong.
15	1	S		Joanassie Lake. Man named Joanassie drowned here while guiding 2 sport fishermen, lake was then named after him.
16	1	S		Jayco Lake, long trip by quad.
17	1	M		Short Creek. Fish traps through this area, fish are migrating to Figure 10, Label 18.
18	1			
19	1	S		
20	1	S		One Eyed Jack Lake.
21	1			
22	1		Winter, Spring	Jigging through pressure ridges on ice.
23	1			
24	1	S		All lakes in this area
25	1			
26	1		Jul-Sep	Right along shore where ice is breaking up.
27	1		Jul-Sep	See lots of fish jumping.
28	1	M		From Jayco Lake to Figure 10, Label 29.
29	1		Spring, Fall	In the Bay.
30	1			This is a lake not part of the ocean. It has really high cliffs, have to fish close to the shore.
31	2			
32	2			
33	2			

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Table 5. Arctic Char Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
34	2			
35	2			
36	2			
37	2			
38	2	S	Year-round	Nothing but red char.
39	2			
40	2			
41	2			
42	2			
43	2			
44	2			
45	2			
46	2			
47	2			
48	2			
49	2			
50	2			
51	2			
52	2			
53	2	S		
54	2	S		
55	2	S		Small Lake
56	2			
57	2		Summer	Really big char that get caught in his nets.
58	2			Can see them jumping when it is a calm day.
59	3	A		Main place for red char (Nakashook Lake).
60	3	S		Hardly any Lake Whitefish or Lake Trout here.
61	3			
62	3			All these lakes mainly have lake trout with some char
63	3	M	Spring	When the river runs in the spring the char run down through here.
64	4		Summer	Anderson Bay
65	4	S	Mid-august	Return to lake in August to spawn, earlier than elsewhere
66	4			In Cambridge Bay
67	4			At the mouth of 30 Mile River, commercial fishing here.
68	4			At Pin E
69	4			Pangnirtuuq the lake at the top of 30 Mile River.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
70	4	M	September	Millions of char run up in September.
71	4			Byron Bay
72	4			Pin 4, when the char run down out of the rivers they turn east, then come back from the west. The meat is very tough when they first come out of the lakes.
73	4			Foggy Bay
74	5		Nov, Dec	Same place parents caught char.
75	5		Spring	Same place parents caught char. Now called char lake.
76	5			Same place parents caught char.
77	5			Same place parents caught char. Bathurst Lake.
78	5			Larger char, need 50-60 lb line, meat tastes the best here.
79	5	S		Big fish here, spawners don't taste very good.
80	5			
81	5	S	Fall	Spawning in the lake.
82	5	S		
83	5	S		
84	5	SA	Summer	Congregate on the east side of Ferguson Lake, so many that they turn the water red.
85	5			
86	5			Normally the char are close to shore. These went out into the ocean and stayed in the deep cold water when the ice left.
87	5	M		When char move downstream from fresh water they turn east along the coast.
88	5	M		Migrating from Ferguson Lake.
89	5	M		Migrating from Surrey Lake.
90	5	M		Coming down 30 Mile River then heading east.
91	5			
92	5	M	Jun-Jul	Come down from freshwater creak and head west.
93	5			
94	5			Key Hole Lake.
95	5			In really deep spot.
96	5			
97	5			Lake is all char, dangerous to go in June because the high currents make it open up early. Typically has very thin ice.
98	5			Lots of char
99	6			Fish come from the west and stay along shoreline.
100	6	M		Migration from the west.



Table 5. Arctic Char Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
101	6			Grainier Lake
102	6			Below Mount Pelly.
103	6	M		Travelling up river.
104	6			
105	6			
106	7	S		
107	7			A lot of char at the Hood River.
108	7			
109	7			Lake trout and char in these lakes.
110	7			Lake trout and char in these lakes.
111	7	M	Spring, Aug	Come down in spring and go back up in August-fall.
112	7			
113	7			Mostly on the north side of the peninsula.
114	7			Start running up in August with the grayling.
115	7	M	August	
116	7	A		High concentrations of char along with wolves and grizzlies.
117	7	M	Spring and fall	Take sport fishermen to this river.
118	7	M	Spring and fall	Take sport fishermen to this river.
119	7	M	Spring and fall	Take sport fishermen to this river.
120	7	M	Spring and fall	Take sport fishermen to this river.
121	7	S		Fish at this lake.
122	7			Never seen whitefish in Ferguson Lake.
123	7	S		Sport fishermen from High Arctic Lodge go fishing here. Connected to lake at Figure 11, Label 123.
124	7	S		Sport fishermen from High Arctic Lodge go fishing here. Connected to lake at Figure 11, Label 123.
125	7	S		Go to this lake by airplane, there is also muskox here.
126	7			Go by plane.
127	7	M		River from Figure 11, Label 125 that connects to the ocean.
128	7	M		Go through interconnecting river on the bay.
129	7	M		Between Figure 11, Label 123 and Figure 11, Label 124
130	7	M		River system connects Figure 11, Label 126 (approximate route)
131	7	M		Roam around in the ocean.
132	7	M		Roam around in the ocean.
133	7	M		Lots of fish here when going up stream.
134	7			In lakes.

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
135	7			Lots of char in this bay.
136	7	M		In each direction.
137	7	M		
138	7		Aug 2 - Sep 6	Lots of sports fishermen there. No weir, the river is shallow enough you don't need it.
139	8			Fishing for char here.
140	8		Mid August	Fishing for char in Brown Sound.
141	8			Ellice River near the mouth, catch whitefish and char.
142	9			Near town.
143	9	S	Spring and Fall	Around Ekalluk River.
144	9	S	Spring	Kitigak Lake. Sometimes see spawners but rare.
145	9	M	Jul, Sep	Swim down from lakes in July, then back up in September.
146	9	M	Jul, Sep	Swim down from lakes in July, then back up in September.
147	9	M	Jul, Sep	Move down river in July, up again in September.
148	9			Somewhere here there is a little lodge people fish from.
149	9			Char Lake. Used to be a sport fishing camp here, closed 2 years ago.
150	10			
151	10	M		Char go down through a short river through Augustus Hills.
152	10			Lake right next to Mount Pelly connected by rivers that run through all the lakes.
153	10	S		Char spawning in Grainier Lake and near Mount Pelly.
154	10	S		Mount Pelly
155	10	M		In connecting rivers.
156	10	M		River to Ferguson Lake.
157	10	H	Spring	Fish in the lakes near the ocean because it is hard to travel over land by skidoo in spring, dog teams were lighter.

Figure 12. Landlocked Char Probability of Occurrence

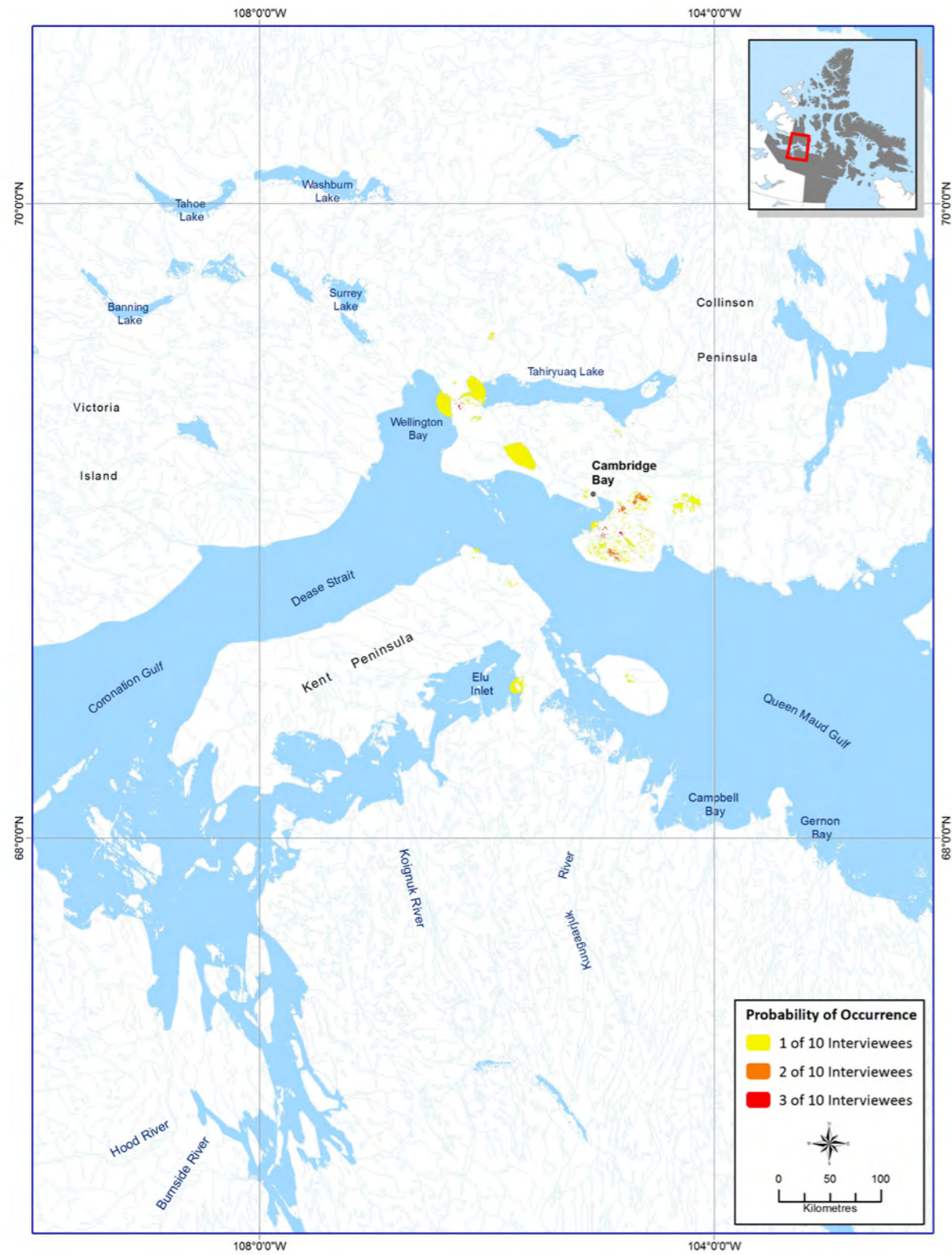


Figure 13. Landlocked Char Areas of Occurrence

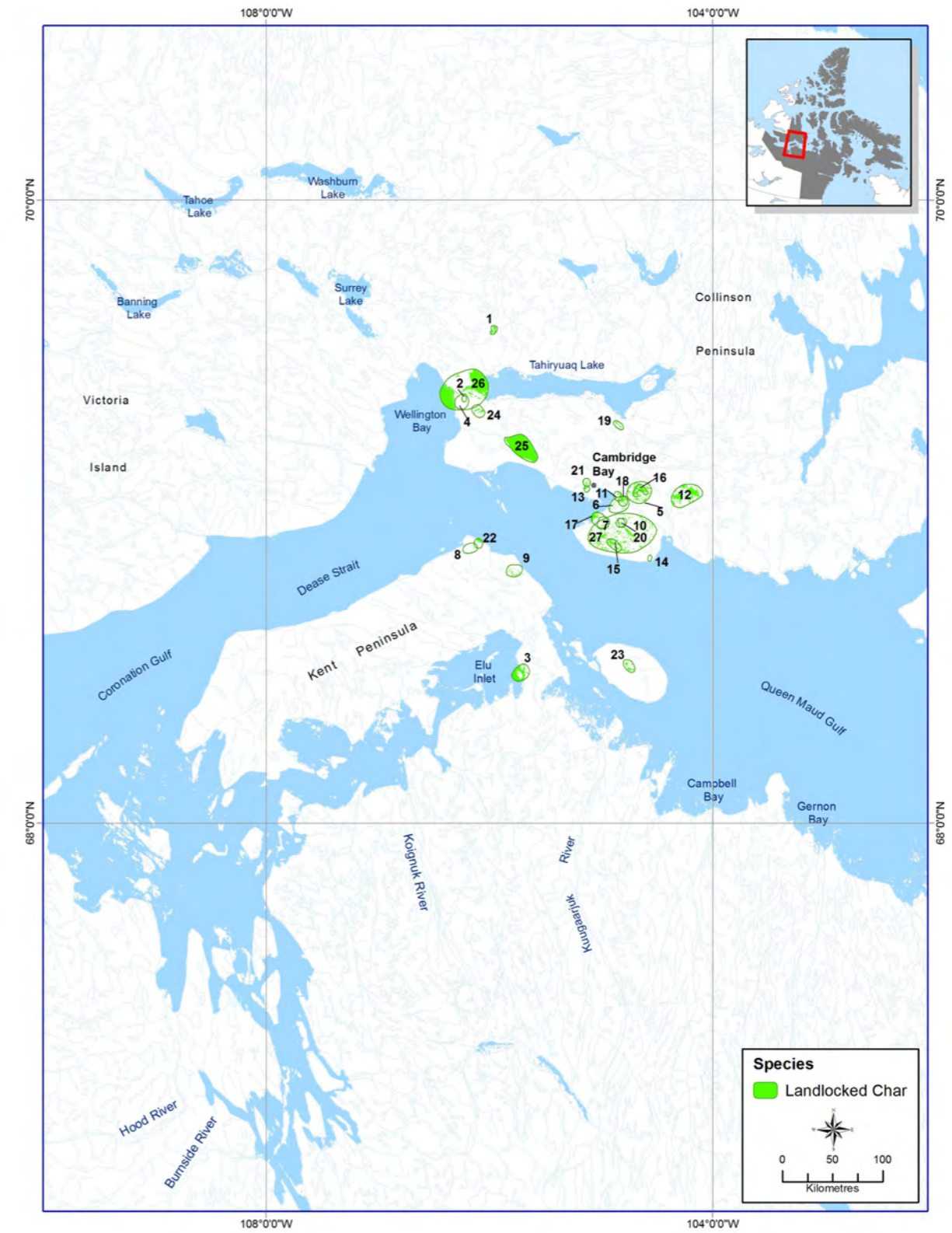




Table 6. Landlocked Char Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			Family fishes recreationally here, the lake is small but really deep
2	1			Keyhole Lake, small land-locked char (40cm).
3	2			
4	2			Only land-locked char, tiny shrimp in stomachs.
5	2			Only land-locked char, tiny shrimp in stomachs.
6	2			Only land-locked char, tiny shrimp in stomachs.
7	2			Only land-locked char, tiny shrimp in stomachs.
8	2		Spring	Underground spring, makes deep ice cascades. The ice looks like it is overflowing with water but actually it is only a thin layer.
9	2		Spring	
10	4			This river is actually a gully, the water is too low to migrate or disappears completely.
11	4			Little lake, not on the map.
12	4			These 2 lakes.
13	4	H		Dew Line Water Lake, on the right as you drive to the airport. There's lots in there about 25-30 cm long.
14	4			Lots of Land-locked char in this lake, walking distance from town
15	4			These 2 lakes. There's no real river here, it's more of a gully with a little water in spring.
16	4			Near Mount Pelly.
17	5			
18	5	A		
19	5			
20	5	A		
21	5	A		DEW Line Lake, by the airport.
22	5			
23	5			One of these lakes, not sure which one. Tiny streams.
24	5			Key Hole Lake.
25	9			Stay even though they can leave.
26	9			Stay even though they can leave.
27	10			The fish choose to stay in lakes. People prefer drying the land-locked char because they have less fat.

Figure 14. Lake Trout Probability of Occurrence

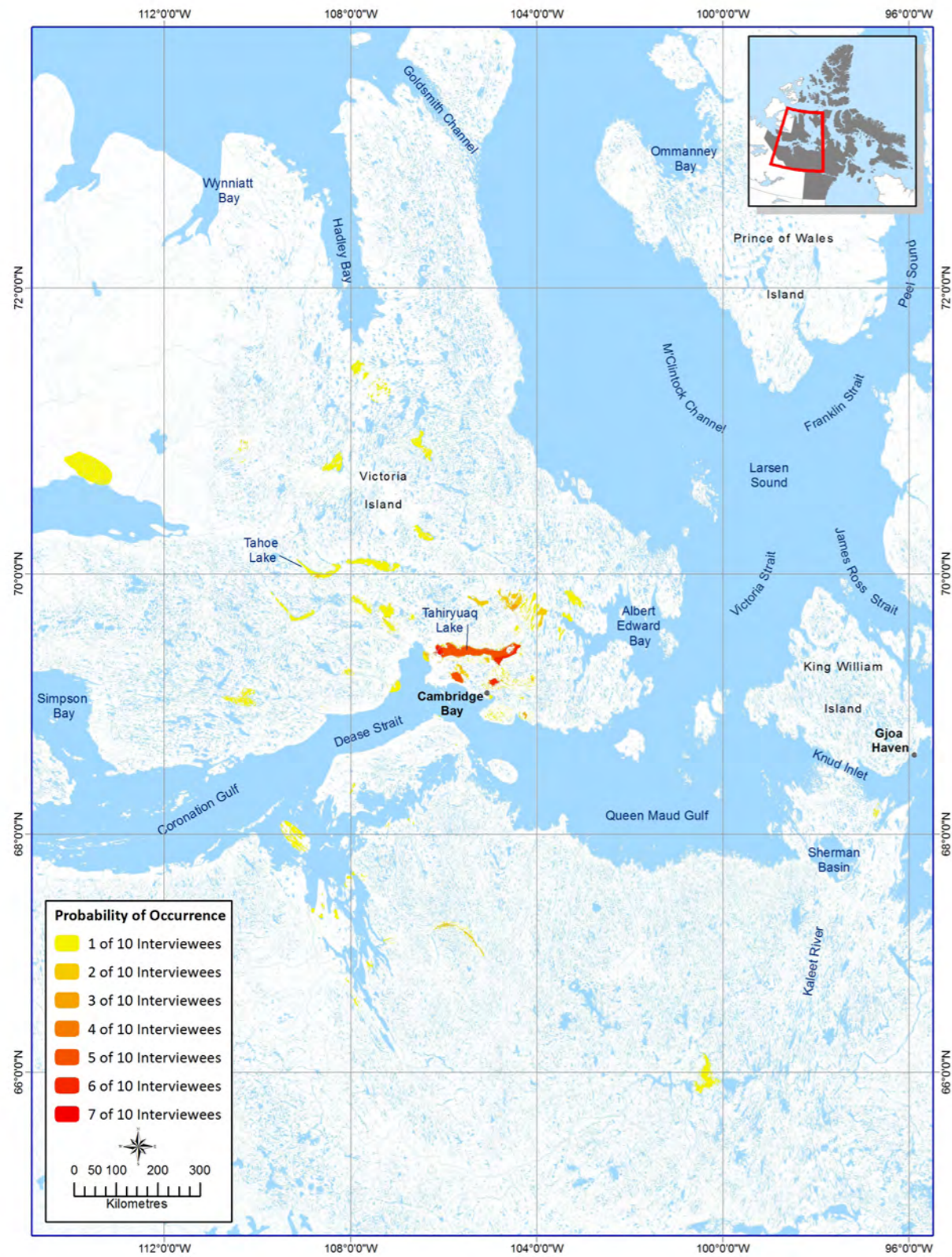


Figure 15. Lake Trout Areas of Occurrence

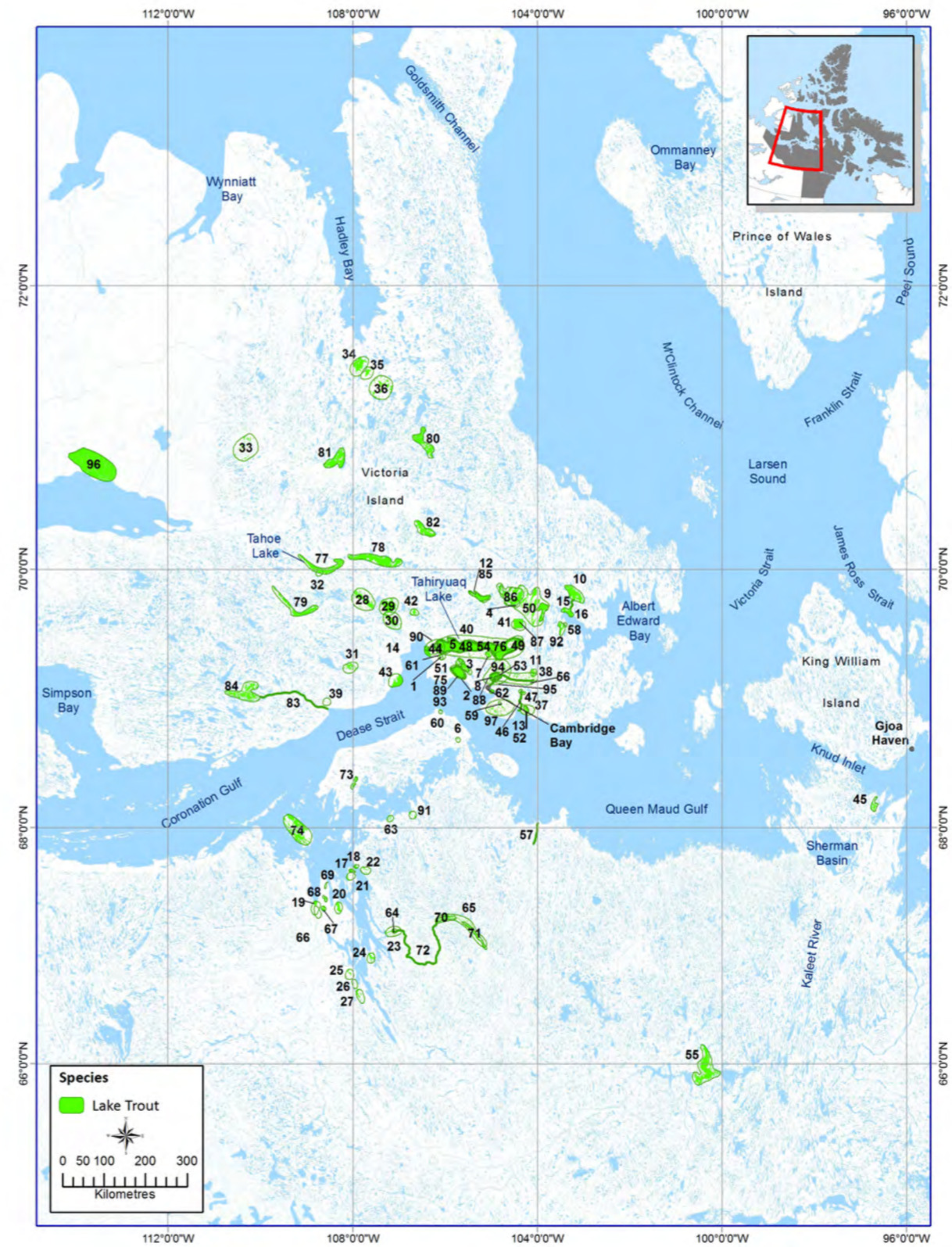




Table 7. Lake Trout Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			Lots of lake trout, smaller size.
2	1			
3	1			Lots
4	1			Catch by jigging only.
5	1			Huge lake, 40 miles long
6	1			
7	1			
8	1			
9	1			Joanassie Lake.
10	1			Jayco Lake.
11	1			Fish at a pressure ridge on the lake.
12	1			Around the mouth of Ekalluk River, some of them are large.
13	1			
14	1		Fall, Spring	See some large fish around the mouth of Ekalluk River and in Bay.
15	1	M		From Jayco Lake to Figure 15, Label 16
16	1		Spring, Fall	In the Bay.
17	1			This is a lake not part of the ocean. It has really high cliffs, have to fish close to the shore.
18	2			
19	2			
20	2			
21	2			
22	2			
23	2			
24	2			
25	2			
26	2			
27	2			
28	2			
29	2			
30	2			
31	2			
32	2			
33	2			
34	2			

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
35	2			
36	2			
37	2			
38	2			
39	2			
40	2			
41	2			
42	2			Small Lake
43	2			
44	2			
45	3	H		Her husband would leave them at camp to go set nets at this location.
46	3			At Anderson Bay, going up river
47	3			In lake above Anderson Bay
48	3		Spring	Ferguson lake, many species in the spring all along the shore.
49	3			Main area where the trout hang around.
50	3			All these lakes mainly have lake trout with some char
51	3			Kitigak Lake
52	4		Winter	Anderson Bay Lake
53	4			Grainier Lake
54	4			All throughout Ferguson Lake.
55	5			The trout here are much darker than our trout, and they are very big "the size of baby seals".
56	5			
57	5			
58	5			
59	5			
60	5			
61	5			Key Hole Lake.
62	5			Catch them near the mouth of freshwater creek while fishing for char.
63	5			Massive fish (6 feet long), they break lines and hooks. They must be eating char in this lake because that is all there is for them to eat.
64	6			

Table 7. Lake Trout Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
65	6			
66	7			
67	7			Only lake trout in these lakes, catch by jigging.
68	7			Only lake trout in these lakes, catch by jigging.
69	7			Only lake trout in these lakes, catch by jigging.
70	7			Lake trout and char in these lakes.
71	7			Lake trout and char in these lakes.
72	7	M		Lake trout in the river.
73	7			
74	7			
75	7			
76	7			Never seen whitefish in Fergusen Lake.
77	7			Sport fishermen from High Arctic Lodge go fishing here.
78	7			Sport fishermen from High Arctic Lodge go fishing here.
79	7			Go to this lake by airplane, there is also muskox here.
80	7			Go to the lake by plane, big trout.
81	7			Go to the lake by plane, big trout.
82	7			Go by plane.
83	7	M		Also migrate up.
84	7			In lakes.
85	7			Fishing here, lots of whitefish and trout.
86	7			Group of lakes.
87	8		Apr-May	Ice fishing.
88	9			Grainier Lake.
89	9			Kitigak Lake.
90	9			Fergusen Lake, sometimes catch a few in nets at the mouth of the river.
91	9			
92	9			Char Lake. Used to be a sport fishing camp here, closed 2 years ago.
93	10			
94	10			
95	10			
96	10	H		Fish in the lakes near the ocean because it is hard to travel over land by skidoo in spring, dog teams were lighter.
97	10			

Table 8. Lake Trout Everywhere Data

INTERVIEW	MONTHS	COMMENTS
5		All the Lakes.



Figure 16. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence

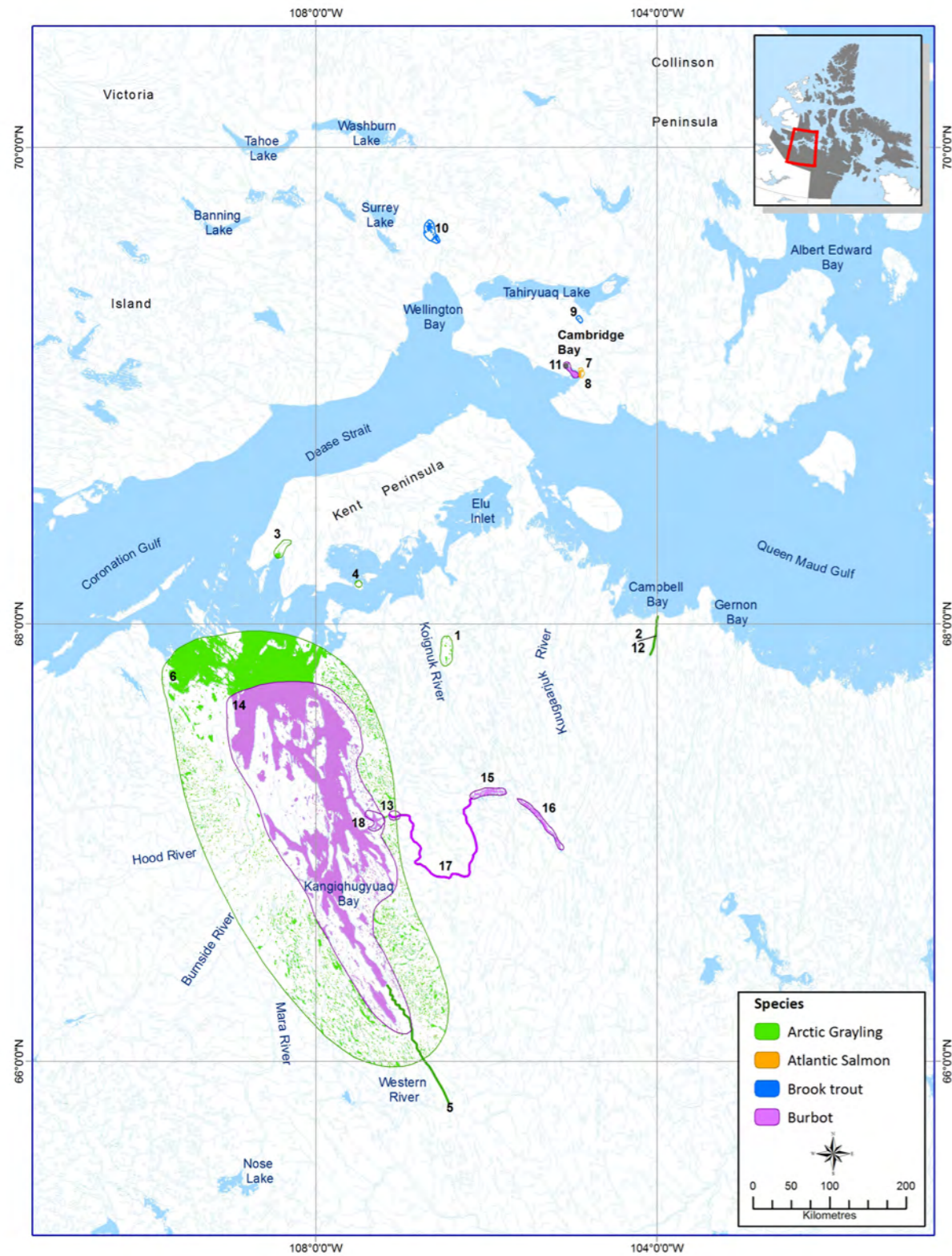


Table 9. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Arctic Grayling		
2	5		Arctic Grayling		
3	7		Arctic Grayling		
4	7		Arctic Grayling		Catch whenever camped at Figure 7, Label 147.
5	7		Arctic Grayling		Many fish on the western river: grayling, whitefish, cisco, char.
6	7	M	Arctic Grayling	August	
7	1		Atlantic Salmon		Caught one in 1992 and another in 2004
8	5		Atlantic Salmon	Summer	Someone caught one in the Cambridge Bay.
9	1		Brook trout		
10	1		Brook trout		
11	3	H	Burbot		Saw one burbot near town in bay a while ago, her son pulled it out while cod fishing.
12	5		Burbot		
13	5		Burbot		
14	5		Burbot		Found in all the rivers within this area.
15	7		Burbot		
16	7		Burbot		
17	7		Burbot		In the river.
18	7		Burbot		

Table 10. Arctic Grayling, Atlantic Salmon, Brook Trout, and Burbot Areas of Occurrence

INTERVIEW	MONTHS	COMMENTS
7		In the rivers on the mainland.

Figure 17. Broad, Lake, and Round Whitefish Areas of Occurrence

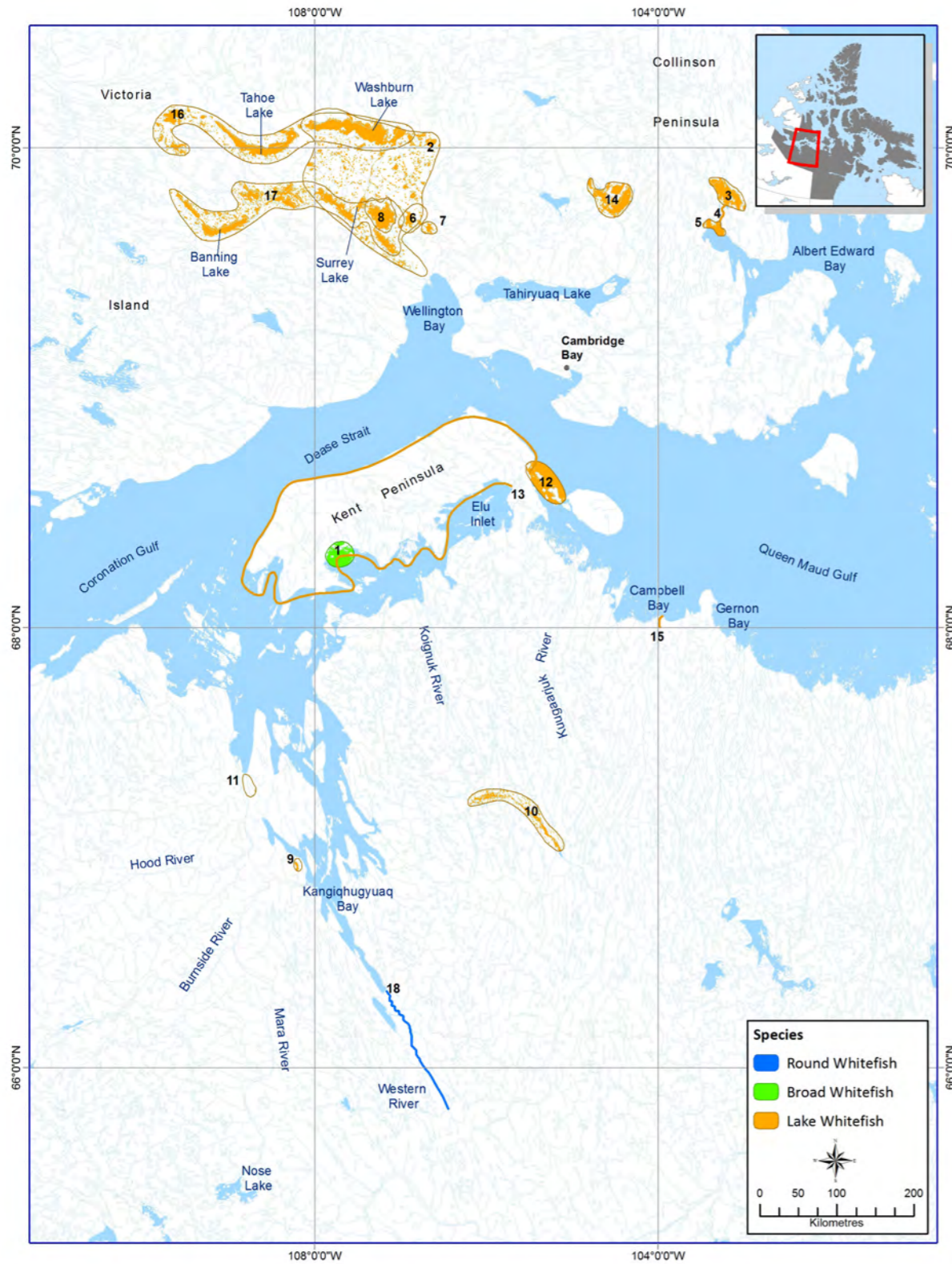


Table 11. Broad, Lake, and Round Whitefish Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	7		Broad whitefish		In coves and bays.
2	1		Lake whitefish		All through these lakes.
3	1		Lake whitefish		Jayco Lake
4	1		Lake whitefish	Summer	Migrate to the ocean in summer in schools with Arctic Cisco.
5	1		Lake whitefish	Summer	In the ocean.
6	2		Lake whitefish		Tahoe Lake, White fish get big here (16") and have lots of eggs, bring them back for the elders.
7	2		Lake whitefish		Pannuqtuuq, same lakes as Figure 17, Label 5 and Figure 10, Label 30
8	5		Lake whitefish		Gill netting, and have tasty roe.
9	5		Lake whitefish		Fish in area are all whitefish.
10	6		Lake whitefish		
11	7		Lake whitefish		
12	7		Lake whitefish		
13	7		Lake whitefish		All along the coast.
14	7		Lake whitefish		Same group as Figure 15, Label 86, also an ancestral fishing ground.
15	8		Lake whitefish		Ellice River near the mouth, catch whitefish and char.
16	9		Lake whitefish		See white fish in any of these big lakes. People fish from fall to just before spring.
17	9		Lake whitefish		See white fish in any of these big lakes. People fish from fall to just before spring.
18	7		Round whitefish		

Table 12. Ninespine, Threespine and unidentified Stickleback Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Ninespine Stickleback		See them in the stomachs of seals.
5	Ninespine Stickleback		Through the lakes.
5	Threespine Stickleback		Through the lakes.
7	Ninespine Stickleback	Summer	Sees them on the coast in summer in the mouths of rivers.
10	Unidentified Stickleback		Small ones in lakes and little rivers. They are tiny, and I don't know what they are.



Figure 18. Arctic and Lake Cisco Areas of Occurrence

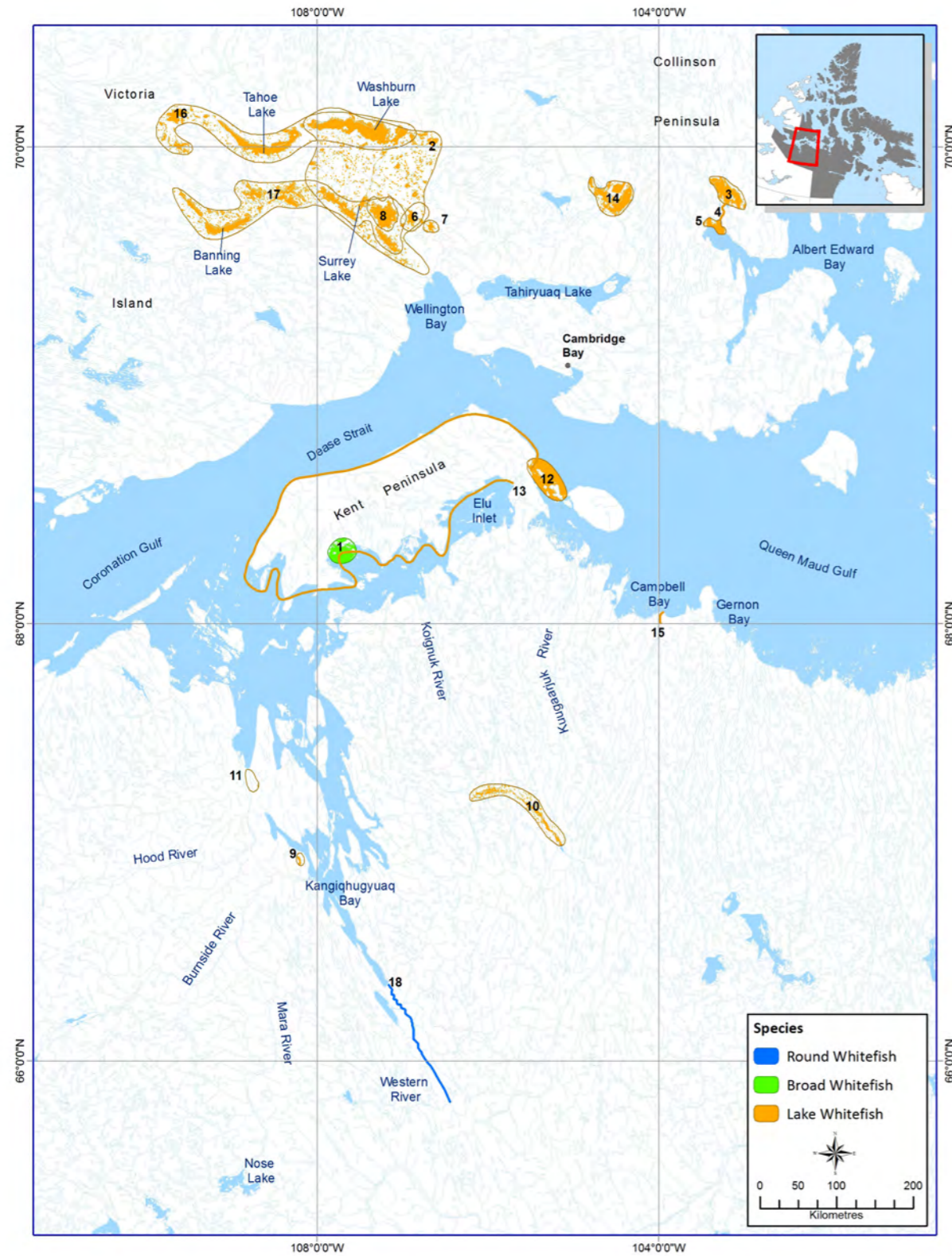


Table 13. Arctic and Lake Cisco Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Arctic Cisco		Smaller than whitefish
2	1		Arctic Cisco		
3	1		Arctic Cisco		
4	1		Arctic Cisco		
5	1	H	Arctic Cisco		Used to jig for them in this lake, then mine destroyed the population.
6	1		Arctic Cisco		Joanassie Lake.
7	1		Arctic Cisco		Jayco Lake.
8	1		Arctic Cisco		Anderson Bay, lots of small little whitefish and regular sized trout.
9	1		Arctic Cisco		
10	1	M	Arctic Cisco		From Jayco Lake to Figure 18, Label 11
11	1		Arctic Cisco	Spring, Fall	In the Bay.
12	2		Arctic Cisco		The ones on the mainland are smaller.
13	2		Arctic Cisco		
14	2		Arctic Cisco		Small Lake
15	2		Arctic Cisco		
16	2		Arctic Cisco		
17	3		Arctic Cisco		Small whitefish
18	4		Arctic Cisco	Winter	Anderson Bay Lake
19	5		Arctic Cisco		
20	5		Arctic Cisco		
21	5	A	Arctic Cisco		
22	5	A	Arctic Cisco		
23	5		Arctic Cisco		
24	5	A	Arctic Cisco		
25	5		Arctic Cisco		Fish in area are all whitefish.
26	6		Arctic Cisco		
27	7		Arctic Cisco		
28	7		Arctic Cisco		
29	7		Arctic Cisco		All along the coast.
30	7		Arctic Cisco		
31	7		Arctic Cisco		Fishing here, lots of whitefish and trout.
32	7		Arctic Cisco		
33	9		Arctic Cisco		See white fish in any of these big lakes. People fish from fall to just before spring.
34	9		Arctic Cisco		See white fish in any of these big lakes. People fish from fall to just before spring.
35	10		Arctic Cisco		Grainier Lake, used to not have whitefish.
36	9		Lake Cisco		See white fish in any of these big lakes. People fish from fall to just before spring.
37	9		Lake Cisco		See white fish in any of these big lakes. People fish from fall to just before spring.

Figure 19. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Areas of Occurrence

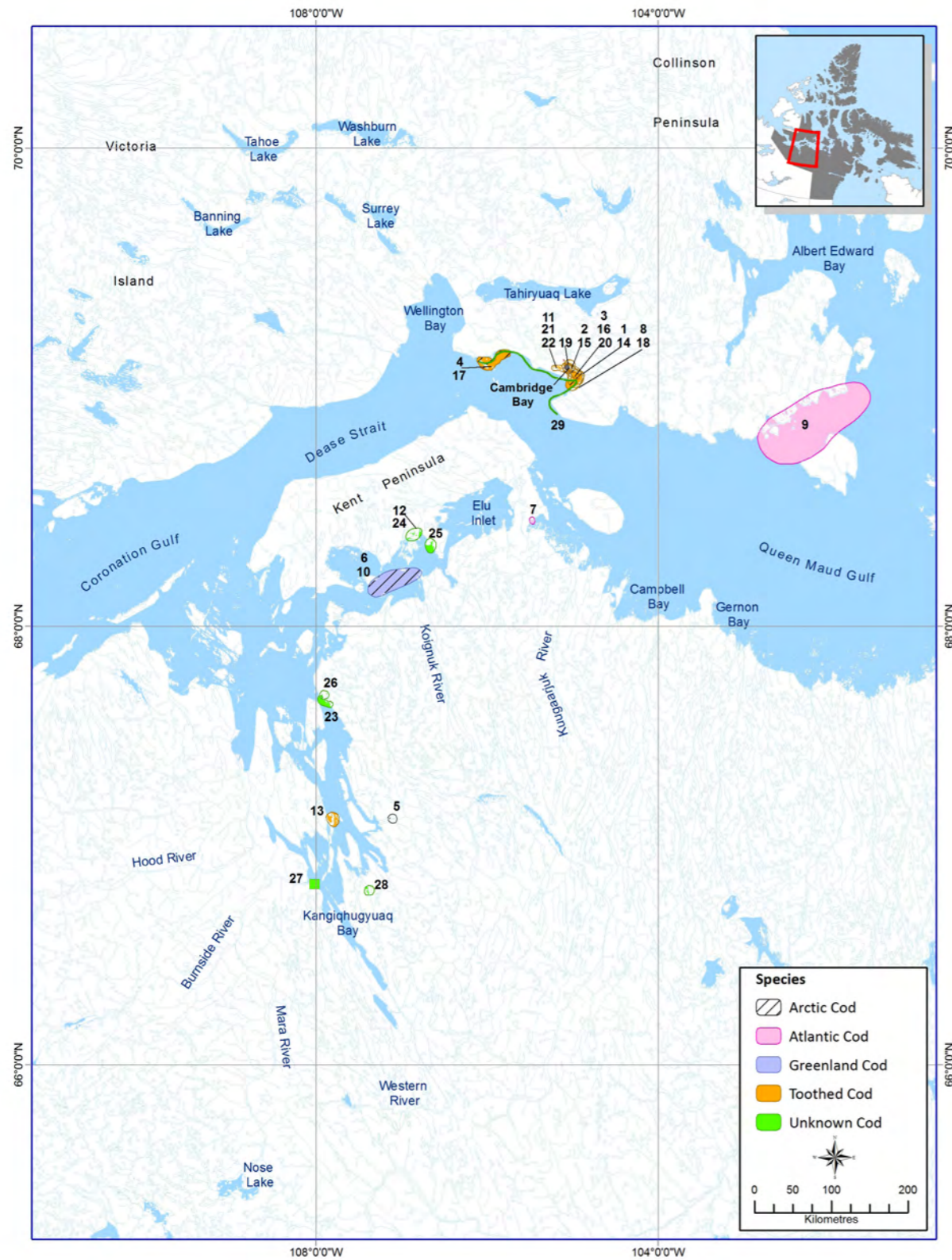


Table 14. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Arctic Cod		
2	2		Arctic Cod		
3	3		Arctic Cod		Where she goes cod fishing.
4	3		Arctic Cod		Ocean area up to the island has cod.
5	6		Arctic Cod		
6	7		Arctic Cod		Lots in this area.
7	4	A	Atlantic Cod		Sea Shell Bay, named because of all the shells on its shores. Can catch 100 cod an hour here.
8	4		Atlantic Cod		The two types of cod are mixed in Cambridge Bay.
9	5		Atlantic Cod		
10	7		Greenland Cod		Lots in this area.
11	10		Greenland Cod		Abundance of cod just down in the ocean, range from small to very large. Used lots for dog food.
12	2		Toothed Cod		Locally many call this "Tom cod"
13	2		Toothed Cod		
14	2		Toothed Cod		Also called tom cod, eat the liver.
15	2		Toothed Cod		
16	3		Toothed Cod		Usually coexist with the Arctic Cod.
17	3		Toothed Cod		Usually coexist with the Arctic Cod.
18	4		Toothed Cod		The two types of cod are mixed in Cambridge Bay.
19	5		Toothed Cod		In the West Arm.
20	9		Toothed Cod		Seen while fishing out in the bay.
21	10		Toothed Cod		Abundance of cod just down in the ocean, range from small to very large. Used lots for dog food.
22	10		Toothed Cod		Shorthorn sculpin
23	1		Unidentified cod		Deep water marine fish that has the body for of a walleye, with red scales, spikey fin, skinny body, and big mouth. Catch it when the ice is thin.
24	2		Unidentified cod		Small, silver cod.
25	5		Unidentified cod		Fish that looks like a walleye but has smaller fins and doesn't grow as big, with a yellow belly. Call them "Hirituq". Fish for them after freeze up and all through winter.
26	5		Unidentified cod		Fish that looks like a walleye but has smaller fins and doesn't grow as big, with a yellow belly. Call them "Hirituq". Fish for them after freeze up and all through winter.



Table 14. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
27	5		Unidentified cod		
28	5		Unidentified cod		
29	5		Unidentified cod	Jul-Aug	They lay eggs on the shoreline, "pygmy cod". The whales, char, and seals feed on them, called "inagayuq".

Table 15. Arctic, Atlantic, Greenland, Toothed and unidentified Cod Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Arctic Cod		
5	Arctic Cod		
1	Atlantic Cod		
5	Atlantic Cod		
5	Greenland Cod		
1	Toothed Cod		

Figure 20. Capelin and Pacific and Atlantic Herring Areas of Occurrence

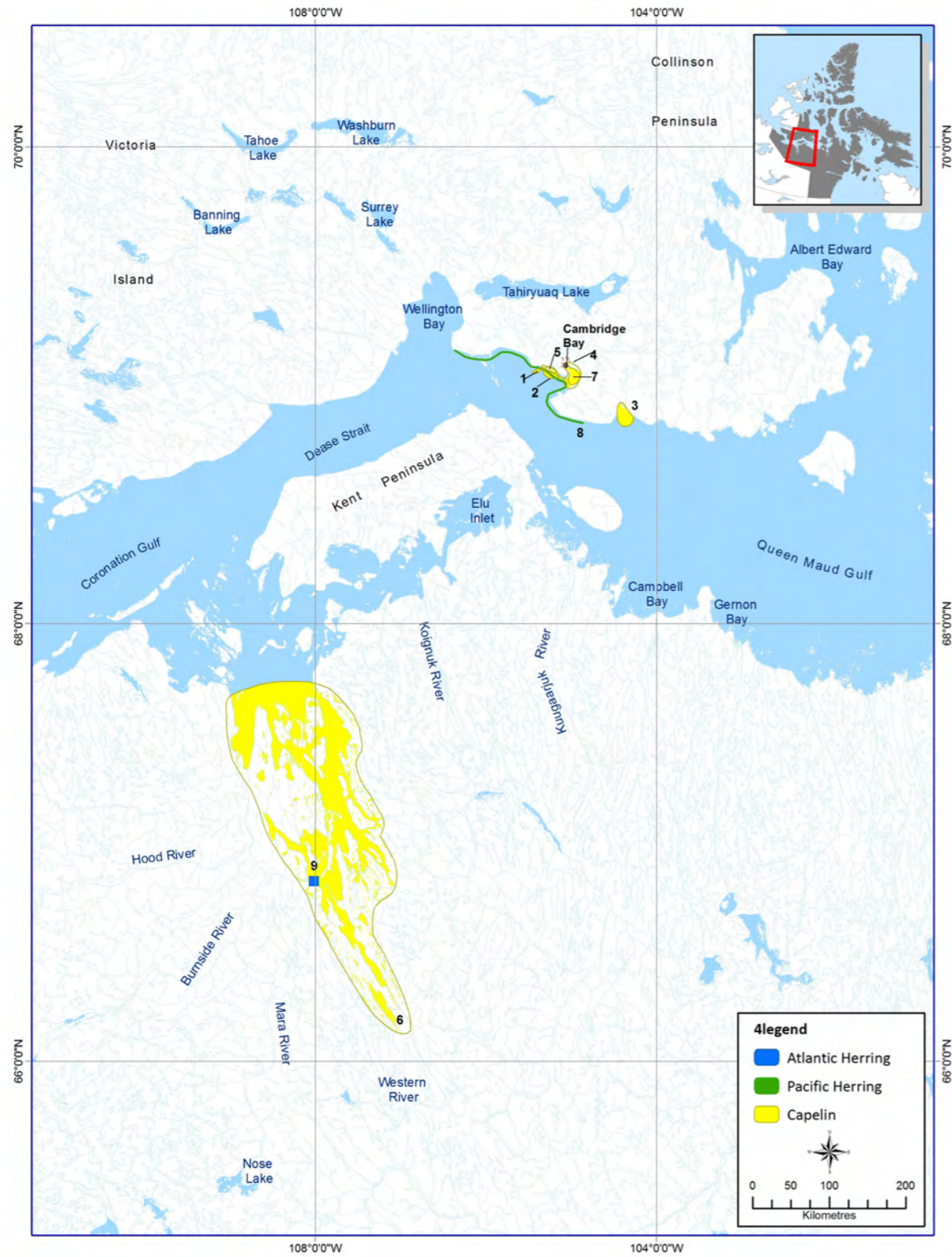


Table 16. Capelin and Pacific and Atlantic Herring Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Capelin	Spring and early Summer	Seal chase the capelin here when the ice is breaking up.
2	2		Capelin	Spring	In the spring we see big schools at Gravel Pit, ring seals show up wherever they are schooling.
3	4		Capelin	Summer	Anderson bay has huge schools in summer
4	4		Capelin		Gravel pit area, where the cabins are.
5	4		Capelin		Right in Cambridge Bay, when they come in the seals follow but they don't stay long.
6	5		Capelin		Lots of them, was also catching them as little kids.
7	7		Capelin		In the Bay, plentiful in large schools.
8	9		Pacific Herring	Jul-Aug	
9	5		Atlantic Herring		

Table 17. Capelin Everywhere Data

INTERVIEW	MONTHS	COMMENTS
1		Find them in seal stomachs



Figure 21. Arctic Flounder, Arctic Skate and Greenland Shark Areas of Occurrence

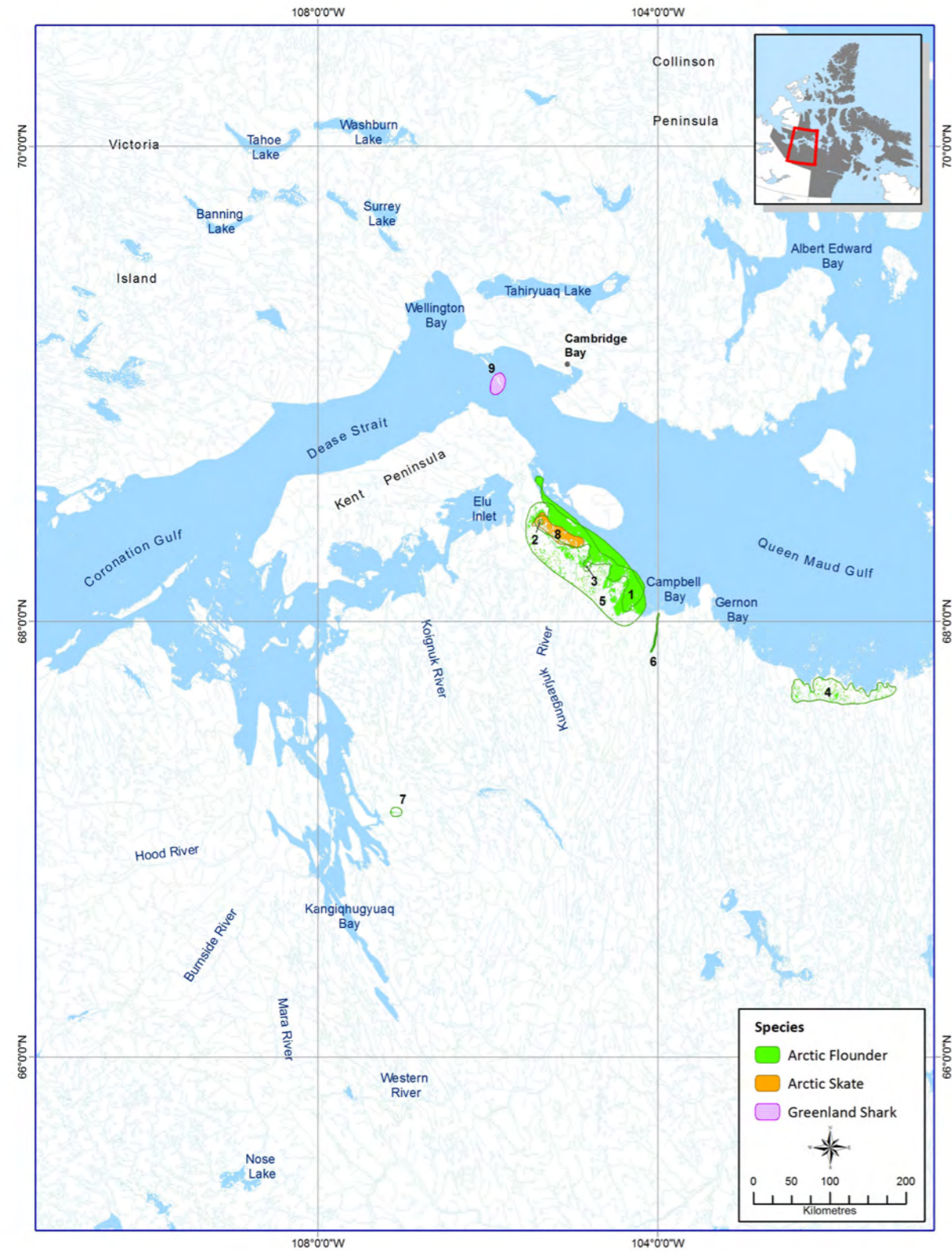


Table 18. Arctic Flounder, Arctic Skate and Greenland Shark Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Arctic Flounder		
2	1		Arctic Flounder		Had a spike near the tail that went through his boot.
3	2		Arctic Flounder		Catch them in nets.
4	3	H	Arctic Flounder		Lots of fish near Perry Island when she was a child, each river had flounder in their estuaries. Some of them small (20cm) others big (40cm).
5	4		Arctic Flounder		Seen them when he hunts, believes they are close to shore. Biggest he has seen was 8-9 inches long. Catch them in nets sometimes. They are tasty, same taste as Arctic Cod. His father said that if you walk bare foot on shore they will go after your feet, d
6	5		Arctic Flounder		Elis River
7	5		Arctic Flounder		
8	1		Arctic Skate		All through this area.
9	2		Greenland Shark		Friend sighted a shark

Table 19. Arctic Flounder Everywhere Data

INTERVIEW	MONTHS	COMMENTS
5		All along the coast of the mainland. Mostly found in and around the mouths of rivers. Anywhere we put our gill nets.
7		All the places he goes to on the coast he sees these.

Figure 22. Arctic Staghorn, Fourhorn, Shorthorn and unidentified Sculpin Areas of Occurrence

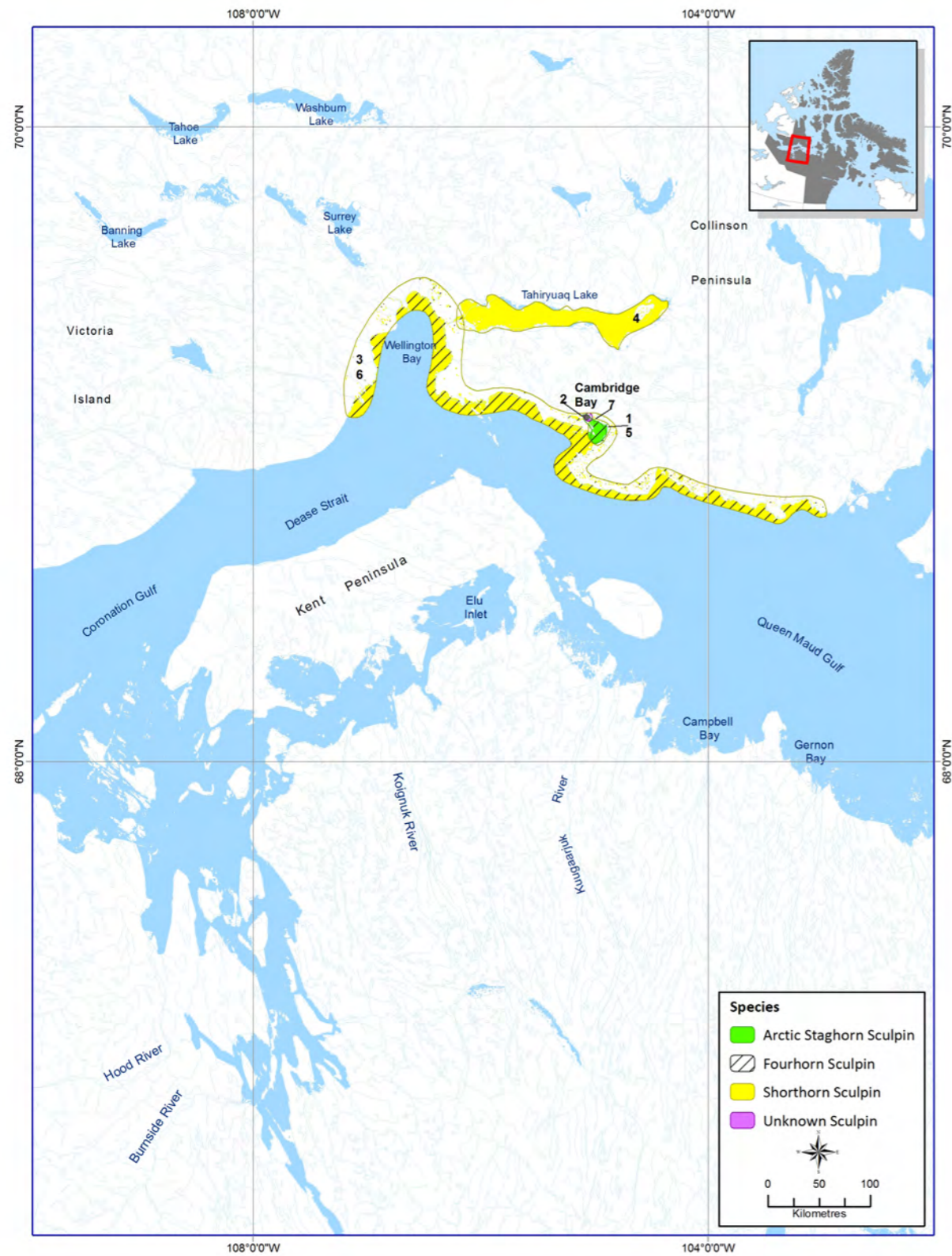


Table 20. Arctic Staghorn, Fourhorn, Shorthorn and unidentified Sculpin Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Arctic Staghorn Sculpin		Catch them by jigging.
2	7		Arctic Staghorn Sculpin		Within the Bay.
3	9		Fourhorn Sculpin		Anywhere along the shore on any type of bottom.
4	1		Shorthorn Sculpin		The scullions change colour when they move to different spots.
5	2		Shorthorn Sculpin		Catch these while jigging but don't eat them.
6	9		Shorthorn Sculpin		Anywhere along the shore on any type of bottom.
7	3		Unidentified Sculpin		Cambridge Bay area near the mouth of the river, did not have a pattern on it.

Table 21. Twohorn, Fourhorn, Shorthorn, Spatulate and Mailed Sculpin Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Fourhorn Sculpin		Live under rocks near shore, some bury themselves into the sand. Catch them while jigging. Fourhorn sculpins are the most common.
5	Mailed Sculpin		
1	Shorthorn Sculpin		Live under rocks near shore, catch them while jigging.
4	Shorthorn Sculpin		Everywhere close to shore.
5	Shorthorn Sculpin		
5	Shorthorn Sculpin		
5	Spatulate Sculpin		
1	Twohorn Sculpin		Live under rocks near shore, catch them while jigging.



Figure 23. Atlantic, Spotted, and unidentified Wolffish, Banded gunnel, Lumpsucker, Northern Hagfish, unidentified Sucker and unidentified Eel Areas of Occurrence

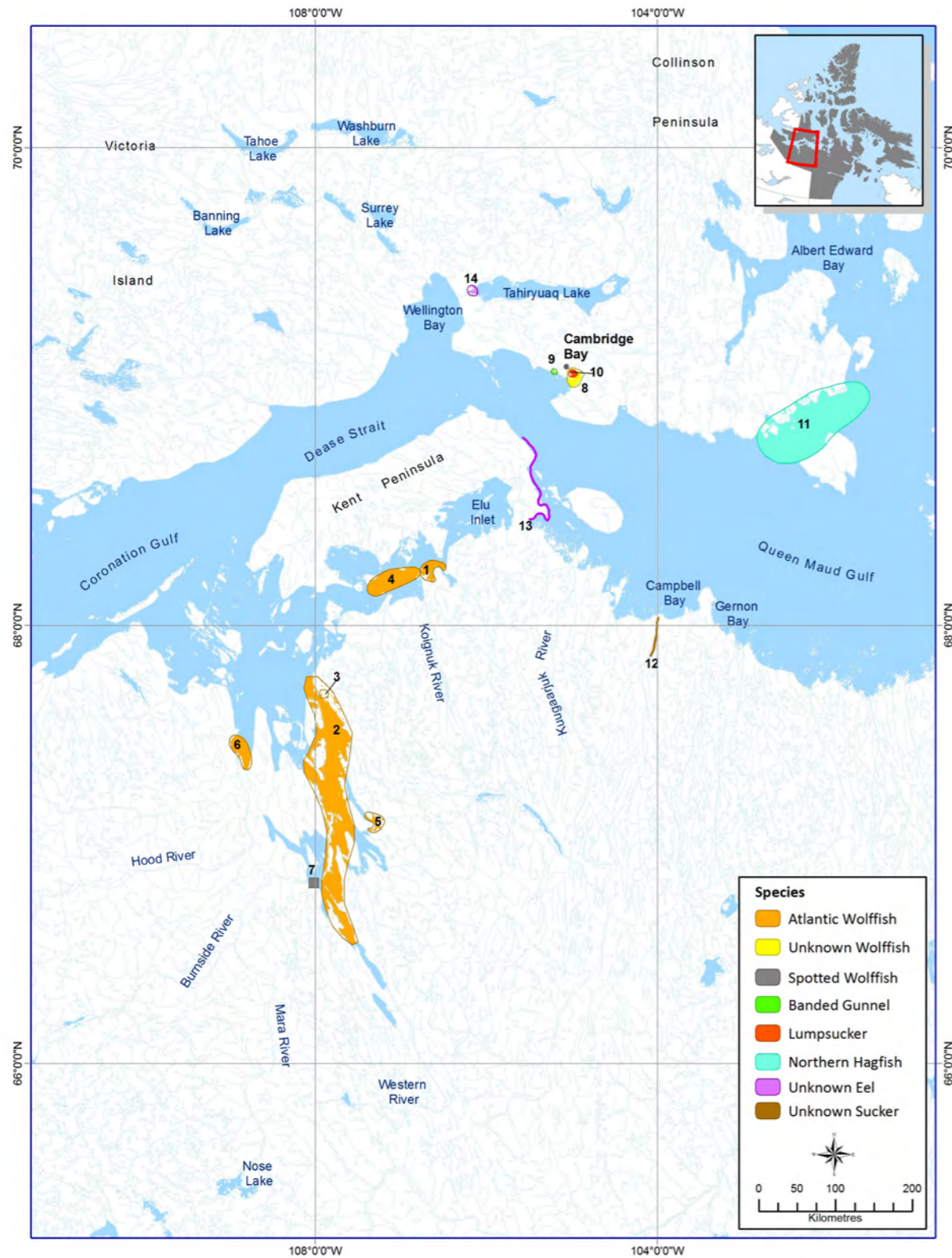


Table 22. Atlantic, Spotted, and unidentified Wolffish, Banded gunnel, Lumpsucker, Northern Hagfish, unidentified Sucker and unidentified Eel Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Atlantic Wolffish		They chew big holes in the seal nets, and bite the seals on the neck.
2	1		Atlantic Wolffish		See quite a few here in the Bay Chimo and Bathurst area.
3	5		Atlantic Wolffish		About 3 feet long.
4	7		Atlantic Wolffish		Approximately 60cm long.
5	7		Atlantic Wolffish		Approximately 60cm long.
6	7		Atlantic Wolffish		Approximately 60cm long.
7	5		Spotted Wolffish		About 4 feet long with incredible jaw strength.
8	2	H	Unidentified Wolffish		Mother caught it about 50 years ago, very tough fight.
9	5		Banded Gunnel		At gravel Pit, have grey and black stripes.
10	5		Lumpsucker		Similar to the leatherfin lump sucker but smoother, see in rock crevices.
11	5		Northern Hagfish		
12	5		Unidentified Sucker		
13	4	H	Unidentified Eel	August	Caught an eel on the mainland, long (50cm) and shiny, it became skinnier closer to the back. Let it go right away.
14	9		Unidentified Eel	Spring	Something that looked like a small eel (about 6 inches long) while catching lake trout. Pale in colour, can't remember the pattern. Caught it at Figure 7, Label 188 in the spring.

Table 23. Arctic Eelpout and Rock Grenadier Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
5	Arctic Eelpout		Also found in common loon stomachs.
1	Rock Grenadier		Find them in seal stomachs.

Figure 24. Tortoise Limpet, Arctic Moonsnail and Whelk Areas of Occurrence

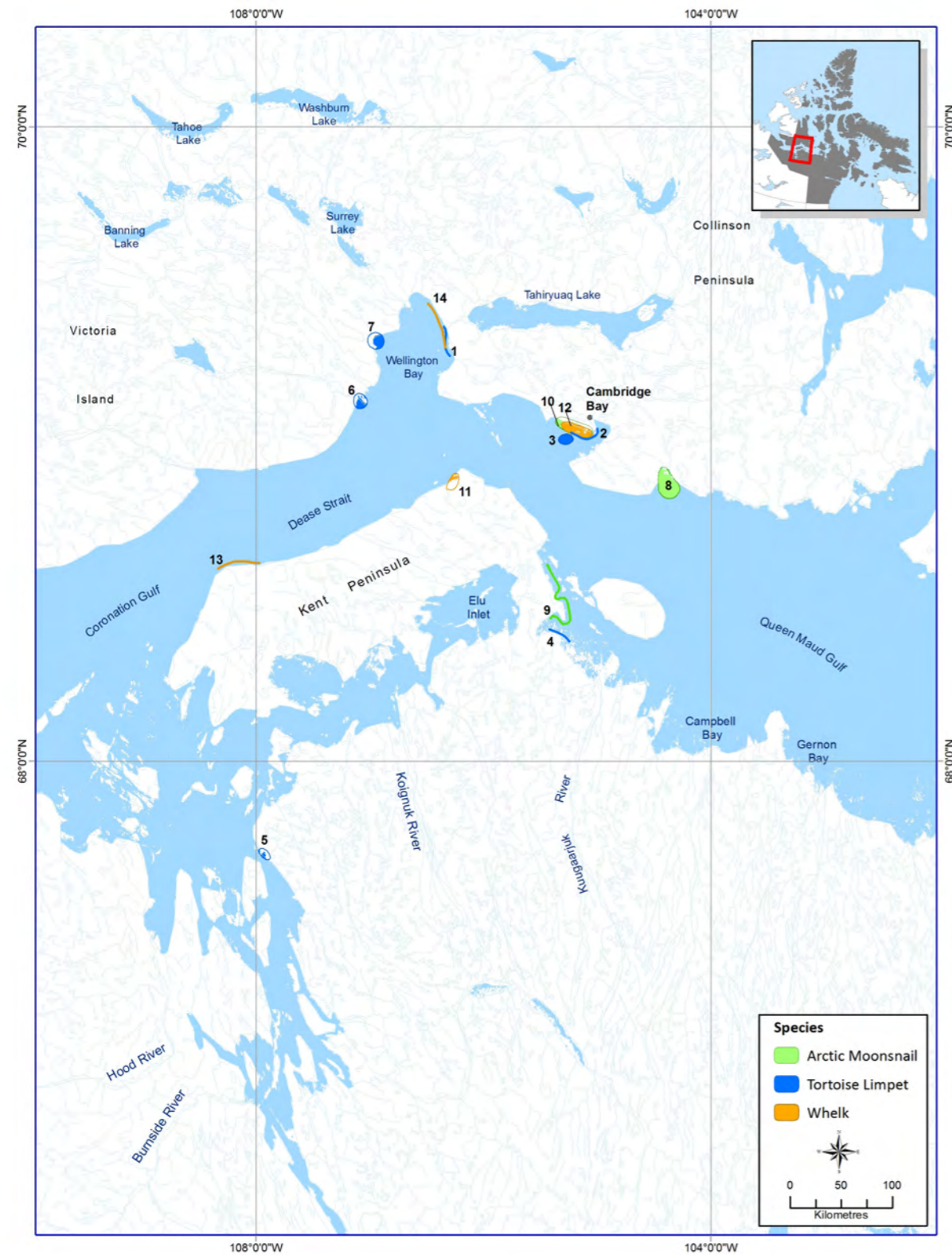


Table 24. Tortoise Limpet, Arctic Moonsnail and Whelk Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Tortoise limpet		Find these along the shore where there are lots of rocks.
2	1		Tortoise limpet	Summer	When you see them from the air it is like you see snow there are so many.
3	1		Tortoise limpet		On islands.
4	1		Tortoise limpet		
5	1		Tortoise limpet		At Bay Chimo along the shore, and around the small islands where it is shallow.
6	5		Tortoise limpet		At 30 Mile River.
7	5		Tortoise limpet		Surrey River.
8	4	H	Arctic Moonsnail		Saw them live in Anderson Bay when he was a boy.
9	4		Arctic Moonsnail		Saw shells on shore, separate line from Figure 25, Label 1.
10	10		Arctic Moonsnail		Find different sizes of shells at Gravel Pit area.
11	2		Whelk		Near their cabin.
12	3		Whelk		Shells on the ice get pulled up from king eiders at Figure 8, Label 27
13	5		Whelk		Lots of live ones.
14	9		Whelk		Along the shoreline.

Table 25. Arctic Moonsnail, Ctenophore and Whelk Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Arctic Moonsnail		Can see them anywhere along the shore, enjoy collecting them.
5	Arctic Moonsnail		Shells on the shore.
1	Ctenophore		They are small with little lights, you can see them anytime you stop moving.
1	Whelk		Can see them anywhere along the shore, enjoy collecting them.
7	Whelk		On the coast where there are cliffs during low tides.



Figure 25. Truncate Softshell Clam, Cockle and Icelandic Scallop Areas of Occurrence

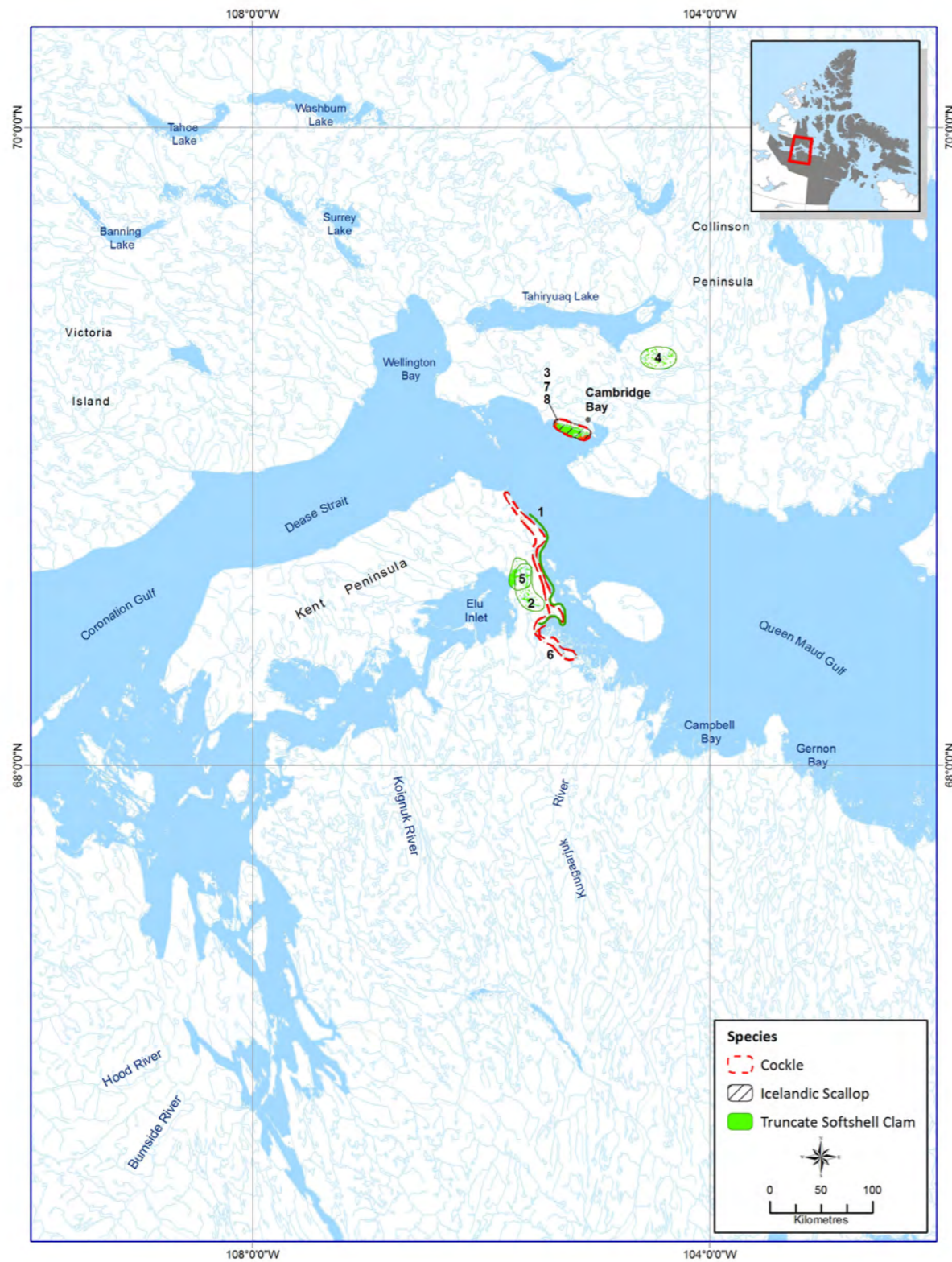


Table 26. Truncate Softshell Clam, Cockle and Icelandic Scallop Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	4		Truncate Softshell Clam		Seashell Bay, shells only. Lots of shells all along the coast.
2	4		Truncate Softshell Clam		All the lakes through this area have shells on their shores, believes they are just clams.
3	10		Truncate Softshell Clam		Shells
4	10		Truncate Softshell Clam		Shells up on the mountain.
5	2		Truncate Softshell Clam		Shells at Sea Shell Lake.
6	3		Cockle		See the shells along the shore, so many of them that they look like ice from a distance. Her husband thought he could go to shore and get fresh ice for water but it was all shells.
7	10		Cockle		Shells
8	10		Icelandic Scallop		Shells

Table 27. Truncate Softshell Clam, Cockle and Icelandic Scallop Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Cockle		See the shells all along the shore.
5	Cockle		
7	Cockle		Drifted up to shorelines, ancestors ate them, not himself.
5	Icelandic Scallop		
5	Truncate Softshell Clam		
7	Truncate Softshell Clam		Coast and mouths of rivers.

Figure 26. Blue and Northern Horse Mussel and unidentified Bivalve Areas of Occurrence

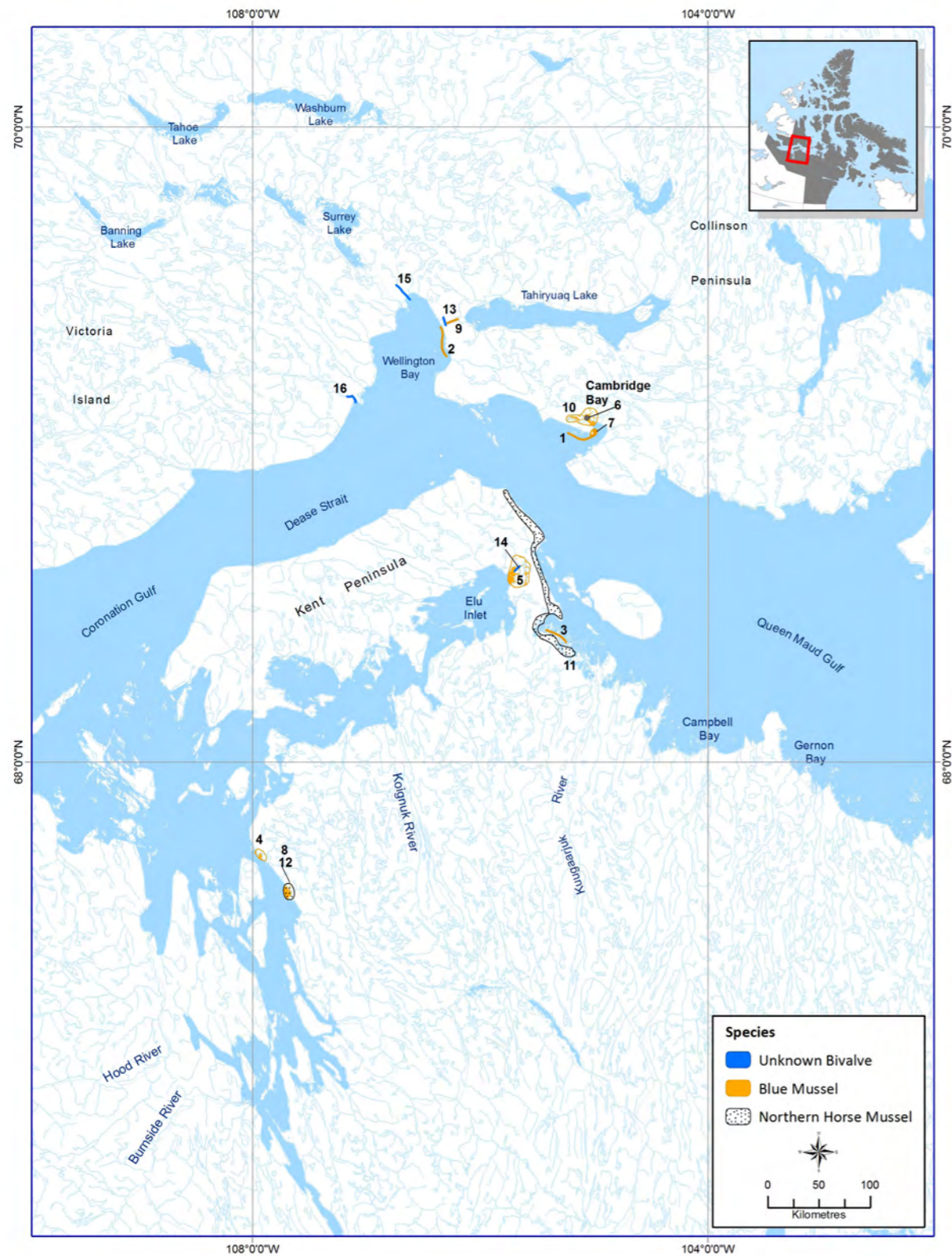


Table 28. Blue and Northern Horse Mussel and unidentified Bivalve Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Blue Mussel		Along the shore, find mussels and urchins together.
2	1		Blue Mussel		
3	1		Blue Mussel		You can see them under water where it is shallow.
4	1		Blue Mussel		At Bay Chimo along the shore, and around the small islands where it is shallow.
5	2		Blue Mussel		Shells at Sea Shell Lake.
6	4		Blue Mussel		In the west arm
7	4		Blue Mussel		Brother in law harvests them near his cabin.
8	5	A	Blue Mussel	Aug-Sep	Large mussels, pick them when the area is ice free.
9	9		Blue Mussel		Small white shells on tops of hills on one side of Ekalluk River, so many it is like walking on sand.
10	10		Blue Mussel		People started diving for them in the last few years. Used to have group in town that would dive and harvest invertebrates.
11	3		Northern Horse Mussel		See the shells along the shore, so many of them that they look like ice from a distance. Her husband thought he could go to shore and get fresh ice for water but it was all shells.
12	5	A	Northern Horse Mussel	Aug-Sep	Large mussels, pick them when the area is ice free.
13	1		Unidentified Bivalve		Hillside full of these shells at Wellington Bay, 30-40 feet up the hill covered in shells.
14	1		Unidentified Bivalve		Lots of the shells here.
15	1		Unidentified Bivalve		Surrey river, along the river in cliffs.
16	1		Unidentified Bivalve		30 Mile River, along the river in cliffs.

Table 29. Blue and Northern Horse Mussel and unidentified Bivalve Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
5	Blue Mussel		
7	Blue Mussel		Coast and mouths of rivers.
5	Northern Horse Mussel		
1	Unidentified Bivalve		White shells shaped like a butterfly when opened up. Similar in shape to mussels but have thicker shells. We also see these in lakes.



Figure 27. Deep Sea King, Hermit, Snow, and Toad Crab, Northern Shrimp and unidentified shellfish Areas of Occurrence

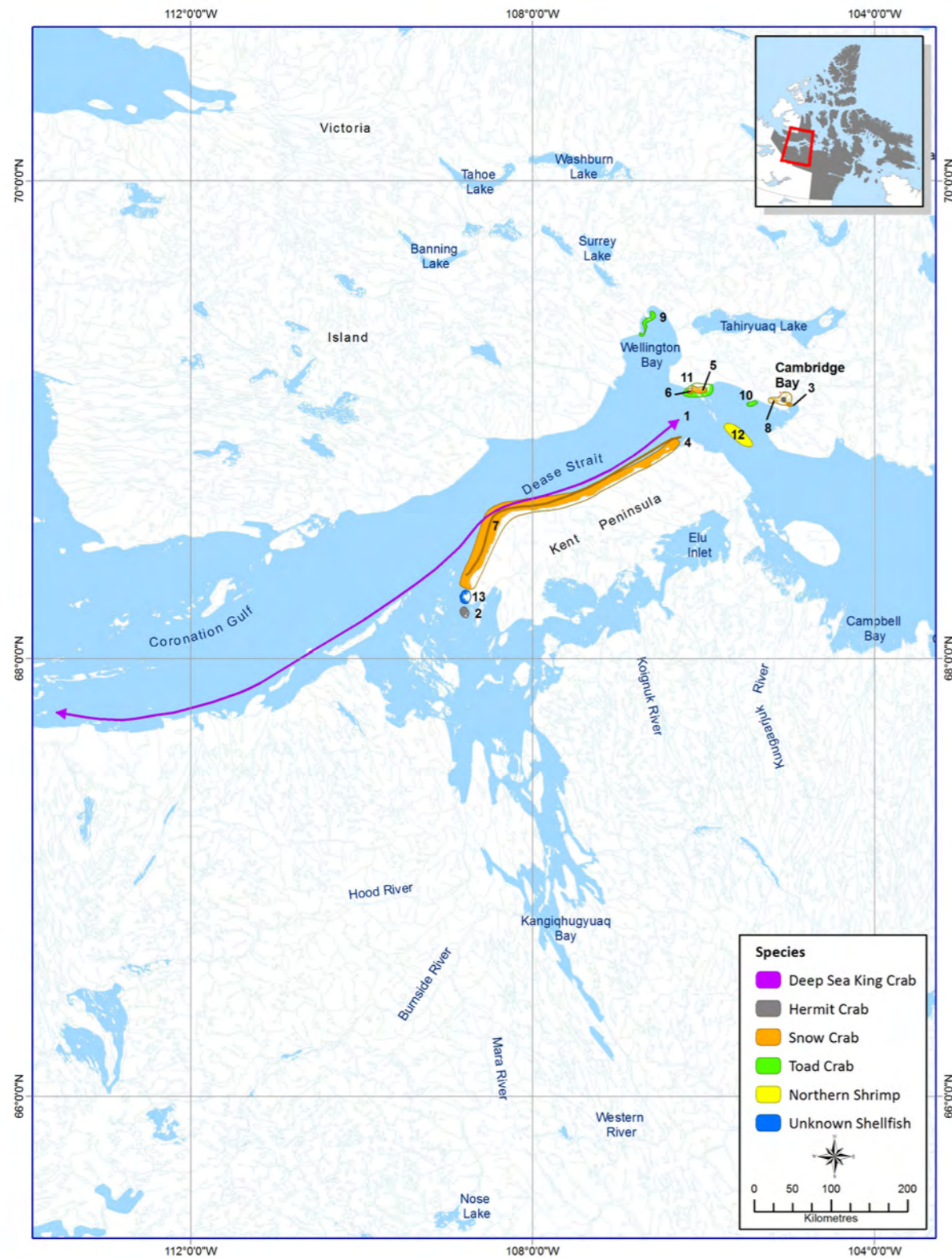


Table 30. Deep Sea King, Hermit, Snow, and Toad Crab, Northern Shrimp and unidentified shellfish Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	7		Deep Sea King Crab		See them all along the route that they travel the coast by boat.
2	5		Hermit Crab		Shells only.
3	1		Snow Crab	Spring	Caught it just below the airport while jigging.
4	5		Snow Crab		After storm along the shore.
5	5		Snow Crab		Starvation Cove.
6	5		Snow Crab		On the point after storms.
7	7		Snow Crab		Sees all along the shore.
8	10		Snow Crab		Crabs don't get too big, still like taste of crab.
9	1		Toad Crab	Fall	Caught on line while jigging.
10	1		Toad Crab	Spring	By the shoreline.
11	2		Toad Crab		
12	1		Northern Shrimp		I have never seen them but a man from Newfoundland used to catch them here in deep water.
13	5		Unidentified shellfish		Shaped like the spiral of a moonsnail but huge (20cm). White-yellow cream in colour. Sees the shells along the shore only in this area.

Figure 28. Shelled Naked Sea Butterfly, Naked Sea Butterfly and Boreal Armhook Squid Areas of Occurrence

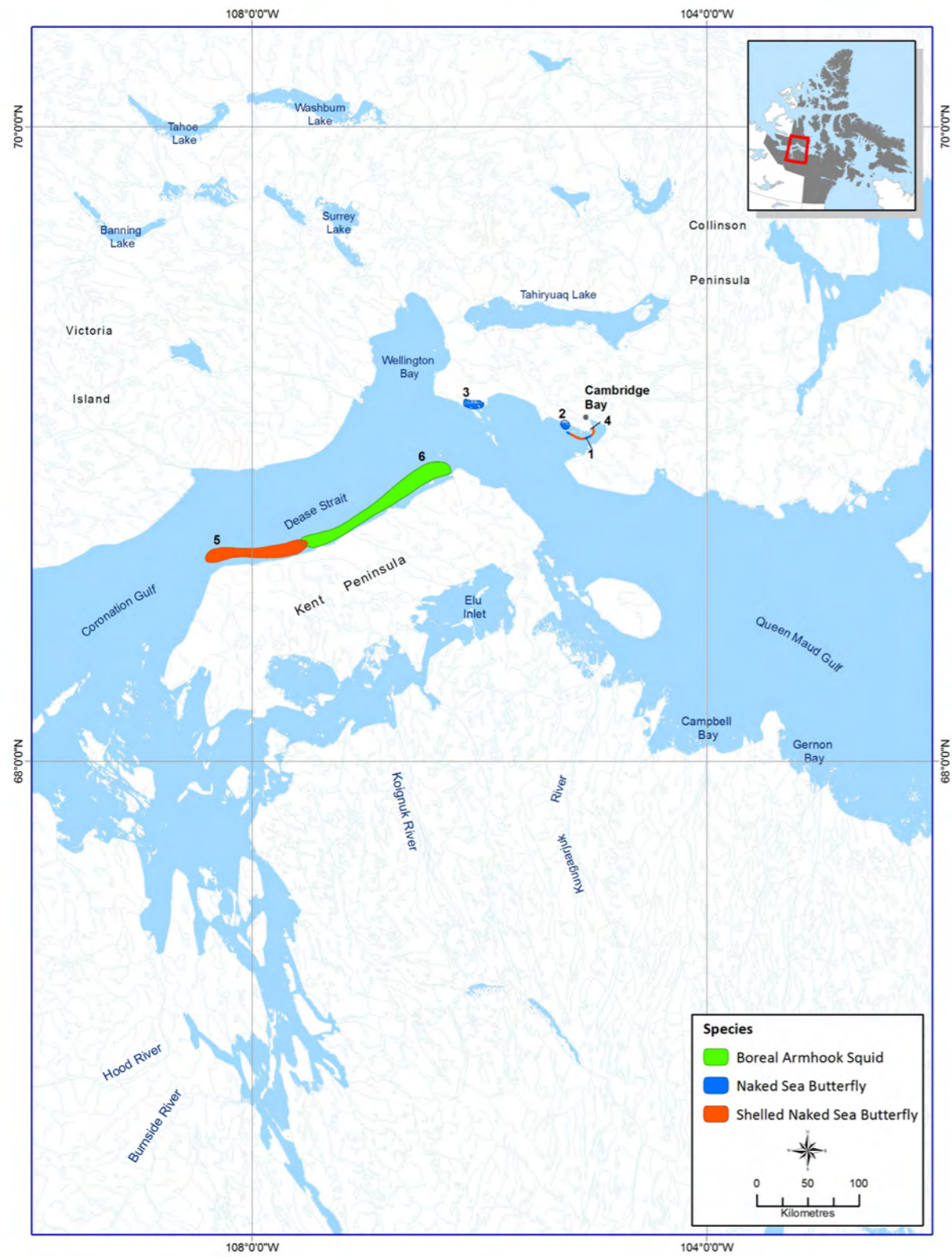


Table 31. Shelled Naked Sea Butterfly, Naked Sea Butterfly and Boreal Armhook Squid Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Naked Sea Butterfly		
2	5		Naked Sea Butterfly		Gravel pit
3	5		Naked Sea Butterfly		Starvation Cove, found a person's skeleton here.
4	1		Shelled Naked Sea Butterfly		
5	5		Shelled Naked Sea Butterfly		See lots of them when boating, they are small and black.
6	5		Boreal Armhook Squid		

Table 32. Naked Shelled Sea Butterfly and Naked Sea Butterfly Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Naked Sea Butterfly		
1	Naked Shelled Sea Butterfly		



Figure 29. Jellyfish, Polar Sea Star and Sea Urchin Areas of Occurrence

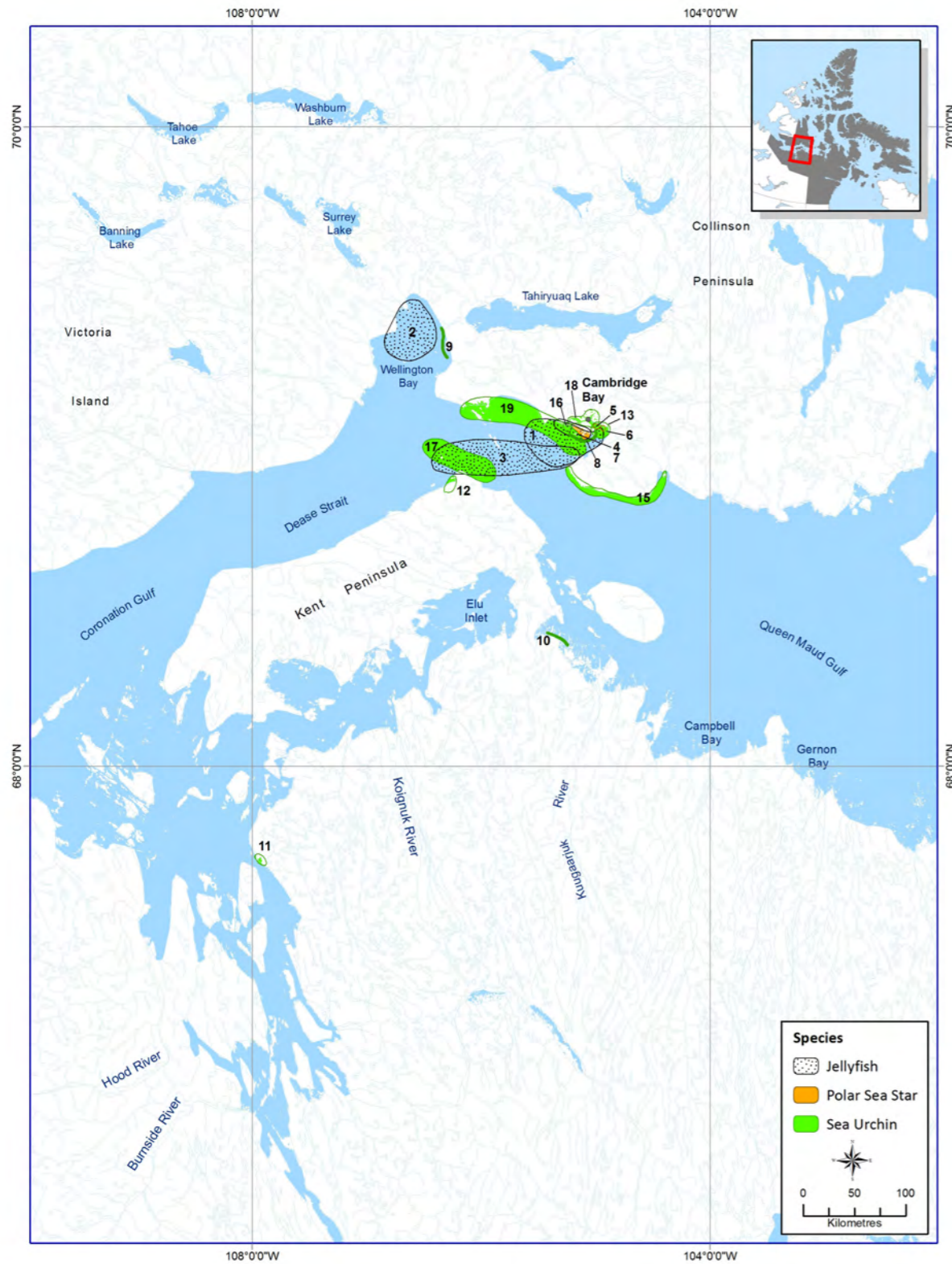


Table 33. Jellyfish, Polar Sea Star and Sea Urchin Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Jellyfish		See lots in the fish nets. Hardily catch any fish when there are lots of these around.
2	1		Jellyfish		See lots in the fish nets. Hardily catch any fish when there are lots of these around.
3	2		Jellyfish	Jul-Aug	See thousands of them here every summer.
4	10		Jellyfish		Getting more and more of them. Some of them are getting really big. Have been told not to touch them; always have been told what was safe to touch or not.
5	1		Polar sea star		Hardly see these but there is some around sometimes in the West Arm area.
6	4		Polar sea star		Some people had an underwater camera and showed him a video.
7	10		Polar sea star		See dead ones washed up.
8	1		Sea urchin		
9	1		Sea urchin		
10	1		Sea urchin		
11	1		Sea urchin		At Bay Chimo along the shore, and around the small islands where it is shallow.
12	2		Sea urchin		Near cabin, dark purple to green colour.
13	2		Sea urchin		Find them near the community, end up in fish nets.
14	3		Sea urchin		Shells sporadically in the sand along all the shorelines. Green in colour and very fragile.
15	4	A	Sea urchin		Lots from Cape Coburn to Anderson Bay, live ones under the water.
16	5	A	Sea urchin		Gravel Pit, 80-100 feet of water.
17	5		Sea urchin	Spring	See the shells when there are leads in the ice.
18	10		Sea urchin		Grandparents and father used to harvest sea urchins. Would harvest them through cracks, seen them in Gravel pit, Cambridge Bay, and along coast. Eat them raw and they taste like fish eggs.
19	10		Sea urchin		Grandparents and father used to harvest sea urchins. Would harvest them through cracks, seen them in Gravel pit, Cambridge Bay, and along coast. Eat them raw and they taste like fish eggs.

Table 34. Jellyfish, Polar Sea Star and Sea Urchin Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
1	Jellyfish		Everywhere in the ocean, see them when we are boating.
3	Jellyfish		Very common, have heard they sting. Mostly they are a yellowy - beige colour, not red.
4	Jellyfish		
5	Jellyfish		
7	Jellyfish		"hundreds and thousands of them"
1	Polar Sea Star		Probably seeing them everywhere.
5	Polar Sea Star		
5	Sea urchin		
7	Sea urchin		In the intertidal all along the shorelines, king eiders eat these.

Figure 30. Amphipod, Crayfish, Sea Spider, unidentified invertebrates and unidentified crayfish Areas of Occurrence

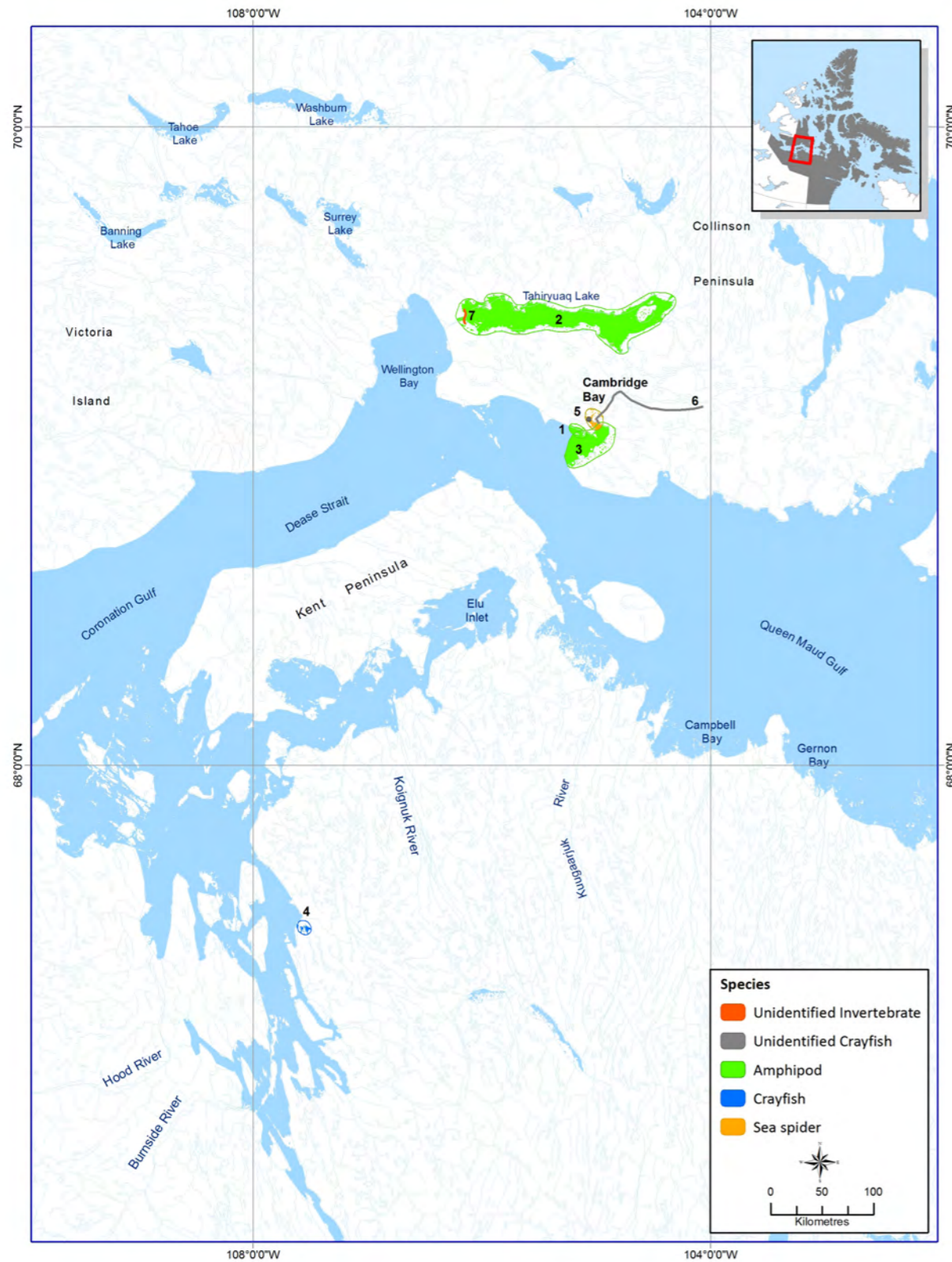


Table 35. Amphipod, Crayfish, Sea Spider, unidentified invertebrates and unidentified crayfish Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Amphipod		Gravel Pit, when ice is still on the lakes, and in char stomachs.
2	2		Amphipod		
3	3		Amphipod		In Cambridge bay along the shore near the river mouth. Would be near where she pitches her tent. We would put meat in the water and draw them in, call them "Kinguit".
4	5		Crayfish	August	Lots of eggs on their bellies in August, only place I have seen them.
5	5		Sea Spider		In Cambridge Bay while diving.
6	5		Unidentified crayfish		Invertebrate in freshwater without pincers.
7	1		Unidentified invertebrate		Right by the shore in Fergusen Lake.

Table 36. Amphipod Everywhere Data

INTERVIEW	MONTHS	COMMENTS
1		Near shore in the rocks, also see them in the cracks. They eat everything even will clean muskox heads to the bone.
2		
3		I believe the ocean is full of these.
4		
5		
9		See out in ocean anywhere along the shoreline, seals will feed on them.
10		Use them for flavouring soup and making broth.



Figure 31. Polar Bear Probability of Occurrence

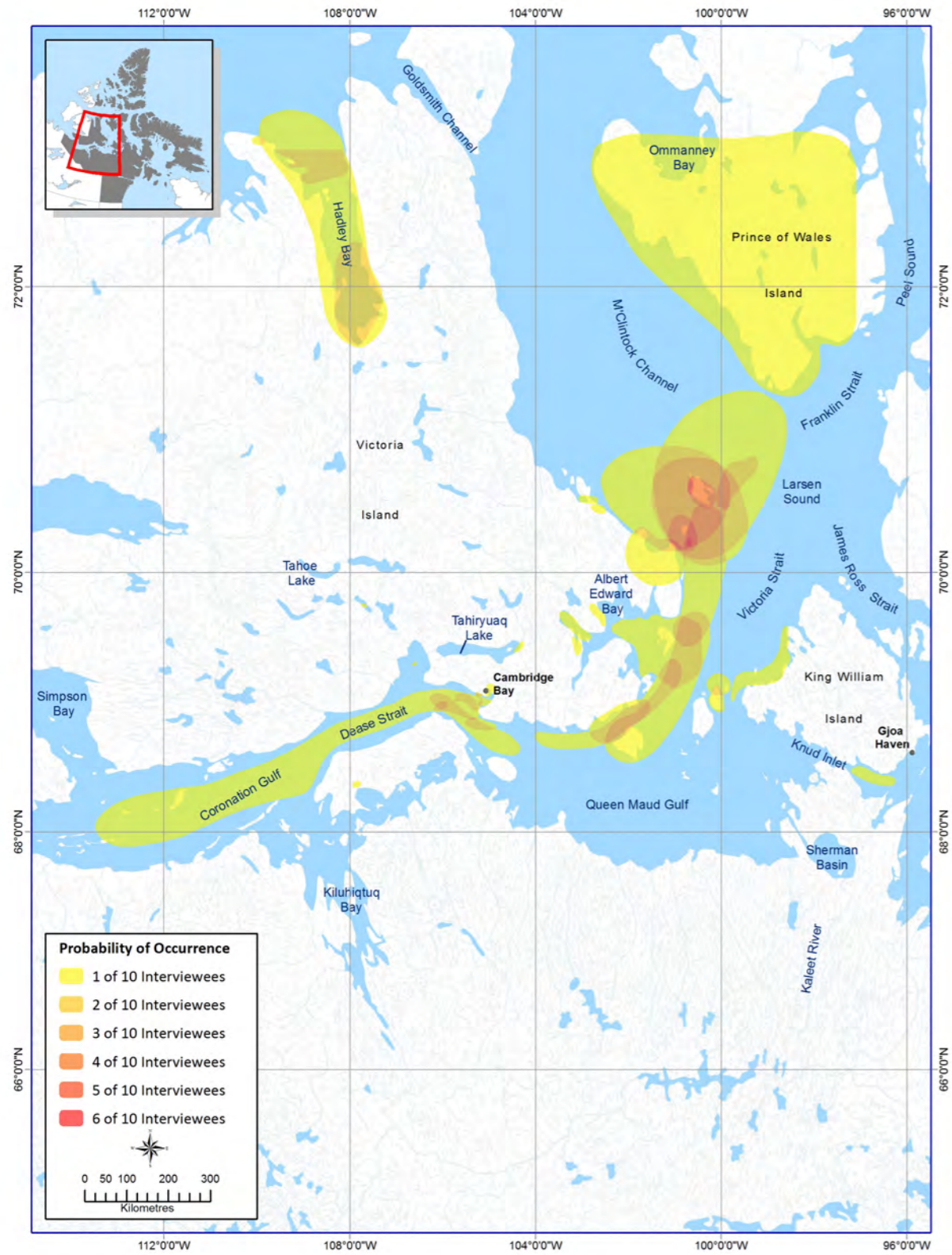


Figure 32. Polar Bear Areas of Occurrence

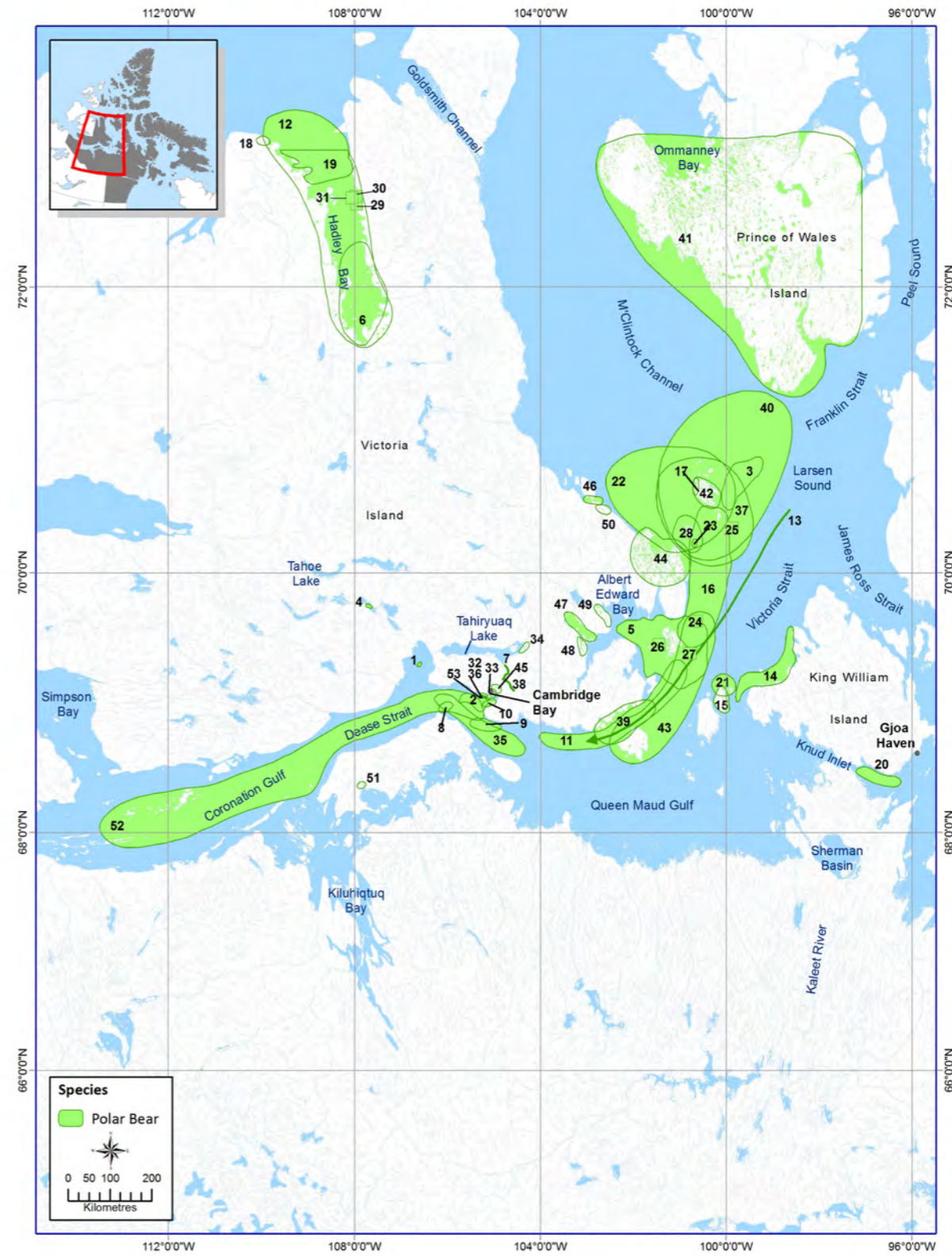


Table 37. Polar Bear Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1	H		My friend caught one around here.
2	1		Spring and Fall	See them around here almost every year.
3	1	H		Got 3 of them around this area. Used to be able to hunt as many as we wanted. Hunt in area around pressure ridges.
4	1			Saw 2 cubs and a mother on an island in this lake.
5	1	H		People used to go here to catch polar bears with dog teams.
6	1		Mar-Apr	Hadley Bay, people catch polar bears here, 2 guys are out there right now.
7	1		Fall	Were hunting caribou this fall, found fresh tracks of a polar bear running on the lake shore heading north. We followed them but never sighted the bear.
8	2	H	early May	Saw big 10 foot bear 12 years ago, some tracks last year.
9	2			
10	2			
11	2		Year-round	
12	2			Hunting area around Hadley Bay.
13	2	M		Denning area in McClintock Channel.
14	3			
15	3	S		Very high banks and cliffs on this island.
16	3		Early Spring	Would go for polar bear hunts here.
17	3	H	January	Used to go here and see dens but I don't know about now. My sons still go there and say the dens are being used in January.
18	3	H		She caught a polar bear at the top of Hadley Bay where it curves around the top of the Peninsula about 25 years ago.
19	3			A lot of polar bear on the sea ice in Hadely Bay.
20	3	A		Recently have been a lot of sightings in the ocean area by people from Gjoa Haven.
21	4	H	April	Caught a polar bear right over the Franklin ship on way to DEW Line site.
22	4	H		Same area as Figure 6, Label 103
23	5			While bear hunting here daughter caught a 10 foot bear.
24	5			A 13 foot bear was caught here, it is now in a museum in Carcross, Yukon (world record).
25	5			
26	5			
27	5			

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
28	5	A		Lots of tracks here.
29	5			10 foot 3" bear caught in Hadely Bay.
30	5			Where his hunting partners got their bears.
31	5			Where his hunting partners got their bears.
32	5			Saw a young one, about 5 feet long and very clean.
33	5			
34	5			Picked up the tracks and followed north.
35	5			Have seen them here in the last 10 years, but not before this time. Smaller bears in the south and increasing in numbers. Half the town went out to see when they first came in, now it is very normal.
36	5			Mother and cub.
37	5			
38	5			Saw bear prints here last week heading north.
39	5			
40	6			Polar bear hunting
41	6	S		Polar bears den on snow banks
42	6	S		
43	6			Sometimes a female with cubs will make an overnight den. Anywhere with thick enough snow, even on the ice.
44	6			Sometimes go and hunt them.
45	7			Sighting last year.
46	7			Where they go polar bear hunting when they want one.
47	7			Where they go polar bear hunting when they want one.
48	7	S		Have snow house in this area, free reign on the coast.
49	7	S		
50	7	S		Same with grizzlies, den in heavy snowbank areas.
51	7	S		Grizzlies den here as well.
52	7			Hunt at the pressure ridges.
53	9			People didn't used to see polar bears here, now they are showing up. My brother has a picture of a mother and cub in this area.



Figure 33. Walrus Areas of Occurrence

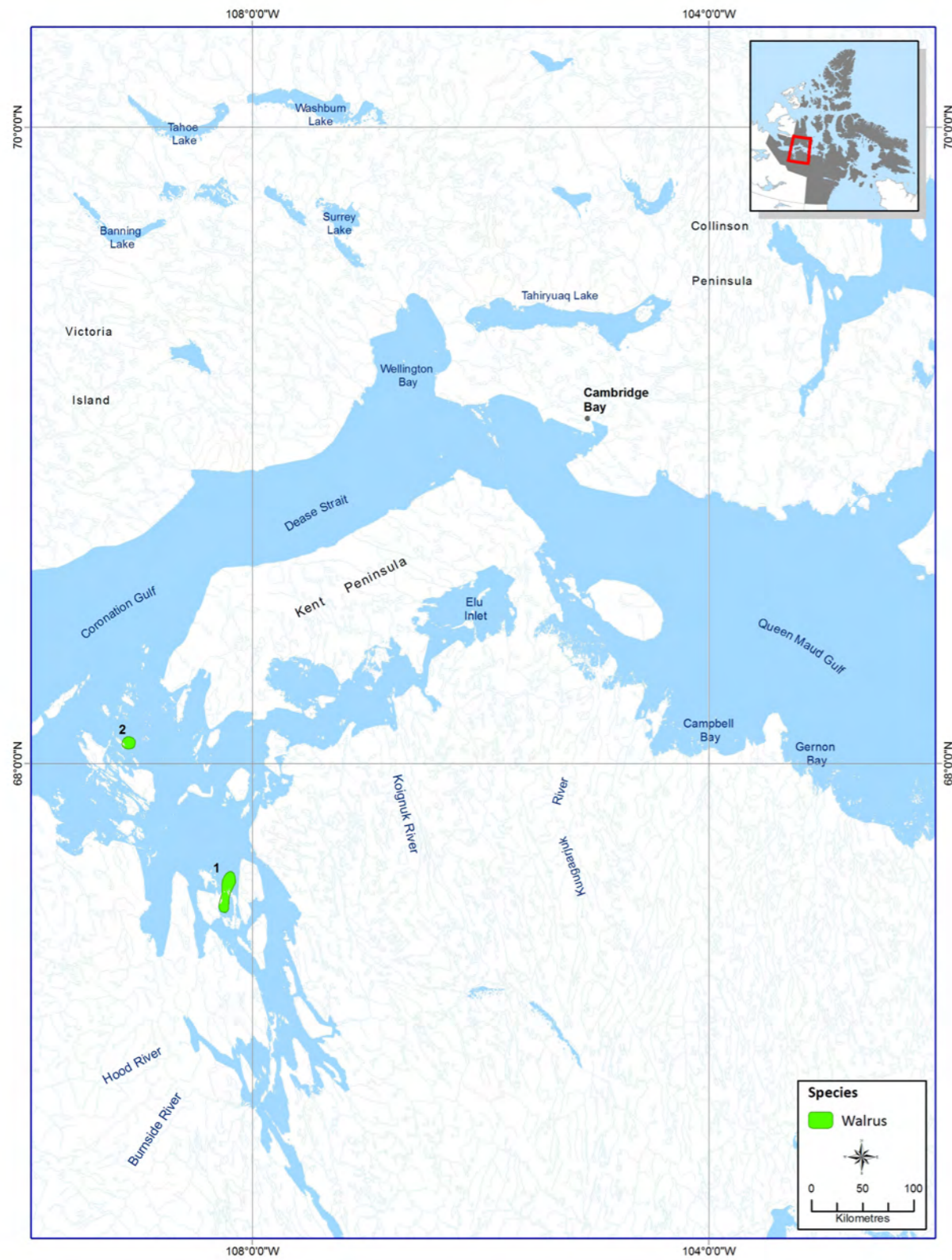


Table 38. Walrus Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1	H		One was caught in this area near Bay Chimo
2	7	H		Once in a blue moon, saw one in winter, it was young and he was travelling when he caught it.

Figure 34. Ringed Seal Probability of Occurrence

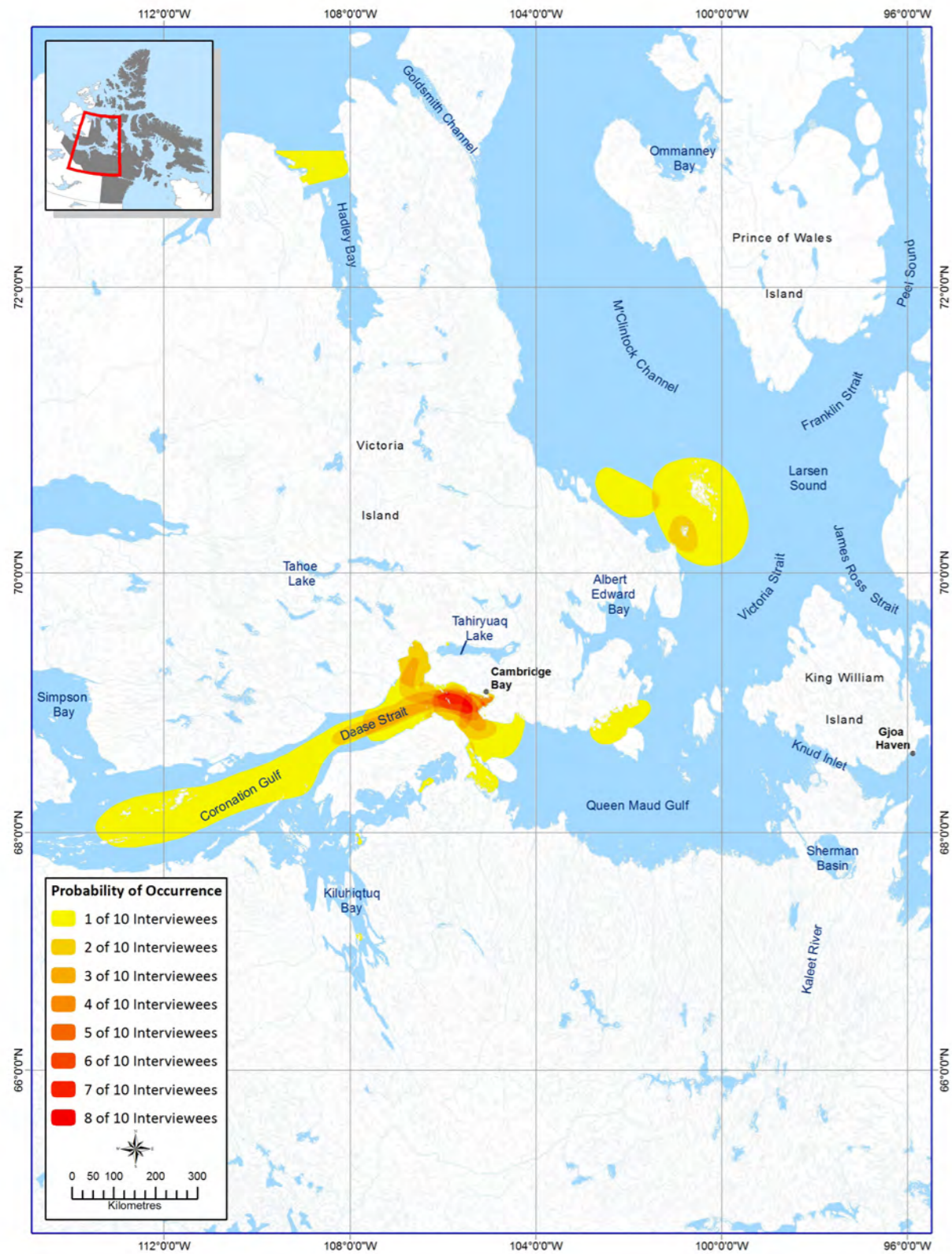


Figure 35. Ringed Seal Areas of Occurrence

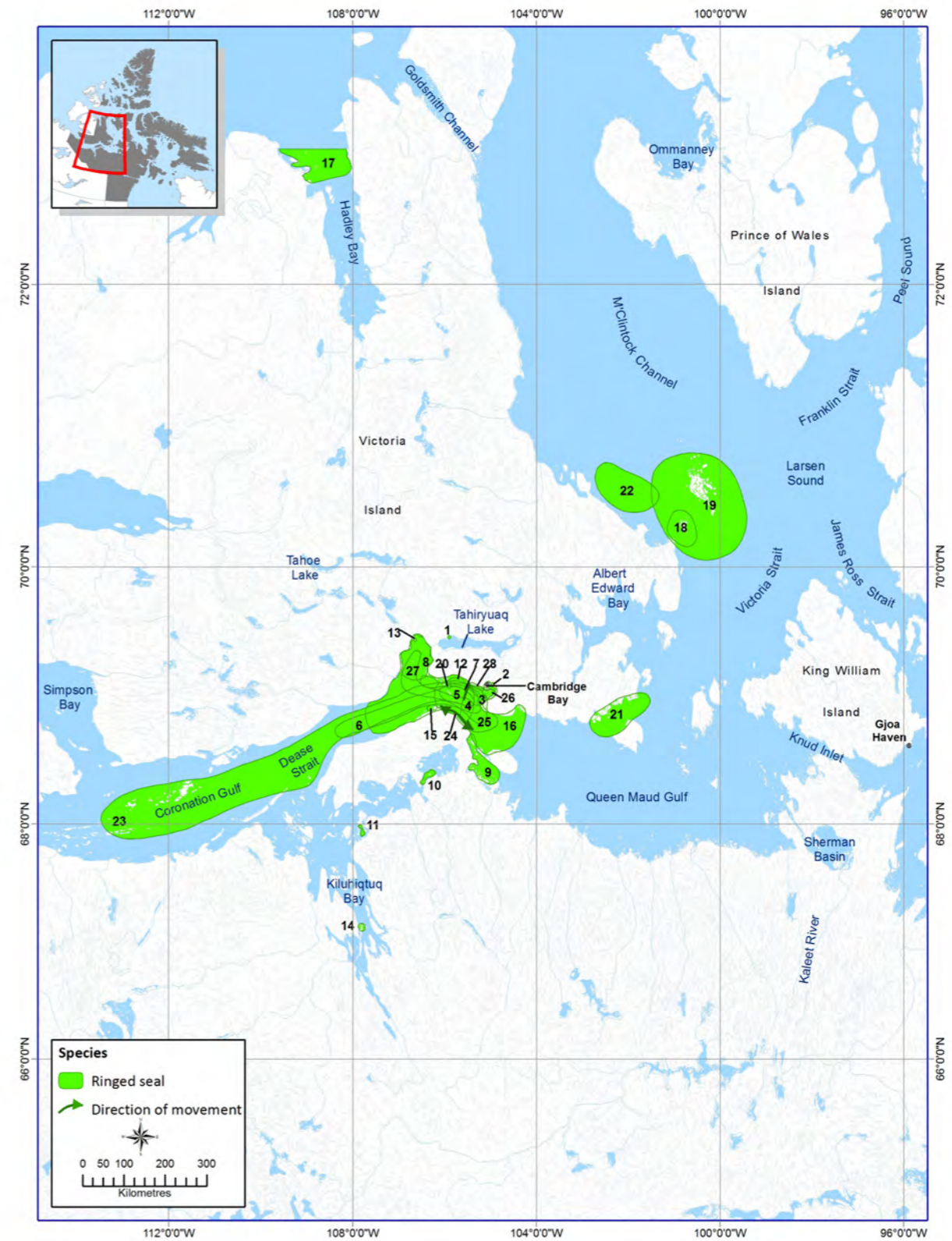




Table 39. Ringed Seal Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1	H	Summer	His grandfather caught a seal here.
2	1	H		Someone from town caught a big seal not far from Water Lake road.
3	1	S		People hunt in this area, lots of dens around here.
4	3	S		Seal denning area along the pressure ridge. They are smaller seals so can't claw onto the ice as easily, have to keep seal hole open all year.
5	7	S		Dig caves in the snow and make little igloos for the pups. Den wherever it is convenient for them, concentrate in different areas each year.
6	7	S		Sees white seal pups in this area.
7	1		Year-round	At pressure ridge
8	1		Spring	See them when going commercial fishing.
9	1			Quite a few here.
10	1			The ice never gets thick around here, in May it will be open again and have a fast current.
11	1			The ice never gets thick around here, in May it will be open again and have a fast current.
12	1			All along the coast to Cambridge Bay, can be lots of them.
13	1		Fall	Really skinny, long seal caught here when should have been fat.
14	2			
15	2			There is a lot near our cabin.
16	2			The ring seals will pup anywhere there are pressure ridges.
17	3			Lots of seal in this area so they drawn in all the polar bears.
18	5			
19	5			
20	5			
21	5			Lots of seals because of the thinner ice and abundance of food.
22	6			Seals making their own dens, could hear a hollow sound when walking. Right in front of me a polar bear came out of a den.
23	7			
24	8		Early Fall	Seal hunt along the coast, young ones stay closer to shore, but seals are all over.
25	8			

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
26	8			
27	9		Spring and Summer	See anywhere out in the open, mostly in spring and summer.
28	10			See right in Cambridge Bay. Grandmother would make hats from the skin.

Table 40. Ringed Seal Everywhere Data

INTERVIEW	MONTHS	COMMENTS
3	Spring, Summer	This area is called the Nastily Area because of all the seals. They are very plentiful in the summer and gather ant pressure ridges in the spring.
5		
7		Across the whole area, love ring seal.

Figure 36. Bearded Seal Probability of Occurrence

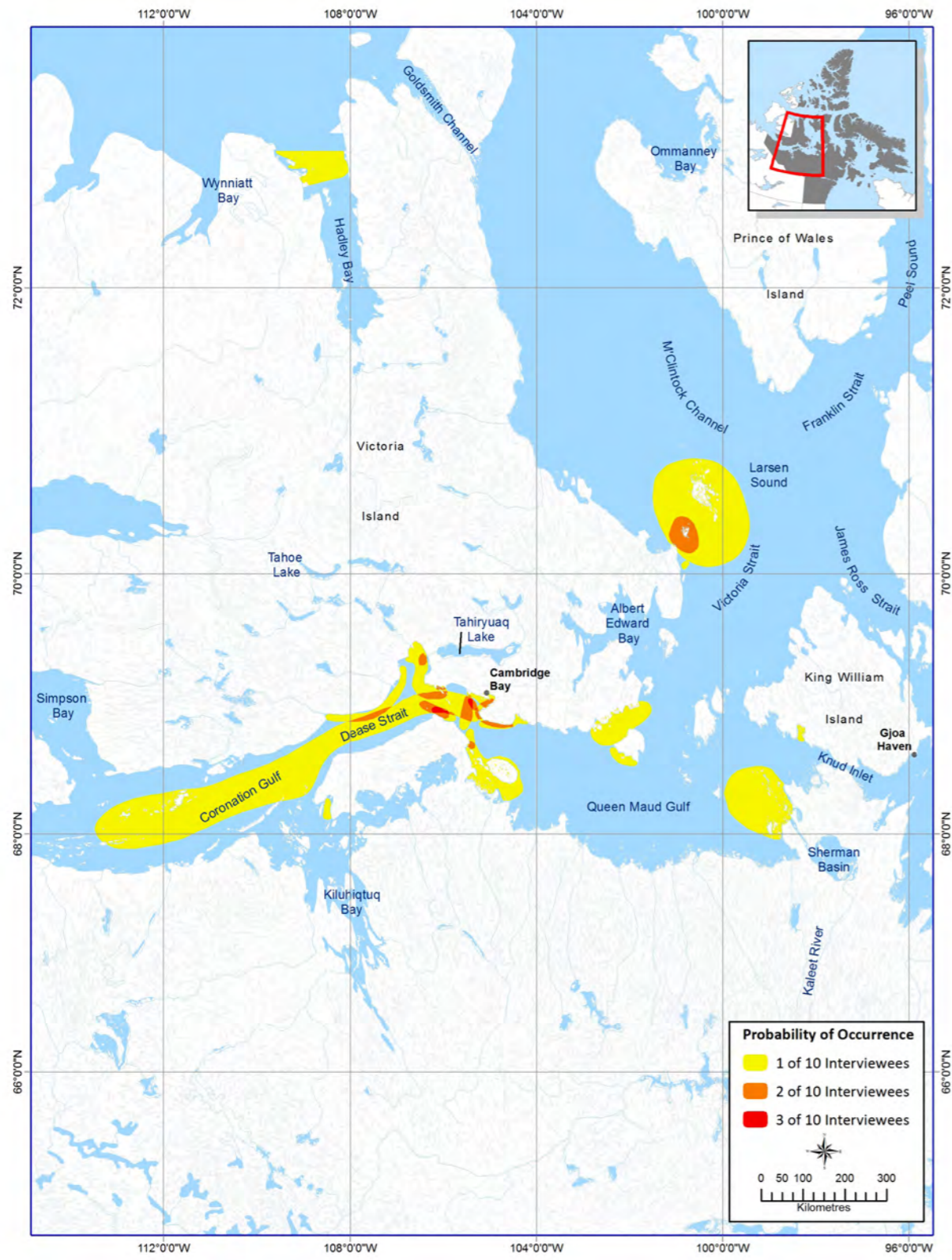


Figure 37. Bearded Seal Probability of Occurrence

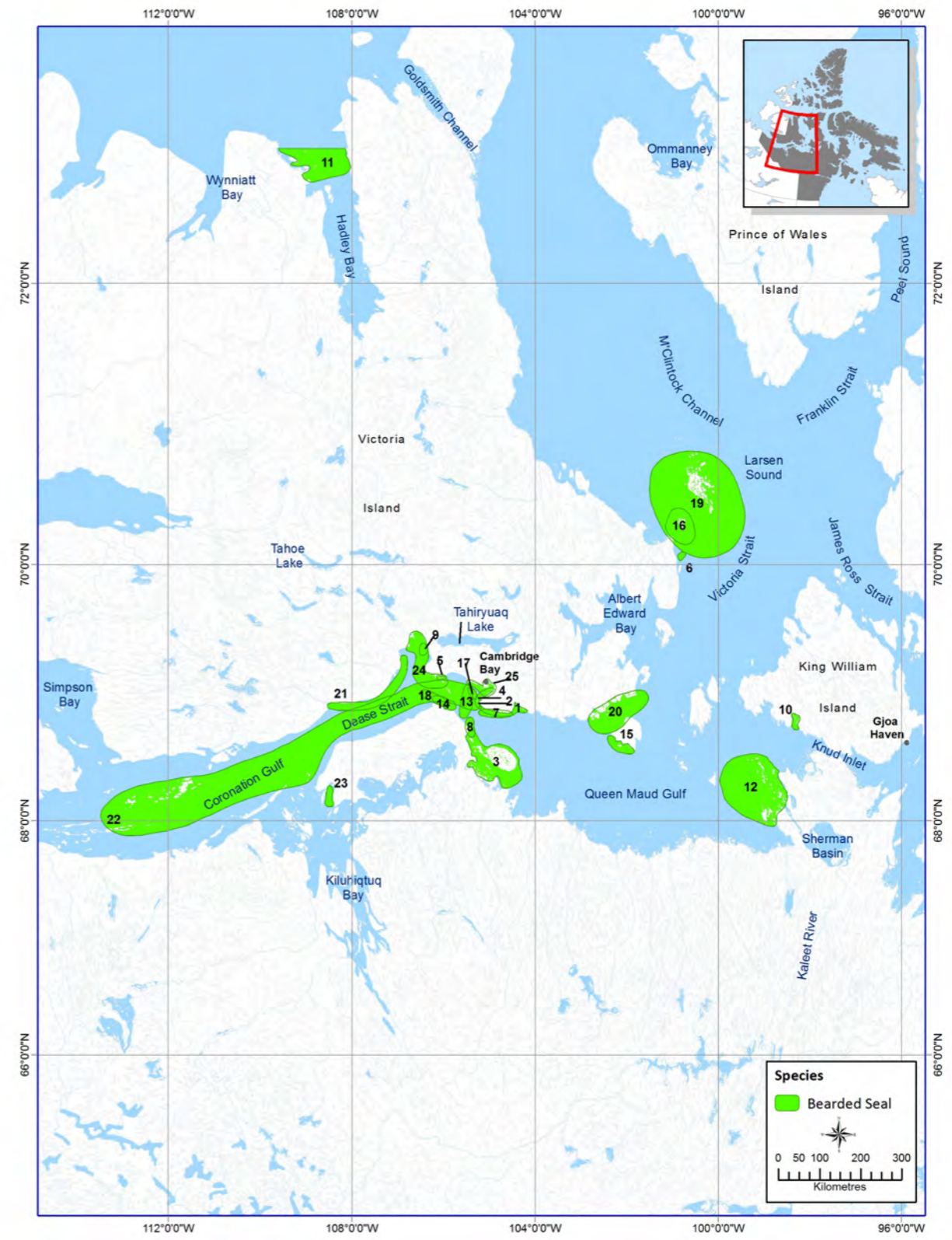




Table 41. Bearded Seal Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			
2	1			Me and Johnny had a 16 foot boat, got an ugjuk (bearded seal) here that was as long as the boat.
3	1			Lots here, including around Melbourne Islands (from outer line all the way to the mainland)
4	1			Got one on the beach here.
5	1			At Starvation Cove.
6	1	H		Saw one on the ice while going polar bear hunting when young, but didn't shoot it.
7	2			High concentrations.
8	2		May-Jun	Up to 12 feet long, hunt them in spring.
9	2			Breathing holes build up ice ridges when the seals come out and end up looking like mushrooms.
10	3	H		
11	3			Lots of seal in this area so they drew in all the polar bears.
12	3	A		Bearded seal are always in the ocean, never stationary. They are very plentiful around these islands, guarantee they will be there.
13	3	S		Can and do have pups along the ring seal, but can also make a breathing hole elsewhere for their pups because they are larger seals.
14	3			Across the bay, sometimes. Uqiuk / square flipper seal / bearded seal.
15	3			Always bearded seal around Cambridge Bay
16	5			
17	5			Caught one with a harpoon last fall, hard to pull with a skidoo.
18	5			
19	5			
20	5			Lots of seals because of the thinner ice and abundance of food.
21	5		Year-round	Eat lots of sea urchins off the muddy bottom.
22	7			
23	7	A		High concentration of bearded seal in bay because of sandy beach, some of the seals bask here.
24	9		Summer	Saw out in front of his camp along the shore of the bay.
25	10		Apr-Summer	Bearded seals coming more frequently, see them basking at Gravel Pit.

Figure 38. Harp Seal and unidentified seal Areas of Occurrence

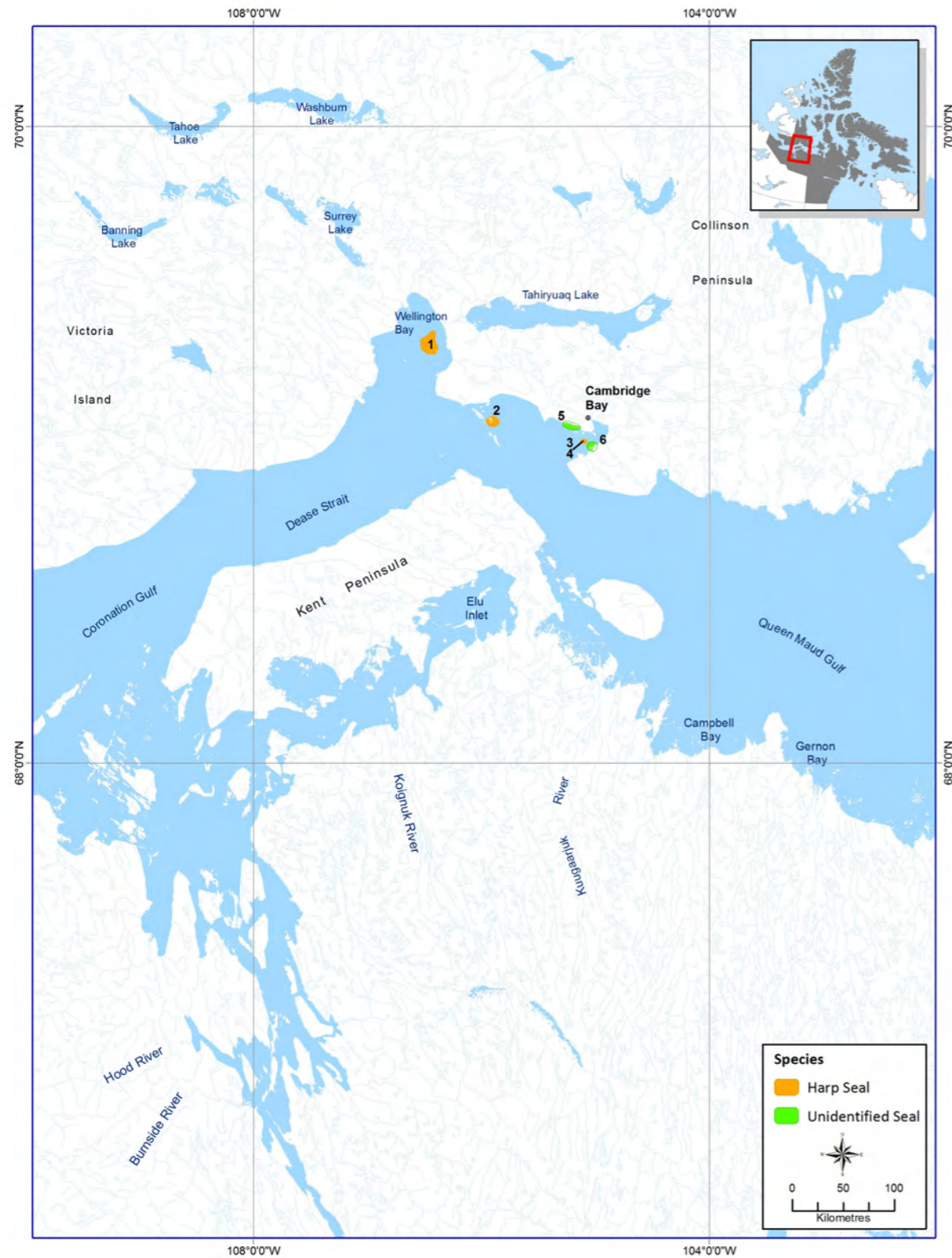


Table 42. Harp Seal and unidentified seal Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1	H	Harp Seal		Dad and granddad use to have seal hooks all over here, dad got one not far from Ekalluktuuq (Wellington Bay).
2	5		Harp Seal		Sharks showed up last year where the seals were feeding.
3	5		Harp Seal		
4	5		Harp Seal	Spring	One seal about 6 miles from town.
5	5		Unidentified Seal	August	Saw a dark grey seal that was the size of a bearded seal but had an elongated snout like the leopard seals he sees on TV. Swimming along the coast past break line.
6	5		Unidentified Seal		Two animals that looked like they were joined at the head. Both had flippers, and were white. One part looked like a seal. Was swimming on the surface.



Figure 39. Beluga Whale Probability of Occurrence

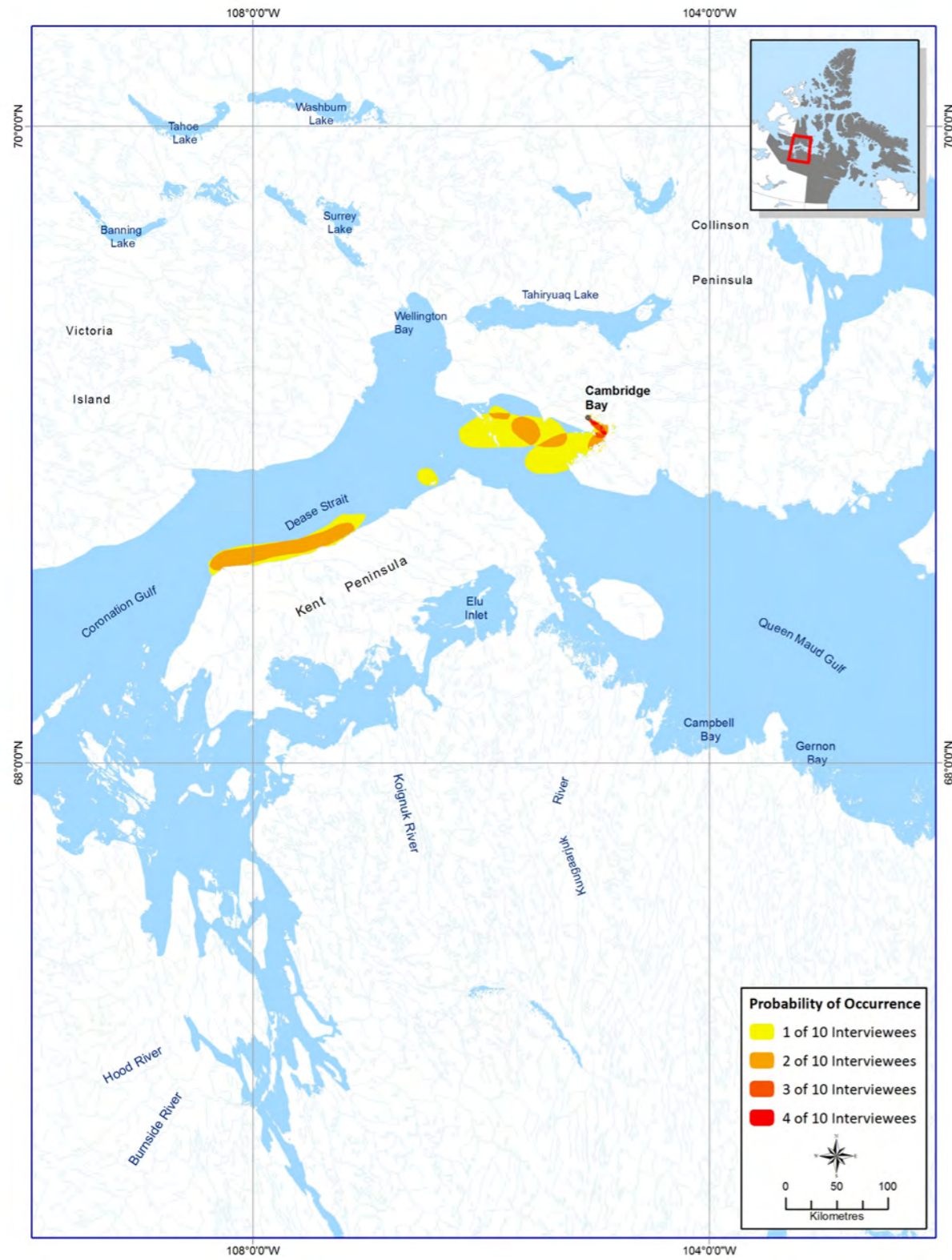


Figure 40. Beluga Whale Areas of Occurrence

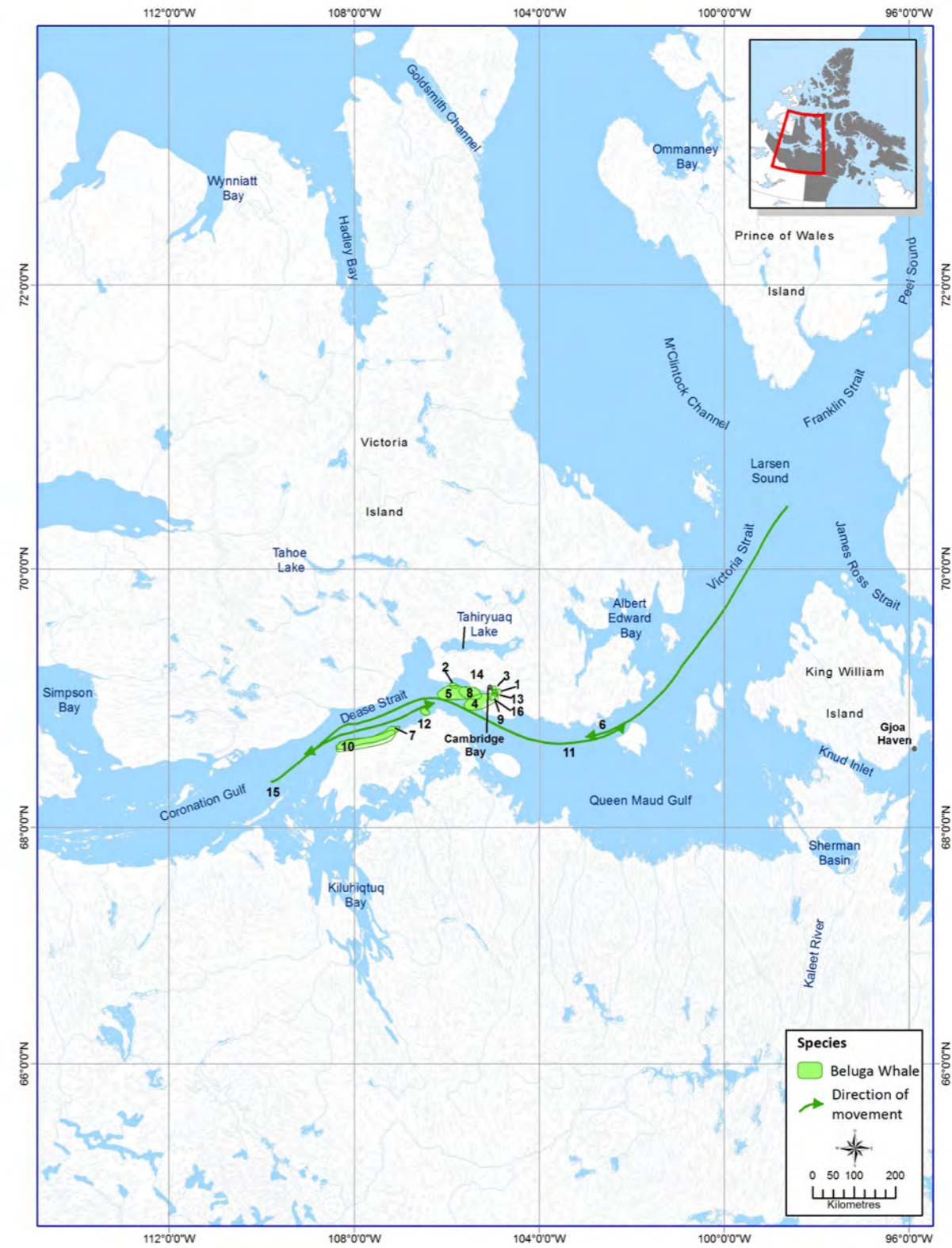


Table 43. Beluga Whale Areas of Occurrence

MAP #	INTER-VIEW	CODE	MONTHS	COMMENTS
1	1			Came right into the bay, some people got some. It is fun watching them. They have been coming more often in the past 10 years but still not every year. Figures the Beluga are coming from the west.
2	1			His sons saw some while on their way to Wellington Bay to commercial fish.
3	2			Saw a baby in shallow water.
4	2			Regular sightings every year for the last 5 years.
5	2			Regular sightings every year for the last 5 years.
6	2	M		Coming from McClintock Channel.
7	2			Couple years ago, always came in when camping at Figure 5, Label 10.
8	3			First year they arrived, saw them close to shore near her camp.
9	3			
10	5		July	Beluga use this area to slough their skin off on the sand in July.
11	5	M		Moving from west to east.
12	5		Summer	Saw three last summer.
13	7			5 people caught beluga and sighted Orcas.
14	9			Belugas came right into the bay 2 years ago, and sighted again last year. At least 50 in a season.
15	9	M		Belugas came from the west. The orca were driving the beluga into the bay as far as the bridge.
16	10			Uluhaktuq - harvested beluga all the time, also Kugluktuk. Last few years saw 1-2 beluga near the point in Cambridge Bay but no one harvested them.



Figure 41. Narwhal Whale Probability of Occurrence

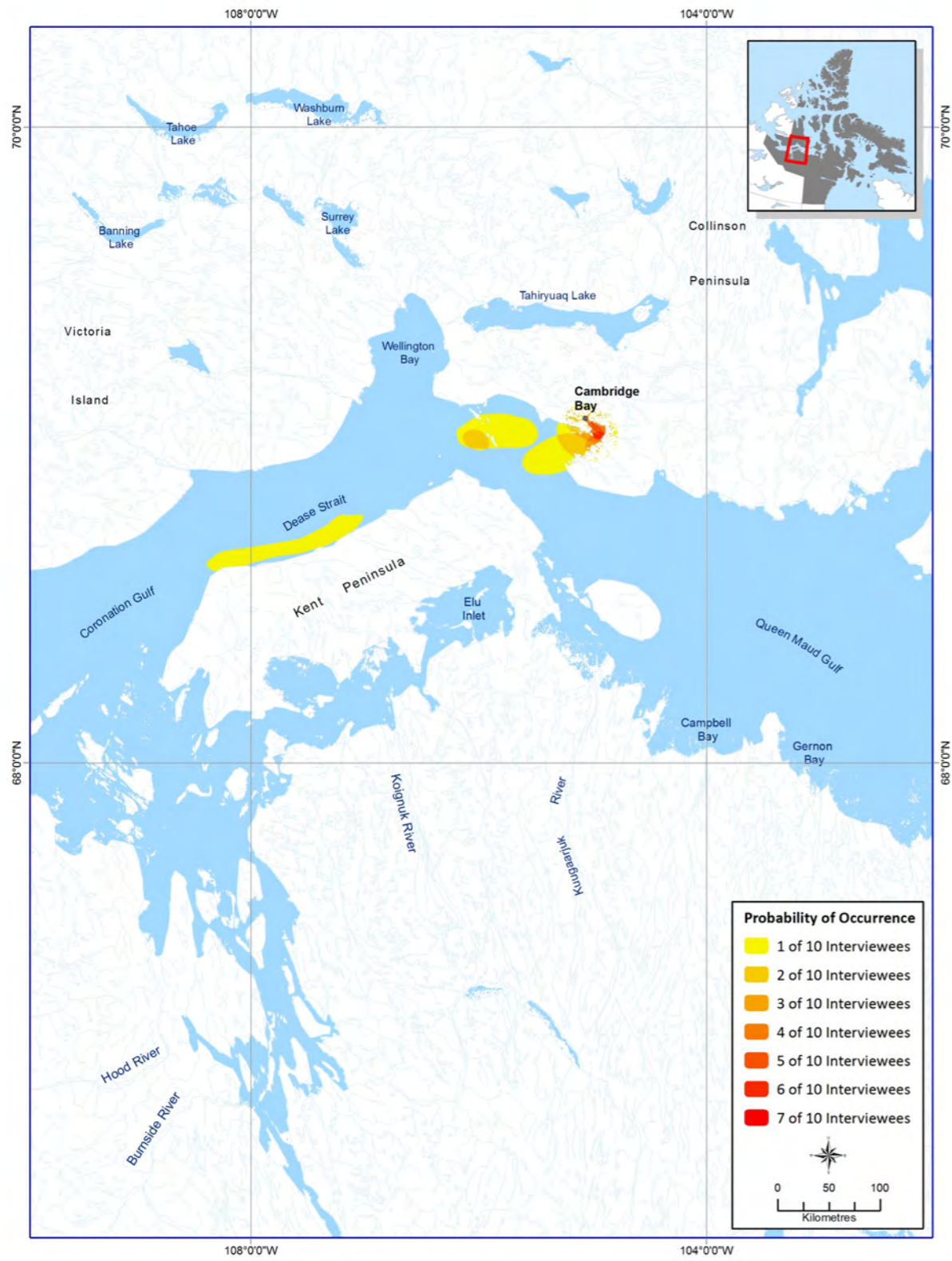


Figure 42. Narwhal Whale Areas of Occurrence

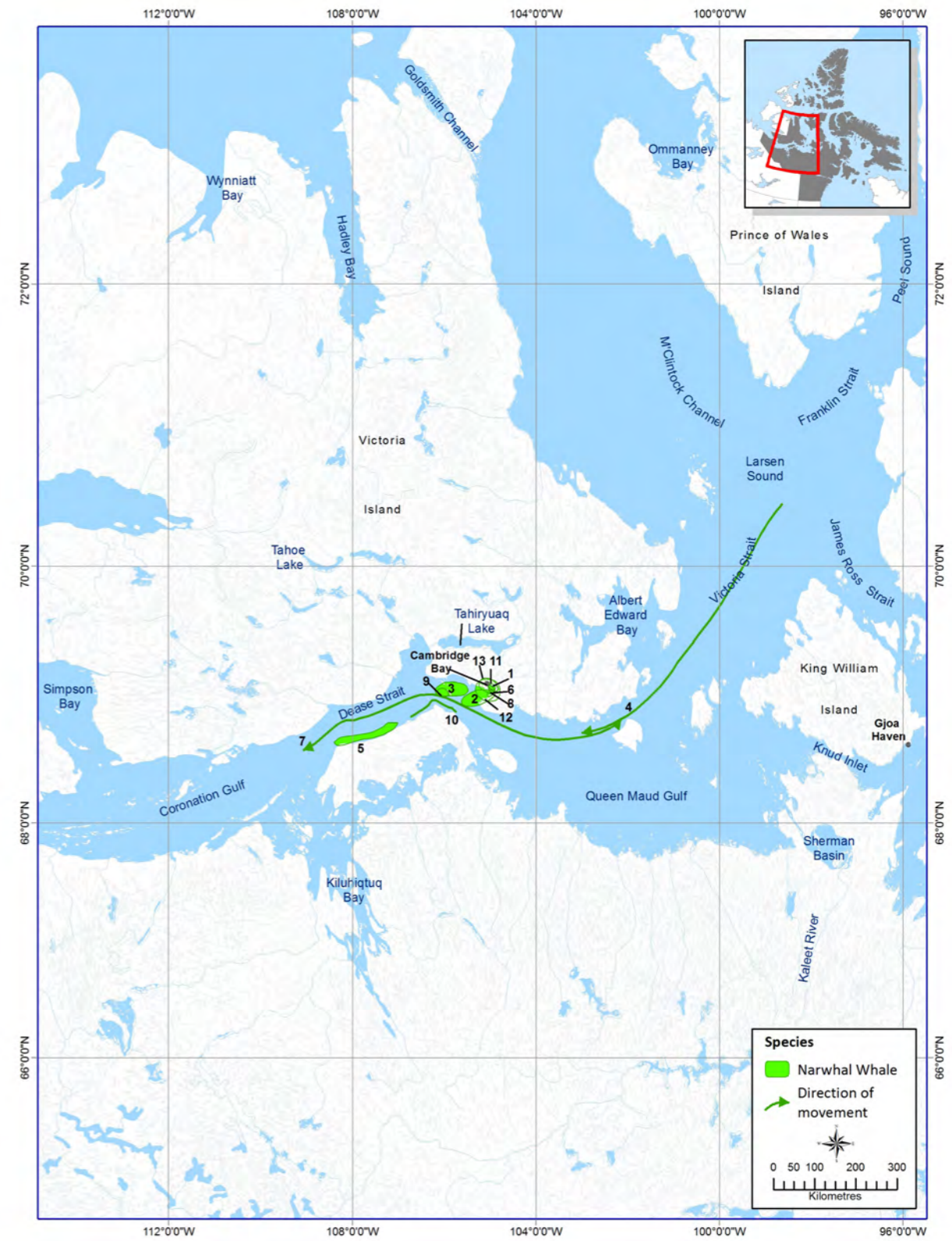


Table 44. Narwhal Whale Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			
2	2			Maybe coming from McClintock Channel.
3	2			Maybe coming from McClintock Channel.
4	2	M		Coming from McClintock Channel.
5	2			Couple years ago, always came in when camping at Figure 5, Label 10.
6	3			She only saw one with her grandson that was caught 2 years ago. It was small, grey and spotted with a tusk.
7	5	M		Moving from west to east.
8	5			A big pod came in when it was really calm. There was a couple hundred of them and the Orca were feeding on them.
9	5		Summer	Moving around in small groups 5, 8, 12.
10	5			Every time we saw them it was rough water.
11	7			At the mouth of the river.
12	9			Only spot they have been sighted. The West arm is the deepest spot in the area. An old army plane sunk to the bottom there before he was born. Narwhals have been seen for the last 2 years.
13	10		Summer	Only coming in the last few summers, unheard of before that. They are harvested around here. They arrive in bigger pods than the beluga. They have been followed by Orcas.



Figure 43. Killer Whale Probability of Occurrence

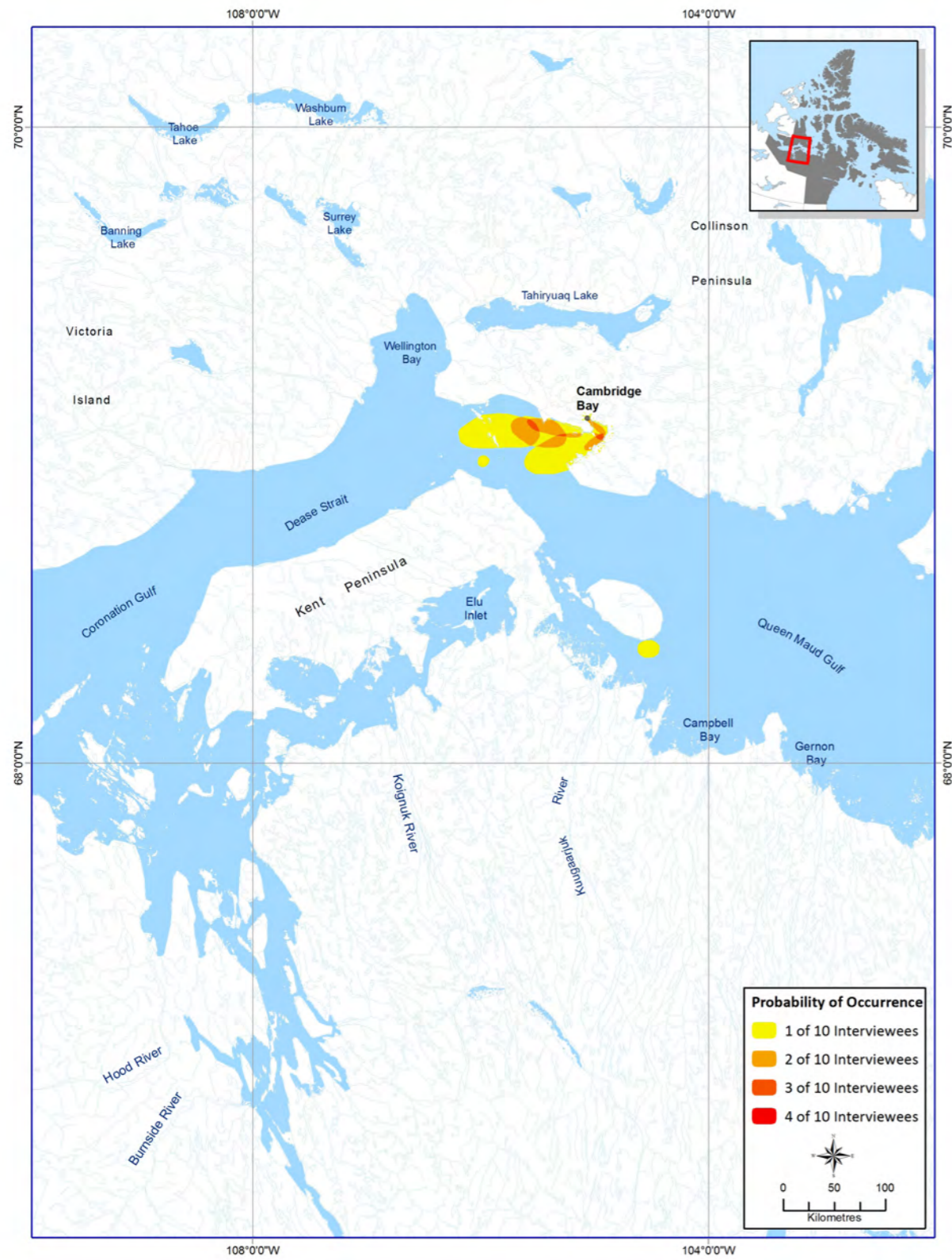


Figure 44. Killer Whale Areas of Occurrence

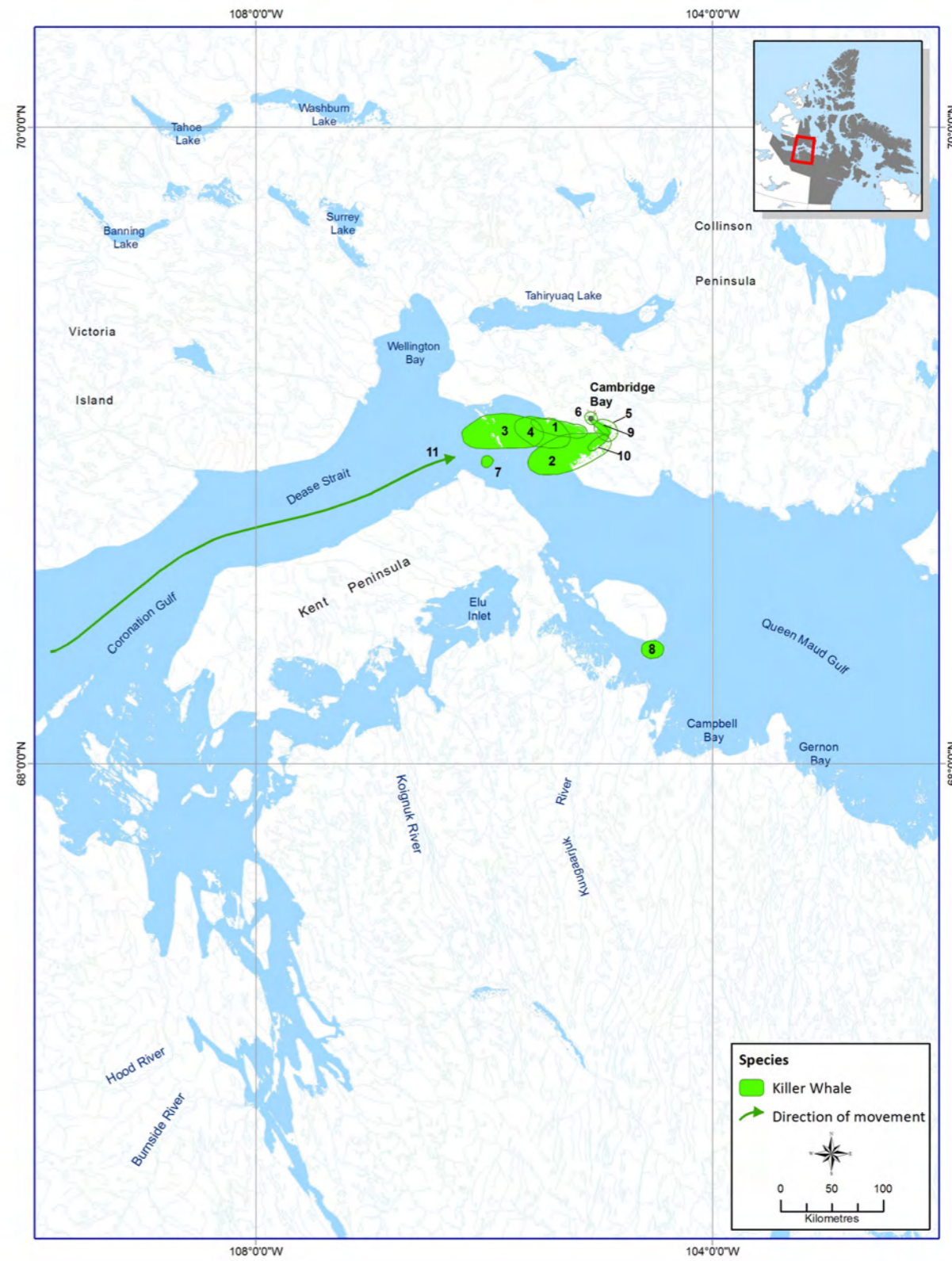


Table 45. Killer Whale Areas of Occurrence

MAP #	INTERVIEW	CODE	MONTHS	COMMENTS
1	1			Other people saw them when the narwhal came right into town.
2	2			Spotted in the bay. They have been arriving for the past 5 years.
3	2		Summer	Seen out in the ocean with the beluga and narwhal.
4	3			Followed the beluga at Figure 40, Label 8.
5	5			One big male keeping the whales in.
6	5			West Arm area, was feeding on a dead whale that sank.
7	5			Saw two of them feeding on a beluga they killed.
8	5		Summer	Two of them were spotted, have been coming in every year since the narwhal started arriving.
9	7			Two years in a row, go near river system with beluga, follow beluga around.
10	9			2-3 of them. Orcas stayed out in the deeper water.
11	9			Orcas were driving in the beluga.



Figure 45. Bowhead Whale and unidentified whale Areas of Occurrence

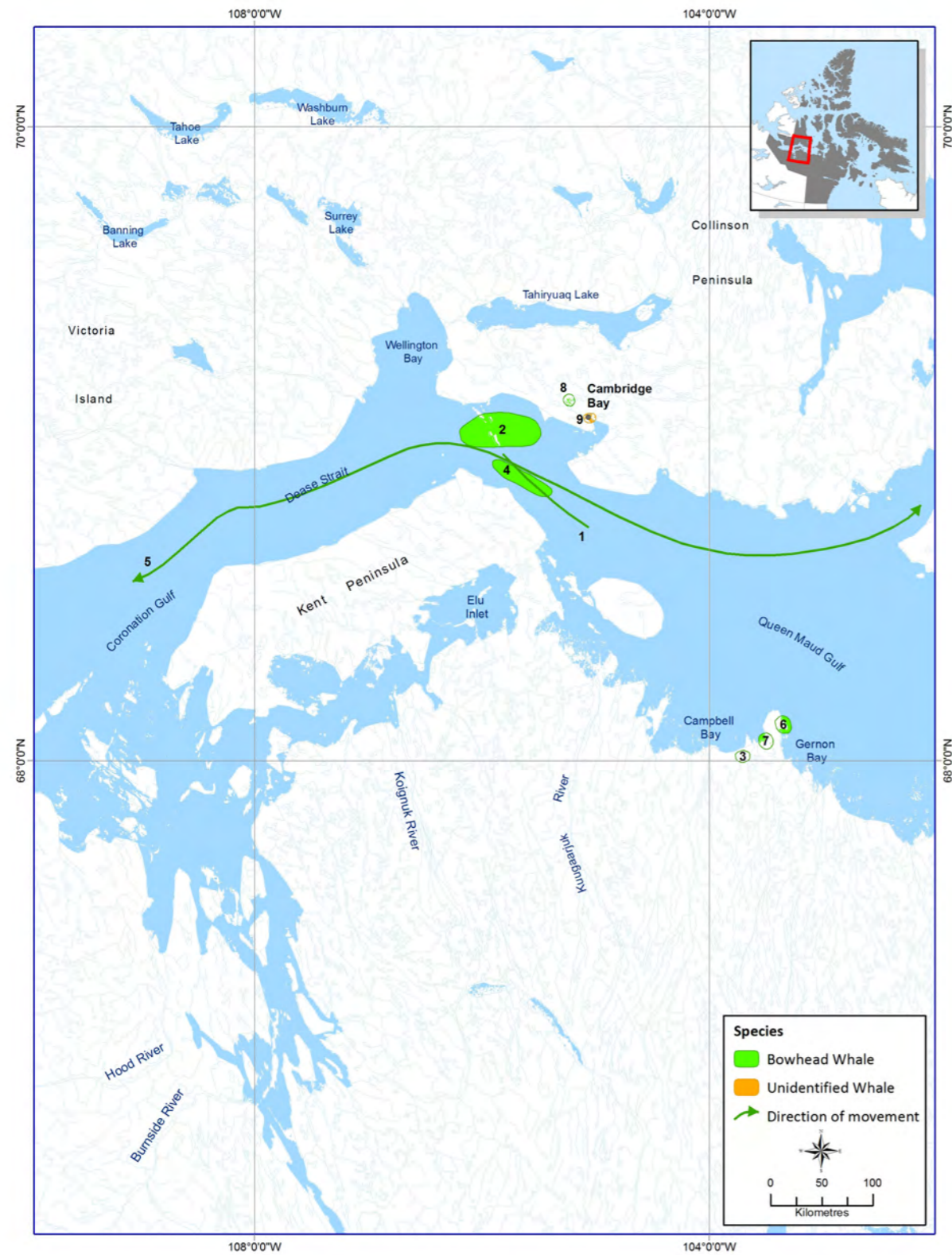


Table 46. Bowhead Whale and unidentified whale Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Bowhead		Get them once in a while.
2	2		Bowhead	Summer	Just one spotted.
3	2	H	Bowhead		Old Bowhead whale carcass here, bones are bleached. Made carvings out of the ribs and one is in the Cambridge Bay NTI office, and another is at the legislature in Iqaluit.
4	5		Bowhead		Saw first bowhead about 5 years ago, it was loud and spraying.
5	5	M	Bowhead		Moving from east to west
6	5	H	Bowhead		Whale corpses/skeletons up on dry land. The bones no longer smell. Really large whales. People take the bones for carvings.
7	5	H	Bowhead		Whale corpses/skeletons up on dry land. The bones no longer smell. Really large whales. People take the bones for carvings.
8	5	H	Bowhead		Whale corpses/skeletons up on dry land. The bones no longer smell. Really large whales. People take the bones for carvings.
9	5		Unidentified whale		Twice the size of a narwhal and stay down longer, Grey in colour, have seen two of them a few times. Both the last 2 years.

Figure 46. Edible, Hollow Stemmed and unidentified kelp and Sea Lungwort Areas of Occurrence

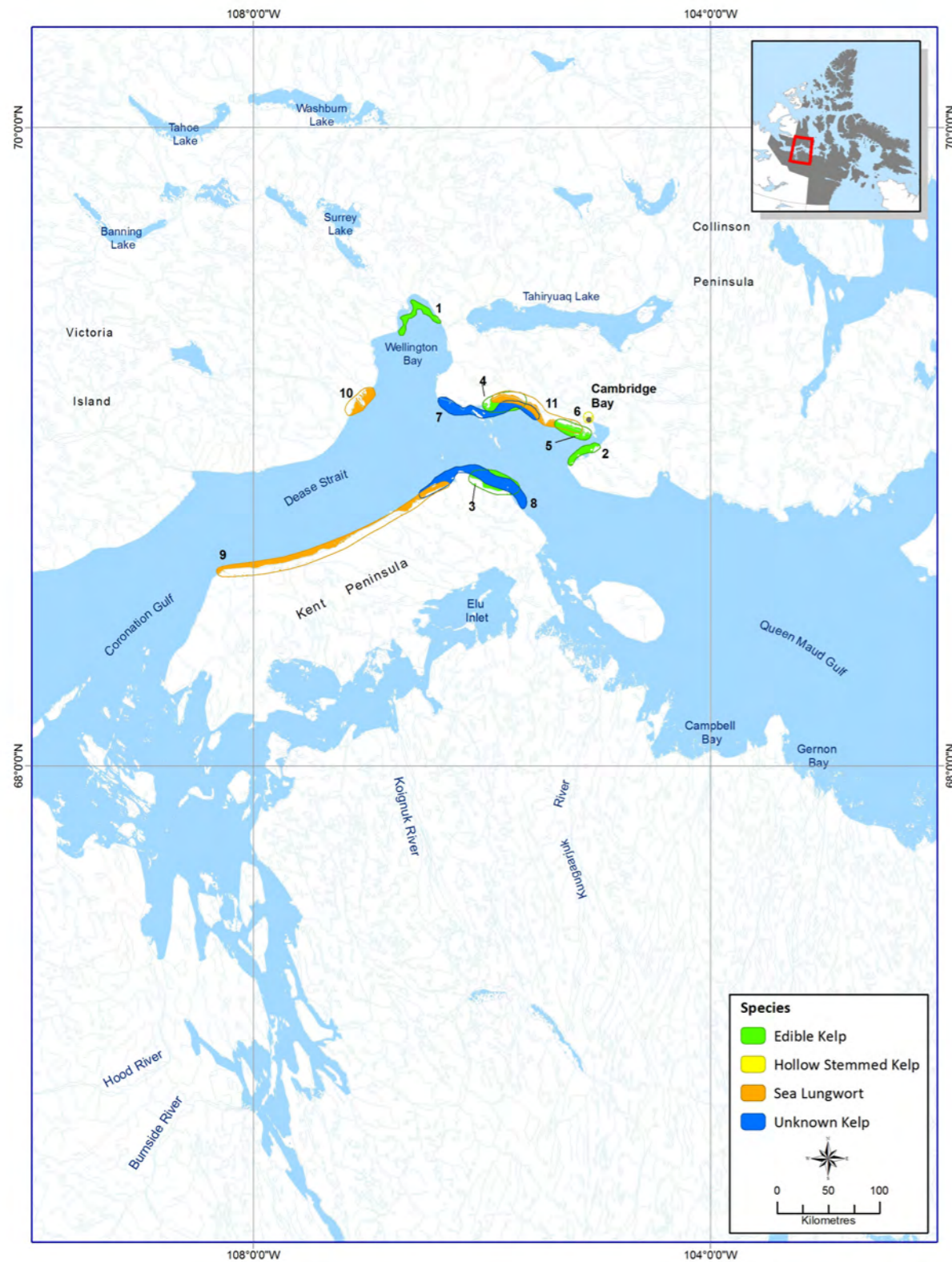


Table 47. Edible, Hollow Stemmed and unidentified kelp and Sea Lungwort Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	1		Edible Kelp		
2	1		Edible Kelp		Lots along the shore.
3	2		Edible Kelp		People don't eat them around here, see them on rocky shoreline.
4	2		Edible Kelp		People don't eat them around here, see them on rocky shoreline.
5	10		Edible Kelp		Lots at Gravel Pit
6	5		Hollow Stemmed Kelp		More of them in the river area. Look like two balls suspended.
7	3		Unidentified kelp		Aqayaq refers to all kelp types. Ours look like hides with a design like bladder wrack and purple and brown/orange colour. It grows in more still water where the tides and currents aren't so strong, sandy/gravelly areas.
8	3		Unidentified kelp		At a still water pond up from her camp. The pond turns green in the winter. The ground is very damp.
9	5		Sea Lungwort		
10	5		Sea Lungwort		30 Mile River.
11	5		Sea Lungwort		Gravel Pit.

Table 48. Edible and Sea Lungwort Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
5	Edible Kelp		
10	Edible Kelp		All over the beaches
10	Sea Lungwort		Dryer areas up on the land.



Figure 47. Bladder Wrack, Goose Grass, Green Sea Fingers and Mare's Tail Areas of Occurrence

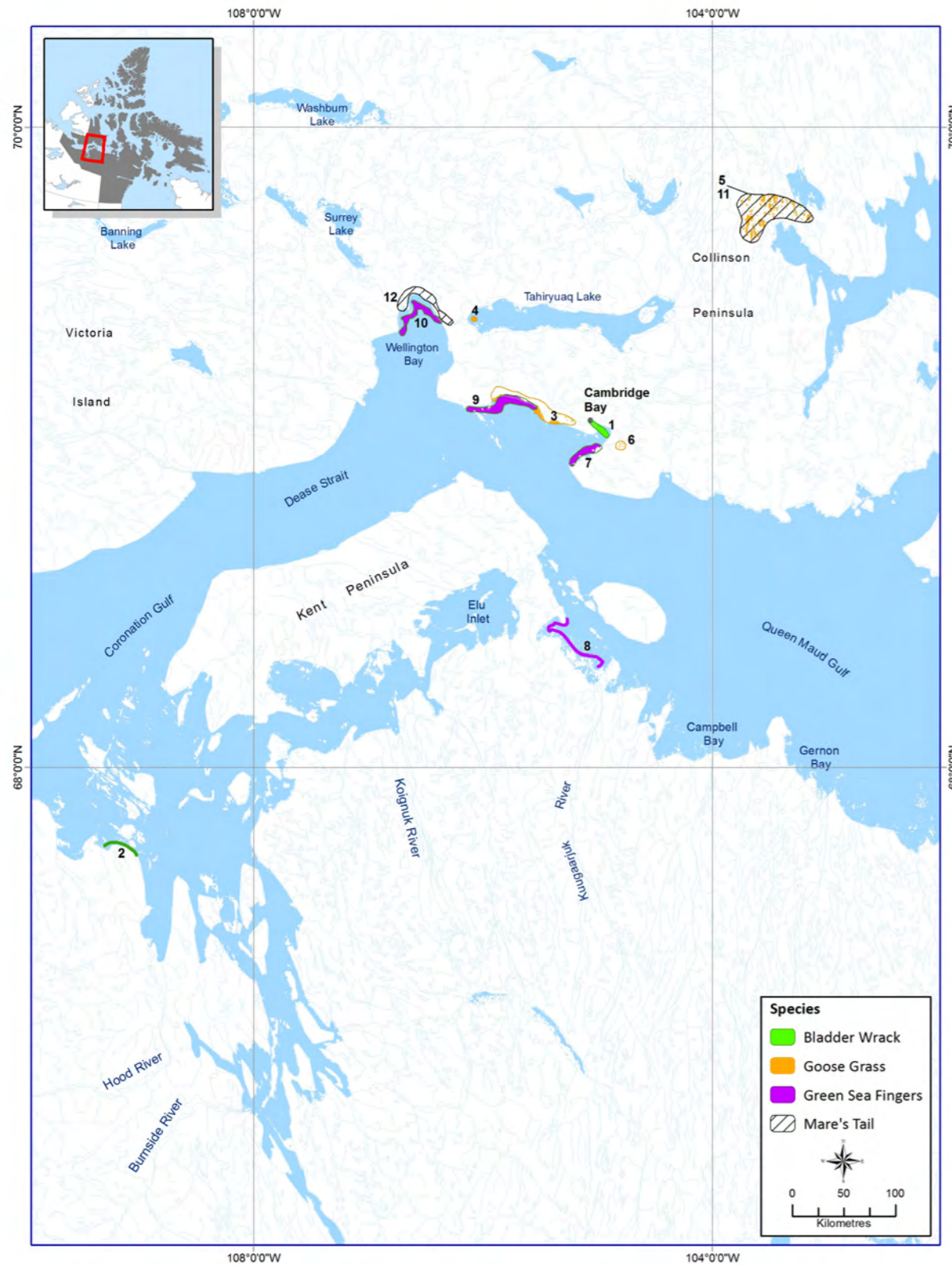


Table 49. Bladder Wrack, Goose Grass, Green Sea Fingers and Mare's Tail Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	7		Bladder Wrack		
2	7		Bladder Wrack		Along shore tides.
3	1		Goose Grass		In creeks where the birds nest.
4	1		Goose Grass		Lots around this little island, it is a nesting ground for Canada Geese, ducks and Arctic Terns.
5	1		Goose Grass		Bird colony area, did a survey in 1975 with my whole family, counted 70 goose nests.
6	3		Goose Grass		
7	1		Green Sea Fingers		All along the shore except where it is rocky, then there is hardly any.
8	1		Green Sea Fingers		Sometimes it gets really thick when washed up on shore; the piles of it can get really deep.
9	1		Green Sea Fingers		Shallow areas, it gets caught in fish nets when it's windy and makes the nets go to the bottom.
10	1		Green Sea Fingers		
11	1		Mare's Tail		Seen a few of those in shallow spots, maybe around bird colonies.
12	1		Mare's Tail		Wellington Bay bird colony area.

Table 50. Alpine and Robin's Pondweed, Bladder Wrack, Eel Grass, Floating Buttercup, Goose and Semaphore Grass, Mare's Tail and Spiny Sour Weed Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
10	Alpine Pondweed		Like the sandy shallower parts of lakes.
7	Bladder Wrack		Along shores in intertidal
10	Eel Grass		
5	Floating Buttercup		Small swamps and lakes all over.
10	Floating Buttercup		In dryer areas.
10	Goose Grass		In marshy areas.
5	Mare's Tail		Lots all over, especially in lakes flowing into rivers.
7	Mare's Tail		All over sea shore.
1	Robin's Pondweed		See them sticking out of the shallow areas of lakes that have no rivers going in or out.
10	Semaphore Grass		See close to shore in any lake.
10	Spiny Sour Weed		Anywhere, but in higher quantities at Gravel Pit.

Figure 48. Canada and Greater White-fronted Goose Areas of Occurrence

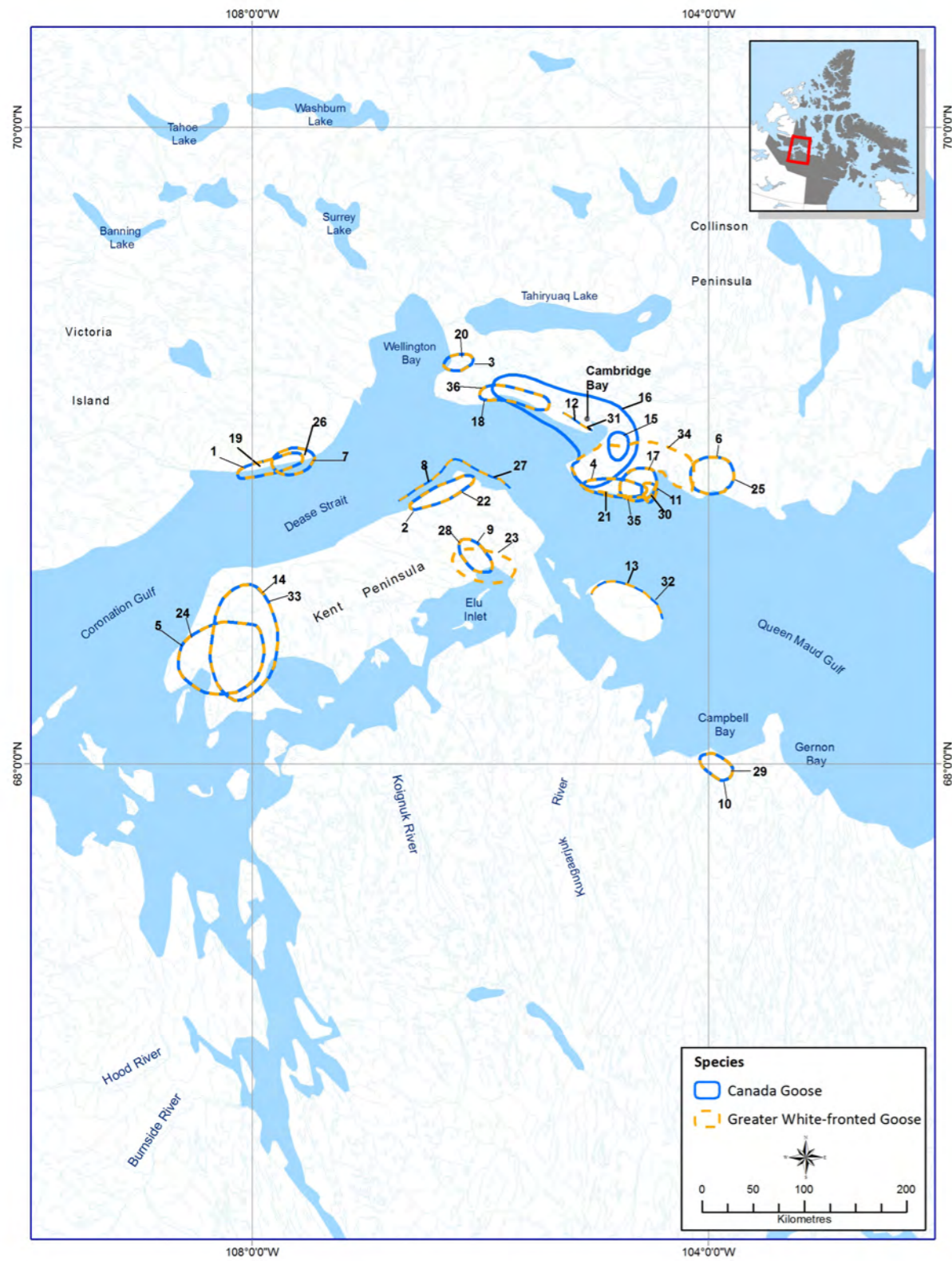


Table 51. Canada and Greater White-fronted Goose Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Canada Goose		
2	2		Canada Goose		
3	2		Canada Goose		
4	2		Canada Goose		
5	2		Canada Goose		
6	2	S	Canada Goose		
7	5		Canada Goose		
8	5		Canada Goose		
9	5		Canada Goose		
10	5		Canada Goose		
11	5		Canada Goose		
12	5		Canada Goose		
13	5		Canada Goose		
14	5	S	Canada Goose		
15	9		Canada Goose	Spring	
16	9	S	Canada goose		
17	10		Canada Goose		
18	10		Canada goose		
19	2		Greater White-fronted Goose		
20	2		Greater White-fronted Goose		
21	2		Greater White-fronted Goose		
22	2		Greater White-fronted Goose		
23	2		Greater White-fronted Goose		
24	2		Greater White-fronted Goose		
25	2	S	Greater White-fronted Goose		
26	5		Greater White-fronted Goose		
27	5		Greater White-fronted Goose		
28	5		Greater White-fronted Goose		
29	5		Greater White-fronted Goose		
30	5		Greater White-fronted Goose		
31	5		Greater White-fronted Goose		
32	5		Greater White-fronted Goose		



Table 51. Canada and Greater White-fronted Goose Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
33	5	S	Greater White-fronted Goose		
34	8		Greater White-fronted Goose	May-Jun	Hunt them here.
35	10		Greater White-fronted Goose		
36	10		Greater White-fronted Goose		

Table 52. Canada and Greater White-fronted Goose Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
8	Canada Goose		
8	Greater White-fronted Goose		See them all over, they nest everywhere.

NUNAVUT COASTAL RESOURCE INVENTORY

Figure 49. Brant, Cackling, Ross's and Snow Goose Areas of Occurrence

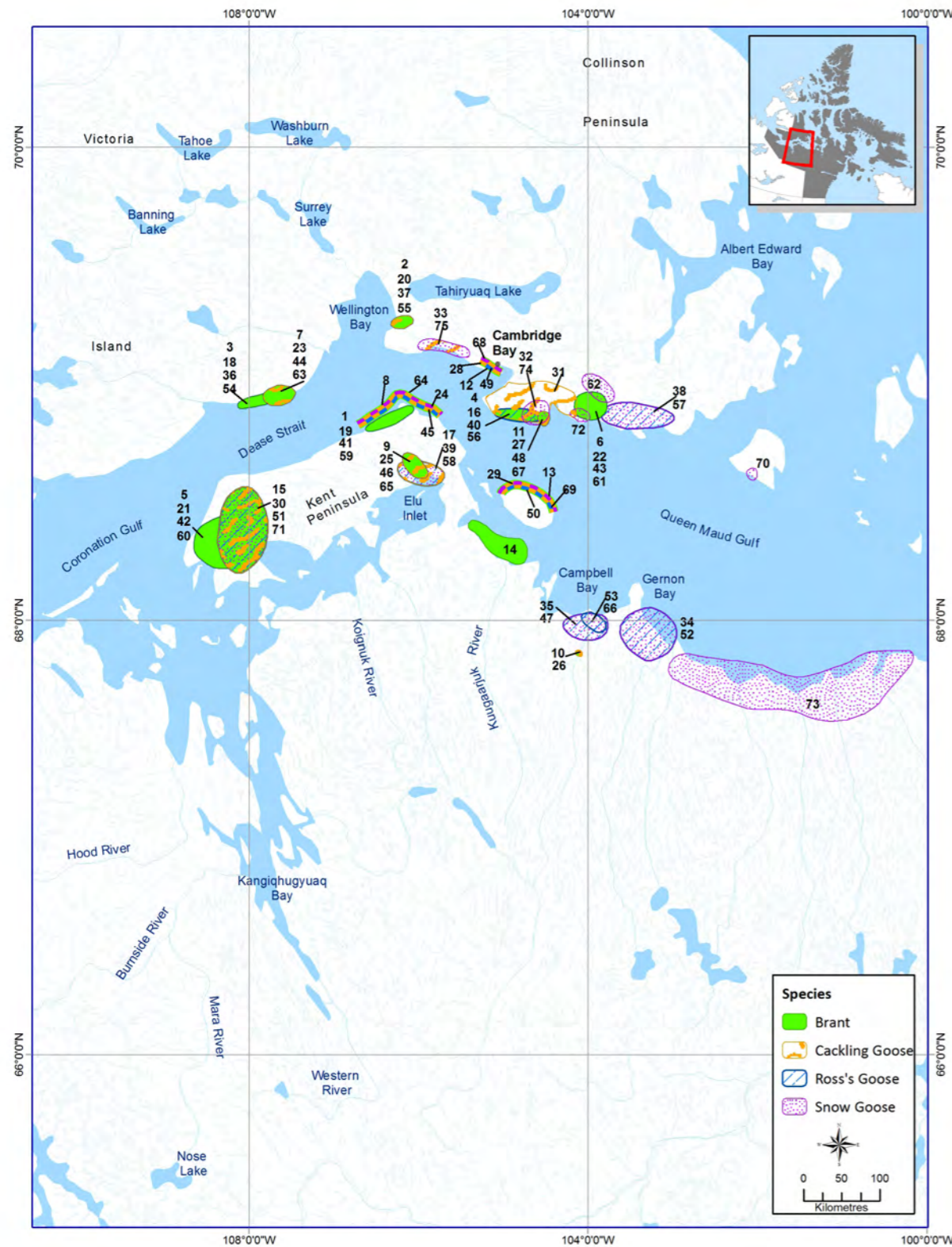


Table 53. Brant, Cackling, Ross's and Snow Goose Areas of Occurrence

MAP #	INTER-VIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Brant Goose		Once in a while.
2	2		Brant Goose		Once in a while.
3	2		Brant Goose		Once in a while.
4	2		Brant Goose		
5	2		Brant Goose		
6	2	S	Brant Goose		
7	5		Brant Goose		
8	5		Brant Goose		
9	5		Brant Goose		
10	5		Brant Goose		
11	5		Brant Goose		
12	5		Brant Goose		
13	5		Brant Goose		
14	5		Brant Goose		
15	5	S	Brant Goose		
16	2		Cackling Goose		
17	2		Cackling Goose		
18	2		Cackling Goose		
19	2		Cackling Goose		
20	2		Cackling Goose		
21	2		Cackling Goose		
22	2	S	Cackling Goose		
23	5		Cackling Goose		
24	5		Cackling Goose		
25	5		Cackling Goose		
26	5		Cackling Goose		
27	5		Cackling Goose		
28	5		Cackling Goose		
29	5		Cackling Goose		
30	5	S	Cackling Goose		
31	8	S	Cackling Goose		Same hunting area as Figure 48, Label 34.
32	10		Cackling Goose		
33	10		Cackling Goose		
34	2		Ross's Goose		



Table 53. Cackling Goose Everywhere Data

MAP #	INTER-VIEW	CODE	SPECIES	MONTHS	COMMENTS
35	2		Ross's Goose		
36	2		Ross's Goose		
37	2		Ross's Goose		
38	2		Ross's Goose		
39	2		Ross's Goose		
40	2		Ross's Goose		
41	2		Ross's Goose		
42	2		Ross's Goose		
43	2	S	Ross's Goose		
44	5		Ross's Goose		
45	5		Ross's Goose		
46	5		Ross's Goose		
47	5		Ross's Goose		
48	5		Ross's Goose		
49	5		Ross's Goose		
50	5		Ross's Goose		
51	5	S	Ross's Goose		
52	2		Snow Goose		
53	2		Snow Goose		
54	2		Snow Goose		
55	2		Snow Goose		
56	2		Snow Goose		
57	2		Snow Goose		
58	2		Snow Goose		
59	2		Snow Goose		
60	2		Snow Goose		
61	2	S	Snow Goose		
62	5	S	Snow Goose		
63	5		Snow Goose		
64	5		Snow Goose		
65	5		Snow Goose		
66	5		Snow Goose		
67	5		Snow Goose		
68	5		Snow Goose		

MAP #	INTER-VIEW	CODE	SPECIES	MONTHS	COMMENTS
69	5		Snow Goose		
70	5		Snow Goose		
71	5	S	Snow Goose		
72	8	S	Snow Goose		Hallett Bay.
73	8		Snow Goose	Jun-Aug	Along the coast.
74	10		Snow Goose		Not many snow geese but their numbers have been increasing in the last few years. Their flocks are mixing with the Canada Geese.
75	10		Snow Goose		

Table 54. Brant, Cackling, Ross's and Snow Goose Areas of Occurrence

INTERVIEW	MONTHS	COMMENTS
8		

Figure 50. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence

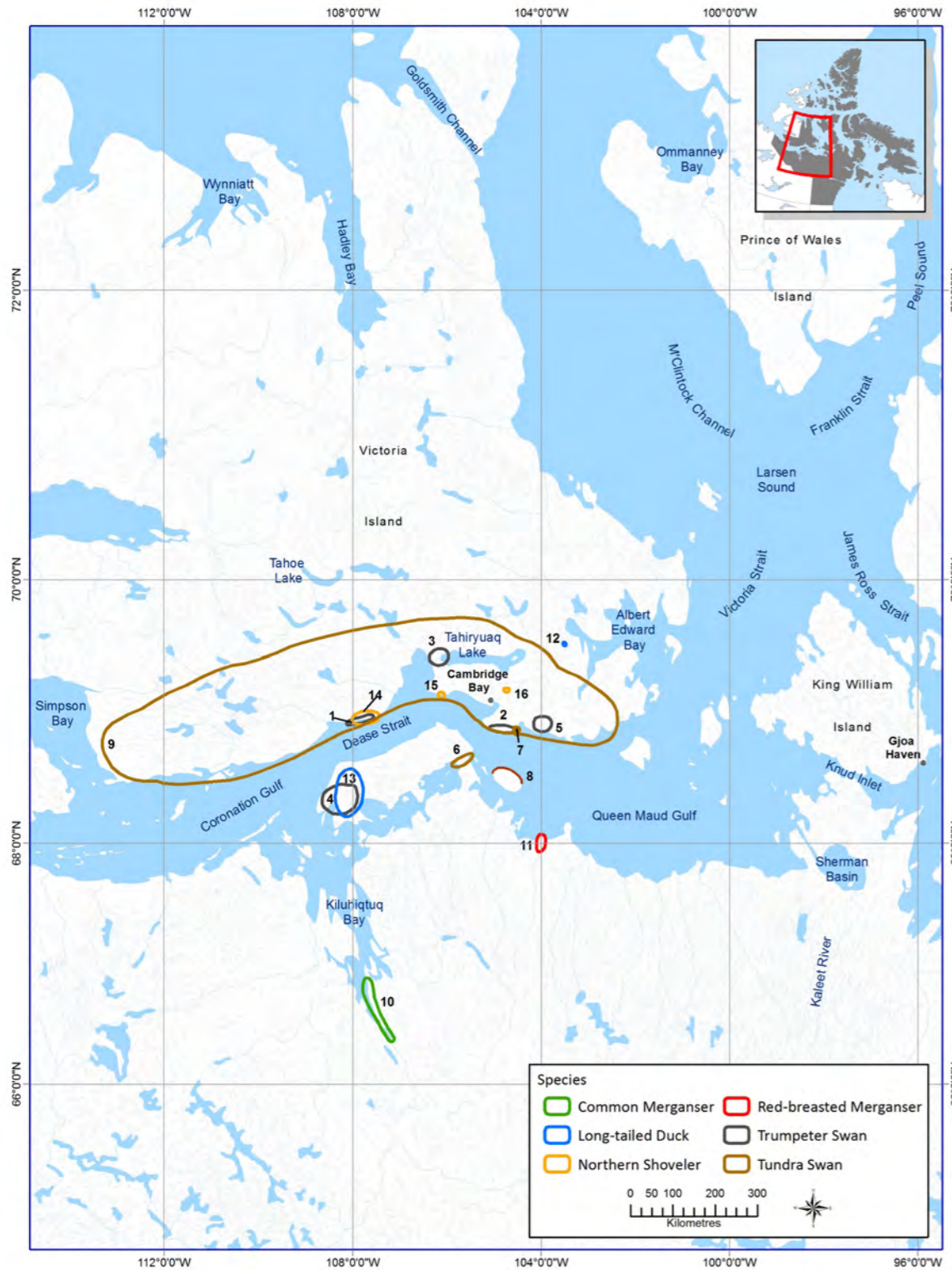


Table 55. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	2		Trumpeter Swan		
2	2		Trumpeter Swan		
3	2		Trumpeter Swan		
4	2		Trumpeter Swan		
5	2	S	Trumpeter Swan		
6	5		Tundra Swan	May	
7	5		Tundra Swan	May	
8	5		Tundra Swan		
9	8	S	Tundra Swan		When they first come they're not far from the shore but then they nest further inland.
10	5		Common Merganser		
11	5		Red-breasted Merganser		
12	5	S	Long-tailed Duck		
13	5	S	Long-tailed Duck		
14	5		Northern Shoveler		
15	5		Northern Shoveler		
16	8		Northern Shoveler		Driving from Cambridge Bay to Mount Pelly you see them sometimes in small ponds.

Table 56. Trumpeter and Tundra Swan, Common and Red-breasted Merganser, Long-tailed Duck and Northern Shoveler Areas of Occurrence

INTERVIEW	SPECIES	MONTHS	COMMENTS
8	Long-tailed Duck		
8	Northern Shoveler		
8	Tundra Swan		When they first come they're not far from the shore but then they nest further inland.
8	Sandhill Crane		All over hill tops.



Figure 51. Arctic Tern and Glaucous-winged, Sabine's and Thayer's Gull Areas of Occurrence

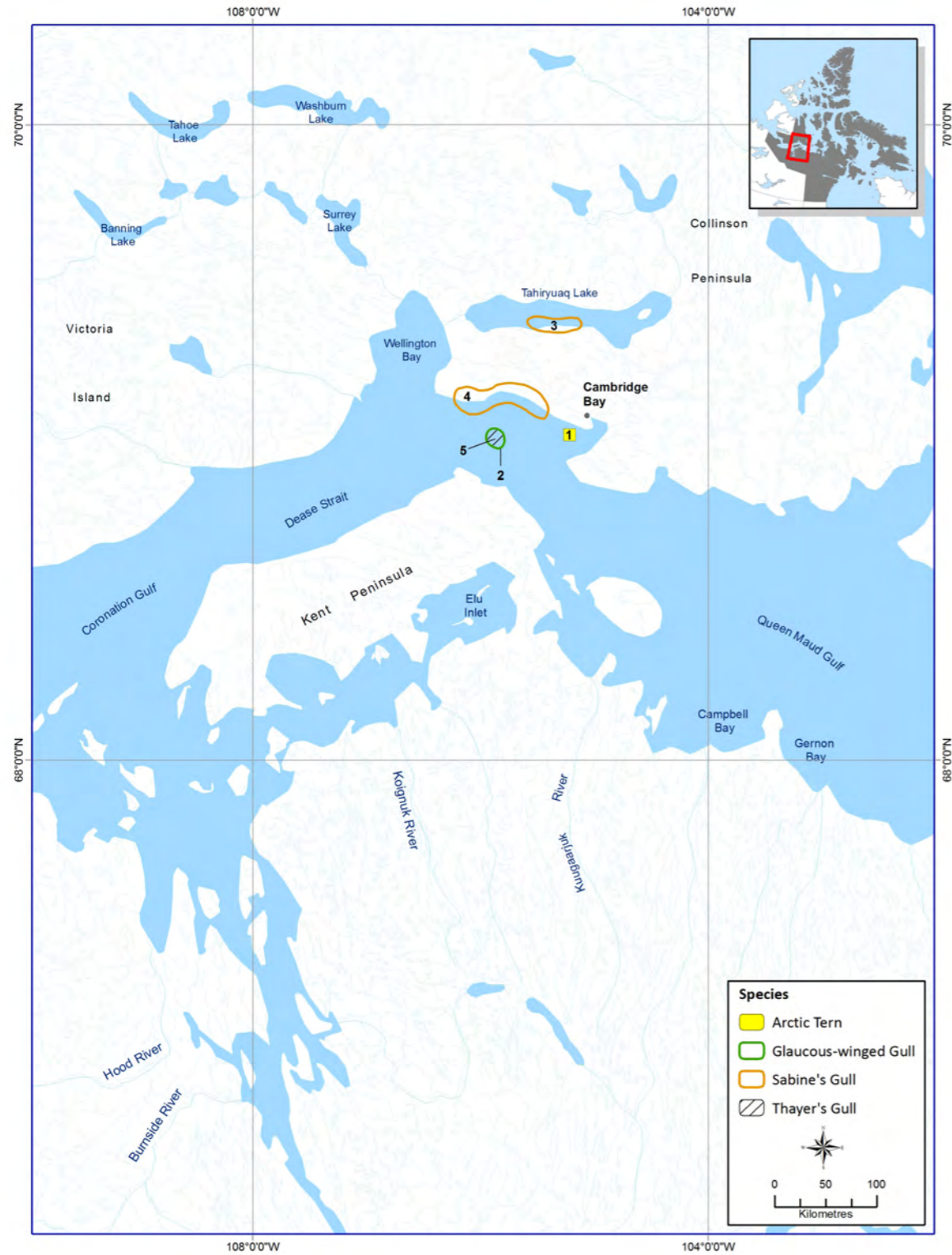


Table 57. Arctic Tern and Glaucous-winged, Sabine's and Thayer's Gull Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	5	S	Arctic Tern		
2	5	S	Glaucous-winged Gull		Small Island, nest with Thayer's Gull.
3	5		Sabine's Gull		Fergusen Lake.
4	5	S	Sabine's Gull		Augustus Hills.
5	5	S	Thayer's Gull		Small Island, nest with glaucous gull.

Table 58. Arctic Tern, Glaucous-winged, Herring, and Sabine's Gull and Pomarine Jaeger Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
8	Arctic Tern	May-end of Aug	Nest in Gravel or sand, very aggressive around their nests.
8	Glaucous-winged Gull		Form groups when nesting, lay their eggs on gravel. Can get lots on cliffs.
8	Herring Gull		Form groups when nesting, lay their eggs on gravel. Can get lots on cliffs. More herring gulls in the Gulf of Boothia then here.
5	Pomarine Jaeger		Dry land nesting.
8	Pomarine Jaeger	May-end of Aug	Nest on little humps on the tundra.
8	Sabine's Gull		Form groups when nesting, lay their eggs on gravel. Can get lots on cliffs.

Figure 52. Common and King Eider, Common Murre, Dovekie and Arctic, Red-throated and yellow-billed Loon Areas of Occurrence

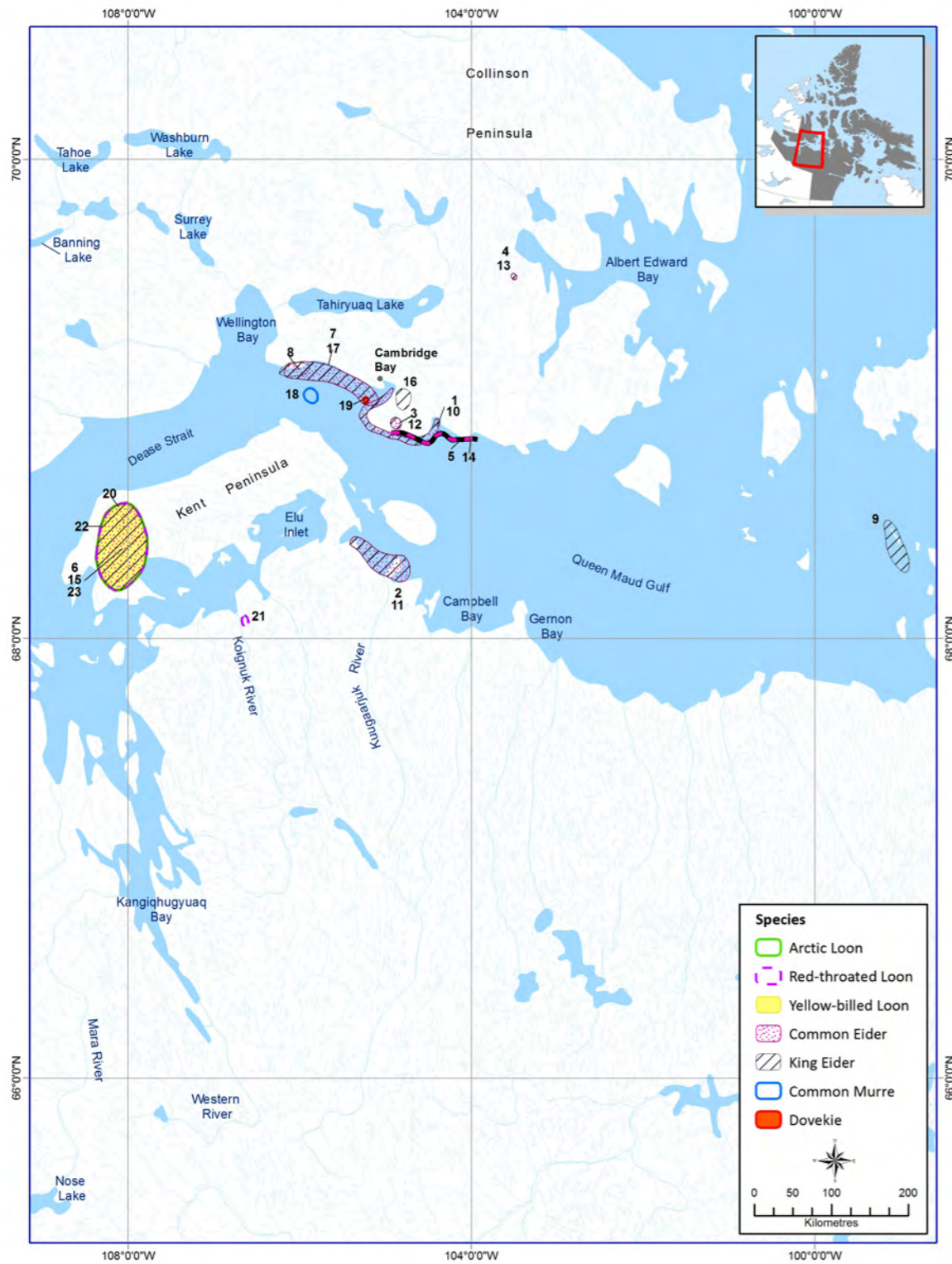


Table 59. Common and King Eider, Common Murre, Dovekie and Arctic, Red-throated and Yellow-billed Loon Areas of Occurrence

MAP#	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	4		Common Eider		Hunt eiders here, some people call common eiders "American eiders".
2	5	A	Common Eider		
3	5	S	Common Eider		
4	5	S	Common Eider		
5	5		Common Eider		
6	5	S	Common Eider		
7	10		Common Eider		
8	2		King Eider	End of May-Jun	Catch crabs with short legs and bring them to the surface.
9	3	S	King Eider		Bird nesting Islands (Kikktaiyuaq).
10	4		King Eider		Whenever catch eider ducks, find sea urchins in their throats.
11	5	A	King Eider		
12	5	S	King Eider		
13	5	S	King Eider		
14	5		King Eider		
15	5	S	King Eider		
16	9		King Eider	Spring	
17	10		King eider		Eiders are good for making extra layer like slippers that go over kamiks. They keep you warm if you are standing at a seal hole or riding in a sled. Her grandmother used loon bellies sewn together as a mattress.
18	5		Common Murre		
19	5		Dovekie		
20	5		Arctic Loon		
21	5		Red-throated Loon		
23	5	S	Yellow-billed Loon		



Table 60. King and Steller's Eider, Arctic, Common, Red-throated and Yellow-billed Loon Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
7	King Eider		
8	King Eider		
5	Arctic Loon		
8	Arctic Loon		
10	Arctic Loon		
10	Common Loon		
8	Red-throated Loon	Spring	Anywhere with a flowing river.
10	Red-throated Loon		
8	Steller's Eider		
5	Yellow-billed Loon		
8	Yellow-billed Loon		
10	Yellow-billed Loon		

Figure 53. Snowy Owl, Gyrfalcon, Peregrine Falcon, Bald and Golden Eagle and Rough-legged Hawk Areas of Occurrence

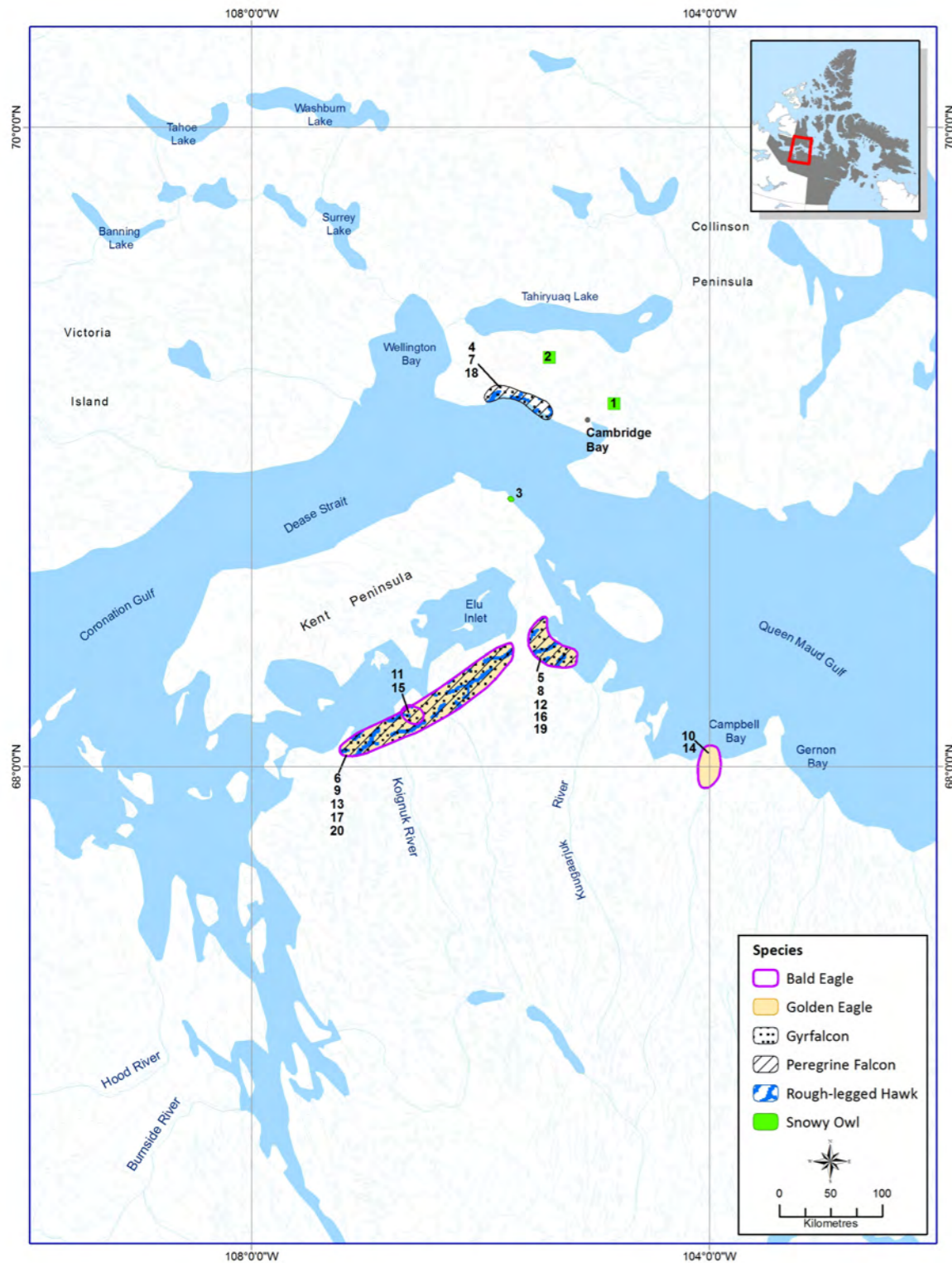


Table 61. Snowy Owl, Gyrfalcon, Peregrine Falcon, Bald and Golden Eagle and Rough-legged Hawk Areas of Occurrence

MAP#	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	5	S	Snowy Owl		Mount Pelly.
2	5	S	Snowy Owl		On the way to Ferguson Lake.
3	5	S	Snowy Owl		
4	8	S	Gyrfalcon		Augustus Hills
5	8	S	Gyrfalcon		Nesting on cliffs
6	8	S	Gyrfalcon		Nesting on cliffs
7	8	S	Peregrine Falcon		Augustus Hills
8	8	S	Peregrine Falcon		Nesting on cliffs
9	8	S	Peregrine Falcon		Nesting on cliffs
10	5		Bald Eagle		Elis River.
11	5		Bald Eagle		Hope Bay.
12	8	S	Bald Eagle		On cliffs. Never see them on Victoria Island, only nest on the mainland.
13	8	S	Bald Eagle		Raised and rockier than the south. Never see them on Victoria Island, only nest on the mainland.
14	5		Golden Eagle		Elis River.
15	5		Golden Eagle		Hope Bay.
16	8	S	Golden Eagle		Never see them on Victoria Island, only nest on the mainland.
17	8	S	Golden Eagle		Never see them on Victoria Island, only nest on the mainland.
18	8	S	Rough-legged Hawk		Couple of nests in the Augustus Hills not too long ago. Have heard that they nest on big rocks but hasn't seen it.
19	8	S	Rough-legged Hawk		
20	8	S	Rough-legged Hawk		

Table 62. Gyrfalcon, Peregrine Falcon, Rough-legged Hawk and Snowy Owl Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
5	Gyrfalcon		
5	Peregrine Falcon		
5	Rough-legged Hawk		
8	Snowy Owl	Mar-Dec	Nest anywhere except near town. Nest on the tops of little hills so they can watch for predators. Only time they aren't here is Jan-Feb. Hunt for lemmings.
5	Snowy Owl		



Figure 54. American Goldfinch, American Robin, Barn and Chipping Sparrow, Hoary Redpoll, Eastern Yellow Wagtail, Mountain Bluebird, and Pine Grosbeak Areas of Occurrence

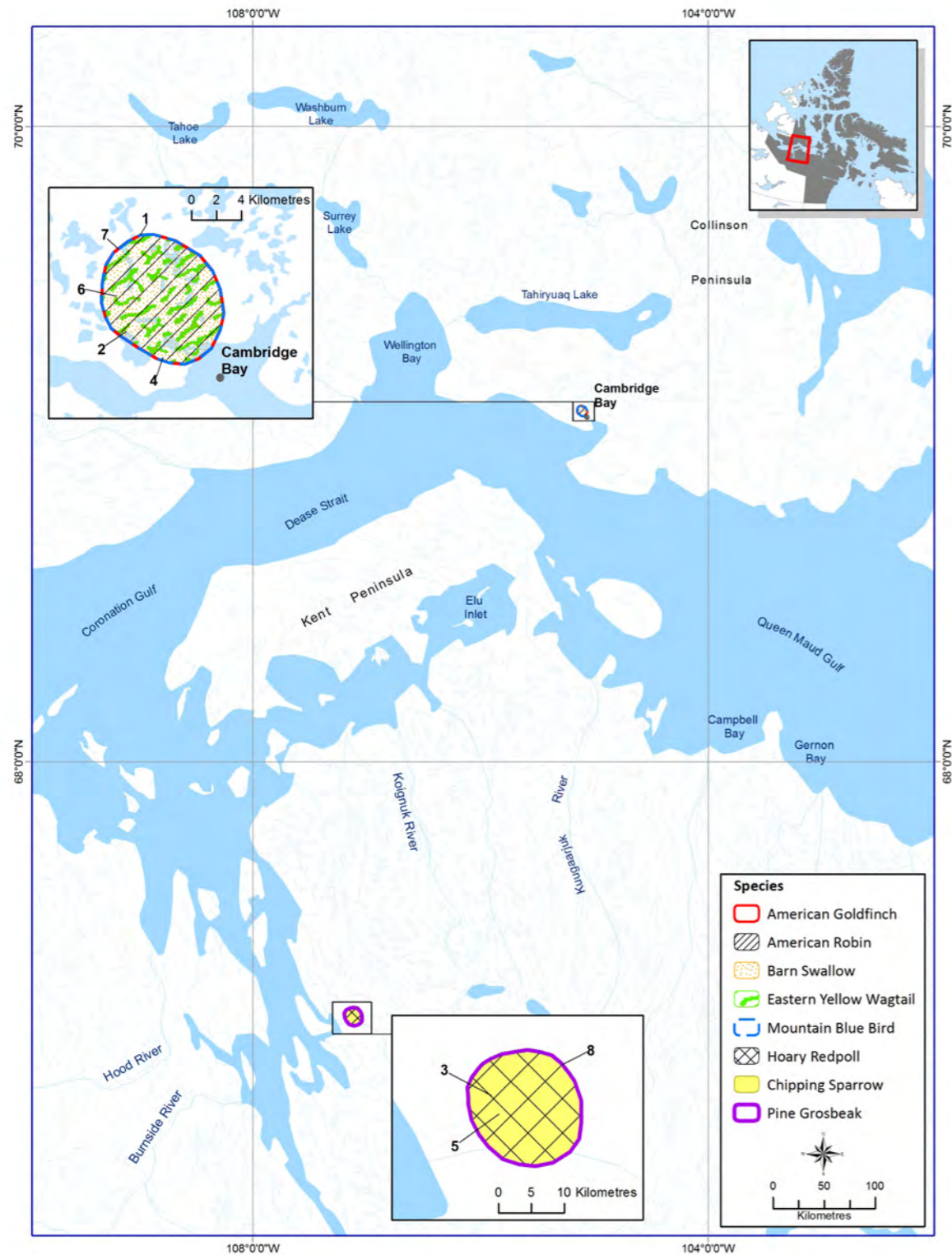


Table 63. American Goldfinch, American Robin, Barn and Chipping Sparrow, Hoary Redpoll, Eastern Yellow Wagtail, Mountain Bluebird, and Pine Grosbeak Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	5		American Goldfinch		
2	5		American Robin		
3	5		Hoary Redpoll		
4	5		Barn Swallow		
5	5	A	Chipping Sparrow		
6	5		Eastern Yellow Wagtail		
7	5		Mountain Blue Bird		
8	5		Pine Grosbeak		

Table 64. Common Redpoll, Gray Phalarope, Horned Lark, Lapland Longspur, Red Knot, Ruddy Turnstone, Red-necked Phalarope and Snow Bunting Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
8	Common Redpoll		All over laying nests in the grass. Nest at the end of June.
5	Gray Phalarope		
8	Gray Phalarope	June	Arrive in June. Stay around ponds without rivers, lay eggs near them in swampy areas.
5	Horned Lark		
5	Lapland Longspur		
8	Lapland Longspur	Spring, Summer	All over around small ponds.
5	Red Knot		
5	Ruddy Turnstone		
8	Red-necked Phalarope	June	Arrive in June. Stay around ponds without rivers, lay eggs near them in swampy areas.
5	Snow Bunting		
8	Snow Bunting	Late Apr-mid Sep	Come with the winds and the snow storms. Build nest under and between rocks. First small bird in and the last one out.

Figure 55. Blue Jay, Northern Waterthrush, Yellow Warbler, Long-billed Curlew, Rock and White-tailed Ptarmigan and unidentified bird Areas of Occurrence

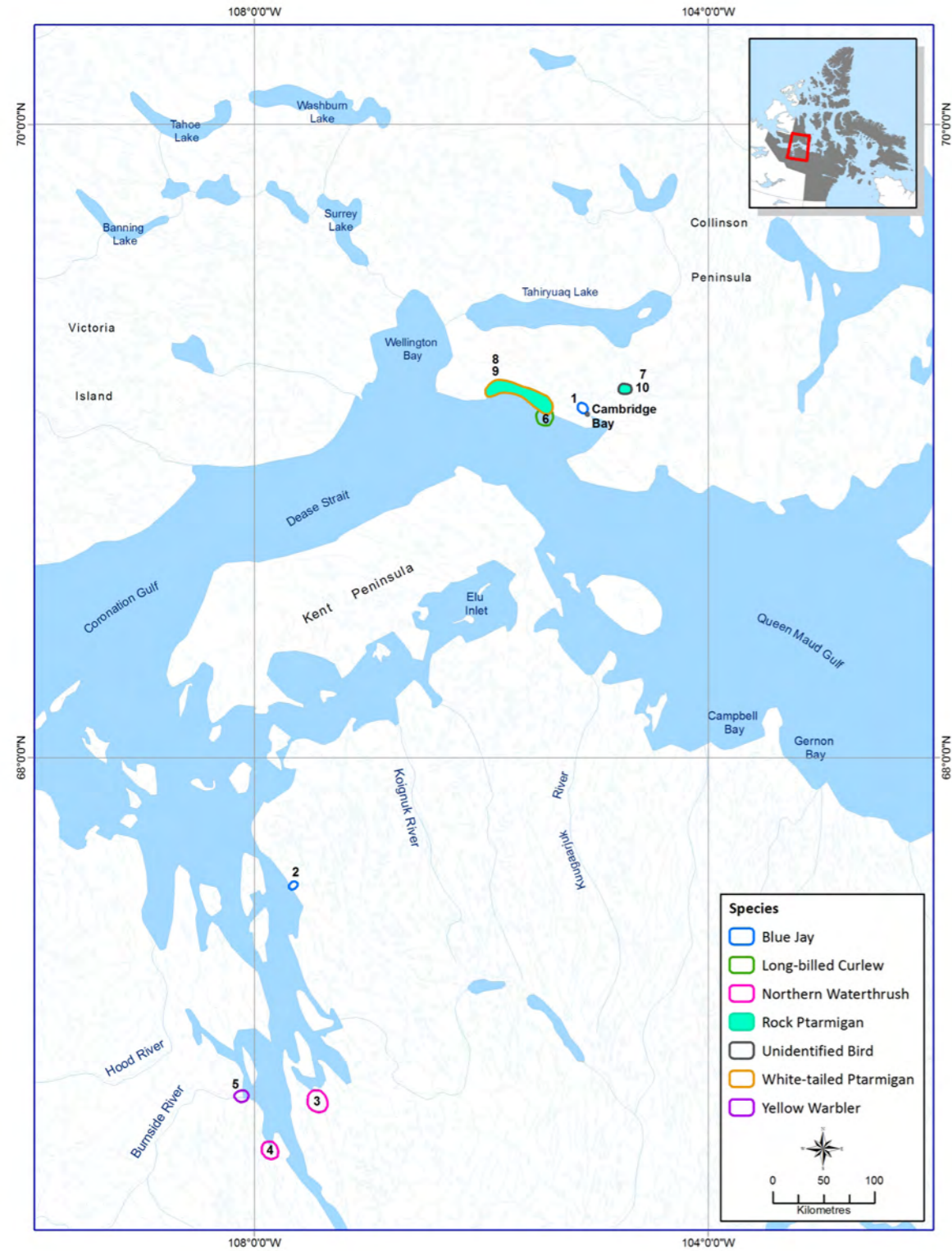


Table 65. Blue Jay, Northern Waterthrush, Yellow Warbler, Long-billed Curlew, Rock and White-tailed Ptarmigan and unidentified bird Areas of Occurrence

MAP #	INTERVIEW	CODE	SPECIES	MONTHS	COMMENTS
1	5		Blue Jay	June	Saw for first time last year. It was eating caribou meat outside of my house. 20 cm tall, all blue, saw 5 of them.
2	8		Blue Jay		Spotted at Bay Chimo a couple of years ago.
3	5		Northern Waterthrush		
4	5		Northern Waterthrush		
5	5	S	Yellow Warbler		
6	5		Long-billed Curlew		
7	8	A	Rock Ptarmigan		Near Pelly Bay.
8	8	A	Rock Ptarmigan		Augustus Hills.
9	8		White-tailed Ptarmigan		
10	8		Unidentified bird		Cabin was broken into once, 7-8 years ago. Small bird was dead in a cup. All blue and really small (5cm). Probably came up riding a barge.

Table 66. American Golden, Common Ringed and Semipalmated Plover, Common Raven, Baird's, Buff-breasted, unidentified sandpiper and Rock, Willow and White-tailed Ptarmigan Everywhere Data

INTERVIEW	SPECIES	MONTHS	COMMENTS
5	American Golden Plover		See in sandy areas, like lakes and sea shores.
5	Common Raven		
5	Rock Ptarmigan		
8	Rock Ptarmigan		
5	Semipalmated Plover		
5	unidentified Sandpiper		Strange new birds coming north, long legs and beaks. Have less speckles than the greater yellow legs. Spend time in swampy areas.
8	White-tailed Ptarmigan		
8	American Golden Plover		Lay eggs all over.
8	Baird's Sandpiper	Jun-Aug	Eggs all over, nest in dry spots.
8	Buff-breasted Sandpiper	Jun-Aug	
8	Common Raven	Year-round	Nest in mid-April when still really cold. The young grow very slowly; start flying about the same time as geese.
8	Common Ringed Plover		Lay eggs all over.
5	Willow Ptarmigan		



Figure 56. Cambridge Bay Community Map

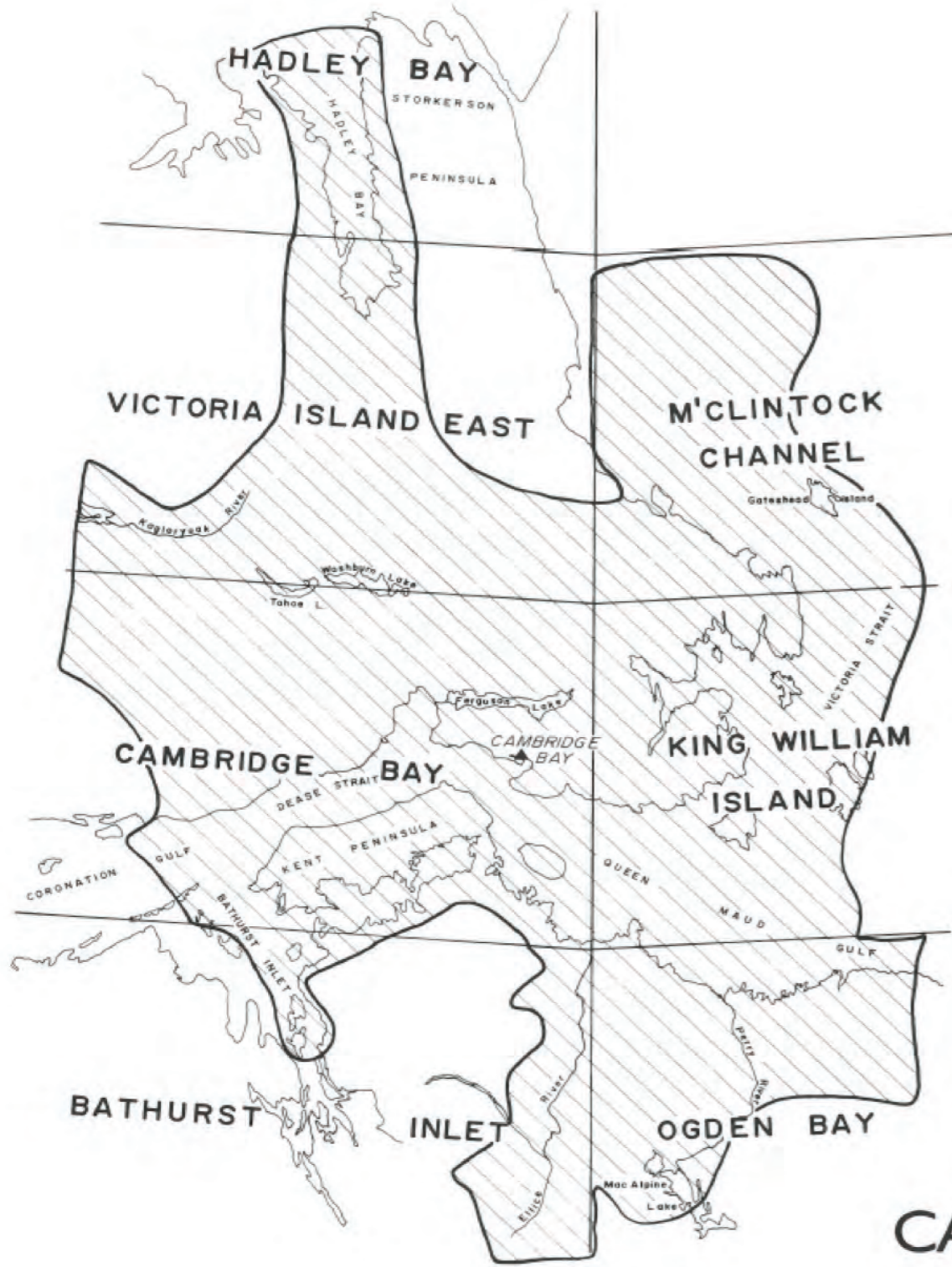


Figure 57. Cambridge Bay Land Use Map





CAMBRIDGE BAY

INUIT LAND USE

1CB

This large interior area of Victoria Island is used every winter for Arctic fox trapping and caribou hunting. Although the number of hunters and trappers varies from year to year, there are usually several active each winter. Similarly, the locations and lengths of traplines in the area change from year to year. The activity in the area is usually based from adjacent areas closer to Cambridge Bay.

2CB

The whole of this southeastern corner of Victoria Island receives extensive use by Cambridge Bay residents. This large area extending from Surrey Lake and Byron Bay vicinity in the west to Albert Edward Bay in the east includes several sub-areas for which there are additional notes. Perhaps the most extensive activity in the area is the trapping for Arctic fox. Traplines in this area, or those which extend to the north yield approximately 1000 fox annually, according to an NWT Wildlife Service estimate. The HTA estimates that as many as 200 caribou may be harvested annually in the Fergusen Lake area. A further 50 to 100 caribou may be hunted to the west of Wellington Bay. The rest of this south east corner of the island may yield as many as 150 caribou annually. Although special trips to hunt caribou do occur, much of the hunting area occurs in conjunction with trapping. Trappers also hunt muskox and a quota of 14 animals is allowed. Caribou and muskox are hunted at other times of the year as well. Activity is also high in the area in spring and summer when ducks, geese and swans are hunted. No harvest number are available, but most Cambridge Bay hunters welcome this annual change in diet and presumably take at least several birds each. Domestic fishing for Arctic char also occurs in numerous small lakes from spring through fall. The Cambridge Bay HTA reports that many of the lakes in the area have commercial quotas for char, lake trout and whitefish.

3CB

Virtually all hunters, trappers and fishermen from Cambridge Bay use this area. The information that pertains to Arctic fox trapping and caribou, muskox and waterfowl hunting detailed in note 2CB applies to this area. In addition, large numbers of Arctic char are netted in Fergusen Lake each fall by more than a half-dozen families.

The Cambridge Bay HTA reports that Fergusen Lake has a commercial Arctic char quota of 11,800 kg.

4CB

This important area is used by over half of the Cambridge Bay seal and waterfowl hunters every year in late spring and summer. Sea ducks are hunted using motor boats along the coast and throughout this portion of Dease Strait usually in conjunction with seal hunting. Although no estimates of the annual harvest are available, a hunter may take several dozen ducks during a summer's hunting. This area of Dease Strait is also used for hunting seals with rifles from motor boats in summer. Ringed seals and occasionally bearded seals are taken. The Cambridge Bay HTA estimates that more than 400 seals are taken annually throughout the large area. A year-round camp is located at Anderson Bay.

5CB

Arctic char are netted in this river system each fall by several Cambridge Bay families. The Cambridge Bay HTA reports that a commercial Arctic char quota of 6800 kg is in effect for this river. This area also is a part of a large hunting and trapping area used every year by numerous Cambridge Bay residents.

6CB

This area is notable for the extensive domestic fishing activity which occurs on this chain of lakes each fall. The bulk of the fish caught are lake trout and whitefish and much of the catch is transported back to Cambridge Bay by snowmobile and sled. A summer sport fishing camp is also located in the area. The Cambridge Bay HTA reports that commercial fish quotas of 4500 kg exist for Surrey

Lake and 6900 kg total for the several adjoining lakes. A similar quota of 6800 kg for Arctic char is in effect for the river that drains Surrey Lake into Wellington Bay. This area is part of a large hunting and trapping area used every year by numerous Cambridge Bay residents.

7CB, CP & BI

Hunting, trapping and fishing activities are concentrated along the major travel route indicated by these arrows. These are preferred routes for travel between Cambridge Bay and Coppermine and Bathurst Inlet and Perry Bay areas.

8CB

The Kent Peninsula and adjacent waters are considered to be one of the best harvesting areas available to residents of Cambridge Bay. The peninsula itself has an abundant population of Arctic fox and trapping activity is constant during the winter months. Barren-ground caribou are hunted when they are encountered, usually in spring and fall. Seal are hunted in the coastal waters by boat in spring and summer. Winter hunting of seal at breathing holes is not common at present. In summer, numerous ducks, geese, Arctic hares and ground squirrel provide food for those families who establish temporary camps. The narrow isthmus of the peninsula, the area around Itibiak Lake, is a favorite site for the establishment of seasonal camps.

9CB

The south shore of Queen Maud Gulf is generally considered to be an especially productive area, aligned along a major travel route between Cambridge Bay and an outpost settlement at Perry River, is heavily used by Inuit from both settlements. The many islands and shallow inlets provide numerous opportunities for hunting seal in spring and summer. The coastline is regularly trapped for Arctic fox during winter. Barren-ground caribou are hunted by trappers in the winter and by hunters travelling inland on foot in summer. Muskox are also hunted occasionally. Melbourne Island is a favorite destination for berry pickers in late-summer.

10BI

In most years, residents of Bathurst Inlet visit this inland area to trap Arctic fox in winter or hunt barren-ground caribou in fall or winter.

11BI

Bathurst Inlet Inuit regularly travelled inland to this area in winter to hunt barren-ground caribou and trap Arctic fox.

12BI & CB

The Melville Sound – Elu Inlet area is a key resource harvesting area for residents of the Bathurst Inlet region and many residents from Cambridge Bay. Winter traplines for Arctic fox are common throughout the area, but especially on the Kent Peninsula near Perry Bay, along the south shore of the inlet and along the Koignuk and Angimajuq rivers. Barren-ground caribou are hunted when encountered. Seal hunting is common in spring and summer. In summer, ducks and geese are an important food supplement. Wolves and muskox are occasionally hunted. Year-round camps are located at Parry Bay, near Naujaat Hills, and on the Koignuk River.

13CP

Hunters and trappers based at camps along the coast usually hunt and trap in this area each winter. The Coppermine HTA estimates that as many as several thousand Arctic fox and 70 to 100 caribou may be harvested in this area each winter.

14CP

The southern end of Dolphin and Union Strait is hunted for ringed seals and sea ducks every summer by as many as twelve copper mine hunters. Although no estimates of the annual take are available, each hunter may take several dozen ducks during the summer. Over a thousand seals may be harvested in this and adjacent areas each summer.

15CP

As many as thirty Coppermine residents hunt ringed seal in Coronation Gulf each spring and summer. Most hunters use outboard motor boats and high power rifles. The Coppermine HTA estimates that over a thousand seals are taken annually in Coronation Gulf and Dolphin and Union Strait.

16CP

A camp for several families has been established at Johansen Bay in the Richardson Islands area. Waterfowl are hunted each summer and, although no estimates of annual take are available, each hunter may take several dozen ducks during a summers hunting. Arctic char are netted during spring, summer and fall. The Coppermine HTA estimated that up to 900 kg may be harvested in an outpost camp such as this. The Coppermine HTA has requested one muskox quota from the NWT Wildlife Service for this camp. The camp is also used as a base for caribou hunting and Arctic fox trapping in the area to the north.

17CB, CP & BI

Several hunters and trappers from Coppermine, Bathurst Inlet, and Cambridge Bay regularly visit this area each winter for caribou hunting and Arctic fox trapping. Activity in this area is usually based from camps along the Coronation Gulf coast. Several hunters may use this part of the coast area for waterfowl and seal hunting each year. Activity in this area is often an extension of that occurring in Dease Strait.

18CB

Several Cambridge Bay hunters usually travel out to this part of Coronation Gulf each summer to harvest ringed seals. The Cambridge Bay HTA estimates that as many as 50 seals may be taken annually in this area.

19CB

The camp at the mouth of Lauchlan River is a base for several families from Cambridge Bay and each fall extensive netting of Arctic char occurs. The Cambridge Bay HTA reports that a commercial Arctic char quota of

11,400 kg is in effect for this river. The camp also serves as a base for extensive hunting and trapping to the north.

20CB

Washburn and Tahoe lakes are heavily used as lake trout fisheries by several families from Cambridge Bay HTA reports that a 11,400 kg and 4500 kg commercial quota has been established on Washburn and Tahoe lakes, respectively. The Cambridge Bay HTA plans to establish a summer lake trout sport-fishing camp on Washburn Lake.

21CB

The offshore areas of Queen Maud Gulf are visited periodically to hunt seal, however, most seal hunting occurs closer to shore.

NOTED ON DOMESTIC AND COMMERCIAL FISHERIES

Fish, particularly anadromous Arctic char, are an important food for residents of Cambridge Bay. Between March and December, fishermen from the community range as far south and east as Perry River, west to Lauchlan River and north to Norway Bay. Travelling by snowmobile in spring and fall and by boat in summer, they net, jig or angle Arctic char, lake trout, least and Arctic cisco, lake whitefish, cod and sculpin. This map includes several important fishing areas.

From March to June and October to December, fish are netted or jigged through the ice of freshwater lakes. Landlocked Arctic char and lake trout are caught in Kitiga Lake and many unnamed lakes north and east of Cambridge Bay. Anadromous Arctic char, lake trout and least cisco are caught in Fergusen and Greiner lakes. Arctic char and cod are also jigged through the ice of Cambridge Bay in April and May.

During July and August, nets are set along the southern shore of Victoria Island between Byron and Anderson bays. Anadromous Arctic char, cod and sculpin are the main species caught. Cod and sculpin are only eaten occasionally for a change in diet.

Inuit residents of Cambridge Bay angle Arctic char and lake trout from Kitiga and Griener lakes during July and August.

Residents of Cambridge Bay travel by snowmobile to Tahoe lake and an unnamed lake (69°40'N, 109°00'W) on the Paliryuak River system in November and December to gill net lake trout, Arctic char and cisco (*Coregonus* sp.).

Families from Coppermine gillnet anadromous Arctic char at the mouth of the Nakyoktok River in early to mid-July as the char migrate from the sea. Gill nets are set along the coasts of Johansen Bay and Richardson Islands during July and August to catch Arctic char and cod.

Since 1961, members of Cambridge Bay's Ikaluktutiak Co-operative have harvested and processed anadromous Arctic char for commercial sale. Most commercial fishing in the Cambridge Bay area takes place at river mouths during spring and fall char migrations. The catch quotas and time of fishing vary between locations. Fish are caught using gill nets, although an experimental wier has been tested. They are gutted on site and then flown to the Co-operative's processing plant in Cambridge Bay where they are cleaned and frozen. The Co-operative sells fish within the community and markets the excess through the Freshwater Fish Marketing Corporation in Edmonton, Alberta. Since 1977, the annual Arctic char catch has varied between 45,000 and 65,000 kg round weight (rnd) and the fishery has provided seasonal employment for between 30 and 40 persons annually, making it the largest Arctic char commercial fishery in the Northwest Territories.

Rivers that are fished annually, usually during the spring downstream migration of char, include the Paliryuak (69°27'N, 106°40'W: 14,500 kg rnd) and Halovik (69°10'N, 107°04'W: 6800 kg rnd) and Lauchlan (9100 kg). The Ekalluk (69°25'N, 106°17'W: 14,500 kg rnd), Ellice (9100 kg rnd), Perry (6800 kg rnd) and Jayko (13,600 kg rnd) rivers are also fished annually, but usually during the fall upstream migration of char. Others such as Dease Point and an unnamed river on Collinson Peninsula (4500 kg rnd) are occasionally fished in the spring or fall. During

the commercial char fishery, lake trout, least and Arctic cisco, and lake whitefish are sometimes caught incidentally. They are eaten or fed to the dogs.

Attempts were made in the 1970's to establish a winter fishery for lake trout, Arctic char and whitefish (*Coregonous* sp., includes cisco) in the Cambridge Bay area. Quotas were requested for Fergusen (11,200 kg rnd), Surrey (69°43'N, 105°55'W: 9100 kg), Merkley (69°45'N, 107°40'W: 5500 kg rnd), Buffit (69°43'N, 106°55'W: 1225 kg rnd), Toassie (65°41'N, 106°39'W: 900 kg), Kitiga (6400 kg), and over 75 other smaller landlocked lakes in this map area. Few of the smaller lakes were fished and the larger lakes have not been fished commercially since 1977. A viable winter commercial fishery has not developed because of the high cost of fishing and the low market value of lake trout which dominate the catch of many of the inland lakes.

Tahoe lake has a commercial fishing quota on lake trout and whitefish (*Coregonous* sp., probably includes cisco) of 9100 kg rnd. There is no record of commercial fishing in the lake.

High Arctic Sport Fishing Camps Ltd. Operates a tourist camp at Merkley lake (69°49'N, 107°52'W). In August, 1980, in 87 man days of angling, guests caught 73 Arctic char and 943 lake trout. The cap operates from mid-July to the end of August.



WILDLIFE

1 WATERFOWL

This large wildlife area extends onto the adjacent map sheets and encompasses most of southeastern Victoria Island. This wildlife area provide very important habitat for a large number and diversity of birds. Much of this entire area is characterized by patchy, well-vegetated lowlands that are interspersed with numerous small, shallow tundra ponds and lakes. These areas provide prime nesting habitat for many bird species that breed in the region and includes such species as Canada goose, white-fronted goose, brant, king eider, common eider, oldsquaw, whistling swan, sandhill crane, glaucous gull, Sabine's gull, Arctic tern, Arctic loon, yellow-billed loon, red-throated loon, snowy owl, ptarmigan, jaegers and a large variety of shorebirds. This area also provides important habitat for a large number of non-breeding birds, especially waterfowl, that occupy the area during the critical molting period.

Wellington Bay is likely an important molting and spring and fall staging area for eiders and oldsquaws.

2 WATERFOWL

The interior of Victoria Island provides some important habitats for a large variety but generally lower density of birds than that found in the coastal and other boundaried areas. Bird species that are found scattered throughout much of the interior include Canada goose, whistling swan, sandhill crane, oldsquaw, king eider, glaucous gull, Arctic tern, Sabine's gull, snowy owl, Arctic yellow-billed and red-throated loons.

3 WATERFOWL

The coastal areas of Kent Peninsula and Melbourne Island provide very important habitat for nesting black brant and white-fronted geese, and eider ducks.

4 WATERFOWL

This wildlife area, which consists of the Queen Maud Gulf Bird Sanctuary, is a major nesting ground for Ross' geese and snow geese. Nesting colonies are found throughout the sanctuary on islands in the numerous shallow lakes.

5 WATERFOWL

The numerous shallow tundra ponds and lakes, well-vegetated lowlands and coastal waters associated with southwestern Kent Peninsula, provides very important habitat for a large number and variety of breeding and non-breeding birds that include Canada geese, white-fronted geese, whistling swans, king eiders, oldsquaws, sandhill cranes, glaucous gulls and loons. Coastal areas appear to be particularly important for molting and brood-rearing waterfowl =, mostly Canada geese, king eiders, and oldsquaws. The wet lowlands, at the head of the river draining into Walker Bay supports upwards of 300 breeding and non-breeding whistling swans along with a large number and variety of other birds.

6 SEABIRDS

These areas support small colonies of nesting gulls that range in size from approximately 10 to 25 breeding pairs. These colonies contain either or both glaucous gulls and Thayer's gulls.

7 SEABIRDS

A small island in this lake is used by approximately 10 pairs of breeding glaucous gulls for nesting. This small island is in the Finlayson Islands is the site of a nesting colony of approximately 50 breeding pairs of Arctic terns.

8 RAPTORS

An abundance of cliff faces associated with nearby well-vegetated lowlands within this area provides optimal nesting habitat for raptors. Because of their relatively small overall population sizes, nesting success is

particularly critical for peregrine falcons and gyrfalcons. All nesting areas used by peregrines and gyrfalcons are designated critical. This area appears to support a high density of raptor population consisting of peregrines and rough-legged hawks. The occasional gyrfalcon may also nest within this area.

9 RAPTORS

Although the raptor densities are likely much lower than in the Richardson Islands and Nakyoktok River areas, scattered cliff faces associated with escarpments and coastal stream drainages, found throughout much of that portion of Victoria Island covered by this map sheet, provides some optimal nesting habitat for raptors. The area appears to be used mostly by peregrine falcons and rough-legged hawks. The occasional gyrfalcon may also nest in this area.

10 ARCTIC FOXES AND WOLVES

Inuit hunters report the Arctic foxes and wolves den in these areas.

11 CARIBOU

Victoria Island provides year-round range for up to 8000 caribou, most of which are found on the western part of the island. Although the status of this island caribou population is unknown, it does appear to be highly productive. Wolf predation, unlike the situation found among caribou populations immediately south of Victoria Island, on the mainland, does not appear to be an important factor in the overall mortality of this population, as wolves are extremely scarce on the island. This population also does not appear to be subjected to periodic severe winter conditions that may be characteristic of high Arctic islands immediately to the north, and which has resulted in recent years in the near extinction of some of these northern island caribou populations.

The caribou population of Victoria Island appears to consist of two more or less distinct races of caribou. A Peary type which appears to be confined to the northern half of the island, particularly west of the Shaler Mountains. Throughout the rest of the island, the caribou population is thought to be made up mainly of a form of caribou that is likely an intergrade between barren-ground and Peary caribou.

Little is known about the seasonal movements of caribou on Victoria Island. They do not appear to make concentrated long distance migrations but rather short distance seasonal shifts in their range.

The map area provides year-round range for caribou but receives most use by caribou during winter. Areas of particular importance for wintering caribou appear to be those portions of the map area that lie west of Wellington Bay and from Ferguson Lake, north. Many of the caribou wintering within this map area likely move, after calving, to summer ranges that lie to the northwest of this area.

Some Victoria Island caribou have been observed by Inuit hunters on islands in the Duke of York Archipelago during previous winters.

Small numbers of barren-ground caribou are found on Kent Peninsula throughout the year.

12 MUSKOX

Most of the population of approximately 13,000 muskox thought to inhabit Victoria Island can be found on suitable ranges throughout the year within the boundaries of this large important area which generally includes most of the more extensively vegetated regions of this island. On Victoria Island, these better vegetated areas occur mostly at elevations below 300m. Most of the present muskox population appears to be concentrated in the northwestern end of Victoria Island.

The overall muskox population of Victoria Island appears to be increasing. Further and perhaps even dramatic increases in the number of muskox over much of their range on Victoria Island is likely to occur. General trends in habitat selection have been noted for muskox. Muskox grazing areas are often near or along the coast or in lowlands below 150 meters elevation. These lowland areas provide range for many muskox throughout much of the year. Some selection for slopes and ridges with windswept areas of exposed vegetation in late winter, and south-facing slopes with early snow melt patches in early spring, is thought to occur. These areas are likely more critical during those winters and springs when unusual snow conditions make foraging in lowlands extremely difficult.

Only a few muskox currently inhabit the map area. Within the area, muskox are associated mostly with better vegetated lowlands adjacent to the coast or along river and stream drainages.

13 MUSKOX

Steep, rocky hills, lush willow vegetation in the valleys, and many deep lakes characterize this wildlife zone. Muskox calf throughout this area.

14 POLAR BEARS

Polar bears are rare in Wellington and Cambridge bays. During the winter of 1976, a solitary polar bear was sighted at Fergusen Lake.

15 POLAR BEARS AND SEALS

Ringed seals are found year-round throughout the marine portion of this map area in varying densities. They occur in moderate numbers in Coronation Gulf, particularly on the stable land-fast ice found in the area of the Duke of York Archipelago and Richardson Islands. Hunters and pilots have reported that ringed seals exist in low numbers east of Richardson Islands but are abundant in the vicinity of Finlayson Islands.

Bearded seals are found in limited numbers on the moving pack and pan ice among the islands in the Duke of York Archipelago. They are rarely seen along the south coast of Victoria Island east of the Richardson Islands.

Polar bears are not common in Coronation Gulf and Dease Strait and are rare in Bathurst Inlet.

16 SEALS

Wellington and Cambridge bays are usually open in the middle of July. Rather than penetrating right into the bays, the majority of seals are found swimming among the loose pans of ice at the mouths of the bays. During the winter and spring, ringed seals and their birth lairs are found on the land-fast ice inside the bays.

The bearded seal is rarely seen along this portion of the Victoria Island coast-line.

17 SEALS

In Bathurst Inlet, ringed seals are abundant in late winter, associated with the numerous ice pressure ridges. The ringed seal is very important in the Inuit economy for it supplies meat for men and dogs, and skins for clothing.

18 WALRUSES

This walrus sighting is the most easterly observation of the pacific subspecies (*Odobenus rosmarus divergens*) known to be recorded. The Pacific and Atlantic (*Odobenus rosmarus rosmarus*) subspecies of the walrus are thought to be separated by the Arctic Archipelago. This barrier seems to have a minimum breadth of three hundred miles and within the study area includes Queen Maud Gulf, Victoria Strait and M'Clintock Channel.

19 SEALS AND BELUGAS

Two sightings of solitary harp seals in Cambridge Bay were reported between 1970 and 1980. Such occurrences are rare as the Arctic Archipelago is thought to bar harp seal from the western Arctic. A beluga was sighted in Cambridge Bay during the summer of 1977. The stock to which this whale belonged is not known.

20 BOWHEADS

Between 1900 and 1934, bowheads were sometimes found as far east as Coronation Gulf and Dease Strait.

21 GRIZZLY BEARS

Inuit hunters report seeing grizzly bears in this area.



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The Community of Cambridge Bay

Hamlet of Cambridge Bay

Cambridge Bay HTO Board Members and Chairpersons

Department of Environment, Government of Nunavut

Interviewees — Cambridge Bay (Jack Epakohak, Jimmy and Ruby Haniliak, Margaret Nakashook, Henry Ohokannoak, Allen Kitigon, Charlie Keyok, James Epakohak, Elik Tologanak, Simon Oleekatalik, Nee Oleekatalik, Abe Ukuqtunnaq)

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APPENDIX 1

INTERVIEWEE BIOGRAPHIES

NAME	BIOGRAPHY
Jack Epakohak	Jack was born at Wellington Bay in 1951. He began recreational fishing between the ages of 6 and 8 years old. When he was 19 he moved from Wellington Bay to Cambridge Bay and began commercial fishing. He has live within the community ever since. He is still actively fishing and hunting, and is a commercial fishing captain for the Ekalluk and Surrey Rivers.
Jimmy and Ruby Haniliak	Jimmy was born in 1950 at Bathurst Inlet. Ruby was born in 1960 in Kugluktuk (then Coppermine NWT). Jimmy moved to Cambridge Bay in 1957 when the Bathurst trading post closed down. He spent lots of his youth travelling by dog team and expanded these travel routes when he got a skidoo. They are both still actively fishing and hunting. Ruby travels when it is safe for everyone to travel, but the amount of time it is safe during the year is decreasing because of changes to the land and environment.
Margaret Nakashook	Margaret was born in 1939 in Kugluktuk (then Coppermine NWT), but because she was born before registrations began, she is recorded as being born in 1938. She grew up in the Parry river area. She was 10 years old when she was first allowed to go on the seal hunts. She continued to hunt and fish up until 2014
Henry Ohokannoak	Henry was born in 1948 at Strommess Bay. He grew up in the areas of Anderson Bay and Byron Bay. His family would travel north to Cambridge Bay to pick up supplies before continuing on to go polar bear hunting. He began to hunt and fish when he was 8 years old and was allowed to go out on the land by himself by the time he was 15. He moved to Cambridge Bay in 1969, and continues to be an active hunter and fisherman catching char, whitefish, trout, muskox, seal, and caribou.
George Angohiatok	George was born in 1955, just south of the map extent. He moved to Cambridge Bay in 1966, moving from place to place with residential schools before then. George began to fish and hunt when he was "knee high", however, started his own trap line when he was an early teen.
Allen Kitigon	Allen was born in 1942, in the Back River area. His father told him he was born during the war. He grew up in Bay Chimo until 1957 when he was taken by dog team on a 17 day journey north to live in Cambridge Bay.

Charlie Keyok	Charlie was born in 1938 near Cape Bathurst. He grew up in an area off this map to the south west, south of Rocking Horse Lake on a river that runs to the east. When he was growing up they didn't use ages like they do today so he doesn't know the exact age he began fishing and hunting, but it was very young. While he was a child he helped to tag fish. Up until 1987 he lived travelling out on the land then settled in Cambridge Bay. He is still actively hunting and fishing whatever is available. He learned while young that the snow drifts run predominantly north to south, and can be used to aid in navigation during a blizzard. He also learned to use the stars to navigate in winter and can use the location of Orion's belt to find his way around.
Anonymous	
James Epakohak	James was born in 1959 at Wellington Bay. He grew up in the same area. He does not know exactly how old he was when he started hunting and fishing, but he has been doing it on and off for his entire life. For the past 44 years he has lived in the community of Cambridge Bay and continues to hunt and fish although not as much as when he was younger.
Elik Tologanak	Elik was born in the winter Of 1953 in an igloo at Mintu Inlet to the north just off the map. She spent the first few years of his life at Mintu Inlet then moved to Prince Albert Sound. Because there were only girls in her family she took over the role of hunting and fishing as she got older. Not all girls became hunters, and she feels lucky to have been chosen to learn. Her father was from Cambridge Bay so she had relatives in the community. As she was growing up her diet consisted mainly of mammals but also contained fish. She married in 1974 and moved to Kugluktuk (then Coppermine) for several years. She moved with her husband to Cambridge Bay in 1989 and has been living here ever since.



APPENDIX 2

ACRONYMS AND ABBREVIATIONS

CWS – CANADIAN WILDLIFE SERVICE

DFO – DEPARTMENT OF FISHERIES AND OCEANS

DOE – DEPARTMENT OF ENVIRONMENT

GN – GOVERNMENT OF NUNAVUT

HTO – HUNTER/TRAPPER ORGANIZATION

IQ – INUIT QAUJIMAJATUQANGIT

IPCC – INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

NCRI – NUNAVUT COASTAL RESOURCE INVENTORY

APPENDIX 3 BIRD EVALUATION

SPECIES	(L) GODFREY (1986) (R) SNYDER (1957)	CWS	MISC.	FRASER (1957)	ELLIS (1956)	PARMELEE ET AL, (1967)	KNAPTON (10 YEARS OF RECORDS KEEPING)	RICHARDS (13 YEARS OF RECORDS KEEPING)	LOK, VINK, ET AL 3 YRS.	WATERS (1961)	ALSOP (1974)	KAMPF (1988)	KUHNIGK (1984-5)	NCRI ID	COMMENT ON NCRI SPECIES ONLY
Gr. White-fronted Goose*	B	x	x	b		B	B	B	B	x	x	B	x	Y	ok
Snow Goose*	B B	x				x	x	B	x				x	Y	ok
Ross's Goose*	B	x	x											Y	ok
Brant*	B B	x	x	B		B	x	B	B	B	x	B	B	Y	ok
Cackling Goose*			B				x	B	x	B			B	Y	ok
Canada Goose*	B B	x	x	b	x	B	x	B	B		x	B		Y	ok
Tundra Swan*	B B	x	x			B	x	B	B	B	x	B	B	Y	ok
American Wigeon		x	x												
Mallard			x	x											
Northern Pintail*	B	x	x			x	x	B	x	x		B	x	N?	Fairly common here. Odd they were not listed
Green-winged Teal		x	x			x		x		x					
Canvasback			x												
Greater Scaup		x	x					x	x						
King Eider*	B B	x	x	x	B	B	B	B	B	B	B	B	B	Y	ok
Common Eider*	B B	x	x	x		B	x	B	x		x		x	Y	ok
Harlequin Duck								x							
White-winged Scoter			x												
Long-tailed Duck*	B B	x	x	b	B	B	x	B	B	B	x	B	B	Y	ok
Common Goldeneye		x	x				x								
Common Merganser		x												Y	rare
Red-breasted Merganser*	B	x	x			x		x	B				x	Y	ok
Willow Ptarmigan*	B B	x	x		x	B		x	x	B	x		x	Y	ok
Rock Ptarmigan*	B B	x		x	x	B		B	x	B	B	B	B	Y	ok
Red-throated Loon*	B B	x	x	x	x	B	x	B	B	x	x	x	B	Y	ok
Pacific Loon*	B B	x	x	x	x	B	x	B	B	B	x	x	B	Y	Name has been changed: now called Arctic Loon
Common Loon		x	x					x						Y	uncommon
Yellow-billed Loon*	B B	x	x	x		B	x	B	x	B	x	x	x	Y	ok
Bald Eagle			x				x	x						N?	Seen at C.B. rarely contrary to statements



SPECIES	(L) GODFREY (1986) (R) SNYDER (1957)	CWS	MISC.	FRASER (1957)	ELLIS (1956)	PARMELEE ET AL, (1967)	KNAPTON (10 YEARS OF RECORDS KEEPING)	RICHARDS (13 YEARS OF RECORDS KEEPING)	LOK, VINK, ET AL 3 YRS.	WATERS (1961)	ALSOP (1974)	KAMPF (1988)	KUHNIGK (1984-5)	NCRI ID	COMMENT ON NCRI SPECIES ONLY
Rough-legged Hawk*	B B	x	x	B		B	x	B	B	B			B	Y	ok
Golden Eagle						x								N?	Seen at C.B. rarely contrary to statements
Merlin		x	x					x	x				x		
Gyr Falcon*	B B	x				x		x					x	Y	ok
Peregrine Falcon*	B B	x	x	B		B	x	B	x	x		x	x	Y	ok
Sandhill Crane*	B B	x	x	b		B	x	x	x				B	Y	ok
Black-bellied Plover*	B B	x	x	x	B	B	x	B	B	B	B		B	N?	Common breeder here. Odd that they were not listed
American Golden-Plover*	B B	x	x	x	B	B	B	B	B	B	x	x	B	Y	ok
Semipalmated Plover*	B B	x	x	x	B	B	x	B	B	B		x	x	Y	ok
Killdeer		x	x												
Whimbrel		x	x			x		x							
Ruddy Turnstone*	B B	x	x		B	B		B	B	B	B	B	B	Y	ok
Red Knot*	B B	x	x			B		B		x			B	Y	ok
Sanderling	B B	x		x		B		x			x	x	x	N?	Odd they're not seen
Semipalmated Sandpiper*	B B	x	x		x	B	x	B	B	B	B	B	B	N?	The most common breeding shorebird in C.B. Odd they were not listed
Least Sandpiper		x	x		x		x	x			x				
White-rumped Sandpiper*	B B	x	x		x	x		B		x	B		B	N?	Similar to others so not odd to see them left out
Baird's Sandpiper*	B B	x	x		x	B	B	B	B	B	x	x	B	Y	ok
Pectoral Sandpiper*	B B	x	x		x	B	x	B	B	B	x	x	B	N?	Odd they were not listed. A common breeder in C.B.
Purple Sandpiper		x	x												
Dunlin	B	x	x			x	B								
Stilt Sandpiper*	B B	x	x		x	B	x	B	B	B	B	B	B	N?	Common here. Odd they were not listed
Buff-breasted Sandpiper*	B B	x	x			B	B	B	x	x	x		B	Y	ok
Red-necked Phalarope*	B B	x	x			B	x	B	x	x	x	x	x	Y	ok
Red Phalarope*	B B	x	x	x	x	B	x	B	B	B	B	B	B	Y	Listed as Gray Phalarope
Black-legged Kittiwake		x	x												

NUNAVUT COASTAL RESOURCE INVENTORY

SPECIES	(L) GODFREY (1986) (R) SNYDER (1957)	CWS	MISC.	FRASER (1957)	ELLIS (1956)	PARMELEE ET AL, (1967)	KNAPTON (10 YEARS OF RECORDS KEEPING)	RICHARDS (13 YEARS OF RECORDS KEEPING)	LOK, VINK, ET AL 3 YRS.	WATERS (1961)	ALSOP (1974)	KAMPF (1988)	KUHNIGK (1984-5)	NCRI ID	COMMENT ON NCRI SPECIES ONLY
Sabine's Gull*	B B	x	x	x	B	B	x	B	B	B	x	x	B	Y	ok
Bonaparte's Gull							x								
Ross's Gull		x						x							
Mew Gull								x							
Herring Gull		x	x	x	x	x	x	x	x					Y	ok
Thayer's Gull*	B	x	x			B	x	x	x	x	x		x	Y	ok
Iceland Gull	B	x						x							
Lesser Black-backed Gull			x								x				
Slaty-backed Gull		x	x				x	x							
Glaucous-winged Gull			x				x								
Glaucous Gull*	B B	x	x		B	B	x	B	B	B	B		B	Y	ok
Arctic Tern*	B B	x	x	x	B	B	x	B	B	B	B		B	Y	ok
Pomarine Jaeger*	B B	x	x	x		B	x	B	x	B	x		x	Y	ok
Parasitic Jaeger*	B B	x	x			B	x	B	B	B	x	B	B	N?	Fairly common breeding bird in C.B.
Long-tailed Jaeger*	B B	x	x	B	x	B	x	B	B	B	B		B	N?	A very common breeding bird in C.B.
Thick-billed Murre						x									
Black Guillemot		x	x			x									
Snowy Owl*	B B	x	x	x		B		B		B	x	x	x	Y	ok
Short-eared Owl		x				b	x	b					x		
Rufous Hummingbird			x												
Belted Kingfisher		x	x												
Common Raven*	B B	x	x			B	x	B	x				x	Y	ok
Horned Lark*	B B	x	x			B	x	B	B	B	x		B	Y	ok
Purple Martin			x												
Tree Swallow						x									
Bank Swallow			x			x									
Barn Swallow		x	x			x		x						Y	ok. uncommon
Ruby-crowned Kinglet			x												
Mountain Bluebird*		x							x					Y	ok. rare
Hermit Thrush		x	x												
American Robin				x										Y	ok. rare
Varied Thrush			x												
Brown Thrasher			x												



SPECIES	(L) GODFREY (1986) (R) SNYDER (1957)	CWS	MISC.	FRASER (1957)	ELLIS (1956)	PARMELEE ET AL, (1967)	KNAPTON (10 YEARS OF RECORDS KEEPING)	RICHARDS (13 YEARS OF RECORDS KEEPING)	LOK, VINK, ET AL 3 YRS.	WATERS (1961)	ALSOP (1974)	KAMPF (1988)	KUHNIGK (1984-5)	NCRI ID	COMMENT ON NCRI SPECIES ONLY
American Pipit*	B B	x	x	x	x	B	x	B	x	B	x		B	N?	Odd they were not reported. Fairly common breeder at C.B.
Bohemian Waxwing			x												
Lapland Longspur*	B B	x	x	x	B	B	x	B	B	B	B	B	B	Y	ok
Smith's Longspur		x	x												
Snow Bunting*	B B	x	x	x	x	B	x	B	B	B	x	B	B	Y	ok
Orange-crowned Warbler			x												
Blackburnian Warbler			x												
Yellow Warbler			x											Y	ok. rare
Yellow-rumped Warbler			x												
Blackpoll Warbler			x												
Northern Waterthrush			x											Y	ok. rare
Townsend's Warbler			x												
Wilson's Warbler			x												
American Tree Sparrow			x			x									
Savannah Sparrow		x	x			x		b	x		x				
Song Sparrow		x						x							
Swamp Sparrow		x						x							
Harris's Sparrow		x	x			x	x	x							
White-crowned Sparrow*		x	x			x	x	B			x			N?	Uncommon but regular at C.B.
Dark-eyed Junco						x									
Western Tanager		x	x												
Red-winged Blackbird			x			x				x					
Rusty Blackbird		x	x					x							
Common Redpoll*	B B	x				B		b		B			x	Y	ok
Hoary Redpoll*	B	x				B	x	B	x		x		x	Y	ok
Pine Siskin		x	x					x							
113 species															

Northern Shoveler - Highly unlikely; it would appear from the list that more than one interviewee reported them and I would suggest that perhaps they were seeing a Mallard (which would also be very unusual although this species has been recorded there before).

Steller's Eider - Highly unlikely, but not impossible. A bird from Alaska and west coast. Hypothetical.

White-tailed Ptarmigan - A bird normally found in western Canada (Yukon), so I'm not convinced on it being here. Hypothetical.

Blue Jay - Not sure what was seen, but this species would be exceedingly rare almost anywhere in the Arctic except below the tree line. Hypothetical.

Dovekie - Would be unusual this far west, but certainly possible.

Long-billed Curlew - A bird from the sw United States and w. Canada. No doubt they observed a Whimbrel.

Common Murre - Very doubtful. It may have been a Thick-billed Murre which would even be very uncommon here.

E. Yellow Wagtail - Highly unlikely, but not impossible. Hypothetical.

Chipping Sparrow - Highly unlikely. Perhaps they observed an Am. Tree Sparrow. Hypothetical.

Pine Grosbeak - Highly unlikely; not this far north; only as far as James Bay and below tree line. Hypothetical.

American Goldfinch - Doubtful; not above tree line; perhaps they observed a Pine Siskin. Hypothetical.

The study area represented by the master list above covers the southeast coast of Victoria Island from

Wellington Bay on the west, to Albert Edward Bay on the east, and inland at least north to Ferguson Lake (also covers Ovayok Territorial Park).

Names and arrangement according to: American Ornithologists Union Check-List of North American Birds, 1998, and annual Supplements.

Note: The region now known as Nunavut was part of the Northwest Territories prior to 1999, and thus, any references to the N.W.T. in the bibliography.

CODES FOR MASTER SPECIES LIST:

B = breeding

b = breeding suspected

x = reliably observed

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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) – Birds of Nunavut Checklist - denotes general status for the geographic area (ie; Arctic Islands (north of 60), James Bay Islands, and Mainland), but does not imply that a record exists for each species in the specific checklist area.

Richards & White codes: (Please refer to my 2008 checklist as there was not enough room in the above listing to include my 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, or polynyas exist

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

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Trip lists: Lok, Vink, et al. – 1986, 1988, 2012 (3 years; composite)

Trip lists: J. Richards, et al. – 1990, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2006, 2009, 2011, 2014 (13 years; composite)

Note:

Lesser Yellowlegs reported by Ellis (1956) is hypothetical until further documentation is secured

Western Sandpiper reported by Ellis (1956) is hypothetical until further documentation is secured

Solitary Sandpiper reported by deBeer (2003) is hypothetical until further documentation is secured

Common Tern report by CWS but not verified – highly unlikely; remains hypothetical)

NUNAVUT COASTAL RESOURCE INVENTORY

SPECIES	MISC.	PECK, ET AL.	PARMELEE, ET AL. 1967	NCRI INTERVIEW	COMMENTS ON NCRI SPECIES ONLY
Greater White-fronted Goose		x	b		
Snow Goose*	B	x	B		
Ross's Goose*	B	x			
Brant*		x	B		
Cackling Goose*	B				
Canada Goose*		B	B		
Tundra Swan*		B	B		
Northern Pintail		x	x		
Green-winged Teal		x	x		
King Eider*		B	B		
Common Eider*		B	B		
Harlequin Duck		x			
Long-tailed Duck*		x	B		
Red-breasted Merganser		x			
Willow Ptarmigan*			B		
Rock Ptarmigan*		x	B		
Red-throated Loon*		B	B		
Pacific Loon*		B	B		
Yellow-billed Loon		x	x		
Rough-legged Hawk*		B	B		
American Kestrel	x		x		
Peregrine Falcon			x		
Sandhill Crane		x	x		
Black-bellied Plover*		B	B		
American Golden-Plover*		B	B		
Semipalmated Plover*		B	B		
Whimbrel			x		
Ruddy Turnstone*		B	B		
Red Knot*	B	x	B		
Sanderling*	B	x	B		

Semipalmated Sandpiper*	B	B	B		
White-rumped Sandpiper*	B	x	B		
Baird's Sandpiper*	B	B	B		
Pectoral Sandpiper*	B	x	B		
Dunlin		x	x		
Stilt Sandpiper*	B	B	B		
Buff-breasted Sandpiper*	B	B	B		
Red-necked Phalarope*		x	B		
Red Phalarope*		x	B		
Sabine's Gull*		B	B		
Herring Gull			x		
Thayer's Gull		x	x		
Glaucous Gull*		B	B		
Arctic Tern*		x	B		
Pomarine Jaeger			x		
Parasitic Jaeger*		B	B		
Long-tailed Jaeger*		x	B		
Snowy Owl*		x	B		
Common Raven		x	x		
Horned Lark*			B		
Tree Swallow			x		
Bank Swallow			x		
American Robin		x			
Varied Thrush		x			
American Pipit			x		
Lapland Longspur*		B	B		
Snow Bunting*		B	B		
White-throated Sparrow		x			
Harris's Sparrow		x	x		
White-crowned Sparrow			x		
Yellow-headed Blackbird		x			
Dark-eyed Junco			x		
Common Redpoll		x			



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QUEEN MAUD GULF MIGRATORY BIRD SANCTUARY

No discussion of the birds of Cambridge Bay and vicinity would be complete without mention of the Queen Maud Gulf Migratory Bird Sanctuary. This IBP and designated Ramsar site located 75 km south of Cambridge Bay covers an area of about 60,000 km². It is home to about 95% of the breeding population of Ross's Geese and 15% of Lesser Snow Geese as well as many Canada Geese, White-fronted Geese and Brant. It also hosts large populations of King Eider and Long-tailed Duck and many shorebirds. I could not locate any detailed listing of bird species for the area, and thus, did not include the waterfowl or shorebirds in the list proper for Cambridge Bay. Research on waterfowl has

been conducted in the sanctuary for many years by both the U.S. Fish & Wildlife Service and the Can. Wildlife Service, and is ongoing to this day. A sample bibliography follows:

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Cambridge Bay – 113 species

Jenny Lind Island – 63 species



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Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement

