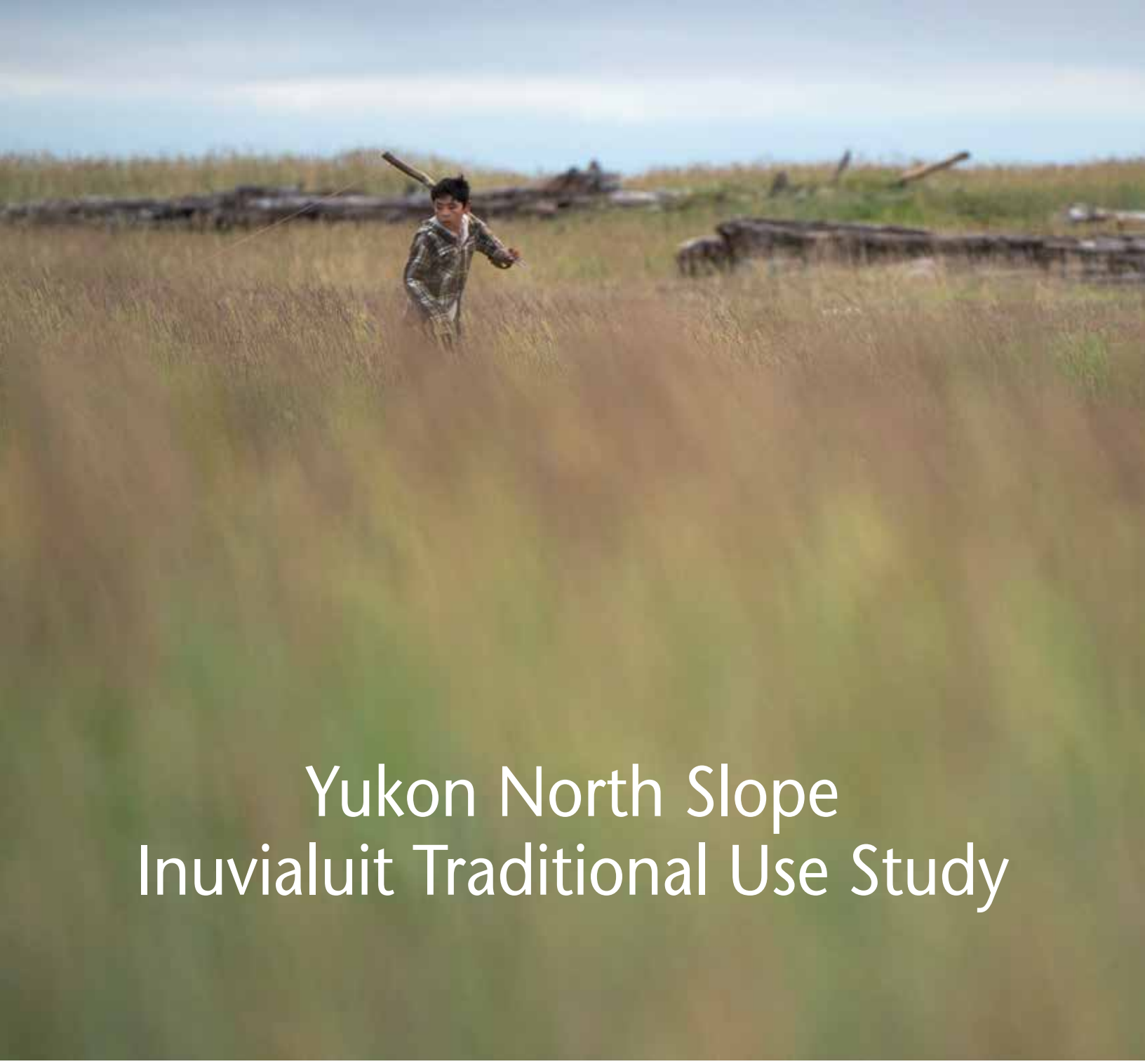

Yukon North Slope Inuvialuit Traditional Use Study

Wildlife Management Advisory Council (North Slope)
and Aklavik Hunters and Trappers Committee

2018

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Cover photo: Near Shingle Point. Photo by Peter Mather

Thanks to Lee John Meyook, Michelle Gruben, Shawn Hughes and the Herschel Island Park Rangers for some of the photos in this report. Any other photos are courtesy WMAC (NS).

Available from: Wildlife Management Advisory Council (North Slope), P.0. Box 31539, Whitehorse, Yukon Y1A 6K8 Canada

Dedication

This report is dedicated to the memory of the parents, grandparents and other ancestors of Inuvialuit whose footprints are everywhere throughout the Yukon North Slope, throughout the YNS, Mackenzie River Delta and other parts of Inuvialuit territory. They live on in memory and in practice, through the Inuvialuit oral tradition and in the hearts and minds of the people interviewed for this study and Inuvialuit living in Aklavik and other communities in the Inuvialuit Settlement Region. Their experience, skills and traditional knowledge are the foundation upon which the traditional use documented in this report is built.

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Foreword

The most powerful rights held by Inuvialuit under their 1984 comprehensive land claim agreement, the *Inuvialuit Final Agreement* (IFA), are those related to wildlife harvesting. These rights are central to protecting a way of life that is defined by the knowledge, ability and opportunity to hunt, trap and fish for more than 70 wildlife species. In the absence of these species and the habitats that support them, Inuvialuit harvesting rights are meaningless. It is for this reason that as a measure of last resort their land claim agreement contains possibly the most demanding compensation provisions of any modern-day treaty for loss of wildlife and harvesting opportunities due to development.

The conservation of Inuvialuit traditional use of the Yukon North Slope (YNS), an area that they have occupied and used back to the time of their earliest ancestors — along with the wildlife and habitat that they depend on— is the legislated overriding management requirement for the area. Conserving and protecting Inuvialuit use of the Yukon North Slope begins with understanding it. That is the purpose of the Yukon North Slope Inuvialuit Traditional Use study and this report on the study.

Building on earlier studies, this report is the most comprehensive documentation of Inuvialuit traditional use of the YNS that has been published to date. In so doing, this report and the study of which it is a part provide the basis for specifying the management requirements and protections necessary to conserve traditional use.

Indigenous traditional land use in Canada and elsewhere has long been a subject of study. Litigation and case law resulting from these studies have contributed to gains in protections for traditional lands, recognition of Aboriginal title and justification and accommodation for infringement on the use of traditional lands by Indigenous people. The YNS Inuvialuit traditional use study provides important information for realizing the promises made to the Inuvialuit and giving effect to the legal obligations established in the IFA to protect a way of life that is central to cultural survival, economic security and community well-being.

The Yukon North Slope and the Inuvialuit Settlement Region have seen their share of development scenarios, from boom to bust, for more than a century. Without question, a sustainable future for the Inuvialuit will include a central place for their continued traditional use of the Yukon North Slope. This study contributes to future work through the Yukon North Slope Wildlife Conservation and Management Plan that will identify what that future looks like on the YNS and what measures are required to achieve it.

Lindsay Staples
Chair, Wildlife Management Advisory Council (North Slope)

Report summary

Notes to readers

These notes provide guidance on the use of important data presentation protocols, technical terms and matters that would otherwise require frequent footnotes.

- Throughout this report, the Inuvialuit who were interviewed in 2015 about their traditional use on the YNS and other portions of the study area are referred to as "participants," "interviewees," "hunters" or "elders."
- The confidentiality of the participants has been respected by not using their names. To document the link between data and their sources (Tobias 2009: 144), Participant Identification Numbers (PIN) are used instead of names. Although participants are credited in the Acknowledgements for their contributions to the study, they cannot be linked to their narratives. An exception to this protocol is Knute Hansen, whose confidentiality could not be protected because he can be easily linked to his narratives given their subject matter. His narratives are used with permission. Narratives attributed to Aklavik Hunters and Trappers Committee resource person, Michelle Gruben, and co-researcher, Judy Selamio, are also with permission. Inuvialuit who are now deceased and who were not interviewed for this study are referred to by name.
- Almost all the narratives presented in this report are edited versions of transcripts of statements made by the interviewees during their interviews in 2015. Other narratives are derived from transcripts of 1990–91 oral history interviews by Murielle Nagy and her co-researchers, Renie Arey and Agnes Gruben White (Nagy 1992; 1994a, 1994b, 1994c). These latter narratives are placed in grey boxes to ensure that they will not be confused with narratives from the 2015 interviews. Although Inuvialuit from Aklavik, Inuvik and Tuktoyaktuk were interviewed for the oral history research, only transcripts of interviews with people affiliated with Aklavik were used in this report, consistent with the sampling strategy for the study (which included Aklavik residents only).
- Square brackets [ ] within quoted texts throughout the report indicate that the words within the brackets are those of the report author, not the interviewee. Words found within round parentheses ( ) are those of the interviewee.
- "Delta" is the shorthand reference for the "Mackenzie River Delta" throughout this report.
- The Inuvialuit place name for Herschel Island has been spelled "Qikiqtaryuk" throughout this report following Burn (2012), except when referenced in narratives from Nagy (1994a, 1994b, 1994c), where it is spelled Qikiqtaqruk, and in the name Herschel Island Qikiqtaruk Territorial Park.
- In report maps, caribou, grizzly bear, moose, sheep, small game, waterfowl, and plant "hunting routes" or "harvest routes" are linear corridors (travel routes) along which interviewees harvested animals or plants. "Fishing stream" is a linear corridor along which interviewees harvested fish. A "traditional use line or route" is a linear corridor along which traditional use activities were conducted.

Intellectual property statement

The data documented during the course of the Yukon North Slope (YNS) Inuvialuit Traditional Use study, and which are presented in this report, are the intellectual property of the Aklavik Inuvialuit and are therefore owned by them. In this case, ownership is represented and administered by the Wildlife Management Advisory Council – North Slope (WMAC (NS)) and the Aklavik Hunters and Trappers Committee (AHTC). The YNS ITU study, of which this report is a product, recognizes, honours and respects the intellectual property rights of the traditional knowledge holders, elders, hunters, and other Inuvialuit who shared their experiences on the YNS, Mackenzie Delta, and other parts of their traditional use territory.

Acknowledgements

The Yukon North Slope Inuvialuit Traditional Use study would not have been possible were it not for the participation of the following Aklavik residents who were interviewed for the study: Barbara Allen, Andrew Archie, Barbra Archie, Billy Archie, Peter Archie, Robert Archie, Cheryl Arey, Dean Arey, Jerry Arey, Larry Arey, Nellie Arey, Renie Arey, Trent Arey, Joe Arey Sr., Peter Arey Sr., Walter Bennett, Dwayne Benoit, Annie B. Gordon, Annie C. Gordon, Colin Gordon, Danny "Boy" Gordon, Danny C. Gordon, Eva Gordon, Patrick Gordon, Andrew Gordon Sr., Knute Hansen, Leonard Inglangasuk, Clara Inglangasuk, George Irish, Esther Joe, Walter Malegana, Wilson Malegana, Dean McLeod, Edward McLeod, Samuel McLeod, Sarah Margaret McLeod, Jonas Meyook, Lee John Meyook, Mary Ruth Meyook and Hugh Papik.

Peter Armitage and Stephen Kilburn were responsible for the study research design in consultation with the Aklavik Hunters and Trappers Committee (AHTC) and WMAC(NS), in particular, Lindsay Staples, Jennifer Smith and Christine Cleghorn. As Principle Investigator, Peter Armitage conducted community interviews and consultation meetings and workshops, and was the lead author of the study report. Lindsay Staples also contributed text to the report and undertook careful editorial review along with Jennifer Smith. Stephen Kilburn was responsible for base map design, spatial information processing, and report cartography. The transcription of interview audio recordings was the responsibility of Meagan Perry of MAP Communications Consulting.

Michelle Gruben, resource person for the AHTC, provided invaluable organizational and administrative support for the study, and together with the community co-research, Judy Selamio, worked tirelessly to recruit the aforementioned residents for study interviews. Judy brought great passion and experience as a land user and researcher to the study interviews, which was greatly appreciated.

Many thanks to Jennifer Smith, Christine Cleghorn, Aimee Schmidt, and Lindsay Staples at WMAC(NS) for their administrative and logistical support. Thank you to Patricia Halladay for her able copy editing and report layout. Thank you also to the WMAC(NS) office, the AHTC, and Kim Heinemeyer (Round River Conservation Studies) for their input into the design of the YNS ITU study methodology. Study interviews were conducted in a Government of the Northwest Territories office in the David Buck Storr building, which was authorized by Gary Vickers. Greatly appreciated, Mr. Vickers!

This study was supported by Inuvialuit Final Agreement Implementation Funds that were provided by the Government of Canada to the Wildlife Management Advisory Council (North Slope).

Abbreviations

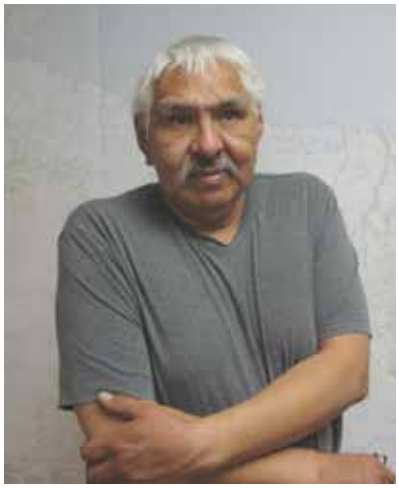
aka	otherwise known as
AHTC	Aklavik Hunters and Trappers Committee
COPE	Committee for Original People's Entitlement
CWS	Canadian Wildlife Service
DEW Line	Distant Early Warning Line
DFO	Department of Fisheries and Oceans (Canada)
GIS	Geographic Information System
GNWT	Government of the Northwest Territories
GPS	Global Positioning System
HBC	Hudson's Bay Company
HTC	Hunters and Trappers Committee
IFA	*Inuvialuit Final Agreement*
ISR	Inuvialuit Settlement Region
ITU	Inuvialuit Traditional Use
NWT	Northwest Territories
PIN	Participant Identification Number
TK	Traditional knowledge
TU	Traditional use
WMAC (NS)	Wildlife Management Advisory Council (North Slope)
YNS	Yukon North Slope

Interviewees, YNS Inuvialuit Traditional Use Study

Barbra Allen

Andrew Archie

Barbara Archie



Billy Archie

Peter Archie

Robert Archie

Cheryl Arey

Dean Arey

Jerry Arey

Joe Arey Sr.

Larry Arey

Nellie Arey

Peter Arey Sr.

Renie Arey

Trent Arey

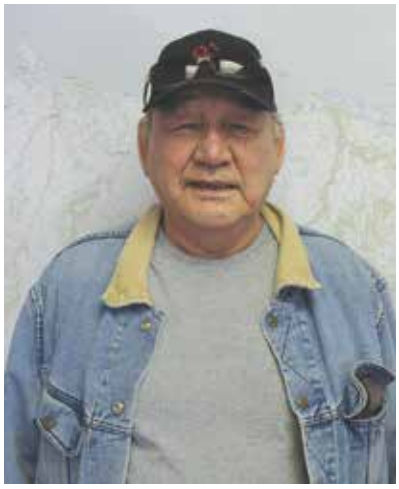
Walter Bennett

Dwayne Benoit

Andrew Gordon Sr.

Annie B. Gordon

Annie C. Gordon



Colin Gordon

Danny “Boy” Gordon

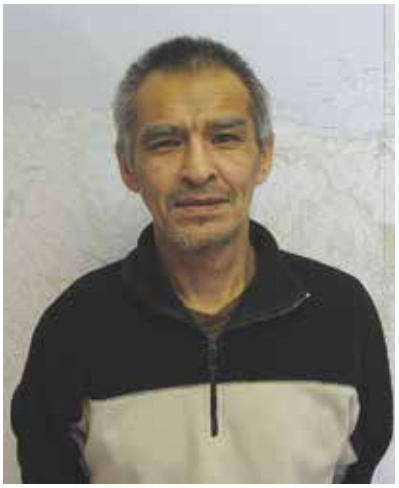
Danny C. Gordon

Eva Gordon

Patrick Gordon

Knute Hansen

Clara Inglangasuk

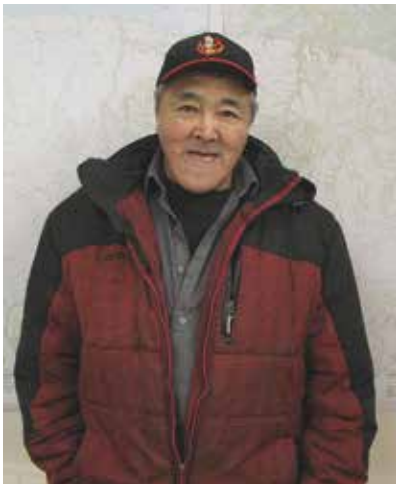


Leonard Inglangasuk

George Irish

Esther Joe

Walter Malegana



Wilson Malegana

Dean McLeod

Edward McLeod

Samuel McLeod

Sarah Margaret McLeod

Jonas Meyook

Lee John Meyook

Mary Ruth Meyook

Hugh Papik

Judy Selamio, researcher, and Peter Armitage, researcher/writer

1 Introduction

1.1 Study objectives

The Yukon North Slope Inuvialuit Traditional Use (YNS ITU) study provides important information in support of the Yukon North Slope Wildlife Conservation and Management Plan (the "Conservation and Management Plan") (WMAC (NS) 1996, 2003). This plan is a requirement of the 1984 *Inuvialuit Final Agreement* or IFA (Government of Canada 1984). Its purpose is to provide guidance to the Inuvialuit and their federal and territorial government management partners with respect to the legislated management purposes for the Yukon North Slope (YNS) as established in the IFA: the conservation of wildlife, habitat, and Inuvialuit use. YNS management is based on the premise that "healthy," intact ecosystems — and the wildlife that they support — are required for the long-term conservation of Inuvialuit onshore and offshore traditional (e.g., harvesting) activities.

In developing and renewing the Conservation and Management Plan, the Wildlife Management Advisory Council–North Slope (WMAC (NS)) has sought to better document Inuvialuit hunting, fishing, trapping, plant collection, travel, and other forms of traditional use on the YNS. This includes places where people have stayed in cabins and tents, burial and birth sites, and other places of cultural, historical or personal importance. Although the YNS ITU study aims to provide this documentation, its purpose is not to document a claim of aboriginal rights; Inuvialuit rights in the YNS are affirmed and protected under the IFA. Rather, its purpose is to: (a) establish a contemporary baseline for Inuvialuit use of the YNS; and (b) provide the

basis for identifying the measures necessary to conserve and protect Inuvialuit use, now and in the future.

In partnership with WMAC(NS) and in order to provide a strong empirical basis for the Conservation and Management Plan, companion studies and analyses have been conducted by Parks Canada, the Government of Yukon, and Round River Conservation Studies. They employed a variety of concepts and tools from conservation biology such as ecological land unit modelling, ecosystem classification, connectivity analysis, and the identification of "focal species." These approaches have a strong biophysical spatial data orientation that requires use of GIS technology. The YNS ITU study links to this ecosystem research by providing spatial information about traditional use (TU) activities that may serve as proxies for the habitat of caribou, grizzly bears, wolverines, and other species.

1.2 Methods[1]

The study area for the TU study encompasses the YNS[2] and adjacent areas of contiguous use, such as the western side of the Mackenzie Delta (see Map 1). It comprises the western portion of the Inuvialuit Settlement Region (ISR), bounded by the Alaska-Yukon border in the west, the Beaufort Sea in the north, Old Crow Flats and the interior of the Richardson Mountains in the south, and the eastern edge of the inner Mackenzie River Delta (the "Delta") in the east. Ivvavik National Park and Herschel Island Qikiqtaruk Territorial Park are included in the study area. Interview base maps were produced at 1:125,000 scale (see Map 1).

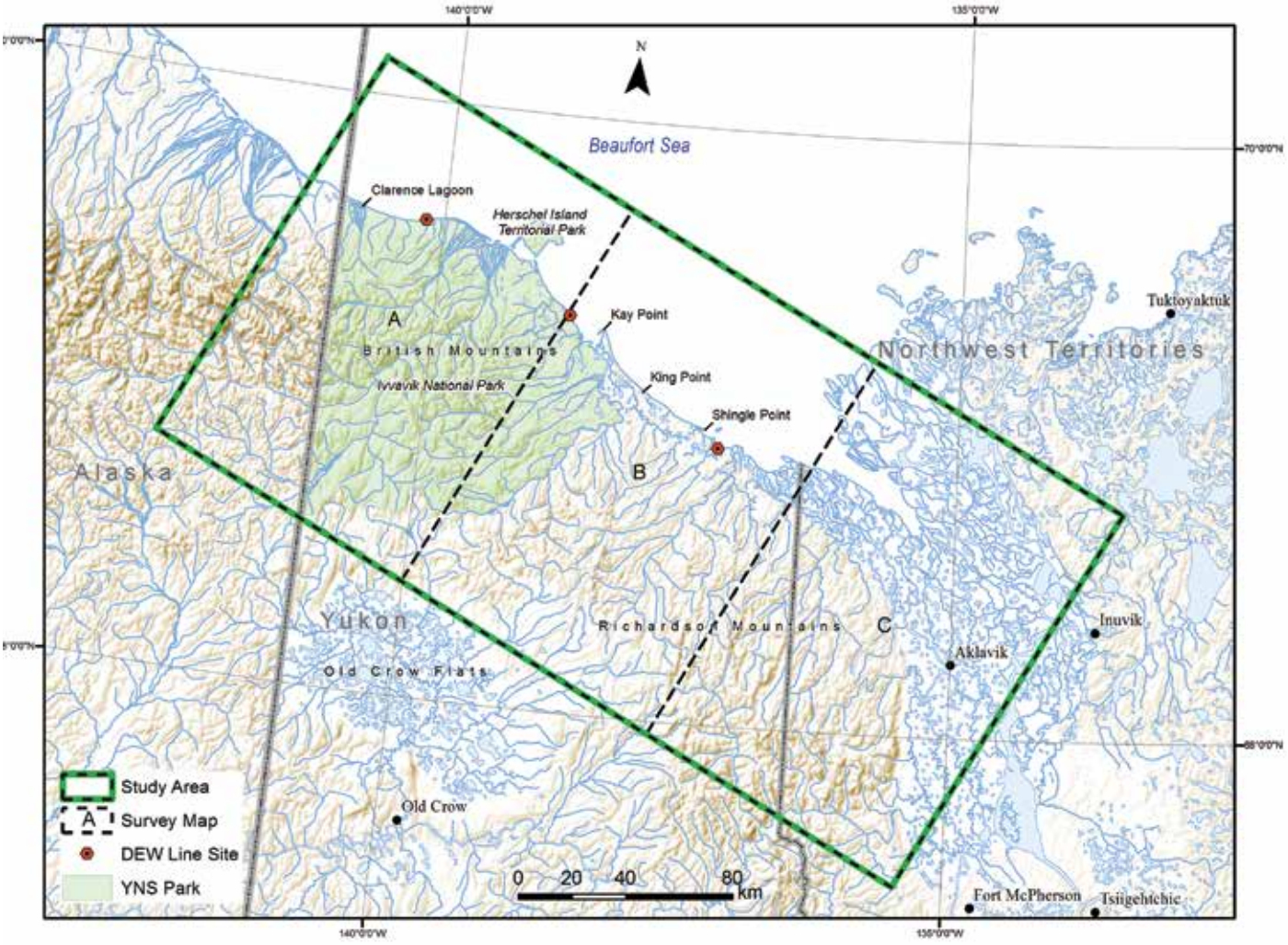
In January 2015 a research planning meeting was held with the Aklavik Hunters and Trappers Committee (AHTC) and two pilot interviews were conducted, after which a data collection manual, interview base maps, and map biography questionnaire were finalized. Research design, including map biography methods and the conduct of the research itself, followed best practices described by Tobias (2009). Interviewees were selected by the AHTC, with their choices informed by criteria provided by Peter Armitage. Of the 259 Aklavik IFA beneficiaries who were 18 years or older in March 2015, 53 (20%) were identified by the AHTC as possible interviewees due to their life experiences on the YNS. They therefore constitute the sampling frame for the study.[3] Of these 53, 40 people (75% of sampling frame) were interviewed during 41 interview sessions. They are listed in the Acknowledgements at the start of this report. Twenty-eight of the interviewees were male, while 12 were female. Twelve of them were older than 65, with the oldest born in 1935. The youngest person interviewed was 22, born in 1993. The age, gender and other characteristics of the interviewee sample are summarized in Tables 1 and 2.

Peter Armitage and Aklavik co-researcher, Judy Selamio, conducted map biography interviews with the 40 land users and elders in the period 24 February to 19 March, 2015. Interviews were audio recorded and interviewees were paid $250 for each interview session.

Of the 40 interviewees, 32 (80% of the interviewees) could read maps well enough to identify the locations of their TU activities on the study base maps; in other words, to make map biographies. Study researchers did not know the map-reading abilities of the interviewees until the start of an interview, at which point it was no longer possible to eliminate someone from the sample. With the audio recorder in operation, interviewees who had trouble reading maps were asked to describe their TU in the study area without reference to the base maps, knowing that their TU activities could be geo-located approximately with the place names they used.

Map 1. Study area: Inuvialuit traditional use, Yukon North Slope

Note: The study area is shown by the green rectangle; three base maps (A, B, C) cover the study area.



Interviewees were asked to pinpoint TU features within "living memory" — that is, in reference to the TU activities they had participated in during their lifetimes. TU categories mapped included kill sites and harvest areas for caribou, moose, Dall's sheep, grizzly bear, wolf, wolverine and other furbearers, snowshoe hare, ptarmigan, ducks, geese, seals, fish, berries, medicine plants, and cultural sites, including cabin and tent locations, birth and burial sites, and other special places of cultural, historical or personal importance.[4] Travel routes and safe havens were also documented. TU features were marked during each interview on one or more of the three 1:125,000-scale custom base maps (A, B, C; see Map 1). Point, line and polygon features were coded according to TU category and these were "verbally anchored" on digital audio recordings of the interviews. By the end of the community research, on 19 March 2015, 107 base maps had been used to record TU features. The 32 interviewees who were able to undertake map biographies recorded 2,091 features on these maps, an average of 65 sites per interviewee.

Table 1. YNS ITU study interviewee characteristics

Characteristic	Number	Note
Inuvialuit 18+ years (Aklavik IFA beneficiaries)	259	—
Interviewees identified by AHTC (sampling frame)	53	(20% of 18+)
Person declined interview	6	—
Person not interviewed, health reasons	6	—
Person could not be contacted	1	—
Total interviewed	40	75% of sampling frame, 15% of 18+
Male interviewees	28	70% of interviewees
Female interviewees	12	30% of interviewees
Born before 1950 (>65)	12	30% of interviewees
Able to do map biography	32	80% of interviewees

The ITU study interviews generated approximately 43 hours of digital audio recordings, which were transcribed by MAP Communications Consulting in September–October 2015. Kilburn scanned the map biographies from the interviews, digitized the TU data marked on them, and created a geodatabase in the period June–July 2015. Armitage "light-coded" the transcripts (1,493 pages) using NVivo qualitative research software in February 2016, based on 12 "nodes" (themes/topics), including birth locations, burial sites, important historical associations, TU practices, etc. These nodes were used to organize interviewee discourse so that it could be efficiently analyzed and "mined" for narratives of potential use in this report.[5]

Armitage returned to Aklavik on 2 March 2016 to present the draft results of the TU study to the WMAC(NS), AHTC and community members. Two workshop sessions were held with study interviewees to review thematic maps of the TU data for errors and omissions. Several people validated TU features on these maps and many additional features were added.[6] These maps were subsequently sent to Kilburn for scanning and digitizing so that the additional information could be integrated into the study geodatabase. Once finalized, the geodatabase contained 2,167 features, including 1,282 points, 398 lines and 487 polygons (areas).

A final set of thematic maps, a composite Summary Map (All Features) and individual land-user maps were prepared by Kilburn in March 2016. The individual land-user maps are high quality poster-size maps of the TU documented by each interviewee during his or her interview. These were sent to the AHTC and distributed to the interviewees in July 2016.

Limitations of, and issues related to the conduct of, the study are discussed at length in a detailed methods report (Armitage 2017). They include "lost data" due to the inability of some interviewees to read maps or to inaudible portions of audio recordings, the possibility that key people were missed in the sample who have substantial TU experience (particularly in parts of the territory not used by those interviewed), and the lack of mapped local place names at the outset of the interviews, which frustrated way-finding in some portions of the study area and which may have affected the accuracy of TU features marked on the base maps, due to interviewees' uncertainty about their location in relation to base map topography. [7]

Table 2. Interviewee PINs, gender and birth years

PIN	Gender	Birth year	PIN	Gender	Birth year	PIN	Gender	Birth year
1	female	1944	107	male	1949	120	male	1988
2	male	1936	108	female	1959	121	male	1968
3	male	1948	109	male	1955	122	male	1951
4	male	1942	110	female	1942	123	female	1935
5	male	1978	111	male	1971	124	female	1963
6	male	1964	112	male	1951	125	female	1961
7	male	1962	113	female	1951	126	male	1972
8	female	1937	114	male	1981	127	female	1963
101	male	1956	115	female	1965	128	female	1962
102	male	1943	116	male	1978	129	male	1961
103	male	1989	117	male	1989	130	male	1951
104	male	1942	118	male	1982	131	male	1993
105	female	1936	119	male	1976	132	male	1949
106	male	1975						

The number of TU features documented in this study is not an indication of the intensiveness of Aklavik Inuvialuit TU. The number of features documented is a function of the number of categories covered in the interview questionnaire and the data marking conventions.[8] Furthermore, the density of TU features — points, lines and polygons — in any part of the thematic and summary maps resulting from the YNS ITU study should not be confused with the intensiveness of Inuvialuit TU in these areas. Their density or lack thereof may be largely a function of the study methodology, in particular, the data marking conventions adopted for the map biographies. The density of the TU features cannot be used to determine the relative importance of these areas to the Inuvialuit in terms of their biological and economic productivity, the currency or frequency of use, or symbolic/cultural value (see Tobias 2009: 40–41).

With respect to community engagement and research ethics, Armitage received approval to conduct the TU study in Aklavik from the Aurora College Research Ethics Committee on 4 February 2015, and was issued a Northwest Territories Scientific Research Licence on 11 February 2015 by the Aurora Research Institute (Licence No. 15594). The licence was renewed for 2016. The informed consent of the interviewees was obtained in writing at the commencement of the study interviews. Community engagement responsibilities were met through involving the AHTC in the research planning process, the preparation of a Community Information Sheet, and public meetings in Aklavik to introduce the TU Study (January 2015) and report on its draft results (March 2016). In addition, interviewees who were able to document their experiences on the YNS on map biographies received an individualized map of their own information, as noted previously.

1.3 Brief history of the Aklavik Inuvialuit[9]

Contemporary Inuvialuit reside in six communities in the Mackenzie River Delta or on the shores of the Beaufort Sea in the Western Arctic: Aklavik, Inuvik, Tuktoyaktuk, Paulatuk, Ulukhaktok (formerly Holman) and Sachs Harbour. The Inuvialuit language is referred to collectively as Inuvialuktun and consists of three distinctive dialects: Uummariutun, Siglitun and Kangiryuarmiutun. Speakers of Uummariutun are known as Uummarmiut; they reside primarily in Aklavik and Inuvik, and are closely related to Alaskan Iñupiat. Siglit people, who are speakers of Siglitun, reside primarily in Tuktoyaktuk, Paulatuk, Sachs Harbour and Inuvik. Kangiryuarmiutun speakers are the Kangiryuarmiut; they reside primarily at Ulukhaktok on Victoria Island, although some speakers of this dialect live in Sachs Harbour.

According to one ancient account, the Inuvialuit are the descendents of an Inuvialuit hunter and his wife, son and an orphan girl, who survived a great flood by building a raft. The boy, who was the spirit of the Raven, captured a pingo, Ibyuk, that was floating on the waves, thereby preventing it from sinking. The family landed on this pingo, after which the flood receded and the formerly barren landscape was transformed into the wildlife-rich area that it is today. The son and the orphan girl married and had many offspring, the Inuvialuit as we know them today (Alunik, Kolausok and Morrison 2003: 11–12). According to archaeological tradition, the Inuvialuit are the descendents of "Neoeskimo" groups, also known as Birnirk and Thule, which means that they are closely related to the Iñupiat of Alaska and the Inuit residing elsewhere in the Canadian Arctic (Betts 2008: 39).

Evidence from the Inuvialuit oral tradition, explorer travelogues and ethnographic, ethnohistoric and archaeological research indicates that the Inuvialuit were divided into eight territorial groups at the time of contact with Europeans (Table 3).

Each group was associated with a primary winter village where the occupants lived on winter stores in sod-driftwood houses, and from where they dispersed for whaling, caribou hunting, fishing and other harvesting activities, as well as trade with neighbouring groups. The Avvarmiut people may have been subdivided further into the Kragmaliveit, resident in the Bathurst Island area, and the Kragmalit, occupying the lower portion of the Anderson River (Betts 2008: 50). Bowhead whaling was conducted at several points of land along the coast such as Atkinson Point and Barter Island, while beluga hunting focused on the Mackenzie Delta, with important base camps at Cache Point, Shingle Point and West Whitefish Station (Friesen 2013: 57–61; Nagy 2012: 155). The total number of Inuvialuit living along the coast between Barter Island and Franklin Bay is estimated to have been 2,000 to 2,500 people (Usher 1971a: 171; see also McGhee 1974: 7).

Table 3. Regional groups of early Inuvialuit peoples

Regional group	Primary village location	Territory
Qikiqtaryungmiut	Qikiqtaryuk (Pauline Cove, Herschel Island)	Barter Island to Shingle Point
Kuukpangmiut	Kuukpak (Richards Island, East Channel)	Richards Island, western Mackenzie Delta
Kitigaaryungmiut	Kitigaaryuit (East Channel, Kugmallit Bay)	Eastern Mackenzie Delta, East Channel to Eskimo Lakes
Imaryungmiut	Not located	Eskimo Lakes
Nuvugarmiut	Nuvugaq (Point Atkinson)	Tuktoyaktuk Peninsula
Avvarmiut/Kragmaliveit?	Avvaq	Cape Bathurst, east of Cape Dalhousie
Avvarmiut/Kragmalit?	Avvaq	Anderson River
Igluyuaryungmiut	Iglulualuit	Franklin Bay, Horton River to Cape Parry

Source: after Betts 2008: 49–50

Although trade was important for all of these regional groups, there appears to have been friction and hostility at times, such that, at least at the time of European contact, the Alaskan Iñupiat considered the YNS Qikiqtaryungmiut unfriendly, while the latter were "afraid" of the people in the Mackenzie Delta (McGhee 1974: 10). The Qikiqtaryungmiut traded on friendly terms with the Gwich'in to the south, travelling back and forth through Old Crow Flats (Nagy 2012: 154).[10]

Qikiqtaryuk on Herschel Island was the primary village of the Qikiqtaryungmiut; however, they appear to have occupied several bays and points at various locations along the YNS in addition to the village at Pauline Cove on the island. These include Clarence Lagoon, Komakuk, Nunaluk Spit, Avadlek Spit, Ptarmigan Bay, Whale Bay, Stokes Point, Kay Point, King Point, Sabine Point, Shingle Point, Running River and Escape Reef (Friesen 2012: 146–150; McGhee 1974: 10; Nagy 2012: 154–155).

Integration of the Qikiqtaryungmiut and other Inuvialuit ancestors into the fur trade economy began as early as 1850, when they began to trap Arctic (white) fox and do business with the Hudson's Bay Company (HBC) at Peel's River Post (Fort McPherson), followed by the HBC's Fort Anderson post, which opened in 1861.[11] Simultaneously on the Alaskan North Slope, the Iñupiat entered into contact with American whalers, a relationship that intensified once Herschel Island was established as a major whaling station in 1890. The station also attracted Nunatamiut and Bering Strait "Masinker" caribou hunters from Alaska, who supplied the whalers with caribou meat on a credit basis (Usher 1971a: 173–175). Together with the resident Qikiqtaryungmiut, these Iñupiat and Nunatamiut immigrants became increasingly integrated into trapping and the fur trade, with Arctic fox trapping along the YNS a major focus.[12] American whaling stimulated a steady influx of the Alaskan peoples to the YNS until its cessation in 1907, when the market for bowhead baleen crashed. Nonetheless, by 1907

trapping and trading furs had started to supplant whaling for the Iñupiat living on the Alaskan North Slope. When fur prices increased in the immediate post-whaling period, these Iñupiat trapping families had plenty of incentive to move to the Mackenzie Delta in order to harvest its rich muskrat and other furbearer resources.

The whaling industry and fur trade brought the Mackenzie Delta Inuvialuit into close contact with the cultural and economic mores of the American whalers and Euro-Canadian traders, and with their epidemic diseases. The latter had devastating impacts on the Inuvialuit both early on and persisting for several decades. The first major epidemic, scarlet fever in 1865, was related to the fur trade and drastically reduced the Avvarmiut in the Anderson River area (Friesen 2013: 63; Usher 1971a: 172). Epidemics of measles and smallpox followed in 1868, 1870, 1871, 1900 and 1902, resulting in the loss of many lives. By 1905, the Inuvialuit population living along the YNS, in the Mackenzie Delta, and eastward to Baillie Island had been reduced from an estimated 2,000 to 2,500 people in 1850 to about 250 (Friesen 2013: 63; McGhee 1974: 5; Usher 1971a: 175).

As Inuvialuit numbers diminished, the Alaskan and Bering Strait immigrants occupied the hunting and trapping territory in the Delta and Richardson Mountains they vacated (Usher 1971a: 175). The extent to which the immigrant Indigenous peoples intermarried or integrated with the former occupants who survived the epidemics is not clear in the historic record. However, Usher (1971a: 175) says that with a second way of immigration from Alaska in the period 1913–23, 75% of the Inuvialuit population in the Delta region was considered Alaskan by Canadian authorities.

> *Lots of them died because of the flu. Even down at Herschel, people get the flu too. At Shingle Point from here it went down. Only me was left when everyone got sick of flu. My mom and dad also my brothers. Everyone was in bed with flu. Because I was only one not sick, I look after the dogs, cook for them. [My dad said] he was so lucky to have me for not having the flu. I also get wood for them....They can't do anything…. Doctor Auker. He was our first doctor here. When he heard we were sick. I don't know how. Maybe he knew the flu is going around. He got ready first before he come with Fred Wolki's boat. Also with Suzie, she just come back from outside, she was outside, she was out with her husband. They came and they make this big pot of soup in this kind of pail, and they hand out Soda Biscuits with soup. Gave everyone some and Fred Wolki and the doctor gave medicine….[L]ots of them died that time….Esau's mother was one of them I remember. When they had no more coffin, they would use old blankets just tie them and out them*[13] *away like that.*
>
> **Kathleen Hansen 1990, Tapes 1B-8, 2A-1 (Nagy 1994a)**

Despite the collapse of commercial whaling in 1907, Herschel Island endured as a trading centre for another thirty years due to the coastal Arctic fox trade, which the HBC dominated through its post at Pauline Cove from 1915 to 1938 (Bockstoce, Ingram and Dobrowolsky 2012). As for the Mackenzie Delta, its myriad channels were rich in muskrat and mink, and were soon peppered with Inuvialuit and Gwich'in "ratting" camps. The HBC established a post at Aklavik in 1912 to capture as much of this fur trade as possible; however, numerous independent fur traders and the Canalaska Company provided vigorous competition (Usher 1975:

316). The 1920s were a particularly prosperous time for the Inuvialuit. High prices for Arctic fox and muskrat enabled many to invest in transportation, hunting and trapping technology. Delta and coastal Inuvialuit owned and operated more than fifty schooners in the period 1928–36, which is a measure of the relative wealth generated by the fur trade (Usher 1971a: 178).

> *They pick up Alaska's people for hunters. And when they get to Herschel Island [Qiqiktaryuk], they do hunting around there. These Alaska people never go back. They lived in the Delta, and our parents too never go back. My dad and them are from Alaska. There is lots of them.*
>
> **Albert Oliver, AO90-11A: 8 (Nagy 1994c: 35)**

Subject always to the vagaries of international fur markets and larger economic forces, the fur trade boom of the 1920s came to an end during the following decade, when the Great Depression hit and muskrat prices fell precipitously. Furthermore, mink and Arctic fox populations declined, which added to the hardships experienced by the Inuvialuit. With the closure of the Herschel Island HBC post in 1938 and the serious contraction in the fur trade, western Inuvialuit gravitated increasingly to Aklavik or Tuktoyaktuk.

Prices for fur rose during the Second World War, but this was followed in the late 1940s by a serious decline in prices for Arctic fox pelts, accompanied by a sharp increase in the cost of imported goods. Muskrat prices rallied briefly around 1950 but the writing was on the wall in terms of the long-term viability of commercial trapping. Nonetheless, fur trapping remained a key component of the Inuvialuit economy despite fluctuating and frequently depressed prices for fur. Numerous "ratting" camps were maintained throughout the Delta into the 1950s. As noted by Usher, "North of a line roughly from Aklavik to Inuvik, there is probably not a single lake or creek that has not been exploited by Inuit muskrat trappers" (1976b: 22).

The encapsulation of the Inuvialuit and Alaskan immigrants in the Canadian nation-state followed inexorably from the arrival of whalers and fur traders in their territory.[14] Early on, in 1903, the North-West Mounted Police (precursor to the RCMP) established a detachment at Pauline Cove on Herschel Island to establish sovereignty on the Yukon-Alaska border, impose law and order, and regulate the fur trade.[15] Over the next several decades the administrative, economic and political tentacles of the nation-state reached increasingly into the lives of the local residents. The police force was responsible for enforcing hunting and trapping regulations, and for providing family allowance rations and other services.

The detachment was closed in 1933, when depression hit the fur trade economy, and Inuvialuit then concentrated their activities at Barter Island, Alaska, or in the Mackenzie Delta. The Herschel Island detachment was reopened in 1948, in part to service the Inuvialuit families who had moved to Barter Island a decade before, but who decided to move back across the border in order to benefit from Canada's newly introduced old age pension and family

allowance (mother's allowance) programs. The Herschel detachment closed its doors for the last time in 1964 (Neufeld 2012: 188–190).

Throughout the 1930s and thereafter, Aklavik grew into a sizeable village and became the main centre for commerce and administration in the Western Arctic. The Anglican and Roman Catholic churches established missions in Aklavik in 1919 and 1926 respectively and thereafter built hospitals and residential schools (Usher 1976b: 21).[16] The Anglican church also operated a residential school at Shingle Point from 1929 to 1936 (Freeman, Wein and Keith 1992: 32; Nagy 1994c: 40).[17] As noted by Freeman, Wein and Keith (1992: 32), "The establishment of schools in the area had two principal impacts upon Inuvialuit society: the first was the removal of children from family-centred activities for a large part of the year, and the second was the weakening of native language use and probably loss of some traditional cultural values and practices among the young people."

In addition to the "local" schools, Inuvialuit children were also sent to far distant institutions at Fort Providence and Hay River in the Great Slave Lake region, and to Carcross, Yukon Territory (Freeman, Wein and Keith 1992: 32). In 1951 the federal government opened a day school in Aklavik, and in 1955 it assumed control over all day schools in the NWT that previously had been administered by the churches (Kolausok 2003: 163). Mandatory school attendance — tied to family allowance benefits — made it virtually impossible for families to live any distance from Aklavik, at least during the school year. This led therefore to a rebalancing of the relationship between income from wage labour and transfer payments on the one hand and subsistence and commodity production activities on the other (Kolausok 2003: 163).

Trapping in the Delta was codified by Canada in 1949 in the form of a registered trapping area system, because the federal government believed that growing numbers of trappers would deplete the muskrat population (Wolforth 1971: 90).[18] Prior to this there was no formal system of exclusive harvesting rights to a given area, although Inuvialuit generally concentrated their hunting and trapping efforts in the vicinity of their camps (Usher 1976b: 22). The steady decline in muskrat fur prices and the construction of the DEW Line (Distant Early Warning Line) sites and of the new government administrative/service centre of Inuvik in the mid-1950s drew many Inuvialuit permanently into the wage-labour economy and brought a massive economic and cultural change to the region (Freeman, Wein and Keith 1992: 34–37; Kolausok 2003).[19] As increasing numbers of trappers entered wage employment, the more distant trapping areas were fallowed or amalgamated; those closer to Aklavik and Inuvik were retained for part-time trapping. The registered trapping area system was changed in 1958–59 to a "group trapping area" (Wolforth

1971: 93).[20] Nonetheless, the mixed, subsistence-based economy persisted to the present-day, despite the reduced reliance on country food and fur harvesting as a cash substitute and the greater dependency on wage employment and government transfer payments (Usher 2002).

Oil and gas exploration in the Mackenzie Delta and south Beaufort Sea brought new challenges to the Inuvialuit. It transformed Inuvik into a boom town, with a major influx of tradespeople and other workers associated with the oil industry, and with this the well-known social problems that accompany rapid economic development and transient labour. Imperial Oil started exploratory work in the Delta in 1958, but exploration accelerated rapidly after oil and gas were discovered by Humble Oil at Prudhoe Bay on Alaska's North Slope in 1968, and by Imperial Oil east of Tuktoyaktuk near Atkinson Point in 1970. Inuvialuit were employed in the exploration activity in a variety of low-skilled jobs, many of them temporary. Worldwide oil shortages and resultant high prices in the 1970s spurred the exploration boom, while the Prudhoe Bay discovery raised concerns about sovereignty and other issues on the part of the Canadian government.

This was followed by the completion of the Dempster Highway between Inuvik and the Klondike Highway near Dawson City, the Mackenzie Valley Pipeline proposal, and the environmental assessment of the proposal by Justice Thomas Berger. Oil and gas exploration and the possibility of other industrial developments pushed the Inuvialuit to establish the Committee for Original People's Entitlement (COPE) in early 1970 in order to defend their land rights in the Western Arctic and give voice to their concerns and aspirations related to the social, economic and environmental effects of the booming exploration activity. COPE vigorously represented the Inuvialuit before the Berger Commission in the period 1974 to 1977, and entered into land claim negotiations with Canada, first as part of the Inuit Tapirisat of Canada, and then independently. A modern-day treaty known as the Inuvialuit Final Agreement (IFA), signed in 1984, was the end result of these negotiations (Berger 1977; Freeman, Wein and Keith 1992; Kolausok 2003).

2

Previous research related to TU on the Yukon North Slope

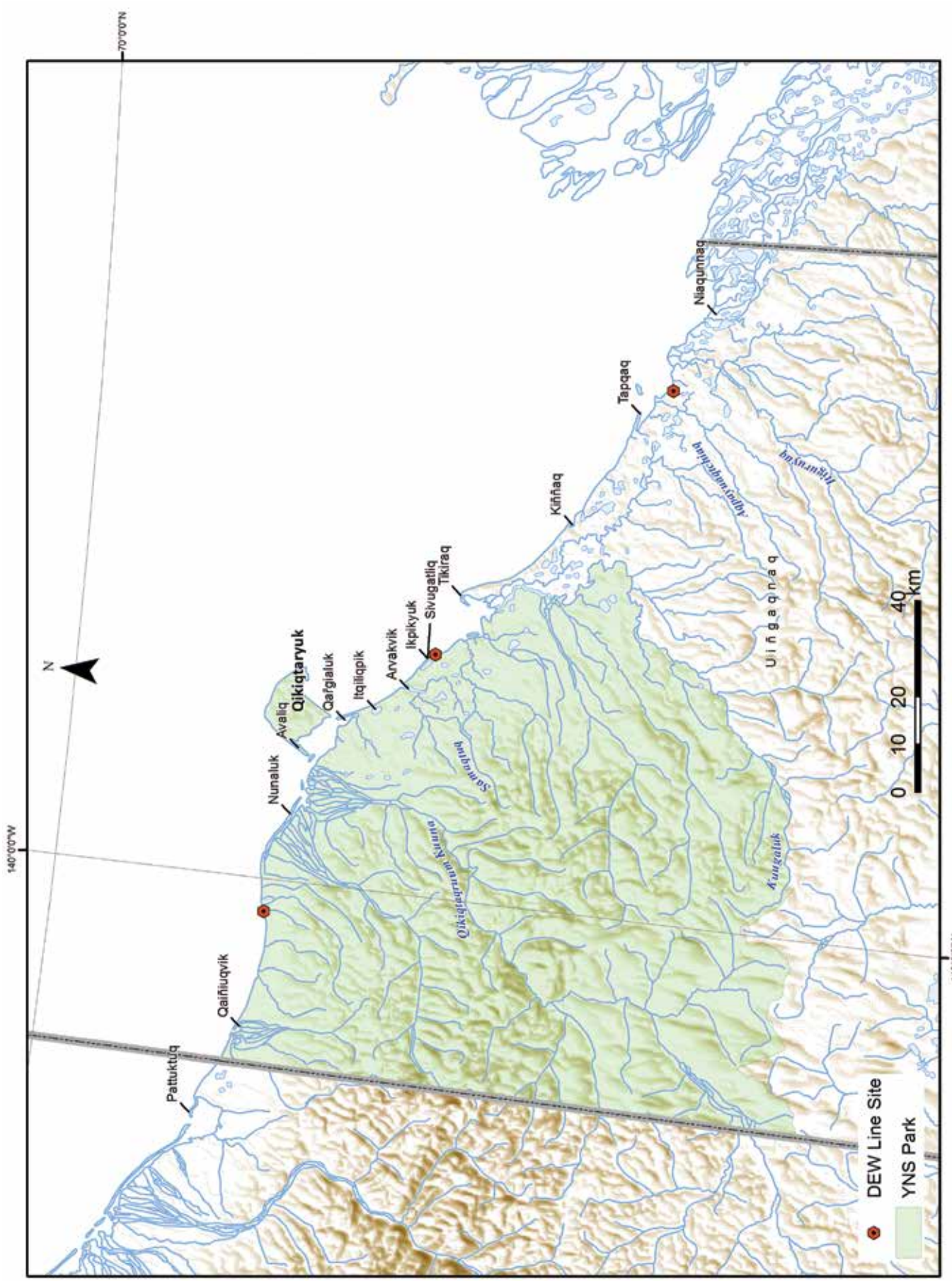
Work on this study started with an in-depth literature review and scouring of various data repositories for relevant information. The results of this inquiry were tabulated in the Aklavik Traditional Use and Traditional Knowledge Annotated Bibliography: Yukon North Slope Conservation and Management Plan Project (Armitage and Kilburn 2014). The bibliography includes 107 references to published and unpublished literature and databases that are relevant to Inuvialuit TU and TK in the YNS ITU study area. Of these, 28 are directly relevant to the documentation of TU because they provide details concerning the animal, fish and plant species harvested by the Inuvialuit, important historical and cultural information about life on the YNS, useful contextual economic or biophysical information, or documentation of TU in the past. Several datasets (e.g., goose staging areas, wolverine kill sites, and Global Positioning System tracks) were mapped against the YNS ITU data as a cross-checking exercise to assess whether there were errors of fact or omission in the latter. Brief descriptions of the most relevant studies and datasets follow.[21]

The Joint Secretariat[22] commenced a ten-year Inuvialuit Harvest Study in 1988 that involved all six Inuvialuit communities (Joint Secretariat 2003) to provide harvest information in service of the joint wildlife management system established by the IFA. The Wildlife Management Advisory Councils, Fisheries Joint Management Committee, Environmental Impact Screening

Committee, Environmental Impact Review Board and the Inuvialuit Game Council required Inuvialuit harvest data in order to review and recommend total allowable harvests and harvest quotas, etc. In addition, the wildlife provisions of the IFA provide for compensation to harvesters if resource and other developments adversely affect their harvests. The 2003 study focused on multiple harvest surveys in the period 1988 to 1997, wherein harvesters were asked to report the total number of animals of each species they harvested for subsistence use or commercial sale. They were also asked to record their fur catches, any small-scale commercial harvests of fish and caribou, and, if they guided sport hunters, any animals taken by those hunters while they were being guided. Interviewees were asked to document their harvest locations as points, polygons or lines (traplines) using a 10x10-kilometre (km) grid system on 1:250,000-scale maps (Joint Secretariat 2003: 11–12; Thiesenhausen 2013: 18).[23] Travel routes, cabins and other overnight spots, cultural sites such as burials, and berry and plant harvest locations were not documented. The 2003 report presents the harvest data by species on a monthly basis for each year in the study period (1988–97). However, harvest location maps are not included in the report, and the study's spatial data could not be obtained for the YNS ITU study.[24] The study was of use in planning the YNS ITU study because it provided a good indication of priority species harvested by Aklavik Inuvialuit. This informed the choice of TU categories included in the current study's map biography questionnaire.

The Herschel Island and Yukon North Slope Inuvialuit Oral History Project, conducted during the summers of 1990 and 1991, is an extremely important source of historical and cultural information (Nagy 1994a 1994b, 1994c). It covers a time period extending beyond the memories of the people interviewed for the YNS ITU study. The project interviewed 35 Inuvialuit in Inuvik, Aklavik and Tuktoyaktuk or on the YNS, 15 of whom had a direct affiliation with Aklavik. Project researchers Murielle Nagy, Renie Arey, Agnes Gruben White and photographer John Tousignant accompanied Inuvialuit elders on field trips to historical sites along the YNS and Pauline Cove on Herschel Island, during which time additional interviews were conducted and numerous narratives audio-recorded. The project documented 120 Inuvialuit place names (see ISDP 1993); a selection of these are listed in Table 4 and depicted on Map 2.[25]

Other information "collected during the study included: seasons of occupation, means of subsistence, structural remains, trading activities and the Anglican mission school at Shingle Point" (Nagy 1994c: x). Following the field trips, recordings of 64 interviews were transcribed into Inuvialuktun and translated into English. Transcriptions and translations were edited and archived at the Government of Yukon's Heritage Branch (Nagy 1994a, 1994b, 1994c). A number of narratives derived from these transcripts are included in this report in grey boxes, as noted previously.



Map 2. Selected Inuvialuit place names on the YNS

Table 4. Selected Inuvialuit place names on the YNS

English-language name	Inuvialuit name
Avadlek Spit	Avaliq
Babbage River	Kuugaluk
Blow River	Itiguruyaq
Clarence Lagoon	Qaiñiuqvik
Demarcation Point (Alaska)	Pattuktuq
Firth River	Qikiqtaqruum Kuuna
Herschel Island	Qikiqtaryuk
Kay Point	Tikiraq
King Point	Kiññaq
Nunaluk Spit	Nunaluk
Ptarmigan Bay	Qaȓgialuk
Roland Bay	Arvakvik
Roland Creek	Samaqtuq
Running River	Aqpayuaqtchiaq
Shingle Point	Tapqaq
Sleepy Mountain	Uiñgaqnaq
Stokes Point	Ikpikyuk
Stokes Point harbour	Sivugatliq
West Whitefish Station	Niaqunnaq
Whale Bay	Itqiliqpik

Source: from ISDP 1993

In late 1998 and 1999, in conjunction with the AHTC, the Government of the Northwest Territories (GNWT) undertook research to systematically document the TK of Aklavik Inuvialuit concerning grizzly bears (GNWT 2002). Although the species had been managed under quota since 1994, TK was needed to support wildlife management decisions. Forty-nine harvesters were interviewed using a questionnaire survey and map biography methodology. They were asked about their bear harvesting locations and activities, sightings, dens, dead, sick or roblem bears, methods of garbage disposal, etc. Interview responses were documented directly on the questionnaire and associated data forms or on maps. Grizzly bear harvest and den locations, locations of dead or sick bears, bear sightings and signs, locations of cabins, tent frames, travel routes, and hunting and trapping areas were documented on maps, although the base map scale and other methodological details related to the spatial data are not provided. Small-scale thematic maps that present the results of the TK mapping are included in the report, and were useful for comparison and cross-checking the representativeness of the current YNS ITU study data.

The geographic extent of hunting, trapping and other use areas south of the YNS depicted on Map 2 in the GNWT report is significantly greater than that documented in the YNS ITU study. However, hunting, trapping and other use areas are represented on Map 2 as large, crudely drawn polygons. This is not robust map biography methodology, and raises questions about the rigour with which the TU data were recorded during the GNWT study interviews.

In the winters of 2002 and 2003, the Fisheries Joint Management Committee sponsored research related to TK of fish and fisheries to support the development of a comprehensive fisheries management plan for rivers west of the Mackenzie River to the Yukon/Alaska border (Papik, Marschke and Ayles 2003: iv). TK from seventeen Aklavik Inuvialuit was elicited during four focus group discussions, during which time participants were encouraged to document "traditional and current fishing grounds" on 1:250,000-scale maps. The most important fishing locations identified include Big Fish River, Blow River, Babbage River, Firth River, Malcolm River, Shingle Point/Running River, Kay Point/Phillips Bay, Nunaluk Spit, Ptarmigan Bay, Herschel Island and Komakak Beach/Fish Creek. Iggitchiarq, Sheep Creek and Joe Creek were identified as good "fishing holes." Fish species harvested include arctic char, arctic grayling, northern pike, loche, arctic cisco, least cisco, Pacific herring, broad whitefish, lake whitefish, lake trout and coney. Whitefish and herring were fed to dogs in the pre-snowmobile era. Summary data and maps in this report were useful for comparing and cross-checking the representativeness of YNS ITU study data, while the list of local names for fish species and historical information concerning Inuvialuit fishing practices informed the current study's research design.

In the period January 2004 to June 2006, the Community Corporations of Aklavik, Inuvik and Tuktoyaktuk conducted TU and TK research to support the environmental assessment of the proposed Mackenzie Gas Project (ICC, TCC and ACC 2006).[26] Researchers interviewed 138 Inuvialuit, including 38 people from Aklavik, about harvesting and cultural sites; wildlife habitat; harvest practices and seasons; animal behaviour, abundance and distribution; the importance of various species for food, sale, clothing and crafts; etc. Locations of camps, cabins, burial sites and cemeteries, historical and cultural sites, place names,[27] traditional trails, and harvest areas for beluga whale, ringed seal, bearded seal, polar bear, grizzly bear, caribou, moose, muskox, wolf, wolverine, lynx, muskrat, fox, beaver, mink, otter, marten, weasel, snowshoe hare, ptarmigan, and various duck, goose, fish, and plant species were documented on custom base maps.[28] Small-scale maps depicting harvest and habitat areas for species harvested or observed by Inuvialuit are presented in the report. Although the maps of harvest and habitat area provided in the report are of limited usefulness due to their small scale and the coarse nature of the polygons used to depict TU and TK features, they were helpful for cross-checking the representativeness of YNS ITU study data. The YNS ITU study builds on the harvest-related and cultural information provided in the Community Corporations' report.

During the autumn and early winter of 2008, the Canadian Wildlife Service (CWS) conducted research to document local ecological knowledge concerning the locations of major staging

areas for snow geese, greater white-fronted geese, and cackling geese (Bartzen 2014), as well as any changes in staging areas, migration routes and goose abundance. Fifty people from Aklavik, Fort McPherson, Inuvik, Old Crow and Tuktoyaktuk were interviewed using a questionnaire survey. General travel routes and locations where geese were observed were mapped.[29] Information from questionnaires was summarized and GIS software was used to digitize locations where interviewees observed flocks of more than a thousand geese. The digitized locations were linked to attribute data reported by each interviewee, including year of sighting, season, species, flock size and geese activity at the time of sighting. Small-scale maps depicting staging areas as large polygons are provided in the report. The maps in the report were useful for comparison and cross-checking the representativeness of YNS ITU study data related to goose harvest areas. A comparison of the data show that no goose harvest data were documented in the YNS ITU study for major staging areas at the Firth River delta, Roland Bay, and a stretch of coastline between King Point and Shingle Point. However, participants in the YNS ITU study identified goose harvest areas in the Mackenzie Delta near Beaver House Creek, Jacob Archie's Camp, a spot on the Peel River south of John Carmichael, and Selamio Lake; these were not identified as significant staging areas in the CWS study.[30]

Two TK studies provided useful background information for the YNS ITU study: one concerning Aklavik Inuvialuit knowledge of grizzly bears; the other their knowledge of the Porcupine caribou herd. Fifteen Aklavik Inuvialuit were interviewed in 2006 and 2007 as part of a six-year YNS grizzly bear research project undertaken by the AHTC and WMAC (NS) in partnership with Parks Canada and the Yukon Department of Environment (WMAC (NS) and AHTC 2008). The progress report summarizes Inuvialuit TU and TK related to grizzly bears, including harvesting locations, methods and seasons, as well as attitudes and beliefs concerning them, and current thinking about problem bears, population numbers (abundance), and the impact of climate change on the species. No spatial data concerning grizzly bear harvest locations are provided in this report.

In 2008, the AHTC and WMAC (NS) undertook a TK study related to the Porcupine caribou herd (WMAC (NS) and AHTC 2009). Fourteen Inuvialuit and one Gwich'in from Aklavik were interviewed using a questionnaire and map biography survey methodology about their knowledge of the habitat, range, abundance, distribution, migration routes, group sizes, mating, calving, and health of these caribou. They were also asked about their caribou harvesting practices and hunting camp locations. Spatial data were documented on 1:250,000-scale base maps. The report includes small-scale thematic maps of harvest areas, migration routes, calving groups and other TK information, much of which uses a large-polygon feature approach.

Of all of the documents and datasets consulted for the YNS ITU study, Peter Usher's map biography based research for the Aklavik component of the *Inuit Land Use and Occupancy Project* report (Usher 1976b) is the most useful source of spatial, TU-related information. The experiences and memories of the people interviewed by Usher precede by at least a generation those of the people interviewed for the YNS ITU study. TU data for the Usher study were

organized according to three time periods: the whaling and early fur trade period prior to 1930, when the Inuvialuit were making the transition from whale boats to schooners; the second period, ending around 1955, when the fur trade became well established in the Mackenzie Delta, with Aklavik an important trading post and administrative centre; and the third period, ending in 1974, characterized by the construction of the DEW Line and the townsite of Inuvik, a shift from dog teams to snowmobiles, the introduction of wage labour, and the decline in the importance of trapping. TU documented during the study using 1: 500,000 maps includes hunting of caribou, moose, sheep, muskox, grizzly bear, polar bear, beluga whale, seal, waterfowl, snowshoe hare, Arctic hare and Arctic ground squirrel, as well as fishing and trapping or hunting wolf, wolverine, fox, lynx, beaver and muskrat. Cabin and tent sites, burials, birthplaces and other special places, berry and plant collecting locations, safe havens and travel routes were not documented. Maps showing harvest areas and traplines pre-1955 and 1955–74 are included in the 1976 project report. These constitute a TU data baseline against which the data obtained through the YNS ITU study can be compared. See maps 13 and 14 below for a comparison of the composite YNS ITU study data (all features) with the TU study from the earlier Usher research.[31]

3

Traditional use on the Yukon North Slope

Inuvialuit traditional use along the YNS and in other parts of their territory has been resilient in the face of numerous pressures, disruptions and challenges, including commercial whaling, the fur trade, epidemic diseases, the extension of Canadian administrative control to the western Arctic,[32] the establishment of Inuvik as a regional administrative centre and transportation hub, oil and gas exploration, and more recently the irrepressible cultural influence of globalization.[33] The data presented in this report point to important continuities in the TU of contemporary Aklavik Inuvialuit with that of their parents, grandparents and others relatives whose TU was documented in earlier studies.

These data take two forms: spatial, in the form of maps showing places where Inuvialuit stayed overnight, important cultural sites, travel routes, and the locations of their animal, fish and plant harvesting activities; and narrative, in the form of descriptive stories about their experiences living, harvesting and travelling throughout their territory. TU studies usually focus on the spatial aspects of TU. This requires a map biography methodology, where land users are asked to remember and record the TU activities they undertook during their lifetimes. Their mapped information is digitized in GIS databases so that it can be used analytically for various purposes; for example, as a proxy in habitat classification, to assess possible interactions with proposed development, and for the preparation of illustrative maps.

Although the main focus of such TU research is on spatial knowledge of past experience, descriptive information is elicited during the interviews, particularly in relation to cultural sites. Interviewees are invited to describe briefly the burial, birth and other special places they

document on their map biographies, although there is usually little if any time for the lengthy, uninterrupted narratives common in oral tradition research. For example, regarding burial sites, it is important to know at least in summary the identities of people buried at particular locations, the method of burial, the circumstances of their deaths (e.g., epidemic disease, accident, etc.), and the names of living relatives. Likewise, it is important that interviewees explain why the places they pinpoint as special are important to them. All such descriptive information is captured on interview audio recordings which are then transcribed and coded thematically with special computer software (e.g., NVivo). This makes the task of sorting dozens of narratives and selecting them for inclusion in a report much easier.

Throughout this current report, the approach to narratives related to ITU is inspired by the presentation of oral history texts by Bennett and Rowley (2004; see also Joint Secretariat 2015; Nagy 1994c; WMAC (NS) and AHTC 2009). These narratives have been selected primarily for evocative purposes; they illustrate some aspect of Inuvialuit TU and history in the study area. However, other selection criteria include the degree to which the transcript narrative could be edited into a coherent and easily readable text, and whether the narrative was redundant (i.e., it concerned a topic discussed repeatedly by several interviewees). Some transcript narratives were too disjointed or unclear as to meaning to warrant inclusion in the report.

As noted previously, 40 people were interviewed for the YNS ITU study. However, not all of the map biography information was used for this report. A number of the participants could not read maps well enough to document their experiences in the territory in a reliable and accurate manner. Data for 32 people were used to generate the thematic and summary maps that are the primary research product of the study. They documented 2,091 TU sites. Including the TU features documented during the confirmation/validation workshops in Aklavik in the period 2–3 March 2016 brings the total number of features included in the YNS ITU study geodatabase to 2,167, including 1,282 points, 398 lines and 487 polygons (areas).

Table 5 lists the important terrestrial and aquatic animals, fish and plant species harvested by Aklavik Inuvialuit within the memories of the people interviewed for the study. The map biography interview questionnaire organized a number of these species in categories such as “furbearer,” “fish” and “medicine plant.” They are depicted thematically on the maps in this report as follows:

- travel routes and safe havens (Map 3);
- cabin and tent sites (Map 4);
- cultural sites (birth, burial, special places, and archaeological sites) (Map 5);
- caribou harvest locations (Map 6);
- grizzly bear harvest locations (Map 7);
- moose and Dall’s sheep harvest locations (Map 8);
- furbearer and small game harvest locations (wolf, wolverine, other furbearer, hare, ptarmigan) (Map 9);

- plant and waterfowl harvest locations (Map 10); and
- fish harvest locations (Map 11).

All of the TU features recorded during the study for these themes are depicted on Map 12 (the summary map), which shows all features.

Archaeological site locations obtained from the Government of Yukon have been included in the cultural sites thematic map (Map 5) even though very few of them were known to the YNS ITU study interviewees.[34] It should be noted that the Inuvialuit archaeological footprint in the coastal portions of their territory is literally being washed away as a result of coastal erosion, which is exacerbated by climate change (Friesen 2015: 32).[35] Documented in the course of various archaeological surveys or incidental finds, the 335 archaeological features in the Government of Yukon database and which are depicted on Map 5 are primarily burial sites, campsites, quarries, butchering sites, stations for chipping, hunting or processing, trading posts, lookouts and isolated finds. Their ethnic affiliation is described in this database as Euro-Canadian, Inuvialuit, Neo-eskimo or Western Thule, although the ethnicity or cultural complex of the majority of the sites is not indicated.[36] Where the time period of the archaeological footprint is known, the sites are classed as contemporary, pre-contact (prehistoric), historic, or a combination of these periods when there was repeated occupancy over time.

As mentioned in Section 1.2 (Methods), TU activities related to polar bear hunting and whaling were not documented in the YNS ITU study because they were the subject of other studies (see Freeman, Wein and Keith 1992; Harwood et al. 2000; ICC, TCC and ACC 2006; and Joint Secretariat 2015). Nonetheless, a brief word is in order about these TU activities, particularly since other TU activities are frequently integrated with them.

With respect to polar bears, ICC, TCC and ACC (2006: 11–34) describe a large sea-ice harvest area stretching along the YNS and Northwest Territories coastline between Baillie and Herschel Islands, with specific mention of harvesting by hunters from Inuuvik and Tuktoyaktuk (see Figure 34, p. 11–35 in that publication).[39] One Aklavik interviewee is quoted regarding breaking trail by snowmobile to the YNS while hunting grizzly and polar bears. According to the Inuvialuit Polar Bear Traditional Knowledge study: "[hunters] from Inuvik and Aklavik reported seeing and harvesting polar bears between Kendall Island in the east and the Yukon-Alaska border, near Herschel Island in the west. However, none of the PBTK study participants spoke of polar bear hot spots or areas of abundance anywhere in this area. Bears were harvested in the vicinity of Herschel Island and even more were seen there, given its proximity to the floe edge that runs close to the north end of the island" (Joint Secretariat 2015: 85).

One Aklavik interviewee spoke of focusing his polar bear harvest efforts about 5–10 miles offshore between Kay Point and King Point (Joint Secretariat 2015: 86).

With respect to harvesting beluga whales, ICC, TCC and ACC (2006: 11-4) note that belugas "can be found in the East and West Branches of the Mackenzie River Delta and Shallow Bay for the better part of July. The water in the estuary is warmer and the belugas use it to moult their skins. Inuvialuit reported that the whales also give birth and feed in the estuary." In the past, Aklavik harvesting of the whale has been conducted at the outer extremities of the Mackenzie Delta, the NWT coast as far east as Tuktoyaktuk, and along the YNS in the vicinity of Baby Island, Birds Camp, Blow River, Garry Island, West Whitefish Station, Pelly Island, Running River and Shingle Point (ibid.: 11-7).

Table 5. Terrestrial and aquatic animals, fish and plant species harvested by Aklavik Inuvialuit[37]

Common name	Inuvialuit name	Binomial name
Terrestrial and aquatic animals		
Caribou (Deer)	*Tuktu*	*Rangifer tarandus*
Moose	*Tuttuvak*	*Alces alces*
Dall's sheep	*Imnaiq*	*Ovis dalli dalli*
Grizzly bear	*Akłaq*	*Ursus arctos*
Polar bear	*Nanuq*	*Ursus maritimus*
Wolf	*Amaruq*	*Canis lupus*
Wolverine	*Qavvik*	*Gulo gulo*
Lynx	*Niutuiyiq*	*Felix lynx*
Muskrat	*Kivigaluk*	*Ondatra zibethicus*
Beaver	*Kiqiaq, Pałuqtaq*	*Castor canadensis*
Mink	*Itigiaqpak*	*Mustela vison*
Snowshoe hare (rabbit, varying hare)	*Ukalliq*	*Lepus americanus*
Arctic ground squirrel[38]	*Sikrik*	*Spermophilus parryii*
Arctic fox (white fox)	*Tigiganniaq*	*Alopex lagopus*
Red fox (coloured fox)	*Kayuqtuq*	*Vulpes vulpes*
Beluga whale (white whale)	*Qilalugaq*	*Delphinapterus leucas*
Bowhead whale	*Arviq*	*Balaena mysticetus*
Ringed seal	*Natchiq*	*Phoca hispida*
Waterfowl and other birds		
American black duck		*Anas rubripes*
American wigeon	*Ugiuhiug*	*Anas americana*
Brant	*Nirglingaq*	*Branta bernicla*
Cackling goose		*Branta hutchinsii*
Canada goose	*Uluagullik*	*Branta canadensis*
Common eider	*Qauraviq*	*Somateria mollissima*
Common goldeneye		*Bucephala clangula*
Greater scaup		*Aythya marila*
Greater white-fronted goose (yellowlegs)		*Anser albifrons*
Green-winged teal		*Anas crecca*
Lesser scaup		*Aythya affinis*

Long-tailed duck (Old Squaw)	*Ahaliq*	*Clangula hyemalis*
Mallard duck		*Anas platyrhynchos*
Northern pintail	*Kuɬugaq*	*Anas acuta*
Northern shoveler		*Anas clypeata*
Red-breasted merganser		*Mergus serrator*
Rock ptarmigan	*Niksaqtuniq*	*Lagopus mutus*
Spruce grouse (partridge)	*Ittuktuuq*	*Falcipennis canadensis*
Surf scoter	*Aviluqtuq*	*Melanitta perspicillata*
White-winged scoter	*Aviluqtuq*	*Melanitta fusca*
Willow ptarmigan	*Qargiq, Nasaullik*	*Lagopus lagopus*
Fish		
Arctic char (Dolly Varden char, red char, char)	*Iqaluqpig*	*Salvelinus malma*
Arctic cisco (herring)	*Qaaqtaq*	*Coregonus autumnalis*
Arctic grayling (grayling)	*Suluqpauraaq*	*Thymallus arcticus*
Broad whitefish (whitefish)	*Aanaarlirq*	*Coregonus nasus*
Burbot (loche)	*Titaalirq*	*Lota lota*
Inconnu (coney)	*Siirgarq*	*Stenodus leucichthys*
Lake herring		*Coregonus artedi*
Lake trout		*Salvelinus namaycush*
Lake whitefish (humpback, crooked back)	*Pikuktung*	*Coregonus clupeaformis*
Least cisco (herring, big-eye herring)	*Iriqpaligaurat*	*Coregonus sardinella*
Longnose sucker (sucker)		*Catostomus catostomus*
Northern pike (jackfish, pike)	*Siuliq*	*Esox lucius*
Pacific herring (blue herring, bluefish, herring)	*Qaluhaq*	*Clupea harengus*
Plant and earth resources		
Blackberry	*Paunraq*	*Empetrum nigrum*
Blueberry	*Uquk, Asiaq, Asiavik*	*Vaccinium uliginosum* spp. *microphyllum*
Cranberry	*Kimmingnaq*	*Vaccinium vitis-idaea* spp. *minus*
Liquorice root (licorice root, bear root, rat root)	*Masu*	*Hedysarum americanum*
Wild rhubarb	*Qusimmait*	*Polygonum alaskanum*
Yellowberry (salmon berry)	*Aqpik*	*Rubus chamaemorus*

A report by Department of Fisheries and Oceans on the hunter-based beluga monitoring program in place since 1973 notes that Inuvialuit from Aklavik, Inuvik and Tuktoyaktuk travelled to whaling camps in July for a four- to six-week beluga hunt, with base camps at Kendall Island, Kugmallit Bay, Shallow Bay and along the YNS as far west as King Point (Harwood et al. 2000: 3,7). Figure 2 in that report shows the locations of some of the camps, namely Birds Camp, West Whitefish Station, Running River and Shingle Point (ibid.: 17).

Although questions about whaling were not part of the YNS ITU study interview questionnaire, several interviewees spoke of their whaling camps and the harvest activities they conducted there. Shingle Point and nearby whaling camps were important to this man in his youth, although the mosquitoes became unbearable at a couple of them.

West Whitefish Station….best whale hunting there. My parent, my father, he used to hunt whale, belugas. That's how I got to like that place too. But then after that, it got infested with too much mosquitoes. It's right in the wetland where the mosquitoes breed. That's why it's like that now. It's just like at Birds Camp….Lots of mosquitoes…. You can't eat outside; you've got to eat inside the tent....I'm fed up with mosquitoes already....In the middle of July.

PIN 132

One interviewee recalled many families staying at West Whitefish Station during the whaling season. Her family would move on Shingle Point, where they would pursue various hunting and fishing activities.

We would go to Whitefish Station….They'd get so much whales. At the time this place was just full with tents….So many people when they go whaling. We'd stay there maybe two weeks, maybe three weeks sometimes. Then after that is done, my dad and them would bring all the things back into the Delta, that *muktuk*, because back home, we have an ice house, under the ground. They'd bring everything, and they'd come back, and then we'd head from there to Shingle Point….We'd stay there maybe three weeks or so, fishing, hunting caribou, making dried meat. We'd walk way up inland and hunt. They'd get caribou. Us younger ones, we used to go up and with dogs, with their pack sacks. We'd go up with them inland and bring meat down with the dogs.

PIN 1

After whaling at Niaqunnan (West Whitefish Station) they moved down to Tapqaq (Shingle Point) for fishing. They would make big teepee. […] And when they made dry fish and when they got whale, they dried and smoked the skin of whale. When making them they used a big wood, a smooth one. They made whale skin dry and dry meat and muktuk, raw muktuk.

Sara Meyook, SM90-3B: 4 (Nagy 1994c: 94)

Charlie Kurugaq and his children all had houses there [Head Point, Niakolik Point]….They stay here (Niaqulik) all the time, never went anywhere, they stayed for year around. Since my dad brought them from over there. My dad brought them there. Often, they spent winter with us. My grandad wanted to go to the coast, so he let them bring him there. And then from there, I don't know how many years the family stayed there….Joe, Erigaktuk and Isaac (Alunik), they all had houses there….They all had ice houses too. They all worked on ice houses and put all their food in store. They filled it right up with caribou and fish in summertime.

Kathleen Hansen, 1990 Tape 1B: 4 (Nagy 1994a)

One woman said that Aklavik Inuvialuit stopped using West Whitefish Station about 15 to 20 years ago because of the scarcity of firewood. Strong winds were also a concern at times. Whaling was integrated with other harvesting activities.

Nobody ever go to Whitefish anymore. That's where we used to stay. We used to go there to go whaling….Whitefish and Birds Camp, that's where we used to go….No wood [at West Whitefish]. Birds Camp, they could go there, but Whitefish, nobody hardly ever go to Whitefish…. You got to watch…that big wind come up, you've got to move everything. Same for Shingle [Point] and Birds Camp; when there's big winds….We've been down there a couple of times hunting whale, caribou hunting down that way, fishing. We do whaling first, and we fish, and then we hunt caribou, get our food. But never been down there for a long time.

PIN 113

Anti-whaling protesters disrupted the Inuvialuit whale hunt one summer, according to this interviewee.

Every day when it was not really windy my husband used to go out. He say the whales just take off soon as they see them close. He went to Tent Island one time just to check and see, because that's a good hunting area. He was going to hunt around that place….There was a boat out there anchored out not too far from Tent Island. It was those Greenpeace [people], about four of them with a boat, and they had a radio or something into the water. He start asking them what they were doing, and he went out to their boat and pull a wire right up. It was a microphone or radio, something, that make a noise to scare the whales away. That summer people had a hard time to get whale, and it wasn't the native people's fault. [Her husband] told them to go back to their camp, pack up and get away from that area, because we were trying to get our winter supply of food. They were going to answer back, but he told them not [to]. He said this is our land, we've been doing this for years, we don't need nobody around, to go. He followed them….They had a camp…maybe towards Tiktalik, towards that area. Next day he said he was going to go and check, so him and the boys went there to check. Nobody was around. That summer they do that all along there. People were wondering why we can't get whales. Everybody was having a hard time. The whales were coming, and soon as they hear the motor, they just take off. Since that time we don't trust those people.

PIN 123

Although bowhead whale hunting was practised by the Inuvialuit prior to and at the time of contact with Europeans, it declined once commercial whaling commenced along the Alaska North Slope and YNS in the late 19th century, due in large measure to the ease with which *muktuk*, blubber and meat could be obtained from commercial sources.[40] The Inuvialuit continued to obtain these products from their Alaskan Iñupiat neighbours after commercial whaling ended (Freeman, Wein and Keith 1992: 18–20). However, starting in the 1960s, they lobbied the federal government to permit them to hunt bowhead for subsistence purposes. Their efforts culminated in August 1991 with the issuing of a licence to the AHTC to harvest one bowhead whale. Based at Shingle Point, the Aklavik Inuvialuit were successful in harvesting a bowhead at that time, with the assistance of expert Iñupiat whalers from Alaska. A second harvest of a single bowhead was conducted in 1996 (Freeman, Wein and Keith 1992; ICC, TCC and ACC 2006: 11–18).[41]

Long ago Ulugatchilut found a dead bowhead whale right here at Ualiq (Avadlek Spit) when they were over there, near Qaf̂gialuk (Ptarmigan Bay), at the cove in there. When they were there they found a dead bowhead whale. […] They found a bowhead whale and we had some of the muktuk from there. Because even for years, the dead whale never spoils. That's why you still could eat it well. The blubber is like this thick. Even if the gulls pick or crack it, it never spoil. And if the dead whale stays on land and if the skin is not cracked, it never spoils. It's not like beluga whales.

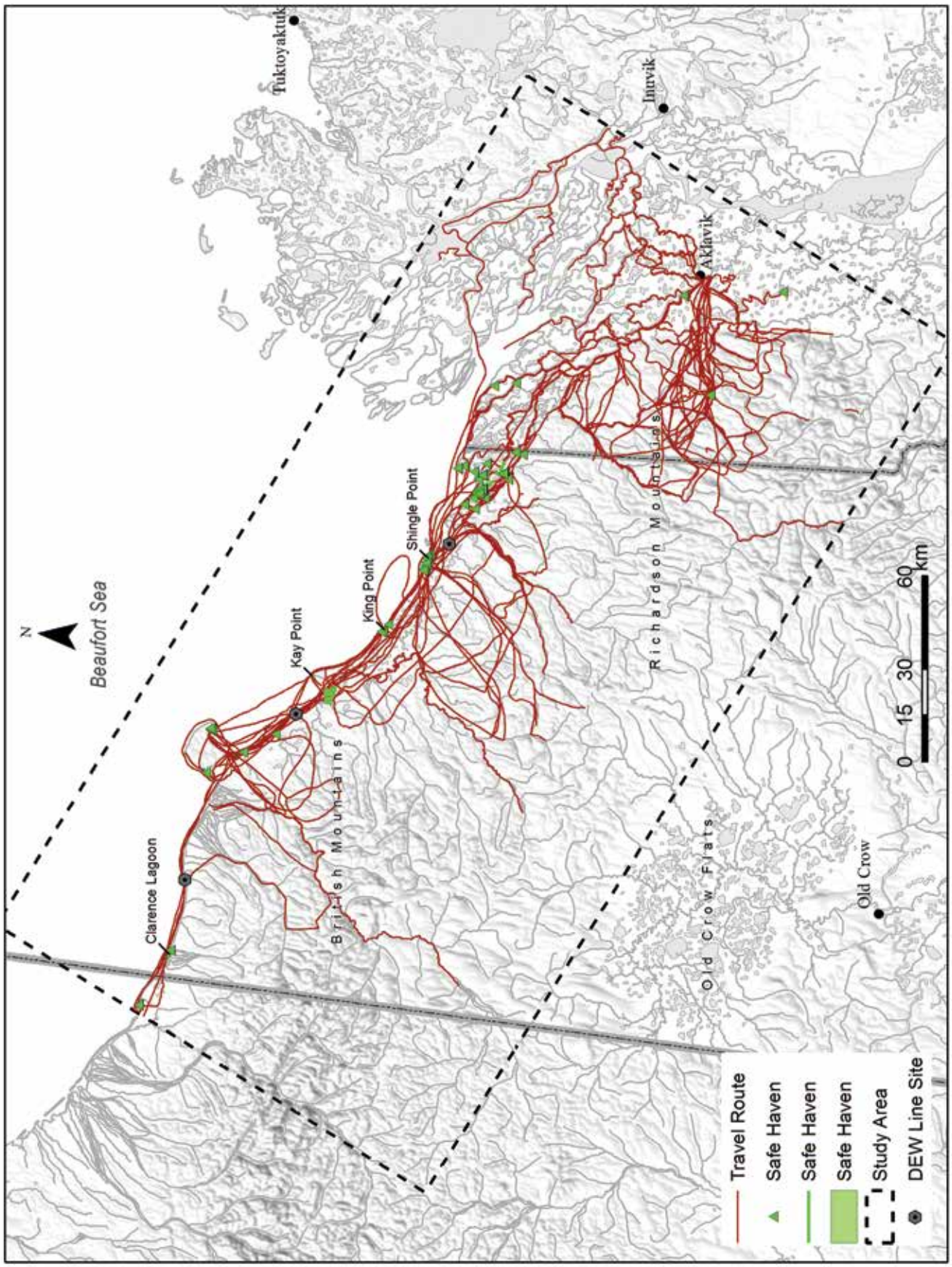
Sara Meyook, SM91-29A: 2 (Nagy 1994c: 70)

3.1 Travel routes and safe havens

By all accounts the Inuvialuit have always been a highly mobile people. This mobility has continued to the present-day despite full-time residence in communities such as Aklavik. Inuvialuit travelled about their territory in large measure because of the migratory nature of many game and fish species and the seasonal availability of berries and other earth resources. The fur trade, commercial whaling and the establishment of government services and missions drew people to particular locations such as Herschel Island, Shingle Point and Aklavik, and to DEW Line stations along the YNS. Nonetheless, the Inuvialuit's subsistence economy kept them focused on terrestrial and aquatic resources of various kinds.

Coming and going, to and from Aklavik or more distant camps to hunt, trap, fish or collect plants means, therefore, that travel is an essential part of TU activities. It is an integral part of the search for and the pursuit, kill and retrieval of game and fish species. The animal and plant resources at any given location would become exhausted rapidly, depending on the species, were it not for travel to varied habitats and harvest locations distributed across Inuvialuit territory.

Aklavik Inuvialuit interviewed for the YNS ITU study documented their travel in the Mackenzie Delta, Richardson Mountains and YNS (see Map 3).[42] Given the study's geographic focus, travel was documented primarily for the western side of the Delta, the Richardson Mountains and YNS, with little attention to the eastern side of the Delta or areas upstream of Aklavik along the Mackenzie and Peel rivers. As noted previously, the study did not cover the full geographic extent of Inuvialuit TU. This is reflected in the travel routes recorded during the map biography interviews.



Map 3. Travel routes and safe havens

Contemporary Aklavik Inuvialuit travel is primarily by snowmobile, speedboat, freighter canoe, all-terrain vehicle (ATV, quad), or even car or truck when the ice is thick enough and the snow not too deep along the myriad channels of the Mackenzie and Peel rivers. In the not-too-distant past, Inuvialuit also travelled considerable distances on foot with the aid of pack dogs, by dog team, and during the ice-free months by whaling boat or schooner.

> *Us we always travelled by caribou tracks. Also we back packed. Have you seen a dog pack? [Do you know] how we used them? We put a pack on dogs with our stuff and our food. But me I never packed like that. Just a radio I used to pack. My father-in-law didn't like me to pack. When you have radio they have tubes like that. Long ago they were not like these [new ones]. They had tubes and big batteries. The batteries [were] never finished for long time.*
>
> **Sarah Meyook 1990 Tape 4A: 7 (Nagy 1994a)**

Inuvialuit travel can be categorized according to its purpose and location. Interviewees described travelling and harvesting in the Delta area where they often based their TU activities at various camp locations, overnighting in cabin and tent structures. As mentioned previously, the Delta has historically been an extremely important area to the people of Aklavik for harvesting furbearers, with muskrat a staple of the harvest. In the local dialect of English, to hunt or trap muskrat is called "ratting." However, the Delta also provides other furbearer resources, such as beaver, mink, lynx and wolf, in addition to moose, ptarmigan and snowshoe hare (known locally as "rabbits"), fish, and food or medicine plants. With its maze-like channels and creeks, the Delta is a huge interconnected network of travel routes. It is easy to get lost in this labyrinth, and even the most experienced land users have been temporarily disoriented on occasion, particularly since Delta topography is in constant flux as a result of geological and climate change processes.

After freeze-up late in the fall, scheduled passenger air service is suspended in favour of travel on the ice road along Schooner Channel between Aklavik and Inuvik. The road is maintained until break-up the following spring. In addition to Schooner Channel, Aklavik Inuvialuit use Taylor, Pederson, Big Jim, Tingmiak, and Nikoluk channels to reach their cabins and hunting, trapping and fishing areas in the Delta.

A second heavily used area is the Richardson Mountains, where Inuvialuit travel to hunt caribou, grizzly bear, Dall's sheep, wolves and wolverine, sometimes overnighting in cabin and tent structures along the way. Nowadays, travel through this area is exclusively by snowmobile, whereas it was by dog teams prior to the introduction of snowmobiles in the early 1970s. A typical travel itinerary taken by numerous hunters when searching for big game in the mountains is to depart Aklavik early in the morning, head west along the Mountain Trail through marsh and black spruce forest, then uphill through the Lower Canyon to John Martin and Canoe Lake. From there they may travel across the rolling, barren, mountain slopes to Cache

Creek, Little Fish Creek[43] or Big Fish River and then circle back toward Aklavik via Jacob Archie's Camp, Tin House, Cache Creek Timbers and the Big Divide. Hunters overnight in cabins and tents at most of these places because they are situated in valleys that provide access to water, firewood and shelter from inclement weather.

The third most heavily used area is the YNS, particularly the area around Shingle Point, where Aklavik Inuvialuit maintain 60 or so cabins. Approximately 40 km west of the Yukon/Northwest Territories border, Shingle Point is the epicentre of coastal resource use by the Aklavik Inuvialuit. Fishing, hunting caribou, grizzly bear and small game, and berry picking are important activities here. It is also the primary support base for whaling activities and the staging point for travel farther west along the YNS given its safe haven status. Furthermore, Shingle Point is a cultural centre that greatly facilitates the intergenerational transmission of harvesting skills, TK, and the Inuvialuit oral tradition (see Section 3.2). Much more will be said about this crucially important place later in the report (see Section 4.2).

During the ice free months, Inuvialuit depart Aklavik in speedboats or freighter canoes down the West Channel through Selamio's Stretch, past Beaver House Creek and Stink Creek, and then either continue to the coast at Shallow Bay or turn northwest along Moose Channel. In the past, schooners were also used to reach the coastline as well as more distant destinations such as Banks Island. Much of the landscape in the western part of the Delta can be heavily flooded during spring break-up, depending on factors such as offshore Beaufort Sea winds, tides, ice-jams, and water volumes in the Mackenzie River. If the weather is bad and winds are strong, travellers will hold up at Police Cabin, Birds Camp, Search and Rescue Lake, West Whitefish Station or some other safe haven until the winds abate and they can make a dash across Mackenzie Bay to the safety of Shingle Point. The distance travelled this far from Aklavik following Delta channels and the coastline is more than 150 km.

All-terrain vehicles (ATVs, quads) are used for local transportation by Inuvialuit staying at their cabins at Shingle Point during the summer months, and some people use quads for hunting along the coast.

> Shingle Point, you can use quads. Some, they go from Shingle all the way down to Kay Point, sometimes, right round there. They go right down with their quads…check for bears, caribou.
>
> **Judy Selamio, co-researcher[44]**

Boat travel farther northwest along the YNS past Babbage River and the eastern boundary of Ivvavik National Park presents special challenges apart from the increasing distance from Aklavik and cost of fuel. Major sections of this coastline are completely exposed to the Beaufort Sea, with safe havens few and far between. Leaving Shingle Point, the first safe haven is King Point, approximately 26 km away, followed by Stokes Point/BAR-B (43 km farther), Roland Bay (9 km farther) and Ptarmigan Bay (12 km farther). From there, boaters can hug the coastline of Herschel Island or head directly across Thetis Bay to the safety of Pauline Cove, the site of the Herschel Island-Qikiqtaruk Territorial Park summer station and former whaling, trading and administrative post near the Yukon-Alaska border. Inuvialuit who wish to continue on to visit their Iñupiat friends and relatives in Kaktovik (Barter Island), Alaska, are confronted with a special challenge — a 64-km trip along a very exposed stretch of coastline from the safety of Workboat Passage at the south end of Herschel Island to the next available safe haven at Clarence Lagoon. Travellers coming the other way have been delayed for considerable periods of time in Kaktovik waiting for a favourable weather forecast with the right wind direction.

At close to 200 km, the trip between Kaktovik and Herschel Island has become more precarious and troublesome in recent years as a result of receding coastal sea ice. Prior to the mid-1980s, the Beaufort Sea pack ice hung closer to shore, creating a safe passage for boaters by protecting them from ocean swells and rough seas caused by strong winds from the north and northwest.

Wintertime travel by snowmobile to and from the YNS uses the Delta channels. However, hunters also travel overland across the northern slopes of the Richardson Mountains and then across the flat coastline tundra. In the spring, Inuvialuit with polar and grizzly bear tags make the most of their expensive snowmobile fuel by combining a trip to the sea ice to hunt polar bears with a return route overland to maximize their chances of an opportunistic encounter with a grizzly.

The travel route along Western and Moose channels between Aklavik and the coast facilitates the harvesting of a variety of animal and plant resources, including moose, wolf, waterfowl, fish, berries and medicine plants. In fact, opportunistic harvesting of any animal species is possible when travelling anywhere in the territory, depending upon what hunters encounter en route. Inuvialuit travelling to Birds Camp or farther on to Shingle Point may spot a moose on the shores of Moose Channel and harvest it for processing and consumption at their destination camp or back in the community. Similarly, hunters on snowmobiles searching for grizzly bears or travelling to the sea ice to hunt polar bears in the spring may encounter and kill wolverine.

Of course, long-distance travel in places far from emergency services and hospitals comes with certain risks. Inuvialuit of yesteryear certainly did not think of the hazards associated with travel and other forms of TU in the same way that contemporary peoples do, with their "risk assessments" and "risk management" concepts and protocols. This does not mean that Inuvialuit forebearers were foolhardy adventurers. They frequently encountered any number of dangerous situations — from grizzly bears to bad ice or intimidating ocean waves — but these were met with caution and high levels of skill and land-use knowledge.

This skill and knowledge has been passed to the present-day Inuvialuit, who continue to use the lands and waters of the YNS. Nowadays, some risk-related "insurance" is available in the form of SPOT GPS tracking devices that are loaned to travellers by the AHTC.[45]

When people go out travelling on the land they are more than welcome to stop by here, pick up a spotter….We got them in 2009, and we registered five SPOTS. Ever since 2009, we have five SPOTs here at the HTC. I think it's a little over about $1,200 a year to run them. But we take that $1,200 out of this Community Harvester Assistance Program because it's to help the harvester when they're on the land….They sign it out [the SPOT unit]. They sign a form and should something happen — because you get the emails from them — I have the steps of what to do. I phone RCMP or Search and Rescue, give them as much information as I could. Before they go, I need to

know where they're going, when they're supposed to be back, what kind of Skidoo they got, who else is travelling….Should anything happen, that goes to RCMP or Search and Rescue.

Michelle Gruben, AHTC resource person[46]

The SPOT tracking technology is great for emergency situations, but it can cause grief when triggered inadvertently.

It gives you a lot of white hair….[The SPOT units] come with a strap. It straps onto the front of your handlebars on your Skidoo or you can strap it on the back of your bag. But whoever had signed it out threw it in the back of their Skidoo. There's a little cubbyhole, like a little drawer. They threw it in there. They were coming back, and the Skidoo was bouncing all over, and it must have got hit. It sent a help message. So I was panicking. This was one o'clock in the morning — panicking, panicking. By the time three o'clock in the morning came, we were already sending out people….It was cold that night. But we had sent out people. That guy was just cruising down the road. They even had to wave him down. He said he didn't know that [his] SPOT had gone off because it was inside his Skidoo. Boy, I told him, "What the #*&*&@_^%, it goes on your handlebars!"….There's a little cover on them now, these newer models. But the older models we had, if you accidentally pressed that SOS button, they could send a Herc [Hercules C-130 search and rescue aircraft] or whatever from North Ontario. And, if it's a fake press, the person that pressed it could be liable to pay those charges.

Michelle Gruben, AHTC resource person

Despite the peace of mind and efficient emergency response afforded by such technology, it is no substitute for TK, skill and good judgment. This combination of important life skills is not put to the test when weather conditions are good. At such times, for example, Shingle Point is only a four- or five-hour trip from Aklavik by powerboat.

At times when I'm travelling from Aklavik, from here to here [Shingle Point] generally, [it's] a day trip or five hours if the weather is really good. If it's calm weather, you'd head right out; you'd take these [channels] out to Shallow Bay….If it's windy [you'd take] a lot of these smaller channels until you come out here and you make your way around.

PIN 101

However, when weather conditions deteriorate, navigation can be complicated and the danger level can increase dramatically. With rare exceptions a cautionary approach to travel prevails among the Inuvialuit when travelling along the YNS, as is evident in this narrative. Changing climate conditions have increased the danger involved in this travel.

When we were kids, waiting for this wind to calm down…because we can't take chances. Even our relatives from Alaska was with us. They told us, we can't ever take chances because sometimes the wind blows this way [gestures] and it's rough. We can't go until the wind change. Like, it blows that way [gestures]; then it's calm, you can go. Same thing with over here at Shingle. Say you want to go to Herschel Island and the wind is blowing from the ocean in [toward land], it's rough. You can't go. But when the wind blows from the mountains, this way [gestures], we can go. It's calm. It's rough out here, but it's calm in here. That's what we learned from our elders. They always say wait until the wind blows from this side [gestures] or wait until it's calm. Growing up, there used to be ice out here; used to be so good. We used to travel through icebergs all the way

nonstop to Barter Island, Alaska. It used to take us 16 hours with speedboats, right through the icebergs and everything. But nowadays, it's so dangerous. There's no ice, nothing, it's always rough.

PIN 109

One woman's travel along the YNS was an occasion for her to learn about the history of her people. She learned, too, about the dangers of coastal travel, and observed firsthand the rapid environmental transformations occurring there, some of which are negatively affecting navigation in certain places.

I travelled with my father-in-law first time in '92 or '93. He's passed now. He was the one that was telling me stories all the way from Shingle Point…to Kaktovik; where people had camps, like at King Point, or Kay Point…and people that travelled along the coastline, where his father had a store, and where my grandfather's buried. It was really interesting. We travel there when we can, but now it's too dangerous because there's no safe havens any more. All those creeks that were actually there when we were travelling are all dried out, and you can't go out to the creeks anymore….On our way, where [someone's] dad showed us [where] his brother had a cabin, they went up a hill and they built a cabin. Then, when we were going down…when we went to check the cabin where it was, all the ground is flat; no more hills. They're all flat. When you look on the ground, there's openings, and you look under, and there's ice and water running. You can see that the land is collapsing. So it's really dangerous to travel now….That's along the coastline going to Kaktovik….on the Alaskan side….When we used to travel [to] Herschel, we used to go all along the waterline, where it's open now. [But] now, this part around here [pointing towards the area between Herschel Island and Ptarmigan Bay]…is all drying out. We used to go here. Now we have to really watch where we go because there's so much sand bar [pointing to the eastern entrance to Workboat Passage].

PIN 108

She explained that in the past, when the sea ice moved a short distance offshore, it created a corridor along the coast by providing a barrier for the ocean swells and creating a safe passage for coastal navigation in small boats. However, nowadays, the ice has moved far offshore and the safe passage has disappeared, making summer travel difficult.

If it's good travelling, there's ice, it's safe to travel between the ice. But then one time we were stranded for a month because of the wind. We went down [to Kaktovik, Alaska] for a funeral and we ended up staying there for a month and coming back….We had to wait for the weather because there was no ice. And it's not safe to travel without ice….So we have to travel when it's nice…because it took us about eight hours, I think, from Kaktovik to Shingle [Point]. We ended up camping at Shingle and coming back home….A lot of it depends on the weather — if it's good.

PIN 108

This harvester also spoke about the impact that the absence of coastal ice is having on travel along the coast. Inuvialuit head out to the coast with the last of the ice as it flushes through the Mackenzie Delta to the sea.

Like I was saying…when we first go to Shingle [Point], I go to the DEW Line whaling in June. June 24, 25, me and [another person] the first ones down there. There is ice all along there. You can't even go to Shingle. But once the ice start going out, people could go out to that safe

haven. We go in between ice [and the shore to get protection from the waves], and that's how you make it down. But not today, eh; no ice.

Judy Selamio, co-researcher

This interviewee has rich memories of travelling and living on the YNS with her parents and other relatives. On one occasion, her relatives flicked lighters from shore at Herschel Island to guide her and her dad across the ice.

I used to travel with my parents down to the coast with a scow. It didn't matter what kind of weather we had, we always took off. Even in the wintertime, we always take off in bad weather. I didn't know how we ever make it….My auntie and uncle stayed at Herschel, and we'd take off from Herschel to go to BAR-1. They used lighters, and flicker it so we could know where to go. One time we crossed, me and my dad. We left my mom at BAR-1. They were mad at each other, so my dad dressed me up and we took off. Thin ice. Honestly, you could see the waves like this [gestures] when we were travelling with Skidoo. How [we made it], I don't know….At night time. My auntie waited at Tin House. You know those Tin Houses at Herschel? Stand by there and flicker that lighter, and wait for us….So I used to travel with my parents all the time down there. Never fail.

PIN 115

Sometimes, her parents would tie her and her siblings onto the deck of a scow when travelling in bad weather.

When we used to stay in the Delta I used to make them pick me up. My auntie used to pick me up from Inuvik and bring me to town, and we go back in the bush. That's when we used to stay at Jake Pepper's….I always tell my kids…I said, "Gee, my mom and dad used to bring us down." One time, we swamped. It was me, my mom, [my sibling], my dad, my uncle, [another person] and [another person]….It was dark, fall time…We were going down, and we got caught in the wind at DEW Line Garbage [a location]….Next thing, my uncle and auntie come from Running River and pick us up….Because we used to travel around in that long scow….I don't know how we used to make it. All I know [is] they used to tie us down….I used to hate getting tied down. But we did, and they picked us up, bring us to Running River, and go pick up the rest of the stuff.

PIN 115

The Blow River is the first major river encountered on the way to Shingle Point when leaving the safety of the Mackenzie Delta. The same interviewee spoke of caribou hunting there and of a time when she encountered a huge grizzly bear.

One time we went way up Blow River with [my uncle]….There was an 18-foot canoe….He really wanted to hunt caribou, so everybody wanted to go. Everybody went. How many kids he's got, six, five, seven?….All of his kids, me, [a cousin] and [another cousin], all in one boat, [a cousin] and [another cousin] in a small 16-foot. We go way up, way, way up….We did [go up the river again] this spring…..It wasn't high water. We had to push, me and [husband]….That's where I seen…a big gray grizzly. I was trying to tell those kids to go hunt it all the time, but they never. I said, "Holy!" Even its belly was hanging.

PIN 115

She is eager to instruct her children in the skills and knowledge required for life on the land. For example, she feels it is extremely important to take stock of one's surroundings, and to remember landmarks when travelling.

> I always watch when I travel going down. You got to watch the land, where you are at….I always tell my kids when they're travelling, or just passing Archie's or Martha Dickson and…to Joseph's, and then to Beaver House, and that, I always tell those kids, "You got to know where you're at when you're travelling. That way when you get stranded, and then when you break down you know where you're at. I'm telling you what river you're on, or what part of the river you're on, and whose place you're at." So I always give them the names of the places when we pass. Even in the winter when I go travelling with [my husband], sometimes he don't watch much. I said, "You got to watch where you're at on the land." When we go I tell him, "We're almost at Police Cabin." "How do you know?" [he replies]. I said, "You got to watch the hills."
>
> **PIN 115**

Furthermore, there are enough potentially dangerous animals around to require carrying a gun at all times.

> [My husband] used to leave me with no gun. He could leave me two hills back….Now I start carrying my own gun. I always have one. I said, "You're always flippin' leaving me behind, so I need my own gun"….And that one time a wolverine came really close, and I said, "Holy shit!"….Honestly, I said, "Never again!" So I always start carrying my own gun.
>
> **PIN 115**

Although a number of Inuvialuit women drive powerboats in the Delta, there are prohibitions against women operating them on ocean waters.

> Men's job is to hunt. But if you lose your husband, you go, and you have to do it….Say if [my husband] passed away, and I want to go out and still do whatever you used to do….You go on your own and hunt, or you get a guide to go with you. Always get a guide to go with you. My son…probably could take me out….It's mostly men's jobs, hunting and tracking. But ask me about picking berries and picking roots and whatever….You can drive [a boat] in the Delta, but you can't drive in the ocean….[But] if you have to, you've got to.
>
> **PIN 113**

In addition to memorizing the location of landmarks, people use other wayfinding and navigational techniques when travelling along the YNS. When asked how he knew his location when boating or hunting polar bears offshore, one person said he navigated using the patterned, windblown snowdrifts for guidance.

> In reality, you get stuck in a whiteout, you can just look at the snowdrifts, because the snowdrifts are always east and west, because the wind comes from the north and south.
>
> **PIN 103**

The following narrative illustrates the kind of TK needed when hunting polar bears, which are often far off shore on the ice between Mackenzie Bay and Herschel Island. Hunters follow polar bear tracks, pressure ridges and open cracks in the ice where ringed seals have their birthing lairs and haul-outs. Seal holes tell hunters where to expect cracks.

Seals all the way….from Shingle….I always tell them, the people that are hunting, every time you see the seal hole, that's one of the main cracks, where it's going to crack open…..[I]f you see a seal hole five miles or ten miles out from shore, that's going to mean that's where your crack is going to be. The more seals you see, the more open that crack is. Because one time I tried to go, me and [another person], we went out from King Point. We went up a little ways, then we got to Herschel Island, then we came back, and then [this person] and me kept on going again....Then that ice moved, our Skidoo trail moved 500 yards; it shifted….And I'll tell him…whenever we see a seal hole, that's a main crack.

PIN 6

There is much to be learned when hunting and travelling along the YNS. Hunters can observe firsthand the interactions among various animal species in relation to habitat and climatic factors. Such observations are the foundation for much of Inuvialuit TK. Abundant seal populations, dead muskox and wolves and wolverines scavenging on seal remains left by polar bears feature prominently in this hunter's recollections of the coast.

Sometimes we'll see where a wolf or a bear grab a seal and pull it out of the hole. That one time me and [another person]….were tracking around and we found a seal head. Maybe around here [pointing to map]. Maybe we found a seal head that a wolf dug up. Go to the hole, and just took that, ate everything else, and then left the head. So, that's me and [this person] were [travelling] that way, and then we seen a seal pup. And just like on TV, you see those little wee ribs. You know how they show a polar bear hunt; they show you the small little ribs on the seal carcass?....I said, that's what I learned…when I start hunting polar bears. You always start seeing wolverine tracks and wolf tracks heading to the ocean. They're hunting the seal pups. As the winter moves on…we see seal pups that goes all the way to the shore, and then head back out again. That's when the wolverines and the wolves [are] heading to the ocean. One time there was a dead muskox in King Point, and a lot of polar bears came in there just to smell that muskox…. But we all have to go inland first [when travelling along the YNS]….What I noticed is that we always have to pass Stokes [Point] in order to get past that rough ice, because this part here [points to map] it'd always be rough ice. All through here [pointing to the offshore on map]….Some years it'll be good. Some years from Herschel to King Point, that one year we went straight across. We counted over a hundred seals just about reaching King Point that one year. That one year we shot one at King Point….From there all the way to Herschel….[travelling close to shore]. Or go five to ten miles out. My [friend], he told me to go and check. He sent us out from Shingle Point, and he said to go in between King Point and Kay Point…about ten, fifteen miles out. So we done that, and sure enough, we ran into two polar bears that time.

PIN 6

As noted previously, safe havens where travellers can take refuge from bad weather are few and far between along the YNS. Nonetheless, it is clear that travel along the coast would be a great deal more dangerous were it not for their existence. Shingle Point is the most important

safe haven, and also one that facilitates access to coastal animal and fish resources. When asked about his knowledge of safe havens, Shingle Point was the first place that came to mind for this interviewee.

I'd say harbour at Shingle Point….It's that point right there, that little lake, that's where we go for shelter when there's a west wind….[Also] Herschel Island, when we get caught in a storm.... Right in the harbour.

PIN 102

Nowadays, many Inuvialuit wait out the wind at Birds Camp when travelling to Shingle Point, staying for two or three days if the winds do not slacken.

When we were going down to Shingle we used to stop at Birds Camp….That's where we used to always wait for the wind. Always stopped there and have tea and get water….We'd get water before we go to the ocean….If it's windy we stay.

PIN 113

Strong winds can be a problem for boaters, requiring them to wait at cabins near the mouth of the Delta or at the Shingle Point if they are travelling farther northwest.

When people are camping in the summer months, coming down from Aklavik, this is where they would end up if they were…going to Shingle Point [pointing to map]….You get these south winds coming right off the land…and strong! You got to wait for that to die down. They'll wait here at the [Police] Cabin or else at the mouth of the river. Another place we'll wait is at Shingle Point. A south wind will happen or else an east wind or northwest wind….big whitecaps on the ocean.

PIN 101

Roland Bay near Herschel Island is another safe haven, and one where the fishing is good.

Roland Bay, too, there's another place where you could camp….We didn't really camp, we just went by there with a boat…In the harbour there, you could go right into the…big lake. That's where that good fishing is.

PIN 1

King Point was once an important safe haven in the days of schooner travel along the coast.

We used to go to King Point too. That's where we used to go hunting caribou with my dad. We used to go to King Point and hunt, fish and caribou….At one time, we had a tent. But most of the time we just make a round trip. If it's bad weather, we stay there, but if not, we make a round trip….[That] used to be a big place at one time. Big schooners used to go in there when it's bad weather. Now it's no more. That's the one that they were saying sometimes opens up; sometimes it closes up.

PIN 1

This interviewee pointed to various safe havens, including the one at King Point which he says is no longer accessible.[47] As a result, there is no safe haven anywhere along the stretch of coast between Kay Point and Shingle Point.

Safe havens are of course Ptarmigan Bay. That's safe haven. Herschel Island over here and over here [pointing to map]. Sometimes you can't always get in here because the current is going in and the winds are meeting the current from out in the sea, and then really big swells….Waves coming from west, and the current going out, and they meet. It can really get ugly….Oh, boy…. No, you can't go in. I wouldn't even try it....This is a safe haven right here [at Kay Point]. This is good for west wind, kind of open for east wind. West wind is always violent that way….All the way from there to Shingle Point there's no place to land….No, [even King Point is]…all blocked up.... It used to be [a safe haven].

PIN 2

Even before the entrance to the King Point safe haven was blocked, its low elevation provided limited protection from severe storms. This interviewee remembered a severe storm that sprang up unexpectedly, swamped King Point, and forced their schooner up against the rocks, a very harrowing experience, indeed!

Only place I could remember really clear is King Point. We travelled to Alaska with a schooner, and we had good weather all the way down to Kaktovik, and stayed there for quite [a while]….Coming back, we stayed at the place across from Herschel…Ptarmigan Bay. That's where my husband and his brothers got caribou because we had nothing to eat….From there we travelled to King Point, and we stayed there. My father-in-law wanted to get a load of caribou because caribou was all over, so we stayed there. I remember it was evening when he says, "It's good to travel now; let's travel." So we left everything, and we just got to the tip of King Point….It was a bay that time. It was open. It was a big bay….We were going out and my mother-in-law started yelling at them, "Turn back, turn back…turn back! There's going to be a big wind coming!" "No," he said. "We could make it to Shingle Point"….We never even reached [the mouth] of the bay; we just got that far and the wind hit. By the time he turned the boat around and we got back to where we had anchored the boat earlier, we were right up against a hill. The water came up so fast, that whole point where the Sand Spit come in…was covered. We looked back; we couldn't see, not even land. By the time we got back we were right against [the bank]. They put the plank out and then the boys crawl. They had big ropes tied to the boat, and they tried to have a good place to anchor it. They couldn't even walk, they [were] just falling on the ground. We were inside that boat…. We could hear it scraping on the rocks. But we were right against a bank, and he just kept telling us we're going to be okay. To get off the boat we all have to crawl….Everything they did, they just crawling around. They put tent out. We spread it out and covered ourselves up with that [using] logs, whatever they could find from the tent before. We just spread them all around the edge of it. Waves was going over…King Point….Waves splashing right over. Couldn't see nothing, not even a log. Just water all over. We couldn't sleep like that. Six o'clock in the morning we got up and was so tired. We went out to the ocean, and it was calm. The point was back there again, and the Sand Spit was sitting high and dry. That's a big storm I seen. It's a bigger storm we ever run into, but we were lucky we never got caught out on the ocean….We had storms at Shingle Point, big winds maybe lasting two or three days, but not as bad as the storm that day.

PIN 123

At times, Clarence Lagoon near the border with Alaska may not serve as a safe haven because the entrance channel gets blocked, and with the sea ice receded far offshore, there are no longer sea lions and polar bears to be seen en route.

You see where we went through Clarence Lagoon? We drove through here, and we come out at Demarcation camp….It was a river….It used to be a river right through there [pointing to the map]. I remember. My dad would tell you too if he was here. We went right through there…. I think there's an old ship at Demarcation, an old army ship that's landed, in the water where it's shallow. This [Demarcation Point area] is starting to get shallow too. We notice that....This used to be open....Right from Shingle Point, nonstop when there was ice, going through icebergs and everything, you'd see lots of...sea lions, and seals, and polar bears. They were on the ice looking at us. Big icebergs. There's no more, nothing, just water and wind. That's why it's so dangerous….Big change. This is closed now [Clarence Lagoon]. You can't go by here no more.

PIN 109

This interviewee also said that Clarence Lagoon is sometimes blocked by a sand bar, obliging travellers to land on the exposed shoreline.

In the summertime you have to be careful when you go travelling along the coastline because, like Clarence Lagoon….it's a lagoon. But sometimes it's closed off, so you have to really be careful travelling. Sometimes you can go into the lagoon. Sometimes it's just sandbar right across…. You just got to land and pull your boat up [if the wind comes up and you need a safe haven].

PIN 125

While many of the travel-related narratives focused on the YNS, interviewees also spoke of their travels into the Richardson Mountains or inland south of the coastline. John Martin, Cache Creek Timbers, and Sheep Creek are gorgeous spots in the Richardson Mountains that are easily accessible to the Aklavik Inuvialuit.

I just love travelling in the mountains when you go up to John Martin and Cache Creek Timbers. There it's really nice. I always tell them, bring me there. I always want to go back to Sheep Creek….because it's got so big trees. It's beautiful country. And you always see lots of moose and that in there.

PIN 115

This person described his routes from Aklavik into the Richardson Mountains, and said he hardly ever uses a GPS for wayfinding. He uses GPS

Mostly in wintertime only. Sometimes in the fall with the boat….There's so many different routes you can go by. There's lots. Obviously we always leave from Aklavik and you follow the Mountain Trail, and then come up this way [pointing to map]….There's a place called John Martin right here, and you could either come over to Cache Creek, and there's a creek, this one here, you come up, and you come over behind John Martin, and cut across over this pass. You hit Sheep Creek, you can go that way….That's another part of the hunting area, John Martin….[I hunt] everything: foxes, wolverine, wolves if I see them, sheep if I see them. We used to see some caribou tracks, but never did run into the caribou.

PIN 120

This woman compared the landscape in the Firth River area she had seen in her youth with the contemporary landscape she observed when rafting from Sheep Creek to Nunaluk at some point around 2009. This area is now part of Ivvavik National Park. The landscape had changed dramatically since her youth.

It's so different nowadays to walk up. It's just nothing but trees and willows….[Back in the day] we'd have 15 dogs [for] packing. Now you can't tie the dogs in the trees, because if you tie the dogs, the roots is not deep enough; [the dogs would] just pull them out….It's really changed….. We rafted down here from Sheep Creek to Nunaluk….2009, I think it was….We camped there….It took us one week to get to Nunaluk. Well, that's just rafting. We do lots of hiking [as well]....I find my sister's grave.

PIN 110

In summertime, we would go somewhere around Yukon and around Pattuktuk (Demarcation Point). There are big mountains up that way. We would stay around in summertime and hunt around there. Up to Qikiqtaqruk (Herschel Island) they would go too with dog team. They go by Qikiqtaqruk River (Firth River), they would reach there and go for arctic char. Up there along Qikiqtaqruk River, the mouth of Qikiqtaqruk River. […] There was Pattuktuk (Demarcation Point), where we always camped and there are places where we went fishing in summer. There is Blue Hole too up there too. […] That is where most people fish and hunt.

Dora Malegana, DM90-13A: 6–8 (Nagy 1994c: 63)

Older Inuvialuit remembered elders talking about their travel far inland to Old Crow Flats, where they would meet Gwich'in people from Old Crow.

People here used to travel to Old Crow Flats. My grandparents from here used to travel up Old Crow Flats, go right into Old Crow, spend Easter there with the Old Crow people….When they first met where the Flats is…they couldn't communicate with each other. [But] they start using acts [gestures], started talking with each other. My grandparents had six daughters, and they all knew the language because they used to go back and forth with their families….And the Gwich'in people up there also knew how to speak Inuvialuktun….When my mother was 12 years old, she came up there with my grandparents with dog team.

PIN 1

This hunter talked about using snowmobiles at the end of August and September to reach a caribou hunting area near the coast.

Sometimes we'd Skidoo into John Martin at night, and we'd Skidoo from there, hit Cache Creek and check all over…[Travel] pretty much towards Shingle Point, wherever we can…right to the ocean. Right here's West Channel where we usually unload our Skidoos and Skidoo up….It's right on this stretch here, right when you come around this corner [pointing to map], there's a spot where you can park [your boat]….There's a portage cut up in the willows, so you just drive up….We usually go fall time. There's not even snow yet sometimes….This year we never really got much [caribou]. We got about twelve I think from there….There's a pretty good trail up you follow….but after you pass the first big hill, it's kind of rough after that.

PIN 131

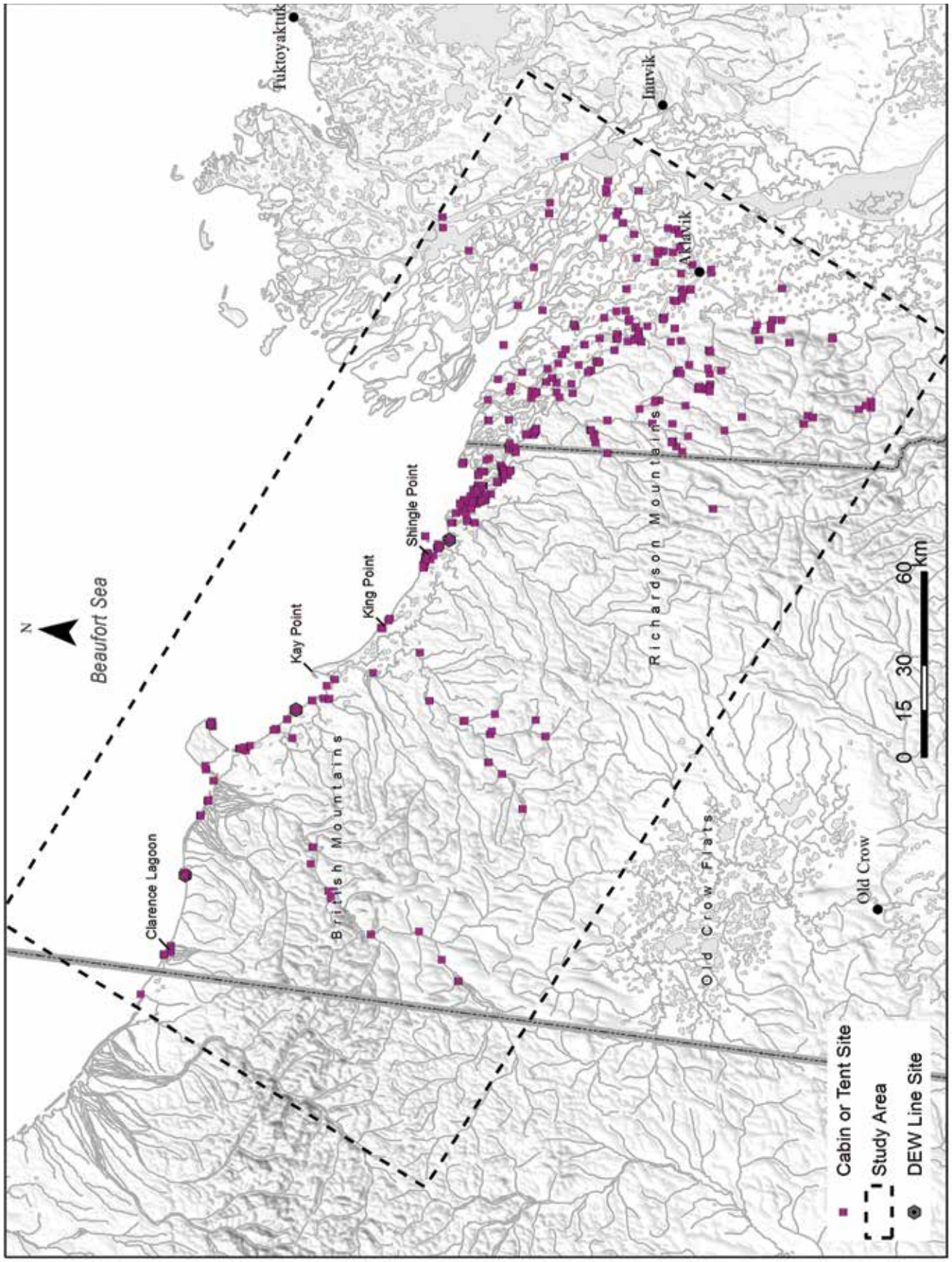
3.2 Cultural sites

The cultural sites documented in the context of the YNS ITU study include habitation, birth and burial sites, as well as other special places of cultural, historical or personal importance. These sites may be durable, long-lasting features in the form of burial sites; places of historic significance, such as former trading posts; topographic features that function as landmarks; habitation structures such as cabins or their remains; or more transient, ephemeral ones such as tent sites, birth locations, or places where non-human beings were encountered in the past. Cultural sites also include the intangible products of human emotion and imagination that speak to a sense of place. YNS ITU study interviewees were invited to identify such locations; anyplace in the territory that has great emotional or symbolic importance because of its beauty, uniqueness or importance on an individual or community basis. It was left entirely up to the interviewees to decide which if any places are so important to them that they warranted documentation on their map biographies.

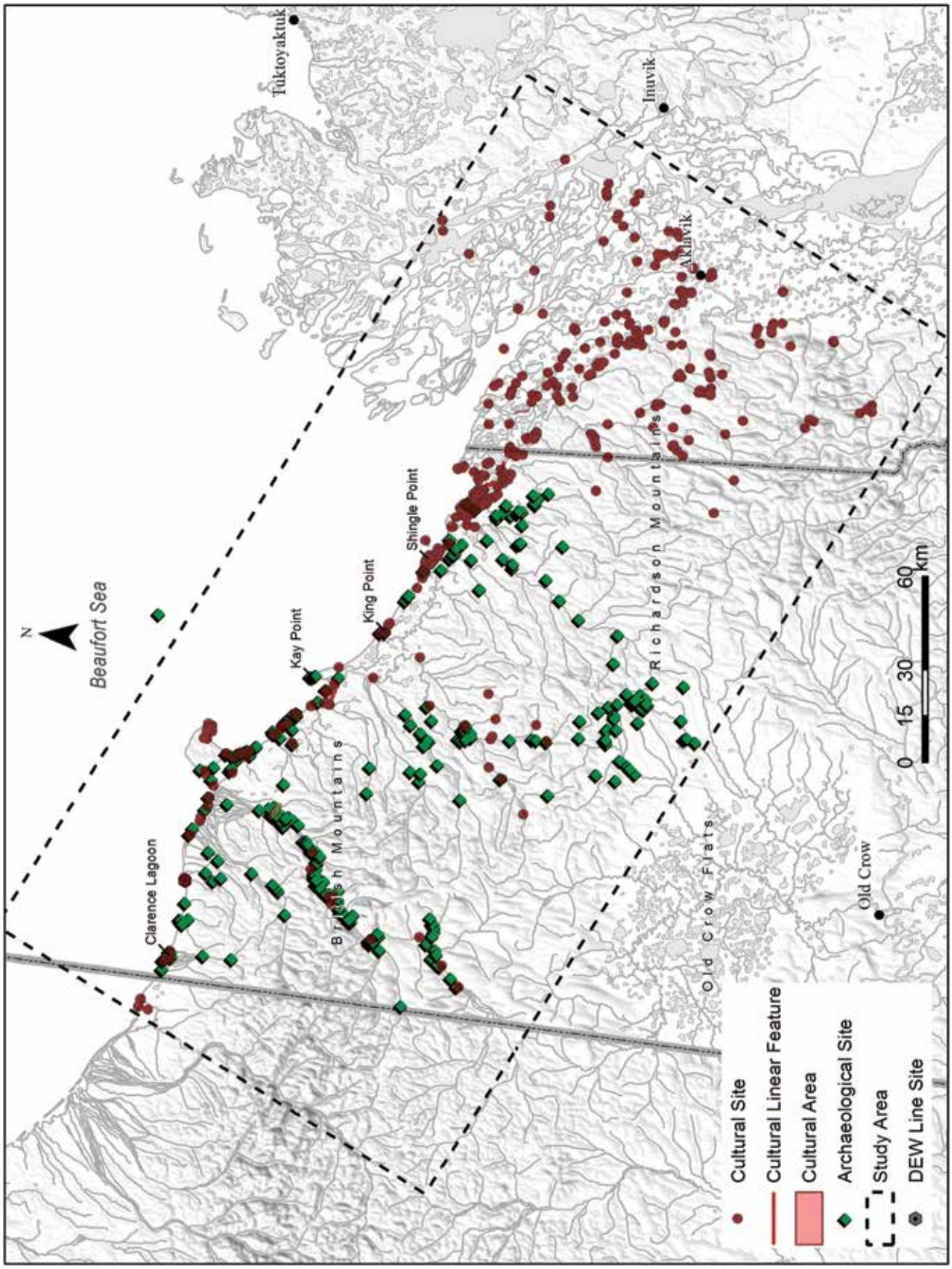
In the course of the YNS ITU study interviews, 230 cabin, 224 tent, 18 birth, and 72 burial features were documented. A number of these were multiple counts of the same feature (i.e., a single burial or cabin location reported by several interviewees). Forty places were identified during the study interviews as having special cultural, historical or personal importance. Cabin and tent locations documented for the YNS ITU study are depicted on Map 4, while birth, burial and other special places are depicted on Map 5.[48]

As noted above, Shingle Point has been the hotspot for Inuvialuit cabins for quite some time, given its historic significance as a trading post and school location as well as its importance as a safe haven, staging location for travel farther west along the YNS, and focal point for a variety of harvesting and cultural activities.[49] The fact that the Inuvialuit chose it as the site for their summer games is clearly evidence of its ongoing historic and cultural importance.

> They do have Shingle Point Summer Games at Shingle Point. It's an annual thing. I don't know how many years ago they started it. But it's back years ago. People at Shingle used to gather and sit outside and eat and drum dance….[T]hey used to sit around and play games. Back then, it used to be string games, hand games, Alaskan high kick and all that stuff. Now what we do is we just have a cookout. We have a *kipotuk* game. It's like ring toss. So we play that, and then we play small kids' games. And it's just a fun weekend, just like the carnival here in Aklavik….We go Friday night, have the barbecue cookout for the kids, Saturday is games, Sunday is wrap-up, and we're done….We work together with Parks Canada [and] they do a fun evening at Shingle too.
>
> **Michelle Gruben, AHTC resource person**



Map 4. Cabin and tent sites



Map 5. Cultural sites (birth, burial, special places and archaeological sites)

Old people […] when they were here long ago, they picked these green grass here at Tapqaq (Shingle Point). They would look around and pick them. They were for little bags or baskets that they made. When picking them, they would tie them together. Long ago here there was lots of baskets, every old person had one. They would sew them with a needle and make them into a ball and it got bigger and bigger as you sew them. On top you made a hole. When you put water in these bags, it never leaked. They are the kind of grass that you see now. Some of them made big ones and put their needles or thread in them or anything in the bag they made. Lots of them made them in the old days.

Sara Meyook, SM9020A: 6 (Nagy 1994c: 85)

This man's father played an important role in the rebirth of Shingle Point after the school was closed and residents moved to Aklavik or Inuvik.

From Shingle Point to Kay Point, I use that lots in the summertime. Kay Point to Shingle Point, I use that [for] caribou hunting, char hunting [fishing], everything….all along that coast. We go from Shingle Point. We go back and forth every day. Not every day, but we go when it's good weather….Shingle Point to Kay Point. I hunt lots there, right to Babbage River. Babbage River we hunt long ago, too….My dad was one of the first guys that started staying at Shingle Point after the elders die off. You know what I mean? Used to be school there.[50] They took the school off after the big flood, I guess, when it happened. After that my dad starts staying down there….Today there's about 100 houses….My dad start the elders off again.

PIN 4

Access to potable water is one of the challenges of living on the YNS, including at Shingle Point, and knowledge of fresh water sources is an important part of Inuvialuit TK.

Roland Saîuaq was his name....He had a cabin [where] he built a deep well….You just can't [get] water from along the shore; you have to go into places where the water's running. Right at Shingle Point, you can't get water. We used to get water right from that bay in here, at the end of it. Often it was where a little river is, [where] flows are coming down.

PIN 1[51]

Parts of Shingle Point are susceptible to periodic flooding from storm surges, as are various sea-level cabin sites at the mouth of the Mackenzie Delta. The flooding at Shingle Point was so severe on one occasion that people were evacuated to higher ground.

We didn't want to move, but we had lots of kids with us, so it was mostly women and kids that were taken out of there. The men stayed behind because they had to watch the boats. They even put our boats right up to outside of the house….[The water] was coming up through…. the rocks. It's a rocky place down there. Water was coming up [in]…all directions…because in no time outside of our houses, a big lake. That chopper had just enough space to land, and we carry the kids to the chopper….I think that's the biggest storm I could remember….We were flying across from Shingle Point to the DEW Line, and everywhere, as far as you can see…just water right to the edge of the hills…. Where the geese, ducks, where the people go hunting in the fall time, all that was covered, just little shrubs here and there.

PIN 123

A cabin at the mouth of the Mackenzie Delta a short distance to the east of Shingle Point has shifted location as a result of storm surge.[52]

This is known as Bennett Channel and this is Police Cabin or Moose River [pointing to map]. The police cabin is right here. It used to be here [pointing to another location]. Big storm floated it and deposited it right here. But the new one is way over here now. Someplace in here.

PIN 2

Nearby Coal Mine[53] also suffers from periodic flooding but it has lots to offer in the way of game and fish.

What the hell do they call, Coal Mine and everything is in the flat country. It's where we hunt lots of geese, around Coal Mine….Lots of bears and caribou hunting there too…. We used to hunt char there too….Mouth of Fish River some place. West side of Fish River.

PIN 4

Travelling east to west, interviewees said they had stayed in cabins at King Point, Phillips Bay, Stokes Point, Roland Bay, Ptarmigan Bay, Pauline Cove and Avadlek Spit on Herschel Island, Nunaluk Spit, Komakuk Beach and Clarence Lagoon.[54] Inland tenting locations where people overnighted were identified along the Firth River in Ivvavik National Park. This woman spent her summers with her grandparents living at the Firth River, back in the day when it was Inuvialuit custom for the firstborn grandchildren to live with their grandparents.

We used to have a cabin around there when I was younger, with my dad. But that's the only place I lived really on the coast — when my dad was alive. In 1959, that's when I moved to Aklavik….I lived with my granddad all my life, since I could remember….Every summer we go out to Firth River. Ever summer we walk up….He'll bring us up in May. We stay up there until it's just about the end of July, and we start back and do our fishing and hunting. Katie and Roland…

we help them lots. We hunt for them, fish for them. We used to do stacking lots of fish in the ice house, and put everything [away] for winter. That's what we used to do when we were growing up, me and my brother. We do lots of helping those elders around there. There was quite a bit of people in that area about that time. Lots of people, all that area. Right from Komakuk, all the way to Alaska there was people. We used to go from Ptarmigan Bay to Barter Island for Christmas with dog team. You could stay over there for about a week and go back to Herschel or Ptarmigan Bay if we don't go to Aklavik…. Sometimes we just stay at Ptarmigan Bay for Christmas. Old Irish used to stay not far from us from Ptarmigan Bay. We used to help him to do hunting and fishing and stacking wood and things like that....He had a house about here.

PIN 110

As I could remember, we were living way up in the mountains near Old Crow because they always travelled to Old Crow often. We were together with these people: Agnaqguniaq's son, Putuguq, Mrs. Arey, my cousin. Natmuk's brother and my dad always go to Fort Yukon. That was what I remember way up there. I was very small. […] They all make living like hunting, fishing. They would go hunting caribou way up behind the big hills. They go where there is no hills. Where we used to make living, there was almost just lakes up there. After, we would travel back down from the mountains […] with backpacks. It was very hard sometimes, as I remember. We travelled along the Yukon and around Pattuktuk (Demarcation Point), on these big hills around the big river. […] From there we would get that far and reach Qaiñiuqvik (Clarence Lagoon), way from up there. […] There, I remember very little up around Qaiñiuqvik. We stayed there for winter […].

Dora Malegana, DM90-13A: 3-5 (Nagy 1994c: 63)

Another interviewee said a visit to the YNS 25 years previously in the context of an oral history research project had been an occasion to learn more about life with her grandparents in 1964 in a cabin on Herschel Island. Her cousin described the layout of the cabin when the interviewee's mother was a girl.

We came with a boat…camped at Shingle Point, then went all the way. It was good weather, and we made it right to Herschel Island. We stayed from September, October, November, December, January…five months….There was somebody else's cabins there so we were living with another person, with another guy….When I went in there with my cousin (he's older than me)…. he made me stop at the door. He said, "Don't go in yet. I want to show you how it was when your mother was a little girl…The bed was over here…their stove was here, the table was here." My mother would sleep there most of the time, but she'd sneak to my grandparents and sleep with them.

PIN 1

Other inland cabin and tent locations include Cache Creek Timbers, Canoe Lake, Divide Lake, Big Fish River, Horn Lake, Jacob Archie Camp, John Martin, Sheep Creek, Tin House, and a handful of other locations in the Richardson Mountains. Numerous cabin locations were identified along the banks of the various channels of the Mackenzie River between Aklavik and the mouth of the Delta. Tenting locations were identified in the same locations as the cabin sites. However, they were also documented up to a hundred km inland, far up the Firth and Babbage rivers. Some of the interior camping locations, on Fish Hole Creek for example, were established in the context of caribou or grizzly bear hunting. One interviewee spoke of panning for gold at various spots along the Firth River during the 1960s, while another said he had tented and fished along the river in the context of his work with Parks Canada. The latter interviewee had kayaked down the Firth River as well as the Babbage River, on the eastern border of Ivvavik National Park.

One older hunter spoke of hunting caribou and sheep in the Richardson Mountains, where he overnighted in cabins or tents.

There's Big Eddy, right there….where we always stopped….From there we walk….up to the mountain. That's where we hunt sheep and caribou….That's Big Eddy there….That's where they built houses. But long ago we used tents. When we hunt all over Black Mountain, we hunt

sheep and caribou there….We do lots of walking….and we climb them big hills....That's where we hunt lots when there's no caribou long ago. When there's nothing around here, we hunt sheep for meat.

PIN 4

Of course, in former times — when Inuvialuit lived for much if not all of the year on the YNS — their cabin and tent locations were also the places where children were brought into the world.[55] One long-deceased elder was born in a sod house at Shingle Point.

There are historical sites, sod houses, but they're not evident….Roland Saîuaq was born there 1888….right at Shingle Point. It would have been down here [pointing to map]. He would have lived in a sod house, Roland Saîuaq.

PIN 2

One of the last Inuvialuit to give birth on the YNS and who settled in Aklavik was Sarah Meyook.

Sarah Meyook's kids are born out on the land because they live out there most of the time. And after the hospitals start, being in Aklavik, everybody come to the community to have their babies, except for some people that can't make it, depending on how far away they live.

PIN 123

An older interviewee was a spring baby at her parent's trapping camp.

They said I'm born in Aklavik, but my dad always tell me that I was born up at Mary Kendi's, that creek. You know where those trees are? That's where they used to have spring camp. That's where I was born, but they just put Aklavik as my birthplace….April 4, the springtime. I was just born…[when] my dad said they were just going to start setting traps, and continue doing whatever they were doing all the time. I thought I was a mistake.

PIN 123

Qikiqtaqruk (Herschel Island) [Qiqiktaryuk]. That's what they said but I think I was born somewhere else around Crow Flats….That is how the government put it and it has been that way but I think I was born maybe at Old Crow.

Fred Inglangasuk 1990 Tape 6B: 5 (Nagy 1994a)

I was born in Qaiñiuqvik (Clarence Lagoon) like Emma (b. 1936) and Mabel (b. 1939) my two daughters. In the same Hudson's Bay house I had my two kids. I had Mabel Tornow and Emma Edwards at the same place, that's where they were born.

Dora Malegana, 1990 Tape 14A: 4 (Nagy 1994a)

My oldest ones, Emma and Mabel, were born without nurse at Qaiñiuqvik. Lena at Qarĝialuk (Ptarmigan Bay) before it had an English name and before all those places had English names. They were baptized at Qikiqtaqruk (Herschel Island) [Qiqiktaryuk] all of them, even Martina. The rest [were baptized] in the delta, even if they were big at the time.

Dora Malegana, 1990 Tape 24A: 7 (Nagy 1994a)

Where Inuvialuit lived is also where they died and were buried prior to permanent settlement in Aklavik, with its hospital and cemetery. Many birth and burial locations along the YNS are known to contemporary Inuvialuit.[56]

I've seen a number of them [graves] out on the land. Not much in the Mackenzie Delta; it's more out on the Yukon Coast. At Shingle Point, up on the hillside, there's a fair number of our ancestors there. At King Point on the west side of the big bay. Over at Niakolik [Point], another [one]. These are all campsites where Inuvialuit would have stayed. The majority of our older ancestors, our elders, were born along the coast, be it Shingle Point, Kay Point, Ptarmigan Bay, along the coast, Herschel Island, over right into Alaska. All throughout here in the early days there'd be camps, ten, fifteen, twenty miles apart. And there'd be people being born here. I was born here November 1956 in the dead of winter [pointing to Komakuk Beach]. There's old gravesites here [pointing to the YNS on the map]….These ones are noticeable, with the fences, here and here. But these other ones are just open with logs that are put a certain way….My granddad is here....my dad's dad....right on the west side of that little hill there [at Ptarmigan Point].... My grandma is way over here…. just before Demarcation Bay.

PIN 101

…Andrew, my uncle, he had school. He is buried at Niaqulik. There are few graves there, I know who they are….They are all related to me….My uncle Andrew buried there too and two of my cousins, Mary Archie and Archie Erigaktuk's two boys….That is the one's brothers that drowned…. in the thirties. Also there is Isaac Alunik too there. Also John there and Margaret also Sarah Kalinek's daughter there too….[T]here was a good place to dig graves there because there was ice there….[Sarah Kalinek's first husband]….was working on his gas boat tank and tried to heat it up with a blow torch or something like that. A gas tank and then it got hot….An accident or something. Anyway it blew up. The whole tank went to his head and split his head in half. From Head Point (Niaqulik) to Shingle Point he was alive for a short time, and then he died. We were going to bring him up there but he died there.

Fred Inglangasuk, 1990 Tape 6A: 9-10 (Nagy 1994a)

My dad was one of the people that died when there was a big flu. He is buried here at Tapqaq (Shingle Point). There is lots of them here. I don't remember very much of them. We had the big flu here long ago. Their relatives would know them, here the ones that died. Here because of the flu. Here at Tapqaq.

Jane Esau, 1990 Tape 22A: 3 (Nagy 1994a)

Burial sites are concentrated at specific locations where Inuvialuit had established small communities and where coastal resources were particularly abundant. Ptarmigan Bay, Herschel Island, Kay Point, Head Point and Shingle Point were such places.

There's some at Shingle Point, Herschel Island, and at King Point too. All of those people, long ago — elders, before my time. There's lots of little towns like Kay Point. At Head Point,[57] there used to be a little town there. [Also a] little town at Ptarmigan Bay. Not like a little town, but 20 tents, 15 families lived there….There was nobody living in cabins in them days….They call this little place "Head Point." That's where people used to have houses, and there's lots of old houses right there today…. That's where all these guys like Judy's parents, lots of them, used to stay….Lots of graveyards there too….Just like Ptarmigan Bay. We used to have about 30 families there long ago.

PIN 4

Knowledge of birth and burial locations is part of the Inuvialuit oral tradition that is transmitted from one generation to the next, as is the case with this man whose uncle was an important source of information.

We went overland along the coast here, [by] Babbage [River]… and we went across here [pointing to map], and we went over to Ptarmigan Bay. That's where my uncle told me stories, and my grandfather [was] born and buried here. My grandpa. From here, all the way to Komakuk Beach [on] Skidoo.

PIN 107

The oral tradition is also this woman's source of information on burial locations along the YNS.

We camped at Shingle Point and stopped at different places….As we went along by Ptarmigan Bay; it's another place where there's burial grounds, where people's houses used to be. And at both places here…there'd be shamans. That's all stories from elders that I heard….There's a lot of burial grounds that were popping up.

PIN 1

Some burials are located very close to Aklavik on the banks of West Channel.

Across Fish Point, where we go for berries, there's some graves. I've seen one, maybe three graves there, across Fish Point….There's graves there and near Nikoluk on this side [Aklavik side of West Channel]. There's four graves there….Nikoluk….We used to clean those ones across the river….They come up though [frost heave]….That's all the places I know, just those there; and at Shingle Point there was some too.

PIN 113

A certain number of the burials are stillborn children or miscarriages interred in unmarked graves.

I used to hear stories from elders….They say lots of women have miscarriage or lose their baby when they're born. They just bury them out there, unmarked graves, so you don't know where they are. That's what they used to tell us.

PIN 123

Many people died as a result of epidemics and were buried near their cabins. This man's mother died in 1948 at her cabin on Pederson Channel during a major flu epidemic.

My mom's buried there….There's a lot of them are buried… when they had that…[flu in] 1948; there was that big last flu there. Lot of people died, buried in Delta.

PIN 102

They were lots of Inuit people there at Qikiqtaqruk (Herschel Island) [Qiqiktaryuk] long ago. In the summer they went and waited for the ship to come there. Most of them died and every day they would bury someone. Already there was a minister and my dad was there helping with the funerals. He was helping the minister there, digging graves there, at the time at Qikiqtaqruk [Qiqiktaryuk], long time ago in 1902. Everyone was red. There was lots sick with flu. It was measles, you know?

Hope Gordon, 1990 Tape 24A: 10 (Nagy 1994a)

There were some [graves] over at Demarcation and Pattuktuk, my sister's grave is there. Our youngest sister. Also Kayutuk's wife is there. Deva's mom also Kayutuk's mom, that's what I know.... At Qaiñiuqvik [Clarence Lagoon], my cousin, the first daughter of my aunt….They had someone there or anyone that could pray. They have burial church (service) for them. There was no minister in them days. Rosie Piliuluk she read good, also she had been to school. Also Naligauraq read good too, Mae was her English name, and Titus's auntie, Annie C. (Gordon). All those they know lots, the Mickey Gordon's family….My grandmother is there [Ptarmigan Bay], my mom's mother. Two of them since my husband's mother is there too. At Shingle Point too. My grandfather's grave is there and my uncle's. They all died there when there was a big flu. There was few that I knew at the time also my uncle. I forget the name of them….There are some very old ones at Qaiñiuqvik. This too is Amos Paul's mother's first husband before she was married to Paul Uqalisuk. Also Lily had a different father. Lily's and Amos's father was George Allen's mother's uncle. George Allen's mother and Amos Paul are cousins.

Dora Malegana, 1990 Tape 14B: 8-9 (Nagy 1994a)

Like many important archaeological sites along the YNS, a number of burial sites are seriously threatened by coastal erosion, and several have already been destroyed, according to this interviewee.

As for where we used to see burial sites, it's all washed away now. There's nothing left….There used to be one right across where we stayed down the hill from Shingle Point. There was Adam's camp right at the corner. There was one there, and it was in the house, they say. It had everything in there. They could look inside and see everything, but nobody can touch nothing. That's all washed away now. There's other places like that. I guess the ground grow older too….It's not marked. It's all lost….Because I know when Aunty [name] phones, always talk about Shingle Point where they buried her dad, but all that is coming out now. You could see it might be there, but it's not marked.

PIN 123

Burials are disappearing into the ocean and cabins must be relocated because of coastal erosion at Ptarmigan Bay.

There's a whole bunch of them [burial places] right there, Ptarmigan Bay….within that island. That island is very small. It's eroding. In fact, my cabin, I had to move it three times because I'm losing ground….They just bury them where they die. They don't make big issue of it. They have no choice, you know. Aklavik wasn't even there. Herschel Island might have been there. There are a lot of graves all over, I think. People just lose their family and they just bury them, continue on. Loads of them were floated out to the sea.

PIN 2

Although all burial locations are important to the Inuvialuit, three in particular "should be really protected," according to one interviewee.

The burial sites…should be protected, like in the Herschel Island, Shingle Point, Running River [areas]. That's where our ancestors…that were travelling in that route, that's where they buried them. That should be very protected areas, the burial sites all along the coast. Our elders maybe mentioned more burial sites, but I don't know. I notice that there's three, for sure, that I know. Maybe there's some at King Point, maybe there's some…all along the coast area. That's where they used to travel….I think that's the main three that should be really protected, is those areas.

PIN 121

However, the protection of burial sites is a sensitive issue among the Inuvialuit.

People are reluctant to talk about burial sites. It's because of their nature….They wanted to fix up the gravesite at Herschel Island, Inuvialuit. This is thirty, forty years ago. They said "no, you don't touch them, leave them the way they are." So they fixed up [the graves of the] whalers and RCMP. They have a nice plaque, who they were, and fixed them up really nice….That's the way it went. Hunters said don't fix them, leave them the way they are….I'd like to have [spouse's] grandmother fixed up, put a new stone….But they said "no, don't touch"….I guess we have to respect that too, eh.

PIN 2

Several people interviewed for the study pointed to places of historical significance on the YNS, including Clarence Lagoon, Herschel Island, Ptarmigan Point, Roland Bay, Phillips Bay, King Point and Shingle Point. For example, this interviewee remembered an icehouse for storing meat and fish at Komakuk Beach that she had seen as a teenager. Her uncle had a house there.

There was an icehouse in Komakuk Beach; we had an icehouse there about more higher than that [pointing about two metres high]....You could walk in there, icehouse. But they had covered it up to make an airstrip....You could see Herschel Island from there.

PIN 8

The HBC ran an outpost at Clarence Lagoon where this man and his companions had overnighted in a tent when windbound for a week.[58]

There's a cabin right here which is Hudson's Bay [Company] cabin. Used to be a trading post there. The building is still up. The warehouse is gone, but the trading post used to be there and it's owned by Hudson's Bay way back in '20s and '30s. And of course the Alaska border is right about here and that's Alaska.

PIN 2

Long ago when as I can remember we were always at Niaqulik. That is where I could remember. Right there my parents and grandparents were. There was always lots of us there. Isaac's family and Erigaktuk's. We all stayed together there. We all lived like that, eating caribou and fish. In the summer they would kill caribou once in a while. They would make dry meat with caribou. They also had big ice houses at Niaqulik (Niakolik Point) and put some in the icehouse. Those [were] my aunts and those [were] Isaac (Alunik) and them and [the] Erigaktuks from there, that's how we live. With the Erigaktuk family we stayed there in winter and summer.

Fred Inglangasuk, 1990 Tape 5A: 1 (Nagy 1994a)

A man known as "Old Irish" (mentioned previously) used to work at this HBC post. It was one of a number of places along the YNS where Inuvialuit lived during the 1950s and 1960s, when the DEW Line sites at BAR-1 and BAR-B were in operation. BAR-1 at Komakuk Beach is only about 25 km east of Clarence Lagoon.

That Old Irish used to be trading for the Hudson's Bay [Company] at that time. That's where they put [it, at] Clarence Bay....I went down there with dog team in the fall time. First time with my dad and them. We go only as far as Herschel with my dad. But I went back down the same year, and I went right to Demarcation [Point]....We always stay with my granddad. I had a base camp at my granny's, right across [from] Hershel Island — Katie Roland [Roland Bay]. That was my granddad's, where I trap. I trap from here all the way back and forth....We stayed with Henrietta's parents at BAR-B....I always used to stay overnight there too [BAR-B] when I'm travelling. Like, if I'm heading for town [Aklavik], I always go there late at night so I can take off early....And right from that place [Roland Bay], I used to go right to BAR-2 [in] one day. I had good dogs them days. I could go a hundred miles a day; those dogs don't give up....All natives had houses in DEW Line. That's why we go to DEW Line; we got a place to stay. There was native people that work in there.

PIN 4

A derelict U.S. Navy ship moored in a lagoon at Demarcation Point, a short distance across the border with Alaska, once provided shelter to this man and his companions.[59]

From there [BAR-1 at Komakuk Beach] we go to Demarcation [Point] right there. We passed the border, but them days we could sneak in...[to] Alaska going trapping. There was a ship here. Navy ship that drift there….They took it from Barter Island and they brought it here. And then a big wind come up again, and blow it to shore. They tried to cut the top off…to make it lighter. They couldn't push it out, anyway. Three-storey building. Navy warship. That's where we used to stay….on the ship….That year there was no caribou or nothing down that way. That's where [we] go today to hunt caribou; where my grandparents used to be long ago. This place used to be a little town before I was born. Around 1940s, from way behind 1940, used to be a little town. Lots of people lived there [at Demarcation Point].

PIN 4

Birds Camp, at the mouth of the Mackenzie Delta, was an important base for whaling. Younger people learned how to prepare *muktuk* and follow other cultural traditions there that they pursue to the present day.

There was a lot of families there, but I remember my mother telling me to sit right there and watch her, so that's what I did. Sat there and watched her, and watched how they prepare the whale, and how they cooked it, and whatnot. That one time I got a slab of *muktuk* from HTC. Never told my mom about it or anything like that. I cut it up and I cooked it, and I made three butter containers; regular, cooked and raw….One had cabbage, one had carrots, other one was raw. I never put nothing in that one; just left it like that and told her to come and eat with me. "Oh, where did you get *muktuk* from?" I said, "I cooked it." "Who learned you how to cook?" she told me. "Remember when you told me to sit there and watch you? Well, that's what I did. I watched you cook, and that's how I learned." And then helping them pack wood for the humungous barrels they used to have….That's what they cooked their *muktuk* in, 45 [gallon] barrels. They were lucky to get big 45 [gallon] barrels. Take the top off and use that to cook. Or split it in half and you got two cooking pots.

PIN 124

One family lived nearby at Coal Mine Lake, where the Danish father mined coal for heating buildings upriver in Aklavik and traded with Inuvialuit on the YNS.

We operated that mine until the early '60s....My dad owned it. He supplied Aklavik with coal when Aklavik was the big town in the region. All the big government buildings burnt coal in their furnaces…That's why I never got that whale, because the mining season and whaling season is the same time. My grandma, rest in peace, she and [name] went whaling with a whale boat, and therefore we got our *muktuk* for the winter….My family was the first point of contact in Canada after the Alaskans were moving over here. That's why my dad gave them all a grubstake when they reached the mine, because they were basically starving over there. He gave them meat, sugar, flour…just enough to get to Aklavik. A lot of people remember that about my dad and mom. [My father was] more a trapper. My godfather, Knut Lang, was a fur trader. They were both from Denmark. They came over together….After he [Knut Lang] passed away, the government hired my dad to take inventory of the stores up there.

Knute Hansen[60]

3.3 Large animals

The structure of the contemporary mixed, subsistence-based economy of the Aklavik Inuvialuit took shape in the 1950s as a result of several factors. The most important were depressed fur prices, the increasing cost of industrially-derived commodities, encapsulation by the modern Canadian nation-state (including mandatory education), and entry into wage labour through DEW Line and Inuvik construction as well as in oil and gas exploration (see Section 1.3 above). Although older people interviewed for the YNS ITU study described life on the YNS and in the Mackenzie Delta prior to the 1950s, when they and their parents lived almost entirely from hunting, fishing, trapping and collecting, most of the interviewees grew up in the post-Second World War era, when the structure of the Inuvialuit economy underwent significant changes. Today, no one in Aklavik lives full-time on the land or solely from country food, fur production, or some other form of independent commodity production.

Income from wage labour, commercialized production of fur and craft items, and government transfer payments (e.g., old age pensions, social assistance, employment assistance) now make important contributions to household finances, but so do the products of subsistence TU activities that are not commodified, such as meat from game animals, fish, berries, plant medicines and other country food products derived from hunting, trapping, fishing and collecting activities.[61] Kinship plays an extremely important role in this economy. TU activities, including access to harvest technologies, are frequently financed and organized along kinship lines, and to a major extent subsistence products such as caribou meat and *muktuk* are distributed through kinship networks, not through commercial commodity markets (Usher 1992). Household labour is productive even if it is not sold in the labour market or applied to the commodity production of furs and craft items. Examples of household labour and production not directly related to non-commodity harvests include processing country food and cooking meals, child and elder care, household cleaning and maintenance, vehicle repairs, various forms of entertainment, etc.

The mixed, subsistence-based economy is supported by various programs administered by the AHTC, Aklavik Community Corporation (ACC) and NWT Department of Environment and Natural Resources. For example, the Inuvialuit Harvesters Assistance Program provides funds from the Inuvialuit Regional Corporation to help finance the purchase of harvesting equipment such as boats, outboard motors ("kickers"), snowmobiles, ATVs, sleds, generators, chainsaws, ice augers, life jackets, floater suits, marine radios, trappers' radios, tents and cabin stoves. Administered by the ACC, the fund provides a maximum of $5,000 for the purchase of major harvest-related equipment, and a subsidy of as much as 75% for smaller items (maximum $1,000).

For its part, the AHTC administers the Community Harvester Assistance Program (CHAP), which disperses funds to purchase fishnets, ammunition, groceries and other camping supplies as well as snowmobile or boat gas to go trapping, muskrat hunting, fishing, whaling or berry picking. In conjunction with the Aklavik search and rescue committee, CHAP also finances the annual

subscription fee for SPOT satellite trackers that are loaned to harvesters for emergency support. Moreover, the AHTC supports various wildlife and fisheries co-management activities, such as this TU study, the Porcupine Caribou Harvest Data Program, the Inuvialuit Harvest Study, the ISR Community-Based Monitoring Program and other applied research initiatives.[62]

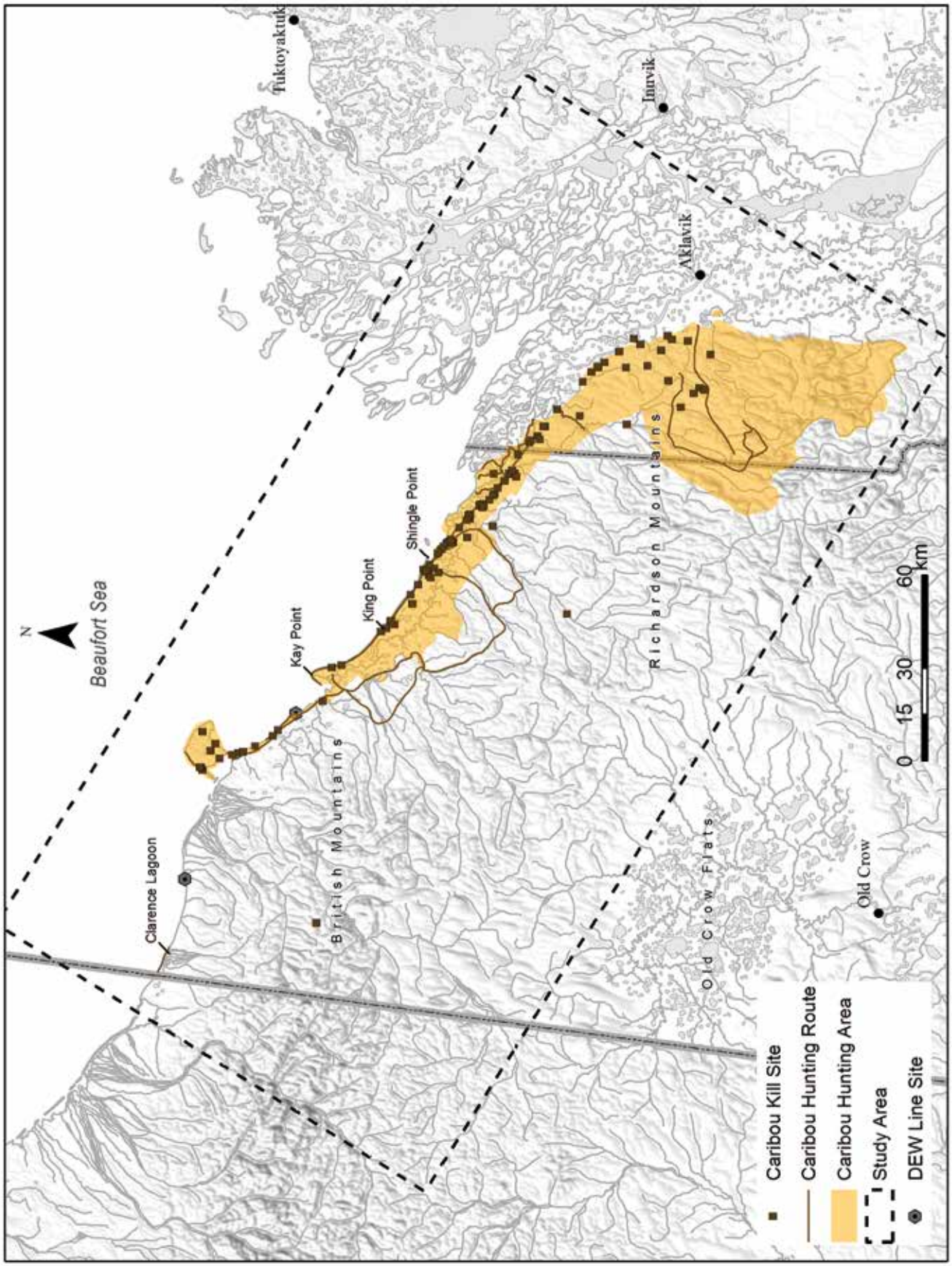
The GNWT Department of Environment and Natural Resources supports TU primarily through its Renewable Resource Officer who, in addition to enforcement/conservation duties, runs trapper training and youth harvesting programs (in collaboration with AHTC, the Beaufort Delta Education Council and Moose Kerr school in Aklavik), organizes gun sighting competitions with prizes, and handles fur exports and sales through the Fur Harvesters Auction in North Bay, Ontario, and to direct buyers.[63]

Harvesting large animals contributes significantly to the local economy in the form of meat and fur. Grizzly and polar bear hunting is subject to a quota/tag-based wildlife management regime established by the IFA, and is pursued mainly because of the hides, although many Inuvialuit eat bear meat. Caribou, moose and Dall's sheep are hunted primarily for their food value.[64] Of these, caribou from the Porcupine caribou herd is by far the most important food animal, and most Inuvialuit have a strong preference for it compared to moose. The relative importance of caribou is evident in the statistics presented in the Inuvialuit Harvest Study (Joint Secretariat 2003).[65] In the period 1988–97, the average annual number of caribou harvested by Aklavik Inuvialuit was 643, compared to nine moose, five grizzly bear, two polar bear and two Dall's sheep.

In describing the geographic context for caribou hunting, WMAC (NS) and AHTC (2009: 61) noted the following: "[Inuvialuit] have learned to hunt caribou not only in places where caribou are known to frequent, but where other resources, such as fish, whales, seals, geese, ptarmigan, rabbits, berries, wood, and water supplies are plentiful. Open areas are preferred for the vistas of the land and the caribou they afford. Many hunters were taught to hunt in these places by their elders, who chose specific routes to travel across the land. Routes were often selected based on the degree to which travel was favourable (e.g., flat land, dry and tussock-free tundra, and places where landing or lining a boat was easy). Used by many generations today, these routes have become well travelled."

This description is consistent with the data obtained for the YNS ITU study, as shown in Map 6, which depicts areas where caribou were harvested within the lifetimes of the interviewees. Favoured caribou harvest areas were accessible by snowmobile, ATV (quad) or boat within a relatively short distance of the YNS or from the main travel route between Aklavik and Shingle Point, as well as in the easily travelled tundra areas of the Richardson Mountains to the west of Aklavik.

In the mid-1970s, Usher noted that this focus on easily accessible caribou hunting areas represented a shift from more distant inland areas. A century previously, during the summer months, the grandparents and great grandparents of contemporary Inuvialuit followed the migrating caribou across higher ground inland on foot and with the aid of pack dogs. They had no permanent camps.



Map 6. Caribou harvest locations

However, as Usher notes: "[w]ith the introduction of larger boats, people were bound more closely to the coast, and emphasis on whaling and fishing increased. Summer caribou hunting then tended to be restricted to walking distance from the coast. In more recent times, caribou hunting has shifted mainly to the Richardson Mountains, north, west and south of Aklavik in fall, winter and spring, and to the Coal Mine and Shingle Point areas in summer. The Malcolm River and Firth River valleys are still important to a smaller number of people, who occasionally stay at Herschel Island" (Usher 1976b: 22).

Scow Lake, at the mouth of the Mackenzie Delta, and Komakuk Beach were two places where this interviewee remembered caribou hunting in her youth. Here, she describes an Inuvialuit method of preserving and storing caribou meat she had learned while at Komakuk Beach.

Where's Scow Lake?....We had caribou there too since I was a kid. One time…there used to be a lot of boats hunting. Me and [another person], we were teenagers, and we took a gun. We walked up, and we said we didn't kill a caribou. Just me and her. We went up, and we saw a caribou up there. We were sneaking up. All of a sudden those caribou started coming towards us. Me and [my friend] stood up, and we didn't get any. We got scared to go. They were really running toward me. But Komakuk we get lots of caribou. We bury them too in the fall. When you bury them, you eat them for *quak*, just aged. They get aged when you bury them. Right after you kill them you bury and you take that reindeer smell away, then it's good for *quak*….You get them in the same month and you put them in the icehouse.

PIN 8

Back in the day when Inuvialuit travelled by dog teams, hunters would let the dogs get tangled up in their traces so they would not chase after the caribou, thereby allowing the hunters to make their shots.

You go with dog team when you hunt like that….They tie a rope [to] the front leader and they weave it down to the dogs. You hold it when you're sitting in a sled, and…when we get close to caribou, we pull the lever. They all get tangled up and you can't go. Then they just jump up and shoot. It's fun….Whoever's got the gun jumps out, but you just keep the dogs together.

PIN 8

Inuvialuit watch the shoreline carefully for signs of caribou when travelling by boat along the YNS. White Man Hill near Shingle Point and other spots between Kay Point and Shingle Point have been good caribou hunting locations for this man.

When we're boating, say from Shingle Point here, we're always keeping an eye [out]….This one here. There's a tower here, and it's put up by White people. They call that "White Man Hill"….We hunt caribou around here all over….When they're along the shore, we just land and shoot them and load them on. I've got caribou right here [pointing to map]. It's probably more

than that, but that's just three locations….I got a whole bunch of caribou here one time, even about 20 big moose….on the point right here [Kay Point]….We've shot caribou off the Shingle Point.

PIN 2

Another hunter also described searching for caribou while boating or snowmobiling in close proximity to the coast.

Driving right on the edge of the shore with the boat….Or sometimes when we're Skidooing, we Skidoo all over; all along these [coastal] flats here looking for caribou….Most of the time when we get our caribou is from around King Point on towards this way [gestures]….Probably maybe about five miles or so [inland]….along the flats here.... Sometimes, most guys are carried along up to the Blow River here…. [Caribou] usually hang out on the ridges where all the high ground is, when there's lots of snow there.

PIN 5

Vast numbers of caribou would visit the breezy shores of Herschel Island in the summer months to escape insect harassment inland.

Caribou during the summer months, [when] it's flat calm, no wind and it's hot. What the caribou will do is they'll go to the edge [of Hershel Island], right to the edge, right to the bottom [of the bluffs] where the water is, with a little wind, a cool area, away from vegetation where mosquitoes and bugs happen. They go right to the edge of the island. I've boated around and I've counted fifty to sixty animals going along the edge. They've been hunted where they go.... When the caribou are coming out, like the female caribou, all the cows starting to come out onto the plain, we'll come out here [along the shore] and just sit….Caribou will start coming out on a warm day, hundreds and hundreds of caribou.

PIN 101

The mainland area south of Herschel Island was a good spot for caribou hunting when Inuvialuit still travelled by schooner.

Long ago, when we travel with the schooners, my husband, they got caribou down by, what you call that across from Herschel Island, that bay? [Ptarmigan Bay] — Yeah, that's how far. That's the furthest we get caribou…because we have to use it. We have nothing else; while we have the chance. They just got enough to travel back home.

PIN 123

They say when they go hunting caribou they all go there with the whaleboats. Sauaq always said that sometimes they would just row the whaleboats there when they wanted to get caribou. All the whaleboats would go inside the cove there at Qaŕgialuk (Ptarmigan Bay). And when the caribou came they would hunt them.

Jean Tardiff, JT90-16B: 1 (Nagy 1994c: 72)

The area of the former DEW Line site BAR-2 has been a reliable spot for caribou hunting.

We got caribou here too, at BAR-2. When we went to look for whales….there was nothing so we decided to go up here and check BAR-2 to see if we could see any caribou. My boy caught one just on this side of BAR-2. Right here [pointing to map with pencil]….There's always caribou.

PIN 109

Farther east, Inuvialuit have hunted caribou all along the well-used travel route between Blow River and Cache Creek.

We hunt all over from Cache Creek, this part…caribou all the time….There's lots of places, no cabin, nothing. We used tents. Wherever we get caribou, we'd put tents….all over around here [pointing to map], right to Blow River, we hunt caribou. Winter, when the weather good, we follow the caribou. Good [at] Blow River, we hunt from a camp in Blow River. In them days we live off the land…. Pretty well everybody that hunt caribou, [hunt] on that part.

PIN 4

Birds Camp, Coal Mine Lake, Coney Lake, Police Cabin Lake and Scow Lake are situated along this travel route and are all good places to hunt caribou.

We hunt all the way these caribou….Sometimes we go across here [pointing to map], and we hunt caribou around here….Coal Mine, you see [caribou]. After that, springtime you see and hunt caribou around here, right on the rivers…..Coal Mine Lake and around this river, all the way like this [gesture]. All the way we can get caribou from there sometimes, when we're headed down the river, right on the river, one or two. That's what we do. We're not going to see big herds; [but] some people see herd….Scow Lake, we got caribou around there, shoot them right from the boat….That's Police Cabin Lake right there. We used to shoot caribou around here too. Most of the time, you never seen nothing. [Then] all at once, sometimes you see caribou, all this here….You're really hunting with a boat…..People hunt, go out right to the coast easily in springtime; they go all over. Even Birds Camp, we used to hunt or stay there. I used to shoot caribou while I was hunting whales. He [caribou] come right up to us…..When there's lots of mosquitoes, he go out there.

PIN 104

When they saw the stars and when it got a little darker, they say about now the caribou skins are good for clothing. Then they would start going up and from below the West Channel, they would start dog packing from there. They went up to get good skins of caribou for their clothing. At one time, my dad took me up there to get some caribou for clothing. He said it was for winter use. Long ago they say the light ones are good and their fur is good for hunting. They are easier to use when moving around. One week we would stay up there looking for clothing from caribou skins, that's how it was long ago.

Kathleen Hansen, KH90-19B: 7 (Nagy 1994c: 72)

A narrow channel near Coney Lake is a good caribou hunting location during the spring, according to this hunter.

Caribou, we got right here. In the springtime….that channel that's really skinny in the summer, after spring. When it's spring flood, it's wide….You can go all the way in, no problem. We hunt right in here….Through these channels. That's where I always get caribou.

PIN 109

Old dog team trails that start at strategic points along the West Channel provide access to higher ground for hunting caribou during the spring, late summer and early fall. Hunters transport their snowmobiles by powerboat to the start of these trails and then follow them inland to places where they are most likely to intercept caribou. Whereas in the past, Inuvialuit would have used dogs to pack the meat back to their boats, snowmobiles are used nowadays for this purpose, even during the snow-free season.

You didn't know you drive Skidoo year-round?....These boys bring all their Skidoos down there [West Channel] in the fall time, and they all go up in this area here [pointing to map]…. Because we all use Skidoos instead of packing. Long ago we used dogs…to put pack sack there; our dogs carry our meat home. Now today everything is Skidoo….Drive Skidoo to hunt caribou. You could drive Skidoo anytime. But only use it fall time, when you hunt caribou, and spring, when you go down to Shingle....[the trail from West Channel] it's like an old dog team trail. Many, many, many years they still keep that dog team trail open, just like before even Skidoos and any motors came in. These, our grandparents [used] before I came…old dog team trails….Most people that go hunt, they go hunt the caribou in the fall time right here….Everybody will bring their Skidoos down there, but they follow that dog team trail.

Judy Selamio, co-researcher[66]

To the west of Aklavik, Inuvialuit hunters follow the migrating Porcupine caribou herd into the higher elevations and tundra of the Richardson Mountains.

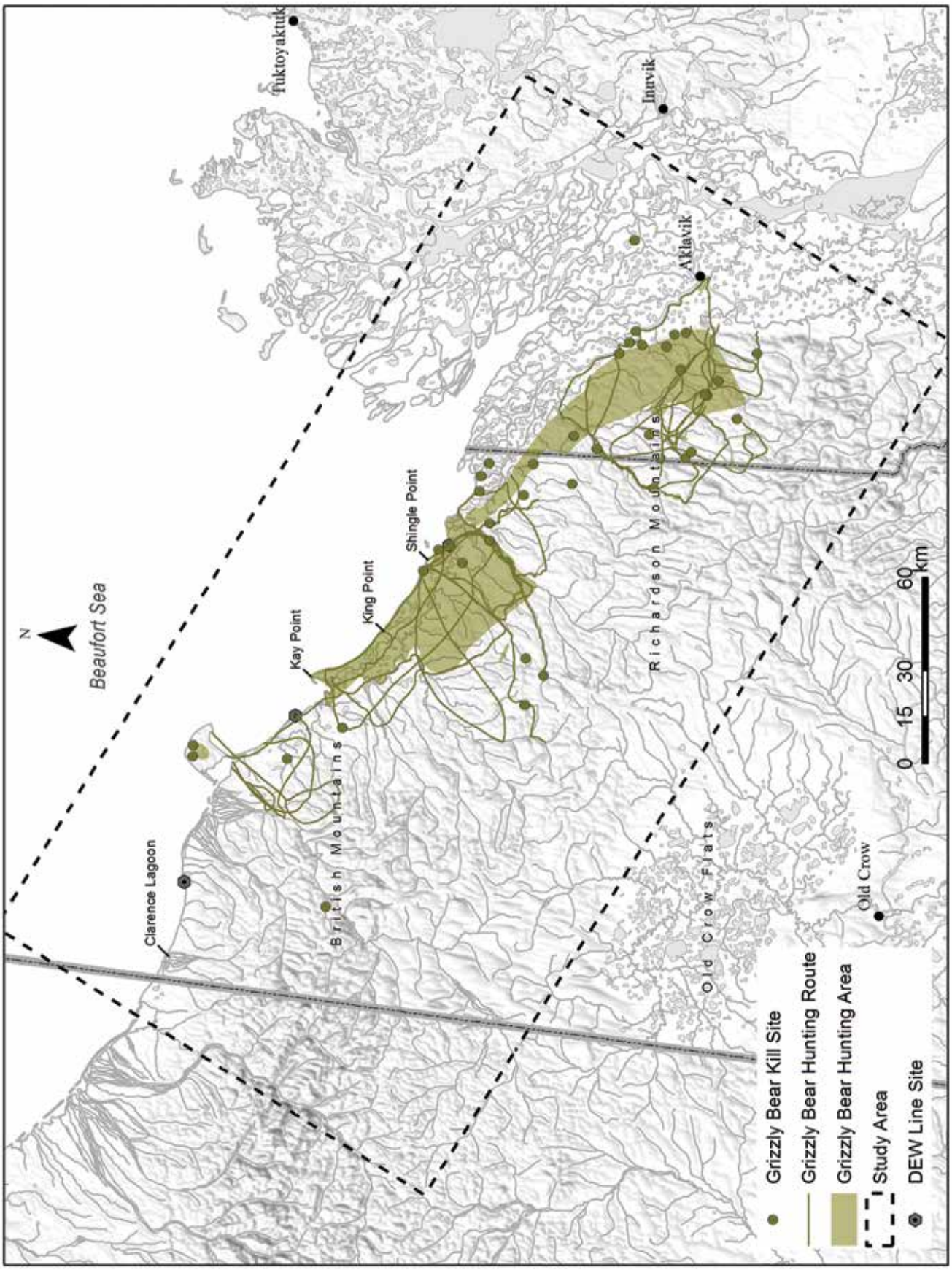
Farther ones is Bell River, but that's [not] very often we go up there. I went only to Bell River about three times in my life. Nobody go too farther than this because too much snow up in that Bell River….Pretty well all over Big Divide we hunt. From Canoe Lake….we hunt caribou all over, right to Blow River from there….That's the way caribou travels, through here.

PIN 4

A common practice in the spring is for hunters to travel large loops on day trips from Aklavik to John Martin, Canoe Lake, Cache Cree Timbers and Fish River, coming back to the community by way of West Channel. Caribou, grizzly bears (Map 7), wolves, wolverines and ptarmigan may be harvested opportunistically anywhere along this great circle route.

Deer hunting next month [April], so it's going to be a lot of people going all around that area [John Martin to Cache Creek]….They're going to make that big circle. I know my brother does that. Go at nine in the morning and come back eight at night. That's what these boys do.

Judy Selamio, co-researcher[67]



Map 7. Grizzly bear harvest locations

Moose and Dall's sheep

Forty years ago Usher noted that moose hunting by Inuvialuit from Aklavik and Inuvik could be undertaken anywhere in the Mackenzie Delta, and that, "special huts are sometimes made to the east side, especially near Campbell and Sitidgi Lakes. The immediate environs of Inuvik were well known as an excellent moose hunting area prior to the construction of the town" (Usher 1976b: 22). The eastern, Inuvik side of the Delta is outside of the YNS ITU study area, and so moose harvest areas there were not documented for this study. However, they were documented at various locations close to Aklavik, in several river valleys leading into the Richardson Mountains to the west of the community, along the West Channel to the coast, near Shingle Point, at Spring River farther along the YNS, and at Sheep Creek, southwest of Herschel Island (see Map 8).[68] This interviewee had killed moose at Spring and Big Fish rivers.

We never reach BAR-B. Just below it we turn back one time….I was hunting caribou, around here we get caribou, [at] Babbage [River]. Right here in this big lake, there. This is Spring River, we hunt moose there too….I used to go right to Sheep Creek…to get moose. Big Fish River we used to get moose.

PIN 104

As noted previously, many Inuvialuit much prefer caribou meat, and as a result, moose meat is not a big part of their country food diet. Inuvialuit who do like moose prefer the meat from animals harvested in the foothills of the Richardson Mountains or along the YNS, because it does not taste strongly of the willow that moose browse on in the Delta.

One land user who spent much of his youth on the YNS sees lots of moose in his travels, but does not harvest the animal because he prefers caribou.

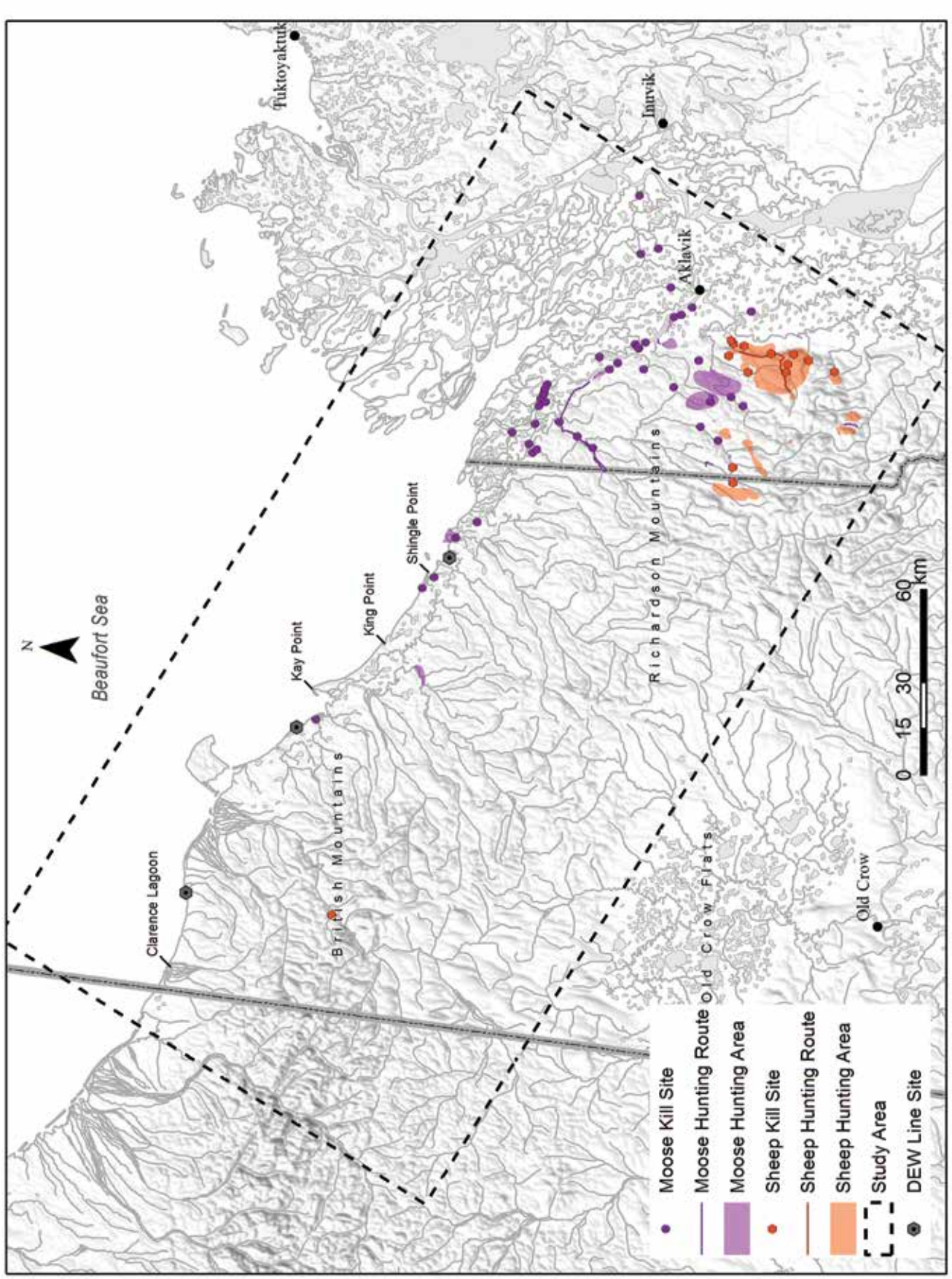
I was never brought up on moose. It was more caribou where we grew up. I would go that hundred miles for that caribou. Moose, I'll tend to bypass to eat. I would see them in the Mackenzie Delta where [I] travel, like up in the mountains, over to the ice floe. We're always downriver. We're seeing moose tracks, moose poop, moose eating the willows here and there…. Travelling throughout these areas here [pointing to the YNS and mouth of the Delta], the moose population, you'd run across a small herd of eight, ten, fifteen animals in a group, throughout this whole travel [area]. By the end of your five, six days of travel, you come across seventy, eighty moose in different areas.

PIN 101

This harvester also said he prefers caribou meat and that there is a big difference in the taste of moose depending on what the animal has been feeding on and where it is killed.

I'm not fussy about moose meat. I prefer caribou meat over moose meat because that's the way I've grown up hunting. I've always lived off the caribou meat, and that's my main source of my meat diet…caribou meat. But if there's no caribou, then I go in the hills, because we shot moose here one time [pointing to map]. I prefer them from the hills than the Delta….because you don't taste the willow….I've taken a couple of moose there….I also got moose in Bennett's one time [near Coal Mine]….They're really good eating down there….I think they live more in the lakes and they eat the vegetation from the lakes. In [the] Delta here, they're always eating the willows, and you…really can taste the difference compared to down in the coastal area.

PIN 121



Map 8. Moose and Dall's sheep harvest locations

This woman explained why she does not like the taste of moose harvested from the Delta area where the animals feed heavily on willow.

One time when I was younger, my auntie got moose, her son got a moose, and it had this taste on it. And I never ever liked it then….When my son got moose up in Shingle Point, he brought it home, and gave it all out….At that time there's hardly any caribou; we were having a hard time. So, [we] cut that meat all up, and we dish it just about all out. By the time we cooked ours, it just tasted like caribou….I couldn't believe that….Now, if they get moose from here [YNS] I'll take it, but not from the Delta….because the Delta has a strong taste like willow….[Moose on the YNS eat] the caribou moss or whatever. They eat something different here than compared to the Delta.

PIN 1

The Fish River joins the Mackenzie Delta near the YNS and is a good place to hunt moose. One hunter and his companions once shot six moose here and they distributed the meat to many people back in Aklavik.

Lots of moose we hunted in that Fish River. One time we saw six moose — me and [someone] and [someone else]. Six moose we shot, fed the whole town….I fed lots of people in my life. That's why I'm always lucky….Big Fish River is moose hunting lots too….They always hunt lots of moose…right from the mouth way up to Fish Hole.

PIN 4

Two harvesters said they harvest moose late in August and September when they are fat.

We don't hunt moose in June and May. They're too skinny; we wait until around the end of August. August, they're really fat then.

PIN 8

I don't harvest [moose in the] summer. Usually August, September is when I like to harvest moose. When they get nice and fat.

PIN 2

A moose kill in the Delta provided an occasion for instructing youth in harvesting and other TU skills.

Out at our camp, we have ten kids out there with us. My husband wanted to take them out. We go fishing early in the morning for jackfish and coney, and he seen fresh moose track. He said, "You think we should try to hunt moose for kids to work with?"...I said, "If you want to, you could go ahead and shoot moose with them." Because he see the tracks there. He says, "It should be good; it's in a grassy lake." So they went. The boys went with him, and the girls and I stayed behind until we hear the shot. Then we could hear them near, and we know that they had got the moose. They come back and pick us up, and they thought they'd just go over there and skin something like a little rabbit. Oh, you should have heard the kids yelling their heads [off]. "Look at the head, look at the animal, so big!"….And we cut the whole moose up, even the skin, the moose head. We take it home, everything. And we let them make dry meat. We let them cut [up the] meat. We let them do everything. What they dry, what they cut up, they dice [the] meat and take that home to their parents, to their family. We let them try to do all that….Some of them maybe is 14, 15 [years old], it all depends who they send out with us.

PIN 123

With respect to Dall's sheep, Usher noted that in the mid-1970s Inuvialuit harvested the animal in the "mountain regions" to the west of Aklavik, "usually in association with caribou hunting, although special trips are sometimes made for them" (1976b: 22).[69] In the period 2001–06, the Black or Red mountains were a key sheep harvesting area, according to Koizumi.[70] These mountains are part of the Richardson Mountains, and data obtained for the YNS ITU study also show them to be important sheep harvesting areas; additional sheep hunting areas were identified in the Horn Lake, Mount Lang, Mount Mason-Wood and Murray Ridge areas farther south and west (see Map 8). One interviewee said he had killed sheep in 1967 inland south-west of Herschel Island near Sheep Creek where he was panning for gold at the time.

> *We always go up there when I was young. When we stayed at Qaŕgialuk (Ptarmigan Bay) also at Itqiliqpik (Whale Bay). We go hunt sheep when is long days after Christmas. When my dad get sheep and had enough for food, [then] we come back.*
>
> **Fred Inglangasuk, 1990 Tape 5A: 5 (Nagy 1994a)**

An old seismic cutline along the eastern flank of the Richardson Mountains provides good access to sheep hunting territory.

I just come down the [Peel] river and there's a seismic [line] that comes from right here [pointing to map]. You go up that and there's a seismic that comes along. I hunt sheep there. Or else I go over to the hill and I hunt sheep here….And right here is Mount Lang. This whole mountain area here is sheep.

PIN 117

This man's first sheep hunting experience decades later was a special trip into the mountains.

It was pretty cool, I guess, easy. It just seemed like a really easy hunt because we went up, we thought we were going to be camping for a few days, my brother and a relative of mine, and we went up in the creek, and the very next morning after we got camp set up, we walked up the creek just maybe 15 minutes away from the tent, and we saw a sheep. We got two that year, and that was it, quick hunt. We got lucky that time.

PIN 120

Grizzly bear

Under the terms of the IFA, the Inuvialuit have the exclusive right to harvest grizzly bear in Ivvavik National Park and anywhere in the NWT portion of the ISR, including the Mackenzie Delta to the west and northwest of Aklavik. They hold a preferential right to harvest grizzly bear on the eastern YNS between Ivvavik National Park and the NWT-Yukon border. Since 1994, grizzly bear hunting has been co-managed by the Inuvialuit and the Governments of Canada, NWT and Yukon using a quota system whereby hunters are given a limited number of tags for their yearly harvest. The tags are assigned to particular areas in the Aklavik Grizzly Bear Hunting Area. Quotas affect where bears are harvested and how the harvest effort is distributed across the YNS. For example, in the five-year period 2011–16, of the total quota of 35 grizzly bears for the YNS east of Babbage River, the Inuvialuit harvested 22 animals during the reporting period

(GNWT 2017: 21). In Ivvavik National Park they harvested four of 20 bears allotted through the quota — reflecting the greater distance to travel to fill the quota (GNWT 2017: 20). Apart from harvesting grizzlies for their hides and meat, Inuvialuit have also killed them in defence of life or property, when they were threatened by aggressive bears or their cabins and food caches were being damaged.

The people interviewed for the YNS ITU study documented grizzly bear harvest areas and kill sites in the northern Richardson Mountains, west of the travel route to the coast along West Channel, along the YNS between the Blow River and Kay Point, and inland southwest of Stokes Point and Roland Bay. These are the same areas identified in previous research related to Inuvialuit TK of grizzly bear, where 27 of 49 interviewees said they "had hunted or killed bears in defense of life or property in the Aklavik area between 1960 and 1998….[T]he majority of these bears were taken in the northern Richardson Mountains and in the northern Yukon" (GNWT 2002: 6–7). This is also consistent with the distribution of the harvest as reported in GNWT (2017: 20–21).

One of the hunters interviewed for the YNS ITU study said the location of his grizzly bear hunts depends in large part on which management zone his tag is for. Depending on the tag, he may combine grizzly bear with polar bear hunting. The grizzlies along the coast are smaller than they used to be, which means that hunters are having to travel greater distances in search of larger bears.

> We'd travel along the beach looking for sign, always looking for sign. And as we're travelling along the coast, we're looking on land and out from the land [onto the ice], because we got both tags. We've got a grizzly bear tag and a polar bear tag, because we're going so far from town. We're doing more than a few days out on the land. All this area here has been covered….over a span of 20 years. We've covered this area here [pointing to map]….a lot. The hunters are finding they're going further and further to find bigger bears because the smaller bears are moving in, and they're not as big as what they used to be.
>
> **PIN 101**

This interviewee had gone looking for grizzly bears inland of Ptarmigan Bay on snowmobile, making a big loop to Innissiaq Hill and back to the coast at Stokes Point. He had encountered only female bears and young bears along the route.

> We see grizzly bears all along here [this route]. But depends, they're all too small or it's mother and cubs….We always have a tag with us. Those are illegal; supposed to be at five feet. But they should move it up there [to] at least seven feet….I mean they [cubs] just leave the mother. They got to give them time to grow up, just like your kid that's left you, and then they're killing them. So they should move up to seven feet, I think. Five feet is small, eh?….That's too small. I drove by a lot of bears, but they were always too small, so leave them for a couple of years. [But] you get another Skidoo come up behind you, and the bear is dead.
>
> **PIN 5**

One good grizzly harvesting area is between Big Fish River and Blow River between West Channel and Shingle Point.

I've been all over Big Fish River….One time, my brother even told me I beat him to Big Fish River house. That's the first time I ever been there to Jacob Archie's house. Because when we travel, we travel a long ways….We make day trips. I always carry a tent and that [because we do] a long trip and we come back late….One time I hunted grizzly bear between Shingle…and Blow River. Up Blow River…we caught a grizzly in there.

PIN 115

Many hunters said they liked to travel a loop in the Richardson Mountains, starting on the Mountain Trail near Aklavik and then heading through the Big Divide to Cache Creek, Little Fish Creek, Jacob Archie Camp, and back to the community by way of West Channel. However, they might head to John Martin-Canoe Lake first, rather than the Big Divide, but reconnecting with the route at Little Fish Creek.

From Aklavik we'd go up [the Mountain Trail], and we'd go through John Martin-Canoe Lake, through to the Little Fish River, back round through Cache Creek, and through Divide Lake, and then back home; like a big circle you always make….Right from the foothills you start watching [for game]….You just make a big circle, looking round.

PIN 126

The Big Divide through to Little Fish Creek is this person's favourite grizzly hunting area in the Richardson Mountains.

It's twenty six miles until you hit the mountains, and anywhere in the mountains we just travel around….Grizzly bear, I usually get towards Canoe Lake and Divide Lake....and towards Cache Creek....I come from town, go up First Creek…go all the way across until I hit Cache Creek, and I go to Fish River, and pretty much in there….around Fish River area. As long as I'm staying in the boundaries [east of the Yukon-NWT border].

PIN 117

One interviewee's father once shot an enormous grizzly bear at Selamio Hill near Aklavik; so large that five men had trouble burning it over.

I always tell people I'm not going to hunt bear like my dad. My dad shot a bear; five guys can't turn it over. It must have been about 20 foot, I guess….You know .30-06 is a big gun. They're a little bigger than .303, that war gun. He shot two boxes [of bullets], and he was shooting it 20, 30 feet away from him. From here to the end of the building. That's close….I got a picture of it. Five guys can't turn it over….just like bowhead [whale]. That's why it took so long to kill it….. I was there, 13 years old….At Selamio's Hill….That's where my dad got that bear.

PIN 4

People without bear tags who make defensive kills may run afoul of the regulations and be charged. A female interviewee said she had been charged three times in her life, once for shooting a grizzly that raided her food cache by her cabin at Shingle Point.

I got charged three times….They told me they gave me a month to pay…my fine….He says, "We're going to charge you two thousand dollars. You got to pay that in a month." I go to Whitehorse. I don't go back home. I told him, "I'm not paying that two thousand dollars ….You can put me in jail….You're going to watch my kids, feed my kids, get a sitter for my kids. You're going to do all that if I go to jail." One week later they phoned me back, and he says, "Your charge is dropped." I had a big box, dry fish. I just hung it up. We were ready to go home….We went out, start the smokehouse. I didn't miss anything. I had a coffee. I went back. That was about nine o'clock in the morning. I went back out to my smokehouse….I looked on the other side, my box was open, nothing inside. A bear had been eating the whole thing. You should have heard me cursing. I was just yelling, and one of my girls come out when I start yelling. They said, "What's the matter, *Nanuk* [grandmother]?" "No more fish!" So that's the time I got charged. That's when that happened; get rid of that bear. They even opened the guts. Nothing but dry fish inside. Oh, I was so mad….I had nothing left, just what was hanging in my smokehouse. There was maybe about 400 [fish] in that box, dried….Every night about four of five of them [grizzlies] comes.

PIN 110

Another interviewee said he had been fined for wasting the pelt of a grizzly, even though the animal was obviously sick and in terrible condition.

I shot one [a grizzly] but I got charged for it….Right at Shingle by the camp....I didn't want to skin it because when we opened the head up….gross. I just cut the head off and burnt it…. Bag of bones. It was sick or whatever….They charged us because of wastage. That's the only thing they charged us for, wasting the skin. If we had kept the skin, they wouldn't have charged us. We didn't know at the time….That was a couple of years ago….I told him it was a defensive kill, but…. instead of going through the lengthy court [process] to try and prove what we did, I said, "let's just pay the fine," so we did….I think we paid eighty [dollars] something [in fines]....The Yukon government should always have a ranger or whatever they have there, Park Rangers, they should have one there from the time we go down, June or July first until the end of August. They should have somebody there all the time if they don't want us to kill any more bears. Our elders used to tell us, "bear come, you scare it off. Second time come, kill it"….It's always been that way. Even in bush camps, a bear come around, shoot it….The bear broke into my house, I have to fix it on my own….I have to buy the gas, buy the windows, whatever I need, bring it down here, fix up my house, come back. We don't get any help from anybody.

PIN 112

TK related to hunting grizzly bears has been passed from one generation to the next, and an important part of this knowledge relates to hunter safety and how to deal with a potentially lethal animal.

That's where my *daduk* [grandfather] used to teach us….Like if we see a bear up in the mountain, he always tell us, "Don't shoot the bear. He's going to roll down to you." He show us lots. One time he took us, and we walked, and he said, "There's a bear right there." He shot it, wounded it, never kill it. Just to show us, he did that. When he shot that bear, he rolled down about from here to the corner [pointing from one side of the room to the other]….That's how far he rolled down. He just lay for a little while. Got up, starting to go for my *daduk*. My *daduk* was ready to shoot, and got it right there. Just to show us that's what we do. He show us how to hunt and everything like that. He always tell us, "Don't shoot the bear if he's above you….Unless you're going to kill it right there if he start to charge you."

PIN 110

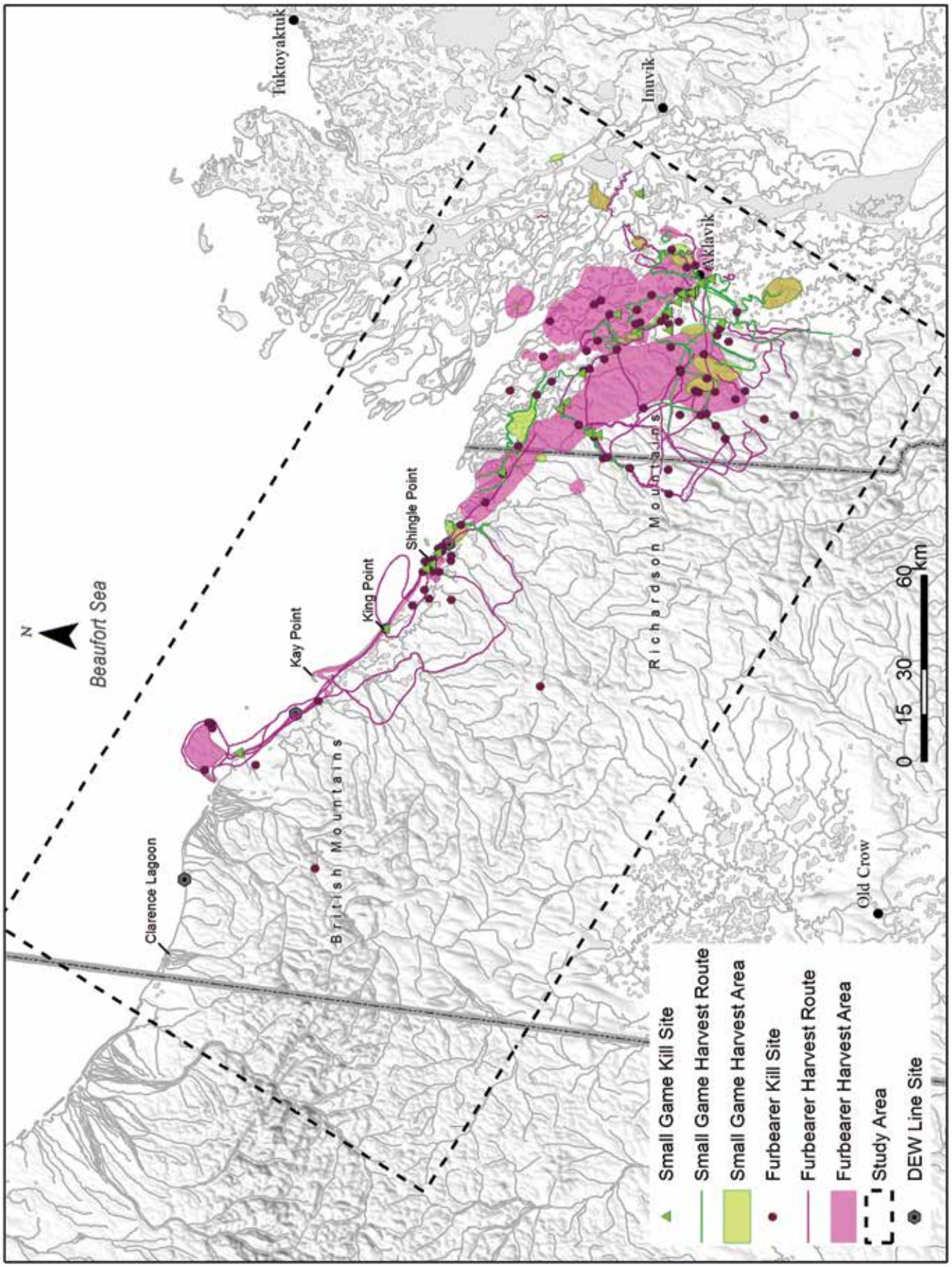
3.4 Furbearers, small game and waterfowl

Many Inuvialuit continue to harvest furbearing animals for food (e.g., muskrat, grizzly bear), sale (e.g., grizzly bear, polar bear, Arctic fox, coloured fox, lynx, marten, mink, muskrat, wolf, wolverine), or craft production (e.g., wolverine).[71] Grizzly and polar bear harvesting was discussed above, as was wolf and wolverine hunting, the latter in the context of opportunistic encounters while travelling in the Richardson Mountains, YNS, and along the main routes between these destinations and Aklavik. Small game such as ptarmigan and snowshoe hare (rabbit) may also be harvested opportunistically along travel routes or else in the vicinity of cabins. The Mackenzie Delta has a healthy population of rabbits, and many are harvested near the cabins in that area. Harvest locations for furbearers and small game are depicted on Map 9, while harvest locations for plants and waterfowl are depicted on Map 10.

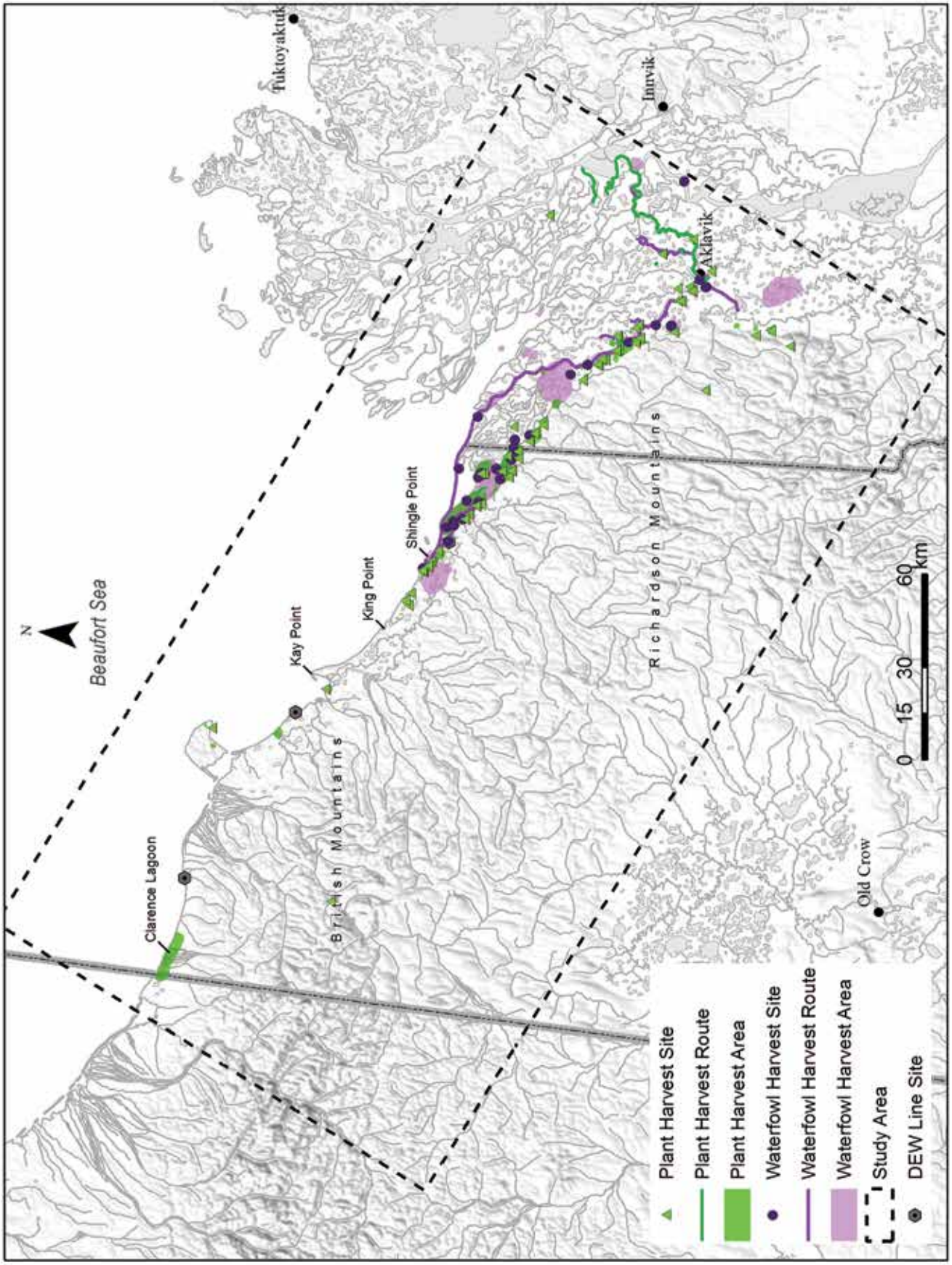
Furbearers

With respect to wolf and wolverine, YNS ITU study interviewees said they had harvested these animals during their lifetimes along the YNS coastline and inland locations along the Babbage, Blow, Fish, Running and Tulugaq rivers. Various channels in the Mackenzie Delta and the "big loop" snowmobile routes in the Richardson Mountains by way of John Martin, Canoe Lake, Tin House, and the Big Divide were also pinpointed as areas where these species had been harvested, in addition to the Black Mountain area southwest of Aklavik. Lynx were trapped in some of these same areas, in particular the valleys and old seismic lines running into the Richardson Mountains within easy reach of Aklavik. During the interview period for this study, a dozen or more lynx pelts were brought to the Renewable Resource Officer in the community for grading and shipment to the Fur Harvesters Auction in North Bay, Ontario. Nowadays, muskrat are hunted with small-calibre rifles in the Delta, primarily in the spring, which is when they are the most fat and the best eating. Mink and marten are trapped in small quantities in the Delta at various locations relatively close to cabins and Aklavik.[72]

Although hunters may depart Aklavik with one animal in mind, they may encounter other animals along the route and harvest them instead.



Map 9. Furbearer and small game harvest locations



Map 10. Plant and waterfowl harvest locations

Some of these parts, we'll stop and look on top of the hill….If we see tracks in and out of the river, we could go up and take a look-see where it is going….Most of the time when you're going up there, you kinda make one trip. Say we'll go for bears, and then the next day I'll go for wolves. But if you see both, then you get them both. They're in the same area.

PIN 119

Some of the older female interviewees said they had run their own traplines in the past. One woman had inadvertently caught a wolverine in a mink trap, but it escaped.

I only caught wolverine in a trap one time, but I wasn't there when it got caught. It got away. I didn't set the trap for wolverine, either. I set it for mink and I caught a wolverine....It was during the Christmas holidays, when we were coming to town. It must have got caught, and then after Christmas we went back out to the cabin. I went to check my traps….The trap was still there, [but]…I got scared. I thought, "What happened?" So I took him [my husband] with me, and he said that was a wolverine….I think that wolverine is still out in that land someplace. That's what they say….I was lucky to even catch it, but it got away.

PIN 123

[My husband] was trapping in November down there, trapping fox. Sometimes he stay down there two weeks and come back to Aklavik. Never stop always hunting. […] From Aklavik he camps at Police camp after that to Running River, and to Shingle Point, after that. From there to Niaqulik and camps there. Then to Qaĝgialuk (Ptarmigan Bay). He would go early in the morning because it's long ways travelling with dogs. He was trapping all the time white foxes, wolves, wolverine and (hunt) sheep sometimes. He really got happy all the time when he get good fur. […] From Qaĝgialuk he goes to Herschel Island. And after that he camped behind Herschel at Yuuqyaaq and Nunaluk. He was trapping there too. And then Qaiñiuqvik (Clarence Lagoon), it's near Alaska, he come back that way after that.

Sara Meyook, SM90-19A: 1 (Nagy 1994c: 83)

Another older interviewee spotted wolves chasing caribou while she and her husband were at their cabin at Shingle Point one spring. They hopped on their snowmobiles and chased after them, managing to kill five.

When I go down to Shingle, we have windows here [gestures], and windows here….I always want to look out. One day, I don't know what we were doing, having supper I think….I saw like a bunch of caribou coming down. [My husband] said, "Take your binoculars and look." I said, "There's seven, eight wolves coming down together"….We unhitched the toboggans, and then he told me, "I'm going to go real fast." "Well, I'm going to go real fast too," [I replied]. He went the right way, and I went straight up, because they were going up. I was behind two wolves for a long time. I kept them travelling together. When one started going this way [gestures], I'd go this way a little bit, and they'd go together. [My husband] was ahead somewhere. I chased them toward [him], and he got them both. That day we got five….and skinny like dogs. It was spring time, it was good….We had to bring the carcasses to town and the skins to town. Lots of load.

PIN 8

Inuvialuit encounter wolves and wolverines along the YNS during the spring when they are hunting seal pups on the sea ice. The carcass of a muskox or some other animal will attract scavenging wolverines and polar bears.

> What happened is in the springtime when the seal pups come out, and they lose their mother, and they start going along, they start working [their way] along the shore, like touching the shore….What I noticed when we were heading to Herschel Island, the wolves and wolverines always head out to the ocean for hunting seal pups. In April, the wolves and wolverines always head out to the ocean, because I even shot some wolverines out in the ocean there…. There's a dead muskox there one time and that's when that wolverine and bears were really coming to shore.
>
> **PIN 6**

This hunter has seen wolverine far offshore of Shingle Point.

> There was some wolverine we spotted out here too….Must be ten miles out from Shingle where we've seen some wolverines. I think they eat seal too.
>
> **PIN 103**

He has also observed caribou and wolves in the hills in the Kay Point-Babbage Bight area.

> That's the only place we got that wolf one time, but there was a big pack right here [pointing to map]….They have must been about 15, but they all ran away…. There's always caribou in these hills.
>
> **PIN 103**

While travelling across the YNS, interviewees said they continuously take note of all the animal tracks they encounter, because these may lead to a wolf, wolverine or some other animal worth harvesting. Gutted caribou will attract wolverines, foxes and other scavengers.

> Throughout the travel, you're going to be coming across tracks. You're looking at them and you're going to see wolf tracks. You're going to see wolverine tracks. You go out on the tundra…all you're going to see is tracks a lot of times….If you come across them, then you run them down….I travel not much for trapping, more for hunting. And I got wolverines here and there. A caribou kill up here where previous hunters had shot a caribou, [what] the guys will do is gut it, take the guts out and whatnot, leave the skin, and then you'll go back there the day after. Usually fresh blood would attract animals; foxes, ravens, wolverines....And that's where I got a wolverine — up in here [pointing to map].
>
> **PIN 101**

An axe or even a shovel can be used to harvest wolverine when a rifle is not handy.

> I got two wolverines with a shovel. My gun wouldn't work, got full of snow. This one, I got with an axe….They get close to the snowmachine. You're driving and you kind of hit him….I got him right while I was riding a Skidoo, and hit him over the head, knocked him out, and then finish him off after. I usually step on the chest, and then that way you hurt his insides, and he just dies.
>
> **PIN 2**

A younger man and his father ran a trapline for wolverine and other furbearers.

This is our trapping area, where we used to have a trapline [pointing to map]. Me and my dad used to leave at nighttime, and…camp at Canoe Lake. Leave Aklavik nighttime, camp here, leave early in the morning, six, seven o'clock in the morning, and then Elan [snowmobile] 16-horse [horsepower] days. It used to take us all day to make a round circle and get back here…. We get wolverine all along in this area….We could have wolverines anywhere, because we had some traps all in different [spots]. You go a few miles and you set a trap. You go another few miles, you set traps…. We used to make it a surrounding, this big loop all the time.

PIN 121

A trapline along an old seismic line on the east side of the Richardson Mountains is productive for wolf and wolverine.

There's a seismic that goes all the way along the front of the mountains here, and then comes back out this way, and it comes all the way to this creek over here [pointing to map]. There's a whole trapline through there….[The seismic lines are] overgrown but I keep them open.... Trapped a wolf…right here [pointing to map]….I got a bunch of wolves up this creek right here…. same place as my trapping area; they always go there….I got wolverine all along this [pointing to map]….Over the years I got maybe twenty wolverines out of there.

PIN 117

Some Aklavik Inuvialuit still retain and manage traplines that have been in their families for many years. This interviewee learned how to trap from her grandfather.

I had caught rats [muskrats] all my life after I went to school. My grandpa used to teach me how to set them, and I rat lots. Then I teach him [her husband] how to set a fox [trap]....We had a big trapline….I skinned a lot of rats, a lot, a lot. Sometimes he'd just about get 300 a night, and that's a lot of skinning….It didn't take me very long to clean them. Then [a person] was down by his camp. He had dogs, but he didn't hunt there, because he was alone. [I] used to talk on CB [Citizens Band radio] and tell him, "Come over and get some muskrat meat for your dogs." He used to come; he used to bring a lot of cans, so we filled them up with muskrat for his dogs.

PIN 8

She has a delicious recipe for muskrat that is popular with many people.

You smoke it in the oven. Then you prepare it and put it in a…cake pan…and you put salt, dry mustard, and then you cover it with foil for a while. It cooks about four or five hours, not really hot [oven]. When you want it crispy, you take the tinfoil off and you brown it. Man, that's good!....We used to trap muskrats first, and we'd go to Shingle, then I used to have a lot of muskrat cooked....When we eat, we don't eat nothing else, bread and muskrat. One time we were down there at Shingle when [a family we knew] came. Must be about four or five [of them] boys, all boys. They were travelling, just touring….I put my muskrats out. I'm sorry I put out the whole bunch. Those … boys like muskrat because they lived around here in the Delta…..Boy, they liked it with mustard….I said, "[N]ext time somebody visit us, don't put the muskrats out." That's funny, though.

PIN 8

Her husband thought it would be difficult to pinpoint all of the places where they had harvested furbearers on their trapline over the years.

> Of course we get lots of foxes along here and wolves. I don't think we can mark them all…. Furbearers, like fox, lynx, mink and muskrat of course. This is where we hunt muskrat [pointing to map]….I don't know if we can mark it all. If you just circle where the [trapping was done]….We get lots of portages over land, lake, river. It would be hard to mark because we got too many portages.
>
> **PIN 2**

Another interviewee said he had hunted muskrat in the spring at numerous places north of Aklavik in the Mackenzie Delta region, the Beaver House Creek area in particular.

> I've hunted rats all over the place….I've hunted around the West Channel area….Beaver House….This is the West Channel area. We've hunted around this area, because it's where we got quite a few rats one year. These might be other people's country, but we hunted in there.
>
> **PIN 126**

Springtime muskrat hunting at Taylor Channel is an important tradition in this man's family.

> It's our traditional rat camp where we spring out….from when I was a little boy growing up until I was about 15….I still go out every year, but my mother and my older sister and their kids, they always spring out every year. It's still a tradition for the family to go out….That's our traditional rat camp, where we do all the muskrat hunting, and that's where it is, on Taylor Channel.
>
> **PIN 121**

Another interviewee reported a muskrat sighting in the Babbage River area. Although he had seen the animals in the lowlands northwest of Coney Lake he did not harvest them while passing through.

> A couple years ago when we were Skidooing these big lakes, every lake had push-ups[73] [northwest of Coney Lake]….I heard one hunter, they were up here, he seen one muskrat running across the tundra at Babbage area….Farthest place you'd think you'd see a muskrat is way out here.
>
> **PIN 103**

Small game

With respect to small game, Usher noted forty years ago that "[s]nowshoe rabbits are ubiquitous in the Delta and may be taken anywhere" (Usher 1976b: 22), an observation that holds true to the present day. Interviewees for the YNS ITU study described rabbit (snowshoe hare) and ptarmigan harvesting areas in the vicinity of their camps, along West Channel from Aklavik to the mouth of the Delta, and up various valleys including Blow River, upstream through Big Fish River near Jacob Archie Camp, First Creek, Willow River, the valley running from Cache Creek Timbers south to the Mount Mason-Wood area, and about 35 km up the Peel River south of Aklavik. Rabbits were also harvested within the lifetimes of the

interviewees in the Richardson Mountains near John Martin and to a limited extent near Shingle Point. No rabbits were harvested farther northwest along the YNS than this point.[74]

Back in the day, Inuvialuit would start snaring or shooting rabbits starting at the end of August or early September.

Around the house we set snares, and it's down the river around the islands, all around. It's just island where we're staying. When we go hunting…we end up back at the same place where we start….When we travel, we get rabbits anyplace we can....just anyplace when we see rabbit….At one time we would shoot them, and then after that we started snaring them. We're always told not to try and shoot rabbits after the young ones are born [before the end of August], told "don't bother rabbits." Hardly all summer long we don't hardly bother because they got the young ones with them, and then fall time, we start setting snares again. The old people, they show us things like that, so we have to follow what they [instructed us about].

PIN 123

Because in the coast we get short of food when the weather is not good. And now in delta we could snare and we could go (fish) hooking. That's how we make our living. If you are in the coast you have no place to hook when it's winter and nothing to hunt but sometimes you could get ptarmigan alright. Sometimes there is not much ptarmigan too. Here in delta there's lots of rabbits and some ptarmigan too and in the spring there is muskrat and there's lots of places where you could go (fish) hooking. That is why we never leave here too. Because too there is nothing for us in coast. There's no place for us to hunt when I was young that time. We stayed in the delta here because […] all year round we could set snares. We get lots of rabbits, something to eat. We make water hole in the creek where we could hook and we catch fish […] In the coast there is nothing to hunt in the winter, no rabbits too. There's only some ptarmigans, that's all there is, just ptarmigans.

Fred Inglangasuk, FI90-5B: 4 (Nagy 1994c: 86)

Rabbits are easily accessible to Inuvialuit "anyplace" in the vicinity of their cabins in the Delta.

Rabbits mostly in the Delta. We do that at our bush camp….You can go anyplace and you set snares. There's always rabbit….We usually walk and shoot a few for lunch….We snare them, and then we shoot them as well.

PIN 2

Taylor Channel and Jamieson Channel are good places to harvest rabbit.

We always hunt rabbits in here, Taylor Channel. This is really good rabbit hunting. We always go down, hit the fork…back to Jamieson….Jamieson Channel is another good rabbit hunting [spot], all through here. Come back up through Taylors, all through here [tracing route on map]. Always you make a big circle, all the time.

PIN 121

This interviewee said he had harvested rabbits mostly in the John Martin area at the eastern edge of the Richardson Mountains and southwest of Aklavik up Husky Channel and the Peel and Willow rivers.

I hunted rabbits up in the John Martin Creek area, right at the cabin area there, just from the creek….in the fall time….All along the [Peel] river I've hunted rabbits and….anywhere in this area too I've hunted…like up towards the Mountain Road [Trail], and all in this area towards Willow River and Husky River….It's all along the bank here.

PIN 126

An older interviewee said he had hunted rabbits in the Blow River area to feed his dog teams.

I hunt rabbit at Blow River. That's the only place I hunt rabbits….22 [rifle]. At Blow River we used to hunt rabbits long ago for dog feed.

PIN 4

In some years, numerous rabbits can be harvested in the Blow River valley.

If the population is right up there, down on the coast, down at Blow River here, up Rapid Creek, you get the hillside on one side and the creek on one side, and you get these huge snowbanks. You just walk around, three or four hunters walking around this big place….Two hunters are shooting with .22s or a shotgun, and one guy is picking up…. We get fifty to sixty rabbits….Seems like the rabbits migrate into that area…where there's tundra.

PIN 101

People hunt rabbits and ptarmigan opportunistically while travelling in search of other animals. Having both a rifle and shotgun gives this hunter the versatility he needs to take advantage of whatever hunting opportunity presents itself.

Every time we go out hunting, I always take a rifle and a 12-gauge shotgun, because I'm hunting ptarmigan and rabbits at the same time I'm hunting everything else. So everywhere else I've marked [on the map], it's ptarmigan and rabbits if they're in the area too.

PIN 120

Another interviewee explained how he hunts ptarmigan along the route to and from his cabin.

We've hunted ptarmigan all the way through….with a boat….We'd drive through the whole river from Anderson, Fish River, and through Bennett's [Channel]. We've hunted ptarmigan all through there in the fall time, because they sit on the willows. All the way to our camp we always hunt.

PIN 126

A circular row of snares in the shape of a cartwheel was used in the spring to trap ptarmigan.

We never used dogs; we walk. You trap walking and we hunt walking. Whenever it's springtime, the ptarmigans come and they always walk in the snow vents. So we do the cartwheels, put them all in line, put a little snare so they could trap them. Then when you see a ptarmigan landing, we used to go there and chase them into the snares. We used to get lots like that. Didn't use a gun or nothing, we just chase them in and they just trap them; we just kill them.

PIN 8

A close association between ptarmigan and migrating caribou is part of Inuvialuit TK that has been transmitted inter-generationally.

I always used to go up towards the hills, like on the foothills, and around Selamio's Lake. We used to get them, shoot them when they're close by. They travel with the caribou….Our elders tell us, when there's no caribou you don't see ptarmigan. And if you see lots of ptarmigan that means there's caribou close by. Once in a while you will see an odd ptarmigan here and there.

PIN 123

Numerous ptarmigan are encountered in the fall just before the caribou arrive, in the valleys going into the Richardson Mountains and at the mouth of the Mackenzie Delta.

You get them up in the mountains, where you go up the Mountain Road….In the fall time, just before it freezes up, you see a lot of ptarmigan where we're hunting caribou, along the riverbanks, all along here [Barge Lake to Coney Lake area].

PIN 101

Aklavik Inuvialuit know that the caribou are nearby when they see ptarmigan in the vicinity of the community.

Elders will tell you the ptarmigan follow caribou. When there's ptarmigan around, there's caribou around the community. When there's no ptarmigan, there's no caribou around…. Sometimes they come right in the community, ptarmigan flying around in the community; that's caribou coming from Old Crow side. They're coming up this way [and] they're going to migrate down to the coastal area. After they have their young ones, they come all the way back up this way. Sometimes we don't even get caribou; goes to Alaska, Arctic water. Last year they had lots at Arctic water.

Judy Selamio, co-researcher[75]

Sometimes there's caribou all year round, but some years nothing. Maybe springtime or falltime we kill caribou but after that, nothing. One year we had a hard time at Niaqulik. We had nothing to eat. There was my grandfather, my parents, Old Archie, Isaac Aluniq. One year we had hard time, me and my grand-father nearly starved! They lost all their dogs, then we used to stay close to the Niaqulik, we didn't go up in the mountains. Them guys they were gonna go to Fish Hole, at Niaqulik there. Then bad winter came while they were up there. There was nothing to kill up there, no fish, nothing. So they lost all their dogs, no more food. They came back towards Niaqulik. Us we were doing good. Me and my father and mother, we had ptarmigan all winter that time. Nothing else, just ptarmigan. […] We just lived on ptarmigan. Spring came, […] my grandmother used to take me out walking, see there ground squirrels, then we catch them in the trap. […] When we got squirrels once in a while we did good. When the seals started coming up we were able to live better. After Christmas there was no caribou or anything except for ptarmigan. All we lived on was ptarmigan. […] That's how it was in the coast. Some years you were well off. Maybe well off one year, next year nothing. Nothing to kill, just the ptarmigan. Ptarmigan are around all the time. Hard to catch anything, no caribou, can't get seals late in the winter.

Fred Inglangasuk, FI90-7A: 6-7 (Nagy 1994c: 86)[76]

Waterfowl

With respect to waterfowl, Aklavik Inuvialuit harvest a large number of duck species that migrate through or nest in the Delta and YNS regions, in addition to cackling goose, Canada goose, and yellowlegs (see Table 5). People interviewed for the YNS ITU study said that within their lifetimes, they had harvested waterfowl in the lowlands near Shingle Point around Jacobs Lake and the mouth of John Arey's Creek, at the mouth of Blow River and along the shores of the myriad channels and islands between Shingle and Police Cabin Lake going into the Delta, Shallow Bay, the mouth of Reindeer Channel, the entire length of West Channel between its mouth and Aklavik, the lowlands along the lower portion of Big Fish River, from its confluence with West Channel, Selamio Lake, Peel River from Aklavik to a short distance upstream of John Carmichael, Taylor Channel, and along Schooner Channel as far as Main Channel close to Inuvik.[77]

Many of these areas are the same ones identified by Usher forty years ago: "Geese are hunted within the Delta itself, chiefly on grassy flats on some of the big bends on the Main Channel, and they are also hunted on the northern and northwestern sections of the outer Delta, with the Inuvik hunters favouring the areas north of Reindeer Channel and Shallow Bay, and the Aklavik hunters favouring the Tent Island and Neakonik areas. All these areas provide temporary feeding stops for geese during the migrations" (Usher 1976b: 22).[78]

A handful of narratives were elicited during the course of the YNS ITU study interviews related to waterfowl harvesting. The wetland habitat of the Delta and YNS is located on major migratory flyways, and is therefore extremely abundant in waterfowl during the ice-free months. One interviewee spoke of seeing numerous ducks while travelling in the spring.

> When we're travelling in the springtime…we're cutting through channels, coming down to our caribou hunting places down here [where the Delta meets the YNS]. You're seeing ducks all throughout the area where there's water, where there's marsh.
>
> **PIN 101**

This hunter combines goose hunting with other types of harvesting.

> Fish River. We hunted lots in the fall too with a boat. We'd go about halfways up with a boat….hunt geese or hunt caribou lots in it too, because that's where the caribou cross that river. Everybody pretty well hunt in the fall with the boats there. Or springtime — anytime there we hunt lots….We hunt lots of geese around here too, most of the time.
>
> **PIN 4**

While describing some of his duck and goose hunting hotspots at the mouth of the Mackenzie Delta and the coastline around Shingle Point, this interviewee said he harvested waterfowl opportunistically while pursuing other game.

All in this area. I pretty well used [all of it for]…goose hunting….I've hunted geese around here [pointing to map], and then mostly in this area up to Scow Lake….It's all flat country, and moss, and lakes, and goose hunting is really good….We're eyeing out for moose, caribou at the same time you're hunting geese….It's a valuable land; all wildlife in there, lots of ducks and swans, and everything else in that area….It's hard to cover it all. You may be driving and there's a bunch of geese flying off in front of you.

PIN 2

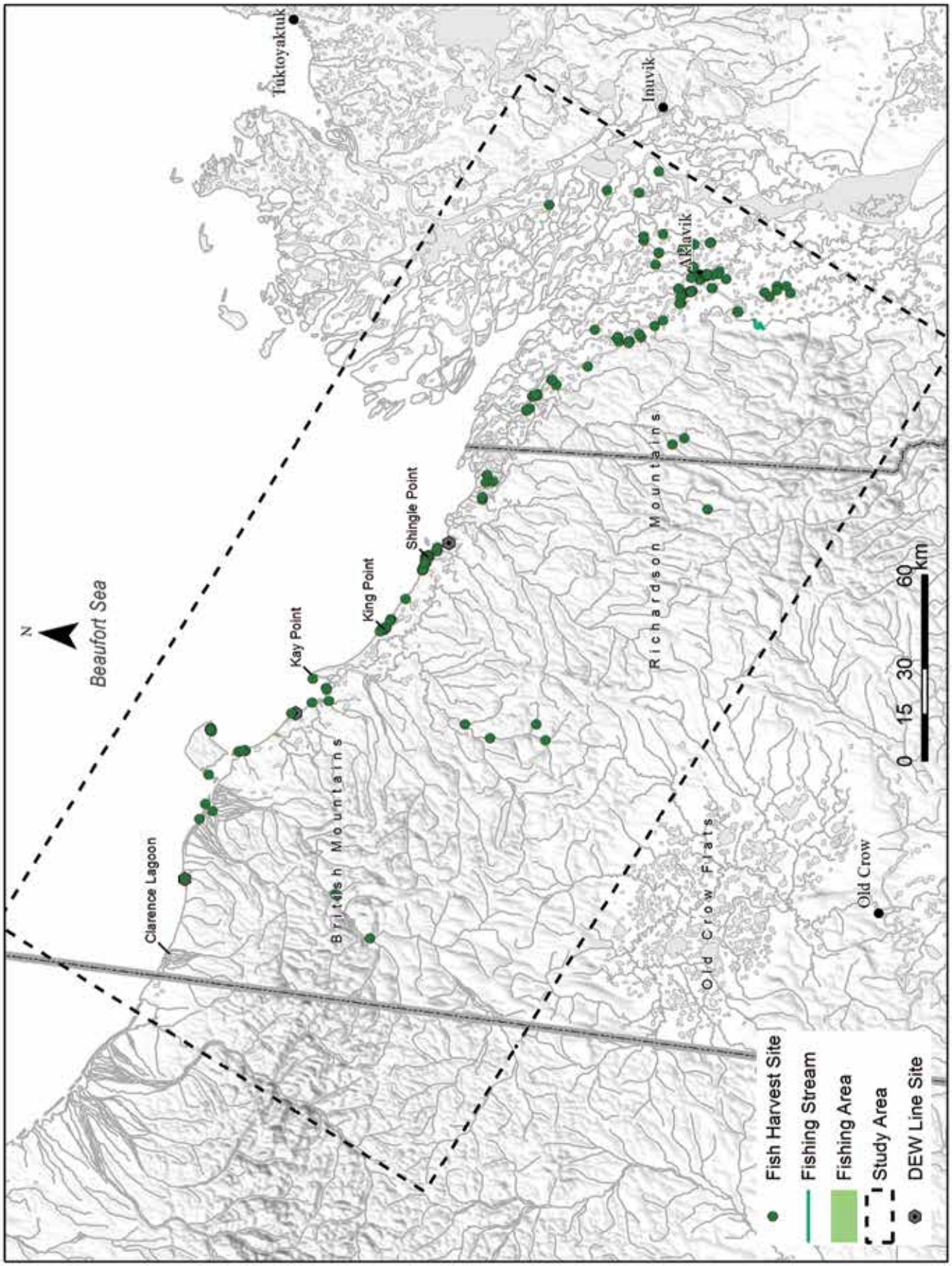
[…] And then after we came down by Yuuqyaaq, then we crossed the Qikiqtaqruk river [Firth River] with boat, a canoe, before we started looking for eggs that were still not hatched. We got eggs of seagulls or ducks before we brought the dogs across with eggs in this kind of box. Well, if we crossed with the dogs first they were going to break them and eat them.

Sara Meyook, SM90-4B: 5 (Nagy 1994c: 80)

3.5 Fish

Various fish species have been a staple food source for the Inuvialuit for generations.[79] The Inuvialuit netted arctic char and other species at whaling camps and various locations along the YNS during the ice-free season. They netted and "jiggled" (jigged) after freeze-up at numerous strategic fishing holes on the channels of the Mackenzie Delta near Aklavik or in the vicinity of their trapping camps until such time in January that extreme cold and thick ice prevailed.[80] Several English-language place names — such as Big Fish River, Fish Hole, Fish Point, Little Fish Creek, and Selamio's Fish Point — point to the importance of fishing to the Inuvialuit economy. Some species, such as broad whitefish, were harvested intensively before the arrival of snowmobiles in the early 1970s. They served as trap bait and were the principal food for dog teams, the primary method of winter transportation pre-1970.[81] Fish species harvested include arctic cisco (herring), arctic grayling, broad whitefish (whitefish), char (Dolly Varden char), coney (inconnu), lake herring, lake trout, lake whitefish (humpback, crooked back), least cisco (herring, big-eye herring), loche (burbot), longnose sucker (sucker), northern pike (jackfish, pike) and pacific herring (blue herring, bluefish, herring; see Table 5). Quantitative harvest statistics do not necessarily demonstrate the economic importance of a given species, but in terms of catch numbers, in the period 1988–97, Aklavik Inuvialuit harvested more broad whitefish than any other fish, followed by cisco, lake whitefish, inconnu, burbot, arctic char, northern pike and pacific herring (Joint Secretariat 2003: 46).

YNS ITU study interviewees pinpointed numerous spots where they had fished within their life times (see Map 11), including along the Peel River to a distance of about 50 from Aklavik, all along the West Channel to the coast, various other channels west and northwest of Aklavik (e.g., Schooner and Taylor Channels), and the outer reaches of the Delta (e.g., Coney and Scow lakes).



Map 11. Fish harvest locations

The Shingle Point area continues to be heavily fished in the ice-free months. Travelling northwest along the YNS, interviewees said they had fished at King Point, Kay Point and the mouth of the Babbage River, Ptarmigan Bay, Pauline Cove on Herschel Island, Nunaluk Spit and Komakuk Beach. Some inland rivers and creeks, such as Firth River-Sheep Creek in Ivvavik National Park and several spots along the Babbage River at the park's eastern boundary, as well as Big Fish River and Little Fish Creek, were also fished.[82]

One interviewee with considerable life experience on the YNS spoke of spawning and wintering areas for arctic char.

The char, they spawn up Firth River in August and September. It's a spawning ground…. Babbage River is where they winter; they're up here some place in deep holes up in this area....I fish here [Babbage River]. And that's where they come for the winter.

PIN 2

[We fish] all kinds; herrings and trouts too. That was what we got from the lakes but only the lakes don't have herrings. The fish down al Kiññaq (King Point) is like ours here. Jackfish, connies, there is no other fish, no different kinds. Only the graylings are there too, in some little creeks down there.

Amos Paul, AP90-18A: 3 (Nagy 1994c: 77)

Another older interviewee identified some of the places where Inuvialuit would fish char after freeze-up, travelling to these spots by dog team.

Years ago before they had problems with fish quotas, fall time, soon as the ice gets safe enough to go on, people used to travel with dog team. That's [Fish Hole] one place I never went with dog team. Mostly men went that time because I don't know what it's going to be like to travel. Men travel alone. They go as far as Fish Hole for getting char, and down [to] Shingle Point to get char. When ice used to come in close [to shore], we would go down farther, King Point, in that area, where the ice get close. Seem to get more char when the ice is close to the land…. We don't use very long net. We just use short net and string it out. But when there's no ice, it's different fishing. At Shingle Point we're just lucky because it's where it [the ice] comes when it [char] runs.

PIN 123

Long ago when I was young child we used to live here at Tapqaq (Shingle Point). […] We stayed here and did some fishing. We made dry fish and put them inside the teepees here, those made with long sticks. That's how we used to live around here long ago.

Sara Meyook, SM90-19B: 4 (Nagy 1994c: 77)

Fishing methods on the YNS are significantly different than elsewhere in the Canadian Arctic.

> Around here we don't see really that much tide….Not like in the eastern Arctic where the tides would just come right up. You don't even have to set your net [in the east], you just lay it out on the ground, and then when the tide come up, your net is set. When the tide goes down, you just go out there on the ground and pull your fish out. Around here it's not like that. It comes up just maybe a foot and then goes back down.
>
> **PIN 123**

This person said the fish in the Delta taste different than those caught on the YNS.

> The coastal areas is where I like to get my meats and fish because even with the fish you really could taste the difference in the fish meat. Fish and the caribou [in the Delta taste] really willowy.
>
> **PIN 125**

Big Fish River in particular was a fishing hotspot for Aklavik Inuvialuit until relatively recently, primarily for arctic char, until conservation concerns led to the closure of the fishery there in 1987. This interviewee talked about the especially important char spawning and overwintering habitat on Little Fish Creek, a tributary of Big Fish River, at a series of pools known as Fish Hole.

> Fish Hole…I know it's in here some place…high up Fish River. Right here I think, yeah, right there [pointing to map]….For the Dolly Varden [arctic] char, they spawn, they go up there in the fall time....Through the ocean and they come up this river and they spawn….that's the one right here, right from the mountains down to the Delta….[We had to stop fishing on the river] because there was low char count.
>
> **PIN 103**

About 56 km from Aklavik as the crow flies, Fish Hole has been the focus of significant research and conservation effort. Its waters are kept consistently warm at about 15° Celsius throughout the winter due to thermal springs at and above an impassable waterfall upstream. A two-to-three-km stretch of the creek never freezes, and until recently was highly conducive to spawning and overwintering for a small char population. However, this population declined precipitously in the late 1970s. This was most likely due to earthquake activity, which reduced water quality and flow and as a result degraded the spawning habitat (Papik, Marschke and Ayles 2003; Stephenson 2003).[83] Conservation-related research at Fish Hole and other locations along the Big Fish River — as well as management decisions related to the river's arctic char population — were the result of initiatives by the Fisheries Joint Management Committee,[84] another co-management entity created by the IFA.

In the summertime, we would go somewhere around Yukon and around Pattuktuk (Demarcation Point). There are big mountains up that way. We would stay around in summertime and hunt around there. Up to Qikiqtaqruk (Herschel Island) [Qiqiktaryuk] they would go too with dog team. They go by Qikiqtaqruk River (Firth River), they would reach there and go for arctic char. Up there along Qikiqtaqruk River, the mouth of Qikiqtaqruk River. […] There was Pattuktuk (Demarcation Point), where we always camped and there are places where we went fishing in summer. There is Blue hole too up there too. […] That is where most people fish and hunt.

Dora Malegana, DM90-13A: 6-8 (Nagy 1994c: 63)

3.6 Berry, medicine and other plants

Previous studies related to Inuvialuit TU did not document plant harvesting activities (e.g., Joint Secretariat 2003; Usher 1976b). However, contemporary TU studies based on a map biography methodology include plant harvesting among their survey categories. In the YNS ITU study, locations where "plant collecting" was conducted were captured on map biography base maps using the categories "berries" and "medicine plant." "Food plants" were not included in the survey.[85] More detailed information about Inuvialuit harvesting, knowledge and use of these plant resources is found in the ethno-botanical text prepared by Bandringa and Inuvialuit Elders (2010). Of the berry, medicine and food plants described in this text (see Table 6), the harvest locations of several, including wild rhubarb and licorice root, were not documented in the YNS ITU study unless interviewees considered these plants to be medicinal in some way, in which case they were recorded as "medicine plant." Nonetheless, several narratives related to these plants and their uses are included in the report.

YNS ITU study interviewees pointed out numerous berry harvesting locations throughout the study area, including along the Western Channel between Aklavik and the mouth of the Mackenzie Delta on the way to the coast, near the shorelines of the low-lying coastal areas between Coal Mine Lake and Blow River, the Shingle Point area, and at several places along the YNS, including Roland Bay, Herschel Island and Clarence Lagoon (see Map 10). Closer to Aklavik, berries were also harvested at a few places along Schooner and Taylor Channels, along a portion of Mountain Trail on the way to the Richardson Mountains, near Husky Creek, at some higher elevations between Red and Black Mountains, and at Canoe Lake. As for medicine plants, interviewees documented harvest locations at various places in the Delta, including all along Schooner Channel, on the shores of a few other Delta channels northeast of Aklavik, and north along West Channel almost as far as Stink Creek (see Map 10). Medicine plants were also harvested near Barge Lake and Birds Camp at the mouth of the Delta, Shingle Point, Roland Bay and Herschel Island.

Table 6. Some plants harvested by Aklavik Inuvialuit

Inuvialuit name	Common name	Binomial name	Comments
Aqpik	yellowberry, cloudberry, bake-apple	*Rubus chamaemorus)*	widespread throughout the Delta and along the YNS (page 38)
Kimmingnaq	cranberry	*Vaccinium vitis-idaea* spp. *Minus*	widespread across much of the tundra and throughout Delta muskeg (page 49)
Masu	licorice root, bear root, rat root	*Hedysarum americanum*	widespread in the Delta, north to the Arctic coast, favouring loose and sandy soils bordering waterways (page 67)
Qaqqaurˆaq	horsetail roots	*Equisetum arvense, Equisetum pratense*	Small, tuberous growths on horsetail rhizomes (page 83)
Qurliaq	spruce tree sap, gum, white spruce, black spruce	*Picea glauca* (white spruce), *Picea mariana* (black spruce)	sap, branches, stems and needles used to treat various health problems or injuries (page 123)
Qusimmait	wild rhubarb	*Polygonum alaskanum*	most common in the Delta (page 31)
Uqpik[86]	willow shrubs	*Salix* spp.	"willow" refers to a variety of shrubs, whether they belong to the *Salix* genus or not (page 141)
Uqpingnat	wild red currant	*Ribes triste*	occurs sporadically as far north as the Arctic coast usually, but mostly below the treeline (page 56)
Uqpingnat	northern black currant	*Ribes hudsonianum*	widespread but uncommon throughout the Delta below the treeline (page 57)
Uquk	blueberry	*Vaccinium uliginosum* spp. *Microphyllum*	small shrub found in the Delta and along the YNS (page 45)

Source: from Bandringa and Inuvialuit Elders 2010; page numbers in column 4 refer to source

Various types of berry plants are so ubiquitous throughout the Delta and along the YNS that it would be very difficult to document them all, which is why during the YNS ITU study interviews, people were asked to "show us some of the places where you collected berries." This interviewee said she has many berry-picking patches.

> We can't pinpoint every berry-picking place. Wherever. When berries grow we find good spots you pick berries. You can't just say here and there. We have berry-picking patches all around here. We go through Schooner Channel, come around by our place…different places.
>
> **PIN 123**

Cloud berries, black berries and blue ones, only these kinds. Also roots from ground, the ones the mouse store for winter. We had so much fun together doing things like that with my mom and my two aunties Annie and Mary Archie. At one time we went dog packing to the hills. We stayed up there for long time till we were almost out of food. Our camp was not far, just down there. Sometimes we'd hear them when they shoot guns back at the mouth of the river. My mom would store some berries and roots from mouse in butter containers. These barrels were almost filled to the top. They were very good to eat really nice. We were very hungry for berries before Christmas at the end of November, but my mother never let us have some berries anymore because she is saving them for Christmas. That is how the people lived long ago. […] my mom always made eskimo ice cream […] when we had meat. And again, she would put them away because it was for Christmas too. […] Those rhubarbs always grew there so we got there to pick them. We stored them for winter in blubber. They are so big down there on the coast. And they taste so good too.

Dora Malegana, DM90-14B: 5-6 (Nagy 1994c: 84)

In a similar vein, another interviewee said he picked berries in season wherever he stopped en route, or while picnicking or camping.

Wherever you stopped, either to have a picnic or camp, you always looked for what it was [you were hoping to pick]. You try to camp in areas where there was a known supply of berries. Like right now, nobody's got cranberries, and we're all suffering. Unless you've got some. You got two bags? I'll buy one. Trade and barter, I mean.

Knute Hansen

He picked berries in the Coal Mine Lake area as a child, but the constant threat of grizzly bears required great vigilance on his mother's part.

Coal Mine…any place around here, because whenever we went when we were kids growing up, we had to go pick berries every day. And it was a danger to our lives….because there's so many grizzlies down there….We were competing for the same berries. We used to get too close up for comfort, and mom had to go up every hour to check on us.

Knute Hansen

Berry picking is often combined with other TU activities such as caribou hunting, and the Police Cabin area is one location where this blend of activities is possible.

Which one is....Police Cabin Lake?....Okay, I'm going to build a house in here….I always just make day trips….when it's berry-picking time….I didn't carry a tent, but when I go pick berries, I go to Police Cabin and pick *aqpiks*. [When] we day-trip, we don't go by the big river. Most of the time we always go by the small one and pick berries, hunt caribou in there, because my little boat could make it in there. So that's where I always go, in there….in Police Cabin.

PIN 115

While this interviewee harvests berries in the vicinity of one of his cabins and at other spots in the Mackenzie Delta, he pointed to the lower reaches of Running River and the lowlands around Coney and Scow Lakes as excellent berry spots, particularly with respect to *aqpik* (yellowberry).

There are lots of them. Running River. Location is about around here [pointing to map]…. I pick berries where my cabin is….Lots of berries. Of course there's lots of berries around Coney [Lake]. This area too….Scow Lake. All this is all berries though, the flats. There's lots of berries out here. This whole area is good for picking berries….yellowberries….You can go forever [picking berries] up to Aklavik. You can't mark it all.

PIN 2

Near his cabin at Shingle Point, the edges of Husky Creek south of Aklavik, and the slopes of the Richardson Mountains below Red Mountain are berry hotspots for this man.

Around the camp area, we're picking berries too….cranberries. I pick berries [upstream] all along the edge of the river for cranberries….Right from Aklavik — not all the way….Knut Lang's,[87] across here, and back here on this side too, Knut Lang's; those two for picking berries…. Bug Creek, around there, in this area we're picking berries….and Husky River, just up in this area underneath Red Mountain.

PIN 126

An older interviewee reminisced about picking lots of berries that they would store in the long intestines of beluga whales.

When we first go here, my grandmother used to get...You know them ten-gallon barrels, wooden barrels? We'd pick the not ripe ones….She'd clean it all up and put [them] in that wooden barrel. Then the next ones we'd just pick anything. That's for our beluga whale….It have a long intestine, and that's where all the berries [were put]. My responsibility was that long part, filling it up….lots of berries….yellowberries, blueberries, cranberries.

PIN 1

We go to Aqpayuatchiaq (Running River) to pick berries. This is where we always pick [berries]. It always have big yellow berries [at] Aqpayuatchiaq (Running River) [and] also [at] Tapqaq (Shingle Point). I would always walk and go for berries from Tapqaq to the point of Tapqaq. When I filled a small whale stomach container, I would walk home. They are very good. Berries from container like that are good. That is how we lived. After we finished picking from the coast and came back here in Delta, again we would pick berries too. We [would] go to Aklavik in the Fall, when there was no mosquitoes.

Sara Meyook, 1990 Tape 3B: 3 (Nagy 1994a)

As far as medicine plants are concerned, *qurliaq* (spruce tree gum) works well as a treatment for colds.

You know there's lots of good medicine out on the land — really good medicine. [This person], she phone me one time. She said the nurse is really sick with a cold. I got my *mukluks*, my ski pants, my parka, I grabbed a bag, I went and got tree branches, I put it in a bag, went to her house, get a pan, boil the tree branches. She was all red. And before it get too strong, you mix it with your tea and drink it. Twenty minutes. Her pupils, the white part of it is red, she was so sick with a cold. And I let her drink some tea. Boy! Twenty minutes, she was good. Yeah,

really good medicine, spruce tree.…How you call that tree, you know that sticky gum, that tree gum? [*qurliaq*]....Yeah, really good too. You boil that. When we went to [a person]'s camp, we stayed up there for one week. Those guys get the tree branches; we make *qurliaq*. Boy [she] was sick with the cold. She boil that; she was just good.

PIN 113

Tree gum can also be used for skin infections.

She had a sore on her foot. She got ointment, water to clean it. It can't heal up. She had a big sore. I got the red willow; she boil it and wash it. Next thing you know, no more sore, she starts washing it, you could see the stuff come out, and then it get like red on it because the medicine is working. No more after that.…It's clean, no more eczema or sores.…You wash them with that and it really helps you. And if you can cut the tree gum, you put it on; it sucks all the bad stuff out. That's good medicine the tree branches, red willow. Lots of good medicine out there.

PIN 113[88]

One interviewee used spruce tree gum to cure a badly infected toe.

Another one is the spruce tree gum. A lot of people use that. In the Mackenzie Delta we have a lot of trees throughout the area. Spruce tree gum is used for colds, cuts, appetite, depending on who uses it and.…how they [prepare it].…Last summer, the summer before, I took my toenail off without the aid of a toenail clipper. It got infected and ballooned right up. But I put that spruce tree gum…on and it finally went down. Got back into town and I made an appointment for the health centre there, Doctor Zinn. I went down and he asked, "What's wrong?" So I told him, "I'm just doing a follow-up on my toe. This is what happened to it. It got ballooned up and this is what I was using to help me heal the toe." I showed him my spruce tree gum mixed with Laserine. He says, "Oh, let me see that." But then he Googled it on the computer and told me [about] the medicinal purposes for spruce tree gum.

PIN 101

Surprisingly, perhaps, Inuvialuit can even find spruce gum and other tree medicines on barren Herschel Island because of the large amounts of driftwood that flush down the Mackenzie River, some of which washes up on the shores of the island.

See the Mackenzie Delta here? Come springtime, it melts all along the water, and the ice goes away. We get trees, willows, debris, washing down to the coast. And one of the things about this area, this is the Mackenzie Delta area and the Yukon's North Slope…right up into Alaska, you get these trees, driftwood willows coming out in the springtime.…They'll wash up further and further away, and they'll always end up on the land. We get these spruce trees washing up. Some of them are huge. They're not from the Mackenzie Delta. They're from way up river. But we get these trees from the Mackenzie Delta washing up along the shore. One of the things about Herschel Island is they make use of the…wood that's in the area, the abundance of wood. They saw a lot of driftwood for heating purposes. They have three buildings on the island that use specifically wood. And that wood produces spruce gum. That's where I got the spruce from, being 200 miles away from the Mackenzie Delta.…We had already added a whole pile of wood.…I kind of looked down at the bottom of the woodpiles, and there's sap seeping out of this spruce tree.…Nice clear stuff. So I gathered it up. Nice and clean, getting it all. Put it on the stove to get it heated up and then put it onto my clothes. It works, really works!

PIN 101

Known to the Inuvialuit as *masu*,[89] licorice root is considered a medicine by this interviewee.

Rat roots [*masu*, licorice root] they eat that, chew on that….That's a good medicine; you don't even have to buy medicine from the store.

PIN 113

Another interviewee spoke of chewing *masu* and thought it might have medicinal applications.

Only one kind of *masu*….They call them roots. They go underneath, and they have a small, little, tiny, it's hard to describe….like some kind of plant that's really skinny. They bunch up together and….you just dig underneath, and you find the roots — that *masu*....Just to chew on or…some kind of medicine or something….Some elders, they use that even for *muktuk*, like put it inside the *muktuk,* and let it sit in there for a while.

PIN 119[90]

The vast majority of interviewees who spoke of *masu*, however, talked only of its food value. Back in the day, *masu* was harvested in the spring and fall at numerous places along the myriad channels of the Mackenzie River. There is more than one way to prepare the root for eating.

We do that all over [pick *masu*], wherever we see a good place for picking *masu*, anywhere we travel along the river. We used to pick them springtime and fall time. That's the only time we could pick them….Those ground roots, that's what we get for eating. You could prepare it all kinds of ways. [One person] used to cook it with flour, and some people trim it, wash it, and then cut it up, and they put it in...oil, or *uqîruq*, whatever way they want to have their *masu*.

PIN 123

Masu can be found in many locations including near Aklavik. It adds sweetness to beluga whale blubber.

Whether it's medicine or not, it's edible….I like putting that in...my beluga whale oil; that's the blubber of beluga whale. You can put that *masu* — it's a root of a grass — into the blubber and it gets a sweetness….[*Masu* can be harvested] pretty much anywhere in the Mackenzie Delta. If you walked away from Aklavik, away from the debris, and you go along the [river] bank, if you find a grass that's eight to ten inches high, and it's coloured brown, and you dig there….[you get] *masu*. It's plentiful in the Mackenzie Delta.

PIN 101

This interviewee said he harvests wild rhubarb as well as "green pea" in the Shingle Point area.

I do eat a lot of plants. There are wild rhubarbs down the coast. They're good eating….Shingle Point there's a green pea. They grow. It's just they're tiny.

PIN 2

While *masu* is quite widespread in the Delta area between Coal Mine Lake and Big Jim Channel, according to this interviewee, wild rhubarb is less common.

Between our house and Big Jim I would say we collected *masu*….just anywhere…. Rhubarb were a little more difficult because it didn't grow wild all over the place. There's rhubarb at the Coal Mine, in those creeks…between the mine and the house, all up in rhubarb.

Knute Hansen

Another person spoke of wild rhubarb along Husky Creek toward the Richardson Mountains, as well as *qaqqaurâq,* referring to edible, tuberous growths found on the rhizomes of horsetail plants.[91]

We don't get rhubarbs around here that much. I think you could get it if you go up Husky River Channel towards the hills, you could get rhubarbs, but we don't bother to go that way that much. Down towards the coast you get those — what do you call those leaves? My mother-in-law in August picked them….*Qaqqaurâqs*. You pick those kind….When they're travelling down and it's growing, they just stop and pick as much as they could. They put them in a cool place, keep it like that. When they start getting their whales, their muktuk oil, they…put them in bundles and tie them together. Dip in our *uqîuq* [oil]….You make good salad with that.

PIN 123

In the days prior to refrigeration, settlement in Aklavik, and easy access to store-bought foods, red berries, *masu* and other plants were an important source of "fresh stuff" for Inuvialuit people. Old Harry's Camp and the mouth of the Blow River were good places for red currants.

Right here [gestures], that Wilson camp here and lots of *masu* around there. *Masu* all over if you look….There's lots of *masu* there, and you get red berries….Red currants down Old Harry's Camp. Lots of it, black ones and red ones. Maybe they grow because it's swampy…. [Regarding rhubarb]….Blow River, they used to go there. You pick them before they get red. You pick them, clean them, put them in *uqîuq* [oil], and you eat them in your due time. They're good. But nobody really had potatoes, stuff like that… fresh stuff when you were growing up. Not like here [Aklavik]; you get salad stuff here, and you don't get it in the bush.

PIN 8

Elders of present-day Inuvialuit elders consumed many types of plants including a species of "willow" which they peeled for its sweet sap.

When we were growing up as kids….our elders used everything from the land, summer, springtime, when willows start growing, willows' leaves, everything start growing. They used to let us go out and pick a whole bunch of willows. Elders, they used to sit around by the bank, and they have a little fire going….They sit anywhere like that, and they tell us to go and get the willow….When we get willows, they peel the willow; they just make that sap off that willow, just sweet juice. At the end of the willow, about this long is soft….They take the peel off, it's just like kiwi. It's soft, green and they eat that. Everything in the summer. They eat everything from the land what is edible.

PIN 123

4

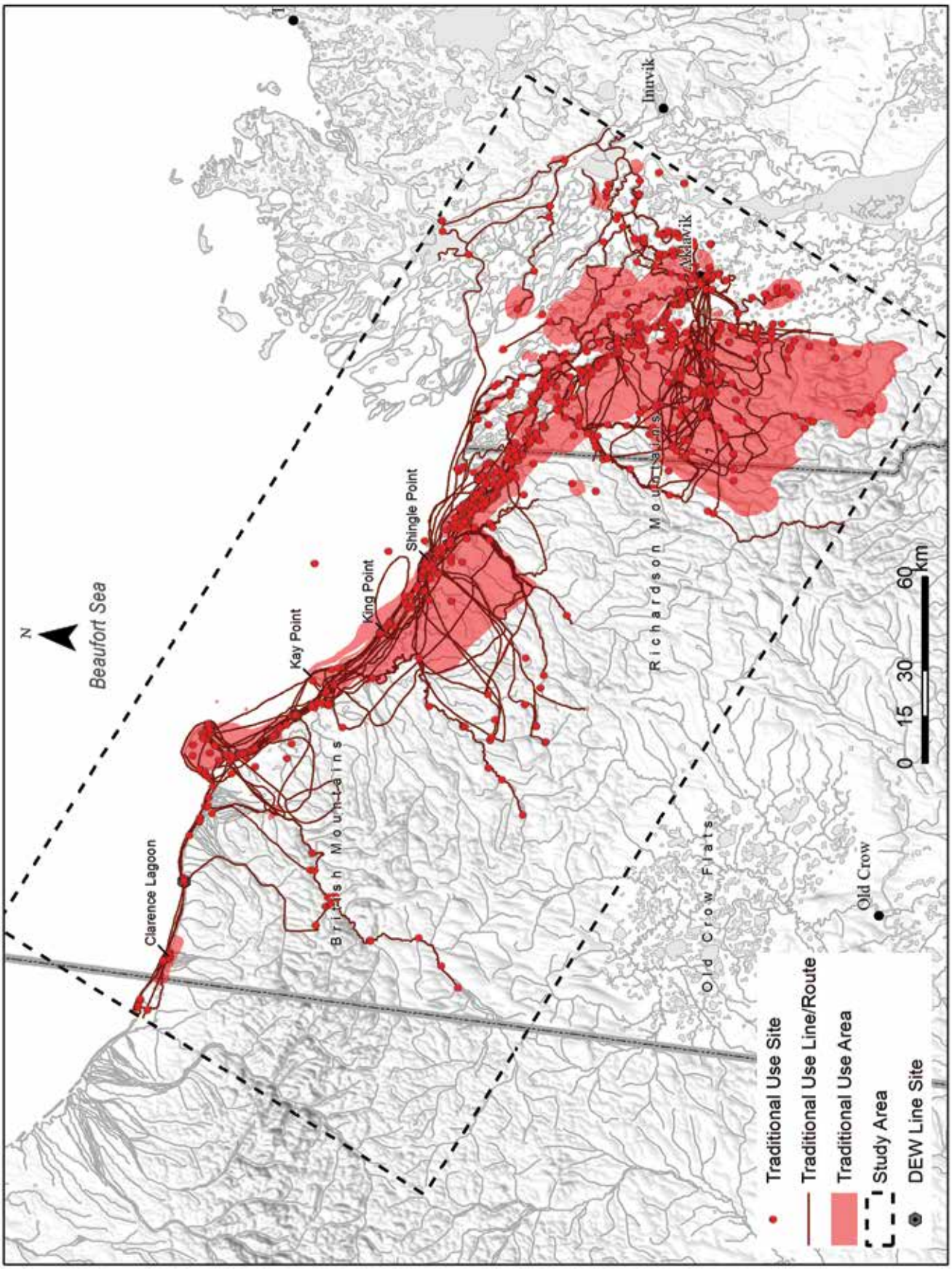
Conclusion

4.1 Changes to traditional use over time

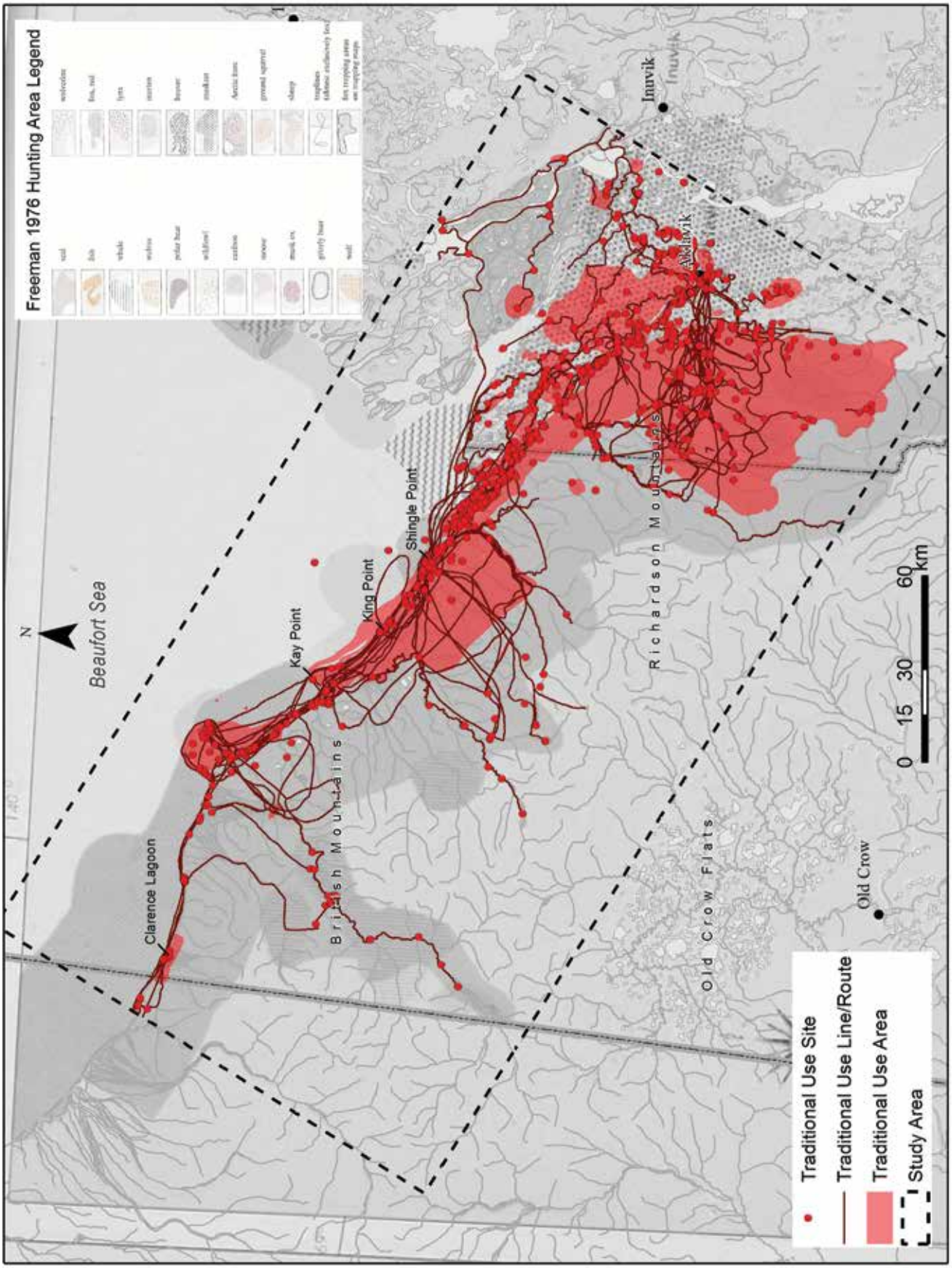
As noted in Section 1.2 (Methods) of this report, the map biography interviews and subsequent validation process resulted in a geodatabase containing 1,282 points, 398 lines and 487 polygons for a total of 2,167 features. These represent travel routes; locations of cabins, tents, births, burials and special places; and harvest locations for a variety of animal and plant species. All of these features are depicted on Summary Map 12.

Changes in the geographic extent of TU by Aklavik Inuvialuit over the last several decades are evident when comparing the composite data (all features) from the YNS ITU study with the data presented on the Aklavik maps in the Inuit Land Use and Occupancy Project report (Freeman 1976; Usher 1976b). A comparison with both the pre-1955 data (Map 13) and 1955–74 data (Map 14) shows a contraction in the geographic extent of Inuvialuit TU along the YNS, in the Richardson Mountains, and south of Aklavik up the Peel River in the Mackenzie Delta.

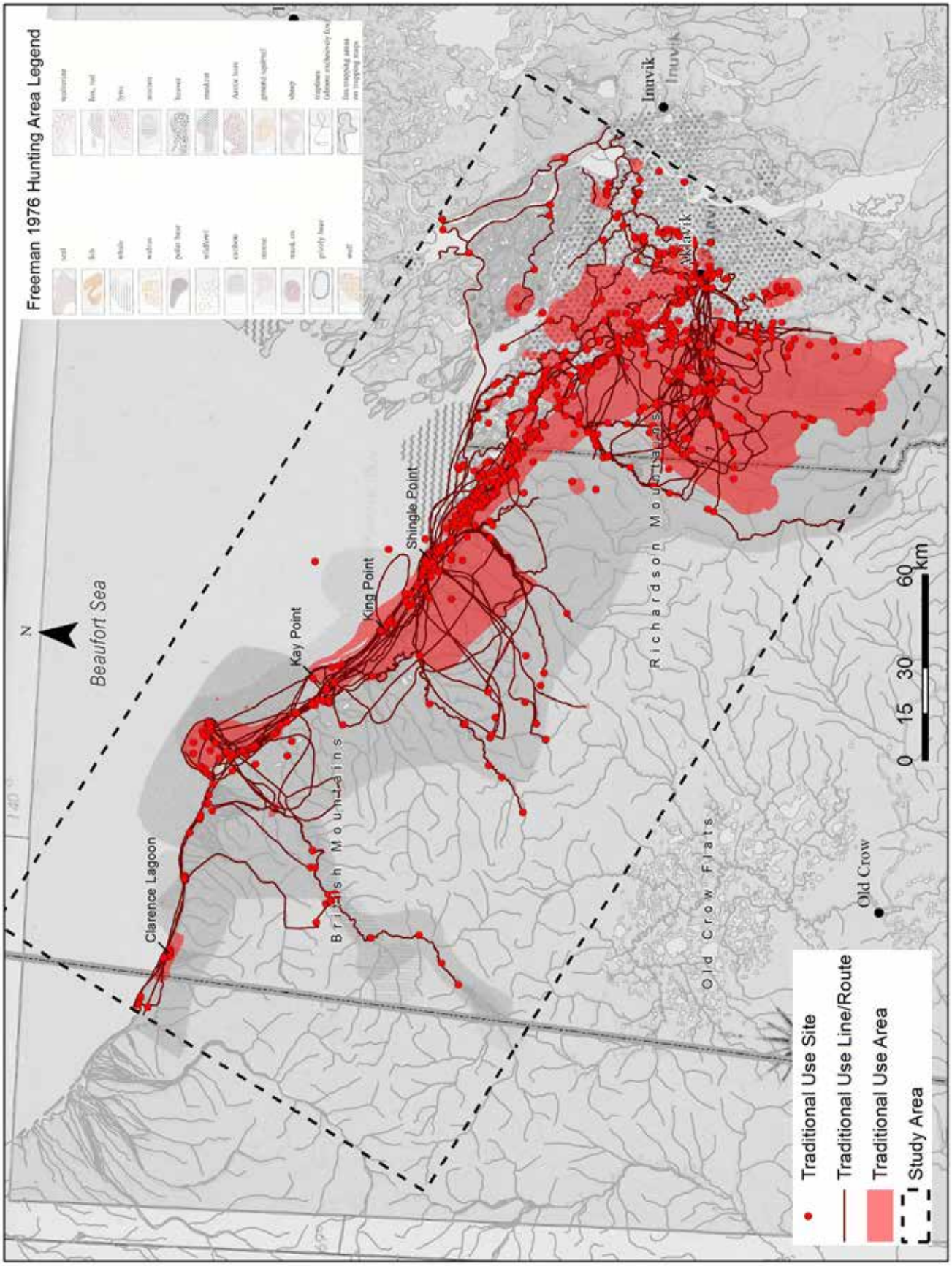
It is clear that in the time before the Second World War there was more extensive TU of the area up the Firth and Tulugaq rivers, across the tundra inland of the YNS, and west of Aklavik into the Richardson Mountains. Some of the contraction may be due to the effects of the ISR boundary. It divided the territory southwest of Aklavik into Inuvialuit and Gwich'in lands, and resulted in a curtailment of some Inuvialuit harvesting activities outside of the ISR.



Map 12. Summary map (all features)



Map 13. Comparison of YNS ITU study data with 1976 Usher data (pre-1955)



Map 14. Comparison of YNS ITU study data with 1976 Usher data (1955–74)

However, there are other reasons for the contraction, many of which were discussed previously:

- the collapse of fur trade markets in the 1950s;
- permanent year-round residency in Aklavik;
- the creation of Inuvik;
- the effects of mandatory schooling;
- involvement in wage labour;
- an increasing dependence on industrially derived commodities;
- changes in harvesting and travel technology (e.g., the shift from dog team to snowmobile);
- the cost of purchasing, maintaining and operating modern harvesting and transportation technology (e.g., high gas prices); and
- increasingly unpredictable weather patterns and extreme weather events that make travel and access to lands and resources more difficult and dangerous at times (see Nickels et al. 2005).

Nonetheless, a comparison of these composite maps shows that there are significant continuities in TU in most portions of Inuvialuit territory. This points to its resilience as the foundation of the contemporary Inuvialuit mixed, subsistence-based economy.

4.2 What the YNS means to the Inuvialuit

In general, efforts to document Indigenous mixed, subsistence-based economies suffer from problems of economic or spatial reductionism. Harvest studies such as the Inuvialuit Harvest Study (Joint Secretariat 2003), quantitative measures of harvesting such as edible food weights (Usher 2002), and efforts to convert such measures into cash equivalent value (replacement cost) in the market economy are examples of economic reductionism. As noted by Usher (1976a: 117), "monetary valuations do not, and cannot, indicate the value of hunting as a social or cultural activity or as a way of life, and they do not, and cannot, indicate the value to the native hunter of the environment which provides these resources."

Similarly, the documentation of TU using a map biography methodology suffers from "spatial reductionism," because it reduces history and culture on the land to colourful dots, lines and polygons on a map, or bits and bytes in a GIS database. Mapped TU features can be manipulated in the GIS, and queried, compiled and buffered in various ways for the purpose of scientific land-use planning and wildlife management. However, the results of this manipulation do a poor job of conveying the deep meaning and emotion that Indigenous peoples like the Inuvialuit have for their territory.[92] As noted by Tobias (2009: 46): "maps are poor at capturing the richness of meaning. They are not the best method for explaining cultural and ecological systems. They cannot convey, by themselves, the relationship between the features they depict and the overall socio-economic system. Understanding that overall system, which must

be explained in words, is necessary before full sense can be made of the role and value of map information. Map biographies are necessary to tell a community's story, but, contrary to popular belief, they are not sufficient to tell anything like the whole story."

The whole story of life on the YNS, in the Mackenzie Delta, and other parts of the territory cannot be told in this TU study report using maps, but more of the story can be told through the voices of the Inuvialuit themselves, which is the purpose of the various descriptive and evocative narratives presented here. Wedded together, maps and narratives of special places, travel, harvesting, and other forms of TU can do much to help readers understand a little about what the territory means to many Aklavik Inuvialuit.

The interviews for the study elicited a variety of memories that point to the ways in which many Inuvialuit invest their territory with meaning, and help to explain why they are attached to it. Shared in narrative form with study researchers, many of these memories are deeply personal and clearly integral to the identities of the interviewees.[93] Moreover, such memories serve as social and emotional glue, connecting Inuvialuit to their history, parents, grandparents, and other community members, as well as the land itself. It is little wonder, then, that well-used travel routes — with their familiar landmarks, the remains of sod houses, burial sites, encounters with caribou, grizzly bears and other animals, learning how to prepare *muktuk*, TU skills and their transmission to younger generations, and numerous other aspects of TU — should mean a great deal to the people interviewed for this research. The following narratives, excerpted from the study interview transcripts and Nagy (1994c), show the value of the YNS and other parts of Inuvialuit territory, and provide insight into contemporary Inuvialuit sense of place and identity.

Our qaluqvik[94] [at Clarence Lagoon] was a big one where me and my mother would work on seals and prepare meat for us. […] We used to make dry meat in it. […] We had tents like that all the time. You don't even need a shelter, even when there is big wind. With caribou skins, or even old cloth, whatever you could put. With caribou skins, we made them get rotten and when they had thin fur, we used them for covers. They put bear skin over it too. When I got older, I didn't like to have cover with bear skin any more. I always used mostly old cloth in summertime, when it got warm outside, with blankets too.

Dora Malegana, DM91-21B: 6.7 (Nagy 1994c: 92)

Starting with the northwest portion of the YNS, one interviewee said Herschel Island is a special place, in part because she was born there.

I know Herschel Island is always a special place because I was born there in the Yukon. It's always a special place. I like to go there. I always wanted to go there in the wintertimes. A couple of years ago we made it there with snowmobiles. There were seven of us that went for a ride down [there]. That's where my heart is, there, and Axel River [Creek], where I was raised. Yep, where I was born and where I was raised, that's the two special places for me.

PIN 128

Another interviewee spoke of a time when there were so many caribou on Herschel Island that the landscape appeared to be moving.

When I route through there last time, 2010, all I saw was maybe not even 70 caribou…. When I first go out there with [someone] and [someone else]…back in '80s, when [we] was riding dog team, [they] was telling me, "Look, look, look real good!" I looked really good, and you could see that whole half of the island moving; it was caribou so close together the whole island was moving….I could see half of the island, five miles wide, eight miles long, half of that thing was full with caribou, moving, the whole island was moving. There was caribou all the way from there to the mainland, caribou all over the place. Then, there used to be lots of ice around in the spring-time. We go there in the springtime after the ice melt….go out to the island on June tenth or June fifth…and we would just watch hundreds and hundreds of young ones…all the mothers having calves all across Herschel Island.

PIN 6

Caribou numbers are reduced on Herschel Island, he said, because of an increase in the muskox population.

There's not much caribou on the island than what it used to be, because there's too much muskox. Last time I was there, I must have counted about 40, 45, 50 muskox….Everytime I went there they were getting more and more muskox….The muskox dig right to the ground. So there's lots of mud showing now on the island.

PIN 6

The Herschel Island area is this man's favourite spot because of its rich bird life, which he got to know intimately in the context of his involvement in wildlife research.

I didn't know Herschel was [a special place at first]....I was there 11 years. That's the first time I start finding out [about] the whalers and everybody that immigrated....They first started coming over 1870s....The only building on earth around was 1894. But the oldest one was built in 1892. Burnt down in 1973 in July. So that's my favourite [place]. I'm going to buy that one day, inherit, buy it off the government. That's my favourite spot, Herschel Island....It's a meeting hall to all the birds, too. Birds come through there, about seventy different species, but about maybe fifteen of them nest on the island. Rough-legged hawks, ptarmigan, and all these songbirds, snipes, plovers, and everybody else there. Because we did the bird count one year for the government.... [Pointing to Workboat Passage]....We did [a] bird count of the snipes, phalaropes, semipalmated plovers, and....rough-legged hawks. Then early, I think it was '89, that's when we first spotted peregrine falcon on Herschel....They never used to come out like that. There could be twenty-four,

thirty rough-legged hawk nests on the island when they first got there. Now there's maybe five, maybe twelve....because...peregrine falcons [take over]. And it took me about seven years to find a ptarmigan nest on the island...seventeen eggs and that. Lot of good stories in me and my buddy.... Hey, we should put our books together and write a park ranger book, eh? Because we kept data journals ever since we worked there. A lot of books we sent to the government. Every day we wrote in a logbook the weather, what we saw, who arrived, and who's leaving, and what we found dead.....When I got out there in the springtime, you'd find dead white foxes and that. So they keep them frozen and send them into government and see what the cause of death was. Never did find out. That was my island.

PIN 107

My dad lived around there long ago before us. They stayed at Qikiqtaqruk (Herschel Island) [Qiqiktaryuk] and Qaĝgialuk (Ptarmigan Bay). They wintered there always. When the ships wintered there, they say there was lots of them Inuit when they wintered there. They didn't know about Christmas at the time. They hunted, went trapping and made a living there. When summer came they helped the whalers. They say there was not too much whales long ago. They were hard to see. One time they saw two blue whales only. For long time, they looked for them. […] When someone first saw a whale, the captain would pay them too. […] A gold watch. The Captain would tell them, the first one who sees a whale shall have the watch. At that time a watch was so valuable, it was big money.

Albert Oliver, A09O-11B: 3–4 (Nagy 1994c: 35)

Ptarmigan Bay is important because it is a good place for caribou hunting and arctic char fishing.

To me this is my most valued camp, Ptarmigan Bay, because we get caribou there, we get fish for the winter, seal. Everything is there. Arctic char….I don't go there until July.

PIN 2

Another interviewee, who was raised at Ptarmigan Bay, said that a person "lives like a king" on the coast, but cannot dictate the weather or predict the availability of game at any particular moment in time.

Food is food; you got to look for it. It can't come to you. It's much easier to say, "I'm going to go there tomorrow and pick up three caribou." You can't say that. If you're travelling in the ocean, never make promise ahead of you. You're not going to say, "I'm going to do this tomorrow." When you wake up, might be big blow or big wind or something. That's why I don't like people in the ocean making promises what they going to do. No way! The ocean is the boss, not people. Weather is the boss in the ocean. I travel all my life, seventy-three years. Finally, the last ten years, I never travel too much now. My kids take over. My kids are looking after me after I taught them how. Now I just sit at home; meat coming, ducks coming….I like to go down there. In the summer, with a boat, I like travelling. When you go in the coast, you live like a king. You get char, ducks, everything; caribou right across you. Around here in the summer, it's easy hunt. But winter is tough hunt. Cold weather or big wind. You're going to get caught. I say summer is good hunting in this country in the ocean. But in the winter, again, ocean is always blowing. Never stop blowing. That's where I was raised, up at Ptarmigan Bay, when I was a kid.

PIN 4

Ptarmigan Bay, like many other places along the YNS, is an anchor for the Inuvialuit oral tradition. The events related in an old story about a "shaman woman" took place there.

You're going to hear people telling stories about where the burial grounds are. There's some people that had passed away, their children had passed away….Some people told stories, but we don't want to repeat them because that's their story. Somebody else might tell it….But you'll have sensitive places. Like for instance, [at] Ptarmigan Bay long ago there's a lady that lived there. There used to be houses there. A shaman woman used to live in that [area]….Her house was a little faraway from there. [The lady] borrowed her sewing machine and was using it. She looked in the window and she seen this polar bear. She looked again in the window and here it was again…. That polar bear had a figure of a face, and it was that person who she had borrowed the sewing machine [from]. So she went and told that [shaman] lady that she's not scared of her because her god is stronger than her. Since that time that person quit bothering her. And in that area… sometimes when they had a tent, they used to hear people having fiddling music, people dancing, people yelling when there's nobody around. These are the things they're going to tell you.

PIN 1

Long ago, a family drowned in a lake near the coast between Roland Bay and Stokes Point, and their cries can be heard by passersby to this day.

In here somewhere along this coast….[Stokes Point to Roland Bay], there's a lake….An elder way back then was telling stories [about] how a family, they were going up with a dog team, didn't realize how thin the ice was. The family went through [the ice]….After that when you travel down that area you could hear somebody crying or something. That's a family that had went down. You still could hear the voices of them.

PIN 1

The stretch of coastline around Kay Point is "God's Country" because of its seasonal wildlife and fish abundance, according to one interviewee.

I go there soon as it's good weather, head for Kay Point. I like that country — yeah! Sandspit. I like that where you go there. Make tea, and the caribou coming, put a fishnet right in there. Char. "God's Country," I call it, that Kay Point. You get everything what you want.

PIN 4

When asked about special or favourite places on the land, numerous interviewees chose Shingle Point for its beauty, abundant animal and fish resources, and the good memories associated with it. Despite having spent much time at Herschel Island and other parts of the YNS, this man's choice for most favoured place is Shingle Point.

Shingle Point [is the most important to me]….because I get away from…Aklavik, and I go there with my family…and do all the hunting and fishing. That's my special place because… my parents brought me there along the coastline. That's why I like bringing my family there. I go from there all the way to Herschel Island….From Herschel Island to Shingle, I was raised up along the coastline. I like Herschel Island and Shingle Point, but Shingle Point's my favourite spot. Once I go to Shingle Point, it's hard for me to take off from there. I don't need to come back to town from there.

PIN 6

Fishing, hunting and berry picking are all possible at Shingle Point.

> Shingle Point is one of the best places to go because you can fish there, and hunt around from there, and if the berries grow early, then you got good places to go berry picking.
>
> **PIN 123**

At break-up each year, Aklavik Inuvialuit follow the Mackenzie River ice out to the coast where they hunt caribou, fish, and then hunt beluga whales as spring progresses into summer. When asked about his favourite place, this man was quick to say "Shingle Point," and explain why.

> Probably Shingle Point, I guess….It's a fishing and whaling summer hunting camp. We spend most of our time in the summer [there]….Better than staying in Aklavik during the summer and getting all dusted out during the summer holidays….As soon as you can make it down there, until the river start to freeze up….Follow the ice down, hunt the caribou, wait for a couple of weeks, and you're down right into the coast.
>
> **PIN 5**

> *My grandparents used to live here (Tapqaq) [Shingle Point] long ago. […] When there was caribou, we would make dry meat. We would put them inside the teepee here at Tapqaq. In August when there was seal they would get some and they dry the meat too. They put (meat) fibers into the seal blubber, store them and leave them inside the teepee. These were very good! They stored dry meat and dry fish in wooden barrels. That was how my grandparents had their food. It was very good! The wooden barrels are very good to give a good taste to the food. With the whale stomach they made containers in which they put whale oil and dry fish together. Then they would put them in a wooden box so it didn't break. That's how they used to live here at Tapqaq. That is how my grandparents made [a] living.*
>
> **Sara Meyook, SM90-19B: 5 (Nagy 1994c: 94)**

Shingle Point was a place for hearing stories from the elders and learning about Inuvialuit history.

> It is important because that's where we used to get our belugas….That's where we harvest our food, our traditional food to live through the winter. Our *aqpiks*, berries, for our desserts and everything. That's where we [had] good old storytelling of scary stories, growing up….They [parents and elders] tell us stories; how they used to walk….long ways just for a smoke....There were dog teams. My parents, and most of us [with] Alaskan parents, they went…all the way from Alaska to Aklavik by dog team in 1940….I'm going to say that's "God's country."
>
> **PIN 109**

Another interviewee noted that Shingle Point is where she passed on many TU skills to her children; for example, teaching her older daughter how to prepare fish.

Shingle Point is the best. You have a lot of access to a lot of things. You can pick berries, or you can make yourself dried fish, caribou meat, everything…That's my favourite place in Yukon, is Shingle Point, and that's where I brought up my little ones. I teach my oldest daughter how to make dry fish. Every year she would bring dry fish; and it's just the way it's been made…. You just can't start cutting for dry fish. You have to learn to clean the fish, and you've got to learn how to drain the blood out of the dried fish.

PIN 105

This man bases his summer whaling activities at Shingle Point, his "home" in the summer.

Shingle Point is my home. That's where I love to go….I always call that my second home. I love going down there. I love fishing, I love whaling, and that's my special place, Shingle Point, in the summer. And when it's wintertime and it's springtime, that's special to me, this place, the Shingle Point area….I base my whaling activities [there]….My dad's got a house right close to us, three doors down….at Shingle Point. He's got a stage there, and that's where I cut up my whale, and cook it, and dry it.

PIN 121

This interviewee also thought of Shingle Point in the context of learning important Inuvialuit skills.

That's where I was taught from our elders how to look after our *muktuk*, and how to make our dry fish, and passing that tradition on down to my grandkids and my children.

PIN 127

When asked about some of her most powerful memories about Shingle Point and other places away from Aklavik, she replied:

Being with family….There were so many of us in our family….just all being together, and how we all worked together. It was amazing. I wish we could turn back time….Most of the family's moved on. I'm actually the last one that lives here in Aklavik now….[Name] was more educated and left Aklavik at a very young age….I was held back and stayed with my grandparents, and this is what they taught me.

PIN 127

When asked why she likes Shingle Point so much, another female interviewee replied:

It's just like a big town. You go down there and there's lots of houses….I like to walk, just walk on the land….My grandfather used to stay out there too. Everybody used to go out to Shingle.

PIN 113

Travelling from Shingle Point into the Mackenzie Delta portion of Inuvialuit territory takes one into an entirely different ecosystem, with its tidal and flood-prone lowlands, marshes and scrub forest that progress into full-fledged boreal spruce forest, willow and other shrubs as one travels upstream. As noted earlier in this report, a few places in the outer reaches of the Delta have served as whaling stations over the years, while many other spots were selected for cabin and tent sites because they provided safe havens, waterfowl hunting, and other qualities. In

addition to Shingle Point, Tent Island, at the eastern extreme of the YNS, is a good base from which to conduct beluga whale hunting.

All the elders used to go there for whaling because once they get their whales, they haul all their *muktuk* and everything back home, and then they move down to Shingle Point and stay there for fishing and caribou hunting. Tent Island too. [One person] used to say that's the best place for whaling because…just outside of the island you could get whales.

PIN 123

West Whitefish Station is also a good base camp for whaling, although there is no drinking water there; potable water must be obtained a short distance away in the vicinity of Coney Lake.

There's certain places where you get water. Where's that West Whitefish Station? We would go up into these little rivers [Moose Channel], little water running down. That's where we used to get water from….Because you can't drink that water from the ocean; it's very salty.

PIN 1

Although the Coal Mine Lake area was good for berry picking, it was also good for grizzly bears, which made picking dangerous and required a high level of alertness. This interviewee remembered that he and his siblings harvested berries as part of their contribution to the family's food, but in a sense it involved taking their lives into their hands "because there was grizzly bears all over the place down there." On one occasion, a coincidental aircraft overflight alerted his mother to the approach of a grizzly, giving her time to warn the children to evacuate the berry patch.

We had many instances with bears when we were picking berries. Thank goodness [for] our mom, because…she checked every half an hour….In those days, we didn't wear nice shoes to walk in those tussocks....Hard to walk on....When we were up in the hills this one time, mom signalled us to come right away. We looked up just at that time, and — this is so coincidental I'll never forget it — a plane. What's the chance of a plane flying over the Coal Mine? It flew over, and that bear looked up, and mom had the binoculars on him. She said, honest to God, his neck was like this [gestures], so big! But it distracted the bear long enough for us to get away. I remember, Marjorie was the youngest one there. Me, Freida, Marjorie and Moe, and of course me and Freida... I just ran as fast as I could with my rubber boots on. And Marjorie's yelling to me and Freida: "Stop! Help me, help me, we've got to save my brother…! I'm going to tell mom on you!"

Knute Hansen

Coal Mine was the most important place in the territory for him, despite the isolation and other hardships of life there.

It would be Coal Mine, of course, because that's where we grew up. We were alone there, just the workers and our family. There was no other kids….Life was a constant struggle….We went to school from September to Easter, in town [Aklavik]….Living in town, and we lived across the river [in Aklavik]….We came into town on June 15th; that's when the ratting season closed. And between June 15th and June 30th we would finish the school year off….Come into town until

July 1st, and then we're off to the Coal Mine for the summer until probably mid-August. So...that two-week block in mid-August was the only really time we were town people.

Knute Hansen

When asked about his special places, this person spoke of the importance of the West Channel downriver of Aklavik and pointed out his summer caribou and waterfowl hunting hotspots near Barge and Coney lakes.

During the summer, it's mostly all the way down this river here towards the coast. That's probably the best place I go during the hunting season.…[Barge and Coney lakes] got lots of caribou, geese and berries during the summer.…It's always a good spot to go when you're hunting. I mostly [get] lots of caribou and geese to bring home once you get down there.…The most important…is probably this whole river system because it brings me down and it brings me back home, and provides food for the family.

PIN 119

The Birds Camp area, a short distance from Coney Lake to the east, evokes very detailed and vivid memories for this interviewee, including the smell of her father's brewing coffee.

My mother [passed] four years ago. My father…40 years ago…..Christmas morning my father passed away....I was about ten, eleven. But I remember all the days that we were together, when we would be out at our camp.…They would wake up early. My father would make coffee, and I could smell it, brewing coffee. So I'd get up. He'd have a cup there. "You want some?"…. That's where I started drinking coffee. Today, if I don't have coffee within three hours, I got a headache going. Coffee and water. Yeah. Those were good days.

PIN 124

The mouth of Big Fish River is about 30 km from Barge Lake, upstream of Moose Channel near its confluence with West Channel on the way from the coast to Aklavik. Travel up the Big Fish River will lead to the Fish Hole area, discussed in Section 3.5 (Fish), which is very unusual because of its hot springs and the arctic char habitat it supports downstream. The geological activity at this spot once gave some Aklavik youth a "wicked" headache.

Up Fish River there's a mountain at the forks. There was an earthquake…two years ago in the forks of that mountain. It cracked. It must have been a foot wide and hot air was coming out. Then, two months ago, three months ago, when we went to go check it out again, all that crack that formed, it was pushing out gravel, hot gravel.…It must have been as high as the big building here. We walked up onto it, and it was like minus 30 [air temperature, degrees C], and we were picking up rocks that are warm.…Those boys too, when we walked up to the top, they smelt that smoke when they went back down, when I was waiting for them at the bottom. When they came back down they had a wicked headache just like a migraine.

PIN 103

The Big Fish River valley straddles the NWT-Yukon border and drains higher terrain at the north end of the Richardson Mountains. There are a couple of spots in this region that afford spectacular views of the YNS or the delta: one, a ridge near Cache Creek, which is a tributary of Little Fish Creek; the other, Whale Mountain.

My favourite spot....There's actually a couple of them….Where is Cache Creek?...Where the heck is it? [searching map] Very nice spot there….You get up on the ridge and you can see [a great distance]. You'd be blown away if you saw that…..Where the heck's Whale Mountain?.... There's another nice spot there.

PIN 7

A younger hunter said he also likes the Cache Creek area because of the good view, and he also encounters a lot of wildlife in the area.

[One of my favourite areas is] probably up by Cache Creek…because so good view up there and you get to see a lot of stuff there….the sheep and all that. We see wolves that time, but we couldn't get to them; they were too high up.

PIN 131

When asked about special places, this man pointed on the map to Police Cabin and the Black Mountain area for its caribou and furbearers.

I like this spot here, Police Cabin….because that's where I get the majority of my hunting done for caribou in the spring and fall. Always provides there. And my camp spot is the trapping line….These [seismic] lines, I pretty much live there all winter….This one here [Black Mountain area]….right down to...Mount Lang.

PIN 117

As noted earlier in the report, the myriad channels of the Mackenzie Delta provide important habitat for furbearers, particularly muskrat. For that reason, the Inuvialuit participated in a lucrative fur trade up until the 1950s. As a result, the Delta region near and north of Aklavik was peppered with trapping camps. This fur trapping history survives in the memories of many Inuvialuit who spent numerous seasons in the spring ratting camps, and who continue to occupy cabins there. One interviewee likes to spend time at "Six Miles" (aka Fish Point) and Stink Creek.

Just to get out of the town, and no phone calls, no nothing. Just to get away from people, camping out on the weekends and picking berries, and sleep. Have a good sleep, and get up, and go pick berries again. It's good to get out on the land, enjoy what you have, good time, nobody bothering, nobody tell you anything. You're just on your own.

PIN 113

She shares her love of Six Miles with other Inuvialuit, including this man, who named it among his most cherished places, along with Shingle Point and a cabin on Taylor Channel.

My special place is my home here [pointing to Shingle Point]….That's where I get all my winter supplies from. Whaling. Whale, fish, berries, and like a healing place....When you lose a family member, we go down there in the summer….For me personally, in my life, that's where we go for our healing, when we lose someone. My other special place would be Six Miles…. Shingle and Six Miles, and the other one is Taylor's….That's the places I cherish the most.

PIN 112

A childhood encounter at a camp at Beaver House with mysterious non-human beings known as "Little People" is firmly embedded in the memory of this person.[95] She and her family abandoned the camp spot following the frightful encounter.

Beaver House, that was my favourite spot….because it's a place where caribou come. It's a place where we can fish…It's a place where we get all our livelihood from there. We get fish, we get the bears, we get the caribou, we get the birds, at Beaver House. Until that one scary moment. After that, we moved the camp to where my mom's camp is now….Gee, that was scary…. When I was a little girl, there was an episode there that happened. We had a tent frame there…. Wee hours of the morning…I thought somebody was up. When you come into the tent, my mother's kitchen was right here [gestures], stove right here. Older brother slept here, me and my younger sister here, and my parents were right here. I thought somebody was up, so I went to go try to peek out of my blanket. And there was people, tiny little people, rummaging through my mom's kitchen box, kitchen stuff. I heard them say "Somebody's up. She's watching us." Two or three of them came to me while I was laying there. You know the fish harpoons? They're shaped sort of oval and they've got a spear in the middle? Well, they came to me with that thing; started trying to poke me in my eyes. I was screaming and hollering at the top of my lungs. Finally, my parents started moving around, getting up. Everybody started getting up….My mom asked me if I touched anything. I said I never touched nothing. I just hollered from where I am….We all had breakfast. We followed one side of a footprint, like *mukluk*'s footprint, one side from the door, all the way up to the hills. We lost it when we finished, no more sand. That's where we lost it. After that episode there, [we] packed up and moved camp….And to this day, never, ever went back there. My parents did everything in their power to make us forget about that little episode there.

PIN 124

Prior to starting school at the age of nine, this interviewee spent a lot of time at Birds Camp and Axel Creek in the Mackenzie Delta, as well as Tununik[96] at the southern tip of Richards Island. She has lots of memories of relatives now deceased, hauling wood, fishing, dog teams, and other TU activities at these places.

Birds Camp always brings back a lot of memories with my mom and my dad….Whale hunting, fishing….and Axel River [Creek]. That's where I was raised….Growing up there, I did trapping with my mom. I did fishnets with my mom and my uncles. I went hauling wood with my mom and my uncles. We used to travel, from Axel River…to…Tununik…. We used to use dog teams, [with] my grandparents. We used to be in the mud sled, *komatik*, and my uncle would have his toboggan with his dogs. We used to go down to Tununik and that's where we stayed…February, March, maybe….I remember when we were going to set tent, dug a place where we were going set our tent. He dug that snow, and that snow must have been about this high [1.2 metres]. He even made little steps to go down to the tent….So the tent was really warm.

PIN 128

The YNS in general is valued by many Inuvialuit because of their history there and because of its continued importance for whaling, fishing, hunting waterfowl, caribou and other animals.

The North Slope is very important to the people because…that's where my grandparents, my great-grandparents…all lived along the coast. If you get all the people you're going to interview, you're going to fill it [the map] more up. It's very valuable, the North Slope, because a

lot of our people still go down to Shingle Point and do a lot of hunting, whaling, whatever. They still go out here and do a lot of geese hunting and things like that.

PIN 1

The presence of numerous Inuvialuit gravesites along the YNS is one reason the coast is so important. Negative consequences result from disrespecting the dead and disturbing their graves.

They are special places because they're where the graves are. You're going to hear more… from different people saying that burial grounds are very important….In the '40s, '30s, one guy was telling stories. He tried to open a grave. They all said, "don't touch the grave, no matter what." In them years they used to bury their belongings. [If a man] was a good hunter then his gun or his whatever was buried with him…Anyway, this guy was thinking to get a hammer and open that grave. [He was] a boy, maybe eleven, twelve years old. He started to open it, and next thing he said he heard whistling. Looked up, nothing. So he took off running, and as he took off running, he blacked out. That's what he told me….He tripped and he knocked himself out, I guess. He got up, and never bothered them no more. His dad told him "What's going on?....Don't you dare dig on them graves! They're valuable places. That's not for us to touch. That's their belongings."

PIN 1

During the summer, when daylight never ends, Herschel Island, Shingle Point and other spots along the YNS are so beautiful, you want to stay awake forever.

Here would be Shingle Point and Herschel Island; that's where I spent a lot of time, be it spring, summer, fall, winter, more of the summertime, along the Yukon North Slope at those places. They're very special….Being out at Shingle Point in the summertime, up here with the Skidoo in the springtime, these places are quite special. Beautiful, especially up here [pointing to YNS on map]. When we get this long daylight, you want to stay up forever, go travelling. You'd want to see everything.

PIN 101

A lifetime of experience with his parents and other family members is why the entire area between Aklavik and Herschel Island is important to this man.

I spent all my lifetime in Aklavik, whole life, and I was raised up along the coastline with my parents….So, all the way from here [Aklavik] to Herschel Island, and back and forth throughout my lifetime.

PIN 6

This hunter drew his hand from left to right across the map, from Kay Point to Aklavik and farther up into the Delta, in order to indicate the importance of the YNS and the territory in general to him. Protection of the Porcupine caribou herd is crucial.

Pretty much all this area where we go is a special place to us because that's where we get our food from, and we harvest our berries and geese, ducks…right from here [the coast] all the way up to Aklavik....Protection of our caribou; that's one thing that really stands out to me, because that's their main route, for their migration [pointing across the YNS]….We've been depending on the caribou herd ever since I was a boy. That's one of our main sources of food, is caribou.

PIN 126

Another interviewee did not wish to identify any particular place as special; the entire territory is special, for a number of reasons.

I think everyplace is special. Anywhere, because this is where we were born, and this is where we travel, so everything from Aklavik all the way down, all the way to Kaktovik is special. I'm not going to say any specific place, because it's all special for people, and it's special to me because bringing up my kids, I started learning them how to butcher a whale, how to cook, how to do everything. Because they need to keep that tradition going….All my childhood memories are special. I'm not going to name one specific one because we used to travel all the time to Shingle and Running River….I can't say any time is special….Everything was special because our parents are gone now. I'm not going to say one point is special.

PIN 108

In a similar vein, when surveying his map biography data toward the end of the TU study interview, this man said his areas are "all kind of special":

Because they were taught, passed on from…my parents and my grandparents. These are all special places to them too, because they hunted and trapped and provided [for] their family all along this whole area. Their maps probably go beyond mine, but these are the areas [where] I was taught to go and harvest food.

PIN 126

No matter where you go there are intangible benefits to spending time on the YNS and elsewhere in Inuvialuit territory, outside of the communities. Refreshing the human spirit and escaping from the "crazy" technology of modern culture are two such benefits.

Being out on the land or at the coast is like a renewal, refreshing your spirit of yourself. That's what I get out of it. It don't matter where I am or who I'm with, but when I'm out there it's, by golly, you just let go of everything. All the technology that they have now today, it's just crazy. I mean not bad crazy but crazy good, I guess. Technology we're in today.

PIN 124

There is no such thing as boredom when one is on the land. One couple interviewed for the study takes youth with them to their camps or to distant places on the YNS to teach them firsthand about their history, culture and TU activities.

You don't get bored; there's always something to do. Well, in the Delta too, you don't get bored if you're active. [My husband] goes hunting muskrats, and after he's gone I take the boat hunting too. Sometimes we used to get thirty, just about forty a night, not too long ago…. One time, we took teenagers to Barter Island with the snowmobiles. We took kids, teenagers, with

a boat to Barter Island to show them the places, like old days….We tell stories about them….We've been down that way lots of times with snowmobiles…. When my kids were growing up they have to bring their friends.....I used to have a lot of kids….Take them all. We took them there to Shingle Point to go fish….I hang fish or make dry fish, and I used to do everything. They'd come along with us, and I used to make a pie that they could take home….Same with the muskrats. I hang them up and I make a bag for each person. They used to take them home….[My husband] would teach the boys, sometimes the girls too, how to go get wood, and how to set traps, and how to set mink and fox [traps]. That's in middle winter.

PIN 8

Life at camp is always busy, and each season has its merits. Clear weather in winter affords beautiful views of stars and northern lights, while the spring means the return of various songbirds and flowering plants. One interviewee was asked why she likes spring break-up so much:

Just starting to get warm, and [I'm] cleaning camp, cutting willows, fishing. You could just watch the trees, the willows. They're just starting to bloom. The flowers. And the birds, especially when you're going to sleep, getting up in the morning, you get to hear the birds singing. Just beautiful! Wintertime, when there's a clear sky, you look up and there are stars; they're beautiful. And the northern lights…..Every day I'm doing something there; cooking, cleaning, working with meat. Like [someone] got moose, so I work with that. I depend on a lot of country food. I can't go without my fish, my moose meat, caribou meat, muskox, muskrats, springtime. I already had a taste of that, so it's good….Yes, lots of good food.

PIN 128

The YNS features prominently in the memories and therefore the oral tradition of the Inuvialuit. Some of this history has been recorded and written down, but much more of it survives through the stories of today's elders, especially the generation who bridge the "traditions" of the days of fur trading, dog teams and schooners, and the modern technological ways of globalization and mass consumer culture. This elder's story helps to make that point.

Sometimes we'd go by schooner. The schooner would be just full with people, plus dogs. Pretend this is a schooner, the house on top like this, the captain's pilot house. All the side of the house used to be full with dogs. We never used to have no Skidoos. So dogs were very important. We looked after them like people….Sometimes if it's good weather, we'd go so far. And if it's bad weather, then we'd have to wait until it's good weather. We'd go the West Channel here. Sometimes we'd stay there [at a safe haven?], maybe two days….[at] some places that also have fishnets, because they have dogs that they were looking after. And whatever they could hunt, the ducks and geese or whatever they see. We lived off the land. We had no store-bought things back then. Didn't even know what chicken was. Didn't have TVs, no nothing, just radio….We'd set up tents, maybe two three tents….there at certain places….Some people had a schooner plus a scow…. They'd take extra families, like a best friend that had no schooner; they'd take them along. That's how come there were so many dogs. Sometimes they would leave their dogs with some of their kids if they're going to come back again. But for us [when] we went down there, my grandparents used to bring, my dad used to bring his dogs.

PIN 1

4.3 Final remarks

The Mackenzie Valley Pipeline Inquiry, headed by Justice Thomas Berger, held hearings in Aklavik on April 3, 1975, as part of a comprehensive assessment of the potential social, environmental and economic impacts of a proposed gas pipeline routed up the Mackenzie River Valley from Prudhoe Bay, Alaska, by way of the YNS. Several Aklavik residents shared their worries at the hearings about the proposed development and spoke of their deep affection for their territory and way of life. One of the interveners was Danny C. Gordon, a participant in the YNS ITU study and nowadays an Inuvialuit elder with an fervent ongoing commitment to TU activities. Gordon told Justice Berger that he loves hunting and fishing and pointed to several places where he did this, such as Shingle Point, Blow River, Whitefish Station and Coal Mine Lake. He explained to Berger: "[my] main concern is probably the Natives and people in the Delta, maybe perhaps in the Yukon Territory, that these caribou, they migrate through this route….and if this pipeline is to be built, and if it is to come through this way, I believe it will have a great effect on the caribou….[I]f the route is to be taken through this land, I believe will damage, and I believe it will hurt the fish as well as the caribou. Also they migrate up the Peel River, and people in Aklavik, they catch the arctic char right off the river out here, and the same fish that spawn up these creeks down below, Firth River, Babiche [Babbage] River, are the same fish that come to the Delta….Once the damage is done, it is hard to restore. It may be impossible to restore" (Mackenzie Valley Pipeline Inquiry 1975: 97–103).

As noted earlier in this report, it was the pipeline proposal and prospect of other industrial developments that led the Inuvialuit to form the Committee for Original People's Entitlement (COPE) and pursue a comprehensive land claim negotiation with the federal and territorial governments, resulting in the 1984 IFA. An important objective for the Inuvialuit in signing the agreement was to protect the YNS and their traditional ways that the YNS has provided for. This has been achieved in part through the establishment of Ivvavik National Park and Herschel Island Qikiqtaruk Territorial Park. The area east of the national park allows for some measure of "controlled development," but only if the requirements for conservation of wildlife, habitat and Inuvialuit TU in the area can be fully met (Government of Canada 1984: 19).

The Yukon North Slope Wildlife Conservation and Management Plan (WMAC (NS) 2003, 1996), is an important tool for managing the Yukon North Slope and defining its management requirements. This current report provides an important body of information for establishing those requirements.

The introduction to the management plan points out that in order to understand the YNS, "one must study the close relationships that exist among the area's unique landscapes, the animals that thrive here, and the people whose livelihood depends on them" (WMAC (NS) 1996: 6).[97] The plan focuses on the biophysical side of these relationships, although it stresses the importance of TK in wildlife and habitat research and management, and the need to monitor harvest levels across the YNS.[98] The existing plan, therefore, has not benefited from the inclusion of up-to-date TU data that could be used to facilitate landscape-level planning ,

wildlife conservation and management and support any necessary protections for Inuvialuit TU in the region.

The YNS ITU study provides new data that helps to fill the knowledge gap in previous planning-related research by updating the understanding of Inuvialuit hunting, trapping, fishing and collecting across the YNS. The study has done this mostly by documenting TU features on map biographies and through the presentation of supporting narratives elicited during study interviews and from earlier oral history research with Inuvialuit elders (Nagy 1994a, 1994b, 1994c). In so doing, the study provides evidence of the crucial relationship between Inuvialuit culture, economy and environment. The YNS habitat and the wildlife found there provide immense ecosystem services[99] to the Inuvialuit by continuing to support their mixed, subsistence-based economy and way of life in general.

Future TU documentation

Prior to this study, research related to TU, TK or fish and game harvests did not provide a comprehensive description of TU on the YNS. Furthermore, much — if not most — of the TU data generated to date are either missing, inaccessible, or in a format that make them difficult to use with modern data management tools such as ArcGIS. Obscure data formats such as the Inuvialuit Harvest Study's 10x10-km grid system (mentioned in Section 2) sometimes make it difficult to integrate older data with newer research data. Lack of methodological or descriptive information (metadata) for these data also limit their use for contemporary research and for the management of lands and resources, because data quality and usefulness cannot be properly assessed without such information. This is an important lesson for researchers and other parties contemplating TU or TK research in the ISR in the future. Consistent approaches, methods, data collection and secure storage should be adopted to maximize long-term data compatibility, and to ensure that data are safeguarded for future users. Furthermore, thorough descriptions of all aspects of the research, including technical details of data creation, should be stored with the data. This TU study has endeavoured to establish a TU data baseline that will be durable over time by adopting current best practices for TU research (e.g., Tobias 2009; see also Armitage and Kilburn 2015).

Nonetheless, this study has one significant data gap: it does not document TU activities related to polar bear hunting and whaling, because to varying degrees they were the subject of other studies (see Freeman, Wein and Keith 1992; Government of Canada 2015; Harwood et al. 2000; ICC, TCC and ACC 2006; and Joint Secretariat 2015). On further review of the spatial data generated by these studies, however, it was determined that these data do not adequately represent polar bear and whale harvest locations. For example, the Joint Secretariat (2015) study data concern polar bear TK, not harvest locations. Government of Canada (2015) coastal sensitivity maps show locations where whale species were found, not where they were harvested. The ICC, TCC and ACC report (2006) contains small-scale maps depicting polar bear and whale harvesting areas as large, highly generalized polygons, and does not provide detailed methodological information related to data/map production (e.g., scale of the poster-sized base maps used during interviews). If data on TU activities related to polar bear hunting and whaling are deemed essential for the completion of an updated Conservation and Management Plan, WMAC(NS) may wish to conduct supplementary interviews with Inuvialuit whalers and polar bear hunters, with the view to accurately mapping harvest features related to these TU activities.

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Endnotes

1. For a more detailed methods statement concerning the conduct of the YNS ITU study see Armitage (2017) and Kilburn (2017).
2. Consistent with the definition of the "Yukon North Slope" in the IFA, the area includes the adjacent nearshore and offshore waters.
3. The AHTC bases its membership on lists of IFA beneficiaries provided by the Aklavik Community Corporation. However, beneficiaries must apply for membership in the AHTC (Peter Armitage interview with Michelle Gruben, AHTC resource person, Aklavik, 20 March 2015).
4. TU activities related to polar bear hunting and whaling were not mapped in the YNS ITU study because they were documented in other studies (see Harwood et al. 2002; ICC, TCC and ACC 2006; Joint Secretariat 2015).
5. See the reference to "presentation of oral history texts" in Section 3.
6. Sixty-six (66) new TU features were added to the verification maps, in particular travel routes in the Mackenzie Delta and the YNS between Kay Point and Herschel Island, and Dall's sheep and caribou hunting areas in the Richardson Mountains near Aklavik. Additional kill sites were also recorded for wolf, wolverine, geese, duck, ptarmigan, fish, and berries.
7. No place name (toponymic) research was conducted in the context of the YNS ITU study. Such research was conducted previously as part of the Herschel Island and Yukon North Slope Inuvialuit Oral History Project (see ISDP 1993).
8. For example, the hunting and trapping of furbearers in a particular area can be represented as a single polygon in which case the feature count for this category is one. However, the number of TU features could easily number in the hundreds if "furbearers" is parsed into multiple categories such as muskrat, otter, beaver, lynx, etc., the kill locations are marked as points, a large map scale is used, a research objective is the detailed documentation of furbearer kill locations, and sufficient interview time is allocated to such documentation.
9. Inuvialuit history is complex. For more details see Alunik, Kolausok and Morrison (2003), Betts (2008), Friesen (2013), McGhee (1974), Nagy (2012), Usher (1971a, 1975) and Wolforth (1971).
10. Nagy (2012: 154) notes that the Qikiqtaryungmiut were called "Tuyurmiat" by their Mackenzie Delta and Tuktoyaktuk neighbours to the east.
11. For more detailed accounts of Inuvialuit participation in the fur trade, see Morrison (2003a), Morrison and Kolausok (2003), Usher (1975, 1971b), and Wolforth (1971).
12. The "Nunataarmiut" spelling is from Morrison (2003b: 82). Usher (1971a: 173) spells the ethnonym "Nunatamiut." It means "inland people" or "people of the land." The majority of the Nunataarmiut who moved to the YNS and later Aklavik were Iñupiat from interior northwest Alaska and from coastal settlements at Point Hope and Point Barrow (Morrison 2003b: 91).
13. The words "out them" appear in the original text. The sentence should probably read, "When they had no more coffin, they would use old blankets just tie them and put them away like that."
14. See Bailey's (1969) discussion of "encapsulated political structures." For more on the encapsulation of Indigenous peoples in Canada see Tanner (1983: 19–22).
15. The name of the force was changed to Royal North-West Mounted Police in 1904 and to Royal Canadian Mounted Police (RCMP) in 1920 (www.rcmp-grc.gc.ca/en/history-rcmp, accessed 3 May 2017).
16. For a brief overview of missionary efforts to convert the Inuvialuit to Christianity and impose a "foreign belief system," see Morrison (2003b: 93–104).

17. Nagy (1994c: 40) notes that "[f]rom 1929 to 1936 there was an Anglican Mission School at Shingle Point for Inuit children….Some even came from the Victoria Island area. A few of the pupils must have been orphans who lost their parents in the 1928 influenza epidemic."
18. "The Mackenzie Delta was declared a beaver sanctuary between 1940 and 1958 and in this period the major unprohibited areas were along the Peel and Mackenzie Rivers. Beaver-prolific areas are more accessible to the Upper Delta settlements than to Inuvik and Aklavik" (Wolforth 1971: 79). Usher (1976b: 22) says that the registered trapline system "to some extent represented a legal codification of the existing pattern of land use."
19. In 1953, the federal government decided unilaterally to relocate its services and the people of Aklavik to a new townsite in Inuvik, due in part to Aklavik's periodic flooding. The government expected Aklavik to be abandoned, but many Inuvialuit and Gwich'in refused to leave, and the town survived. The population of Aklavik was estimated at 677 people in 2016; 613 were Aboriginal (NWT Bureau of Statistics, GNWT, 2016: www.statsnwt.ca/community-data/Profile-PDF/Aklavik.pdf, accessed 4 May 2017).
20. According to Usher (1976b: 22), "[t]he mandatory registration of individual trapping areas was discontinued in 1957, although those who wished to maintain their areas in good standing were permitted to do so. A few have done this, but the general preference among Delta trappers has been to leave the entire area open to all. In general, there has been a decline in trapping muskrats in favour of shooting them during break-up, but this has not changed the areas utilized."
21. The Arctic Borderlands Ecological Knowledge Coop (2011) report is not included in this summary. There appears to have been a spatial data component to this community-base monitoring research in that "[s]ince 2001–02, the area and routes where respondents traveled for subsistence activities from April until the end of the year have been recorded. Respondents also record where they travelled for subsistence in their lifetime" (Symbion Consultants 2008: 5-6). These data could not be retrieved for possible use in the YNS ITU study. Also, transcripts of 2005 oral history interviews with Aklavik and Inuvik Inuvialuit elders, conducted and compiled by Natasha Lyons, were not retrieved. The interviews were part of her dissertation research (Lyons 2008, 2007). The transcripts are on file at the Inuvialuit Cultural Resource Centre and Aurora Research Institute, Inuvik.
22. The Joint Secretariat was established to provide technical and logistical support to the Joint Committees and the Inuvialuit Game Council.
23. "1:50,000 scale maps were also used in Aklavik from January 1990 to January 1993…at the request of the field workers and some hunters who found it difficult to locate their harvesting areas at the smaller scale, especially in the Mackenzie Delta with its myriad lakes and channels. The resulting map set was, however, cumbersome and time-consuming to use, and was discontinued" (Joint Secretariat 2003: 11).
24. However, a coarse, small-scale map showing polar bear and terrestrial mammal kill sites, based on data from the Inuvialuit Harvest Study, is provided in Usher (2002: 21).
25. Oral History Project researchers "did not record many stories about specific places that people might have heard from the 'old people.' Three basic reasons might explain a lack of such stories. First, the people interviewed may not have lived long enough along the Yukon North Slope to become familiar with place names and their stories. Second, this project should have been done in the 1970s when many elders who had spent most of their lives along the Yukon North Slope were still alive….Third, oral history is passed on by elders, and since many died during the big epidemics of the early 1900s and of 1928, their knowledge might not have survived them" (Nagy 1994c: xiii).
26. Unfortunately, sections 11.3 to 17 and the appendices of the report dealing with various furbearer, small game, waterfowl, fish, plant species and other matters could not be obtained for potential use in the YNS ITU study.

27. The place name data provided in this report could not be used in the YNS ITU study because of data quality issues. For example, many of the reference numbers on the "Traditional Place Names" map (Figure 10) are illegible and do not correspond to the numbered place names on the Aklavik community place name list. Also, #28 "Tapqaq" (Shingle Point) on Table 7 is depicted east of Aklavik on Figure 10, which is clearly erroneous.
28. The base maps were generated by the Inuvialuit Land Administration. The map scale is not mentioned in the study report. Digital TU data from the mapping part of the Community Corporations' study also could not be obtained.
29. The base maps "were customized maps, so the scale was not a conventional number; [it was] 6 cm for every 20 km, which I think comes out to 1: 444444" (Blake Bartzen e-mail to Christine Cleghorn, 26 Feb. 2014).
30. Staging and waterfowl harvesting areas may not overlap as a result of the distance, time and money required for harvesters to reach some staging areas.
31. The Usher data are derived from maps on pages 4 and 6 of Freeman (1976).
32. A system of "coercive tutelage" that imposed a "scientific" wildlife management regime, "law and order," residential schools, and other forms of social organization and control (see Dyck 1991: 24, 26; and Sandlos 2007: 184).
33. This list of pressures, disruptions and challenges mirrors Freeman, Wein and Keith's list of "severe dislocations" in Inuvialuit life post-contact with Europeans (1992: 8).
34. These data were obtained under a November 2014 Site Access Licence Agreement between WMAC(NS) and the Government of Yukon with permission from Parks Canada regarding site data in Ivvavik National Park. For overviews of the precontact history of the ISR as well as archaeological and ethnohistorical research related to the Inuvialuit see Betts (2008: 39–59), Friesen (2013, 2012), Nagy (2012) and Yorga (1980).
35. Therefore, the lack of knowledge of such sites on the part of many contemporary Inuvialuit may be due to the fact that these sites have been destroyed. Other explanations include the low visibility of many archaeological sites (i.e., they require expert identification) and the fact that some contemporary land users may travel across the territory only when the ground is covered with snow and ice; they are not present in areas of high historic resource potential when archaeological remains are most likely to be visible. As noted by Friesen (2013: 53), "[m]any areas of the coast are receding rapidly, mainly because of four factors: (1) coastal sediments consist of easily eroded sands; (2) coastal sediments contain numerous ice lenses; (3) violent storms regularly raise the water level against eroding coastlines; and (4) the Mackenzie Delta region is submerging because of isostatic activity….As a result many, perhaps a majority, of coastal archaeological sites have already disappeared…This situation is applicable to most of the adjacent Alaska North Slope as well."
36. Note Betts's caution: "[L]ocal archaeologists propose that historic Mackenzie Inuit culture can generally be traced to at least the 15th century….Consequently, archaeological sites are often assigned a particular ethnic affiliation based on their location, in reference to the distribution of historic territories….However, the chronological development of the system of socioterritories, and especially the natural and cultural factors responsible for their boundary configuration have not been fully investigated, and therefore the projection of ethnicity to archaeological deposits based on their location within historic territorial borders may be problematic" (2008: 53).
37. This is not a complete list of terrestrial and aquatic animals, fish and plant species harvested by the Aklavik Inuvialuit within living memory or prior to that. For lists of species harvested by the Aklavik Inuvialuit as well as their Uummarmiutun and binomial names, see Bandringa and Inuvialuit Elders 2010;

Freeman, Wein and Keith 1992; ICC, TCC and ACC 2006; Joint Secretariat 2003: 22–24; Lowe 1984; Papik, Marschke and Ayles 2003; and WMAC (NS) and AHTC 2003. For a comprehensive listing of fauna harvested by the Inuvialuit and their ancestors that have been found in archaeological sites, see the zooarchaeological database compiled by Betts (2008: 61–88).

38. "Families used to hunt and eat ground squirrels in the spring, but not anymore" (WMAC (NS) and AHTC 2003: 15).
39. Under the terms of the IFA, the Inuvialuit have the exclusive right to harvest polar bear from the Southern Beaufort population, including the NWT and YNS. Aklavik Inuvialuit hunters were allocated five polar bear tags (including two females) per year in the period July 2007 to June 2012 (GNWT 2012: 6). The current (2017) allocation is five tags yearly (Michelle Gruben, AHTC resource person, personal communication, 13 Sept. 2017).
40. *Muktuk* is the skin and blubber of beluga and bowhead whales.
41. For a detailed description of the Aklavik Inuvialuit bowhead whale hunt and its history, see Freeman, Wein and Keith 1992.
42. Travel routes used by YNS ITU study interviewees were captured on map biography base maps using the category "travel routes," meaning travel by boat with motor or canoe, snowmobile, dog team, truck, car, ATV (quad), walking, etc.
43. "Cache Creek" is a tributary of "Little Fish Creek" which empties into the West Channel of the Mackenzie River via Big Fish River and Moose Channel.
44. This narrative is taken from the transcript of the interview with PIN 131.
45. SPOT uses the Globalstar satellite network to provide GPS tracking and text messaging. For more information about SPOT see www.findmespot.ca/en/ (accessed 21 March 2017).
46. Peter Armitage interview with Michelle Gruben, AHTC resource person, Aklavik, 20 Mar. 2015
47. Papik, Marschke and Ayles (2003: 7) report that "Phillips Bay, especially at the Kay [P]oint area, has been getting shallower over the years. For example, schooners were able to dock in this area in the 1950s whereas a boat now has to be poled through the water at this point. In fact this area has become a very shallow lake area. Elders commented that this is not surprising since water is low everywhere along the coast, the rivers and within the Mackenzie River Delta. It is probable that along the coast at least this is due to sediments rather than sea level changing."
48. In the period 1996–98, the "majority of cabins/tent frames were used when people were hunting caribou (66%), hunting geese (60%), picking berries (60%), fishing (59%), and smoking fish (50%)…. Other significant activities included hunting whales, trapping, preparing meat, hunting bears, and ice fishing" (GNWT 2002: 5).
49. Papik, Marschke and Ayles (2003: 5) note that "Shingle Point and the nearby Running River were main fishing and whaling locations along the coast for many years. People lived here permanently: hunting caribou and trapping (in the wintertime for white fox), fishing, whaling and seal hunting (in the summer). With the muskrat boom from the 1930s to the 1950s, the permanent residents of Shingle Point moved into the Mackenzie Delta to trap….and Shingle Point became a seasonal fishing and hunting area. The cabins that had been built in the 1920s and 1930s were washed away in storms or rotted away. In the early 1970s George and Barbara Allen built a new cabin out at Shingle Point. This was the first time that any family had lived in this area in quite a while. During the 1980s more families began to build summer homes at Shingle Point….This has become a culturally significant area for the Inuvialuit of Aklavik."
50. The Anglican Church operated a residential school at Shingle Point between 1929 and 1936 (Freeman, Wein and Keith 1992: 32; Nagy 1994c: 40). See Section 1.3.

51. Roland Saf̂uaq (also known as "Old Roland") is mentioned in Alex Gordon's interview for the 1991 Yukon North Slope Cultural Resources Survey, Tape 20A: 2-3, 1991 (Nagy 1994a).
52. According to Neufeld (2012), RCMP constable Jim Hickling described the effects of a severe August storm in 1955 that badly damaged the equipment, supplies and harvest of Inuvialuit living along the YNS. The storm brought winds of 75 mph (120 kph) and surging seas near Shingle Point. "Gus Tardiff's family nearby suffered a lot of damage, 'losing their entire summer fish catch, meat cache, food stuffs, and dog equipment.' The family moved their tent into the hills behind Shingle Point and hunted the numerous caribou in order to survive until freeze-up. The schooner *Red Mountain* was washed up on shore at King Point, and while it appeared undamaged, many others lost fishnets and dog equipment. For many families the losses wiped out the last remains of white fox wealth from the halcyon days of the 1920s" (Neufeld 2012: 190).
53. Coal Mine Lake is named in reference to a coal mine operated there in the 1940s and 1950s by the Danish immigrant Hans Hansen. The mine supplied coal to heat buildings in Aklavik. Another Dane, and independent fur trader, Knut H. Lang, had shares in this operation. See Knute Hansen's narrative below and http://gwichin.ca/sites/default/files/gsci_benson_2007_nomination_form_knut_langs_place.pdf, accessed 18 Sept. 2017).
54. According to Papik, Marschke and Ayles (2003: 7), "Nunaluk Spit (located between Phillips Bay and Ptarmigan Bay) was a permanent campsite in the early 1930s. Several families used to have cabins in that area since the area was good for fishing. The water is now very shallow. For example, schooners used to dock at the beach along there and now people cannot even travel on the water with a small boat and outboard motor."
55. Special sites identified by YNS ITU study interviewees were captured on map biography base maps using the categories "birth site," "burial site" and "other special places of cultural, historical, or personal importance."
56. YNS ITU study burial site data were compared to those depicted on maps in the *Beaufort Regional Coastal Sensitivity Atlas* (Government of Canada 2015). Many of the sites identified in the TU study correspond to those in the *Atlas*. However, the TU study data include burial sites in many other locations not depicted in the *Atlas*. There is only one burial site in the *Atlas*, on Map 9 (p. 80), that was not mapped for the TU study; the site is a short distance southeast of Coney Lake, near Scow Lake Channel.
57. "Head Point" is the local English-language name for Niakolik Point. Its Inuvialuit name is "Niaqulik Point" (ICC, TCC and ACC 2006: 6–20; ISDP 1993).
58. Usher (1971b: 106) lists three trading post locations along the YNS. H. Liebes Company ran a post at Shingle Point 1917–21; the HBC ran one there 1920–28. The HBC also had posts at Pauline Cove on Herschel Island 1915–38 and at what Usher refers to as "Demarcation Point," which is on the Alaskan side of the border. However, he says that this post was "[p]robably on south side of small lagoon at 69°37'N, 140°58' W," which is on the Yukon side of the border near Clarence Lagoon. This post was operated in the period 1921–24.
59. This is a Second World War-vintage U.S. Navy "landing ship tank" named LST 642. Apparently, "LST 642 was sold to a Canadian company in the late 1950s, and as they were towing it toward Canada it broke loose in a storm. The vessel's whereabouts was unknown for some time. It was eventually discovered in the early 1960s, foundered in southeastern Demarcation Bay, where it remains to this day" (Gary Wheeler, Deputy Manager, Arctic National Wildlife Refuge, U.S. Fish & Wildlife Service: www.fws.gov/refuge/arctic/egghunt.html, accessed 27 Apr. 2017).
60. Knute Hansen gave permission to tag his name to his narratives. Many Aklavik community members are able to identify the source of these narratives, given their subject matter.

61. When household economics involve a mixture of inputs from wage labour, transfer payments, independent commodity production, and non-commodity goods and services, household members are said to participate in a "mixed, subsistence-based economy" (Berger 1977: 121–122; Usher 2002: 24; Usher 1992: 7).
62. Peter Armitage interview with Michelle Gruben, AHTC resource person, Aklavik, 20 Mar. 2015. See also Porcupine Caribou Data Harvest Program (2016).
63. For example, see Aklavik Renewable Resource Officer Ian McLeod's, "Aklavik Take a Kid Harvesting Program Activity Report" for 2011: www.enr.gov.nt.ca/sites/default/files/aklavik_harvesting_program_2011.pdf (accessed 9 May 2017). Direct buyers include taxidermists, people who purchase directly from Inuvialuit hunters and trappers, and other people who are not professional fur buyers or processors.
64. Currently, Aklavik Inuvialuit do not require tags subject to harvest quota in order to hunt caribou from the Porcupine Caribou herd. However, they are allocated 30 tags per year to harvest Bluenose West Barren-ground caribou northeast of Inuvik (GNWT 2017).
65. Across the ISR, in the period 1988–97, of all country foods, caribou meat was the largest contributor to Inuvialuit diets, with a mean annual production of 110,730 kg (standard edible weight estimate) (Usher 2002: 24).
66. This narrative is taken from the transcript of the interview with PIN 131.
67. This narrative is taken from the transcript of the interview with PIN 131.
68. The locations where moose and Dall's sheep were harvested by YNS ITU study interviewees were captured on map biography base maps using the categories "moose" and "sheep (Dall's)."
69. Currently, Dall's sheep harvesting is not subject to quota management (Peter Armitage interview with Michelle Gruben, AHTC resource person, Aklavik, 20 Mar. 2015).
70. "The Aklavik HTC and Yukon Government estimated a small annual harvest between 2001 and 2006…. A large portion of the reported harvest of Dall sheep occurred in the Black Mountain area near Aklavik. In the Inuvialuit Harvest Study and the Aklavik HTC Harvest Study, 78% and 75% respectively of sheep harvested were harvested from Black or Red Mountain" (Koizumi 2012: 68).
71. Wolves and wolverines are subject to quota management in the ISR (GNWT 2017).
72. The locations where furbearers were harvested by YNS ITU study interviewees were captured on map biography base maps using the categories "wolf," "wolverine" and "other furbearer," meaning Arctic fox, coloured fox, lynx, muskrat, mink, marten, etc.
73. A push-up is a miniature lodge and feeding station on the ice created by muskrat shortly after freeze-up.
74. The locations where small game were harvested by YNS ITU study interviewees were captured on map biography base maps using the categories "hare" and "ptarmigan."
75. This narrative is taken from the transcript of the interview with PIN 131.
76. This narrative from Fred Inglangasuk seems to contradict the oral tradition as conveyed through the YNS ITU study interviews with respect to willow ptarmigan signalling the arrival of migrating Porcupine caribou. However, it should be noted that the "quest for consensus, relatively simple 'truths,' specificity, and elimination of confusion or contradiction is a scientific preoccupation, not necessarily that of TKHs. The latter may be extremely tolerant of ambiguity, diverse interpretations, and differences of opinion with respect to the 'facts'" (Armitage and Kilburn 2015: 19).
77. The locations where waterfowl were harvested by YNS ITU study interviewees were captured on map biography base maps using the categories "duck" and "geese." See Table 5 for a list of waterfowl species harvested by Inuvialuit.
78. Contemporary spelling of "Neakonik" is "Niaqunnaq" (West Whitefish Station).

79. For a detailed description of the Aklavik Inuvialuit fishery, see Papik, Marschke and Ayles (2003).
80. No fishing takes place in the Mackenzie Delta during spring break-up. Treble and Reist (1997: 6) note that "Nylon nets were being used by the mid 1950s. They were stronger and more durable than cotton and therefore more efficient at catching fish."
81. Treble and Reist (1997: 6) note that "the skidoo had replaced dog teams by the mid 1970s so most hunters only needed fish for their family and for a few dogs they kept as pets. There are only a few people in each community that still keep teams of dogs." See also Freeman (1997).
82. In their study of Inuvialuit fisheries TK, Papik, Marschke and Ayles (2003) identify Big Fish River, Blow River, Babbage River, Firth River, Malcolm River, Shingle Point/Running River, Kay Point/Philips Bay, Nunaluk Spit, Ptarmigan Bay, Herschel Island, and Komakuk Beach/Fish Creek as key areas used historically by Inuvialuit.
83. Stephenson (2003: 8–9) reports that several factors are responsible for the decline in the Big River arctic char population; reduced water quality and flow due to earthquakes are probably the most important. Papik, Marschke and Ayles (2003: 4) note that "[i]n the 1960s when the Big Fish River char stock was healthy, the water was very salty at the Fish Hole and undrinkable. Since then the water has changed and it is now so fresh that you can drink it. The water level has also dropped significantly since the 1960s. One elder spoke of using hip waders to cross the stream in the 1960s whereas he could now use rubber boots and, in most places, just walk on the gravel. The once loud gushing waterfall upstream from the Fish Hole is now much smaller and seems like a little trickle."
84. The committee "was established in 1986, pursuant to the Inuvialuit Final Agreement (1984), to assist Canada and the Inuvialuit in the administration of rights and obligations related to the responsible management of fisheries in the Inuvialuit Settlement Region (ISR). The FJMC works cooperatively with the Inuvialuit and Fisheries and Oceans Canada on the co-management of fish and marine mammals, and their habitat, in the ISR." (Fisheries Joint Management Committee, n.d.: https://fjmc.ca/about-us/, accessed 11 May 2017).
85. No in-depth ethno-botanical research was conducted as part of this study. It was determined during research planning for the YNS ITU study that "food plants" such as wild rhubarb and licorice root were not likely to be harvested in significant quantities to warrant inclusion in the questionnaire, given concerns about the number of survey questions in relation to response burden.
86. Regarding *uqpik*, Bandringa and Inuvialuit Elders (2010: 141) note that, "[m]any Inuvialuit, especially in regions of the Delta, use the English common name willow to refer to all kinds of shrubs (whether they are true willows of the *Salix* genus or not). However, there are three broad divisions of tree-like, broad-leaved, deciduous shrubs that are acknowledged as well. These broad divisions, based on leaf size, correspond to what Elijah Allen and Alice Husky described as the three kinds of deciduous shrubs found in the Delta. *Uqpiit (*or *uqpipiat*) is the general name for willow (*Salix* spp.) and can be described as the "skinny-leaved" willow. *Uligiilit* is the general name for birch (*Betula* spp.) and can be described as the "mid-sized leaved" willow. *Nunangiat* is the general name for alder (*Alnus* spp.) and can be described as the "large-leaved" willow."
87. Knut Lang's Place is located about 48 km upstream of Aklavik at the junction of the Middle Peel Channel (Peel River) and Phillips Channel. Knut H. Lang was a Danish immigrant who operated an independent trading post at this location in the period 1936 to 1964 (Usher 1971b: 91–92, see also http://gwichin.ca/sites/default/files/gsci_benson_2007_nomination_form_knut_langs_place.pdf, accessed 18 Sept. 2017).
88. See Bandringa and Inuvialuit Elders 2010: 133.
89. See Bandringa and Inuvialuit Elders 2010: 66–74.
90. See Bandringa and Inuvialuit Elders 2010: 72–73.

91. According to Bandringa and Inuvialuit Elders (2010: 83), *qaqqaurâaq* are "difficult-to-find edible roots… small, tuberous growths (nodules) found on the roots (rhizomes) of horsetail species."
92. The cartographic products that are the end result of the map biography methodology are useful in transforming what appear as "empty" landscapes into human-used ones. Nonetheless, such "knowledge products" are easily alienated from the people who supplied the information in the first place, and can be decontextualized and reinterpreted or misinterpreted by non-Indigenous people, whose worldviews and sense of place are radically different (see Ellis 2005; Rundstrom 1995; Stevenson 1996).
93. Basso (1996: 53) notes that "attachments to geographical localities contribute fundamentally to the formation of personal and social identities."
94. A *qaluqvik* is a small hut consisting of a willow frame covered with skins, cloth or moss (see Nagy 1994c: 95).
95. Nagy (1994c: 24) notes that "[s]tories about the Little People abound in the Arctic. Among the Inuvialuit (both Siglit and Uummarmiut), one story tells about a couple of Iñunuluat (little people) who lost their son when he was killed by a dog."
96. "*Tununik* is a well known landmark on the Mackenzie River. It is located at the southern tip of Richards Island, where three channels meet. The Bar C DEW Line station was built near it in the mid-1950s and was later used as a base camp for an oil company" (ICRC and PWNHC 2011: 14).
97. This study requirement derives from Section 12(2) of the IFA, which states: "The Yukon North Slope shall fall under a special conservation regime whose dominant purpose is the conservation of wildlife, habitat and traditional native use."
98. See WMAC(NS) 2003: 16: "Inuvialuit organizations, with the assistance of government, should continue to monitor harvest levels across the Yukon North Slope. Harvest monitoring of shared wildlife populations by adjacent user groups must be included in the assessment of Yukon North Slope wildlife population harvest levels."
99. "Ecosystem services are the benefits that people obtain from ecosystems. These include *provisioning services* such as food, water, timber, and fiber; *regulating services* that affect climate, floods, disease, wastes, and water quality; *cultural services* that provide recreational, aesthetic, and spiritual benefits; and *supporting services* such as soil formation, photosynthesis, and nutrient cycling….The human species, while buffered against environmental changes by culture and technology, is fundamentally dependent on the flow of ecosystem services" (Millennium Ecosystems Assessment 2005: v).

The Wildlife Conservation and Management Plan for the Yukon North Slope is an important instrument for protecting the unique and spectacular landscape that lies at the northern edge of the Yukon and for conserving Inuvialuit traditional use. WMAC(NS) continues to explore new and innovative ways to ensure that the plan reflects the dynamic environment it was created to protect.

This report, along with others, informs the plan. So, although this report stands on its own as the story of Inuvialuit Traditional Use of the Yukon North Slope, it also contributes to the conservation of Inuvialuit traditional use, along with the protection of wildlife and habitat, as central pillars of the conservation regime established for the Yukon North Slope in the 1984 Inuvialuit Final Agreement.

Wildlife Management Advisory Council
North Slope