

# Traditional knowledge and northern wildlife management

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## Introduction

The Arctic Institute of North America is an academic research institute located at the University of Calgary, Alberta, Canada. The Arctic Institute encompasses a broad range of multi-disciplinary resources within the sphere of public, private and community activity in northern regions around the world. The Arctic Institute was founded 54 years ago and provides a wide variety of services: print and electronic publications, support for two northern field stations, a school of northern planning and development studies, professional services in planning, management and mapping, and mediation for indigenous land claims issues. It has an extensive library of northern data, a core staff of fourteen, and an noted community of scholars.

One focus of the Arctic Institute's research is the use and preservation of traditional knowledge of northern indigenous peoples. Michael Robinson, the Executive Director, and Karim-aly SKassam, the Professor of Community Economic Development, of the Arctic Institute of North America have recently published books related to Saami culture. The Arctic Institute's information database, the Arctic Science and Technology Information System (ASTIS), is coordinating with a major undertaking by the American Geological Institute, with funding from the U.S. National Science Centre, to bring together a comprehensive bibliography on Arctic matters.

The Arctic Institute of North America is also developing a project entitled the Arctic Circumpolar Route: Cultural Pathways of the North which recently received the sponsorship of UNESCO. The Arctic Circumpolar Route is a unifying concept for the movements of peoples, cultures and ideas around the north polar region, with the goal of enhancing the global and local appreciation of the Arctic Circumpolar Route. The objective of this project are fourfold: to identify knowledge and information about the Arctic Circumpolar Route, wherever located; to identify knowledge gaps and recommend means to fill these gaps; to preserve and improve existing resources; and to summarize the findings and communicate them widely.

The Arctic Circumpolar Route: Cultural Pathways of the North will ensure the integration and protection of a unique body of knowledge, using the participatory research method pioneered by the Arctic Institute of North America in conjunction with

northern peoples. ASTIS provides a prototype for the protection of owners of holdings and collections, and for development of democratized access. The Arctic Institute recognizes that the project cannot succeed without the support and acceptance of northern indigenous peoples. The rights of indigenous peoples as owners of collections and repositories of traditional knowledge are of prime importance and will be respected by the project.

The project itself has received widespread support and endorsement including the support of organizations representing the Dene, Cree, Inuvialuit and Inuit peoples in Canada. Additional support is being sought from indigenous organizations outside Canada, but within the circumpolar north. Further information on the Arctic Circumpolar Route: Cultural Pathways of the North may be obtained by contacting the Arctic Institute of North America; or Magdalena AK Muir and Mary Leeds Stapleton, Research Associates and Team Leaders for the project.

A related project is being developed by the Arctic Institute of North America and submitted to the UNESCO Memory of the World Program to compile and preserve existing records of traditional knowledge within the Northwest Territories, Canada region of the Arctic circumpolar region. This is the first project in a series of projects to document and preserve existing records of the traditional knowledge of Arctic indigenous peoples. This project will focus on the records of the Dene, Inuit and Inuvialuit peoples residing within the Northwest Territories. The Prince of Wales Northern Heritage Centre and the Arctic Institute of North America will take a lead role in the implementation of this project, with the participation of indigenous organizations and academic institutes. A copy of the preliminary proposal is attached to this paper. Further information may be obtained by contacting Dr Charles D. Arnold, Director, Prince of Wales Northern Heritage Centre, or Magdalena AK Muir, Research Associate with the Arctic Institute of North America.

The two authors of this paper, Magdalena AK Muir and Lloyd N Binder, have been involved in different aspects of traditional knowledge research as individuals and as Research Associates of the Arctic Institute of North America.

Magdalena AK Muir has been involved in legal and policy research on land claims agreements and First Nation participation in resource management in the Canadian Arctic for the past ten years. This has included research on First Nation participation in land and water management and environmental assessment. More recently, she has been involved in projects addressing Inuit and Inuvialuit participation in beluga whale and polar bear harvesting and management.

Lloyd N. Binder is of Inuvialuit (Eskimo) and Saami origin. Lloyd Binder and his family have been involved in reindeer herding in the Western Arctic and in Norway for several generations. As such, he is a holder of traditional knowledge. He is also a keen observer of the impact of traditional knowledge and the interrelationship between reindeer, caribou and people.

Species such as reindeer are domesticated and herded by Saami peoples in Canada, the US, Finland, Norway, Sweden and the former Soviet Union. Caribou, beluga whales and polar bears are wildlife that are harvested in Canada by the Dene, Inuit and Inuvialuit peoples, and subject to national co-management regimes and international agreements.

Canadian First Nations are active participants in co-management regimes effective in Canada, and in international agreements that pertain to the circumpolar Arctic. The management regimes and agreements are often designed to permit sustainable utilization of these wildlife species by Canadian First Nations. They also incorporate indigenous knowledge and experience in such aspects as the setting of the allowable annual harvest and the management and conservation of the species.

This paper focuses on the role and importance of traditional knowledge in the co-management and use of reindeer, caribou, beluga whales and polar bears. The paper focuses primarily on the First Nation experience in Canada, but also refers to Saami experiences in Saami Land. Saami land is located in the northern regions of Finland, Norway, Sweden, and the former Soviet Union. The paper also focuses on the collaboration of Canadian First Nations peoples with other Arctic Nations as a result of international agreements for this wildlife. Finally, the paper illustrates the importance of traditional knowledge in the management and sustainable use of reindeer, caribou,

beluga whales and polar bears. The paper concludes with some reflections on future development and expansion of these regimes, and positive implications for the protection and dynamic use of traditional knowledge.

## Traditional knowledge and interrelationship between reindeer and caribou

The example of reindeer and caribou illustrates that the development and transfer of traditional knowledge is an ongoing process. As a result of the Inuvialuit Final Agreement which was negotiated in 1984, the Inuvialuit people control their land and participate jointly with government and other indigenous peoples in the management of migratory caribou. Interestingly, the Inuvialuit are also transferring information about their wildlife co-management systems to other countries, including Scandinavian countries inhabited by Saami peoples where the Saami peoples have lost control of their own reindeer herding lands.

The Inuvialuit Final Agreement recognizes the Inuvialuit interest in wildlife and, by extension, caribou. The Inuvialuit Game Council represents the Inuvialuit interest in wildlife. The Agreement establishes two wildlife management boards for terrestrial areas in the Inuvialuit Settlement Region. One board applies to the Yukon North Slope, which is the portion of the Region within the Yukon Territory, while the other board applies to the portion of the Region within the Northwest Territories.

The Porcupine Caribou Herd is a herd composed of approximately 160,000 caribou that migrates seasonally between Alaska, Yukon and the Northwest Territories. The Porcupine Caribou Management Board was formed by an agreement between the governments of Canada and the Yukon and Northwest Territories, and First Nations in 1985 to manage this caribou herd and its habitat in Canada. The Board has eight representatives, with two representatives from each of the Council of Yukon First Nations and the government of the Yukon Territory. The governments of Canada and the Northwest Territories, and the Inuvialuit and Gwich'in people each have one representative. The Board has a mandate of ensuring the continuance of the caribou herd for subsistence use by First Nations, while recognizing that other users may also share the harvest.

One of the key illustrations of the past, present and future role of traditional knowledge in wildlife management and utilization is the interrelationship between reindeer and caribou because of the shared use of grazing ranges. Reindeer are genetically similar but not identical to caribou, and have been herded by the Saami peoples in the Scandinavian countries for hundreds of years. They are private property rather than game wildlife. In the North, the reindeer, like caribou, move inland and not usually owned by the reindeer owners. Therefore, the reindeer graze on public land. Similar to caribou, the reindeer grazing lands are also subject to a joint management regime that includes the Inuvialuit, regional and national governments.

Reindeer, Saami reindeer herders, and Saami traditional knowledge for reindeer management were introduced into northern Canada in the 1930s under the Canadian Reindeer Project. Canada attempted to lessen the impact of the reduced availability of caribou as a result of the periodic migration of caribou away from indigenous communities who were dependent on caribou for food subsistence. They did this by introducing reindeer and, in order to effect this, by also introducing the Saami practice of reindeer herding through hired Saami reindeer herders.

Recent conversations with individuals in the Western Arctic who have worked with reindeer or who have had connections with reindeer owners and herders, have raised the concern that valuable local knowledge about reindeer and caribou is being overlooked or disregarded. Local knowledge of reindeer and therefore of caribou has not been collected in any way that it can be used to cast light on the issue of reindeer management and on the potential for conflict with management of caribou, especially with the carrying capacity of the range.

From a caribou management perspective, the "official" records from government prior to 1970 are minimal. The observations of "reindeer people" are not now available to the wildlife co-management boards and processes, and thus not available to enrich the current management regimes for caribou and their range. This valuable knowledge about or affecting caribou has been acquired by reindeer herders during the course of their time in the field working with reindeer.

Some informants say that the presence of reindeer in the past has been very beneficial to the continued movements of caribou into the area between Inuvik and the Arctic coast. Reindeer will attract bull caribou during the rutting or breeding season. Some caribou will eventually remain with the reindeer herd or return to the reindeer herd in following years. Some informants even speculate that if the reindeer were eradicated, as has at times been contemplated, there might be a reduction of the number of caribou that migrate through the area. Prior to the arrival of the reindeer, there were two decades of virtually no caribou available in the Mackenzie Delta area, and this caused hardship in the local communities. Perhaps this earlier situation will recur if reindeer are removed, or if the recent decline resulting from range use conflict continues to the point where the herd disappears.

It is an interesting aspect of the whole Canadian Reindeer Project that although the reindeer were introduced for the benefit of local indigenous people, including the Inuvialuit, these people had little say in the management of the project, the disposition of the reindeer, or, more importantly, the closure of the Mackenzie Delta Reindeer Grazing Reserve to the hunting of caribou when the Reserve was created. In later years, this lack of consultation and participation created tensions among local people over reindeer and caribou that are still unresolved. While official records indicate one perspective, the oral and traditional knowledge of the local environment by indigenous people and the Saami reindeer herders was not employed at critical times for either reindeer or caribou.

This situation is an illustration that even First Nation-government co-management structures can have difficulties with incorporating unexpected sources of traditional knowledge. In this instance, historic and current observations with respect to reindeer do not seem to have been fully considered when managing caribou, despite the potential relevance of this information. This situation may also reflect some of the difficulties arising with coordinating information and management approaches for a wildlife species such as caribou and a private owned species such as reindeer. This difficulty may be augmented by the complex institutional framework for caribou management in the Inuvialuit Settlement Region.

## Beluga whales and polar bears, and traditional knowledge

### Introduction

Northern indigenous people are historically dependent on species such as caribou, beluga whales and polar bears for food, shelter, clothing, and trade. Continued harvesting of these species is highly valued by northern peoples and closely connected with the maintenance of a traditional way of life and values. As such, First Nations in the Canadian Arctic have placed a high priority on the recognition of formal rights to wildlife and participation in all decisions affecting this wildlife.

These rights and participation are manifested most clearly in harvesting and co-management regimes and international agreements pertaining to that wildlife. First Nations have preferential or exclusive harvesting rights for key species based on historic uses, aboriginal rights or land claim agreements. First Nations are also active participants in these co-management regimes and international agreements. The management regimes and agreements are redesigned to permit sustainable use of wildlife by First Nations. The regimes also incorporate traditional knowledge and experience through direct participation of indigenous peoples in the management and administrative structures, through the protection of First Nation wildlife rights such as priority harvesting, and the incorporation of traditional knowledge in the establishment of harvest quotas and species and habitat management.

This portion of the paper considers wildlife rights and management regimes for beluga whales and polar bears. The focus is on Bering Sea beluga whale population in the Western Arctic region of Canada; the west Hudson Bay polar bear population management in the Eastern Arctic and Hudson Bay area of Canada, and the means by which the traditional knowledge of the Inuvialuit and Inuit peoples is incorporated into the management of these populations.

Northern Canada is unique in that it is subject to comprehensive land claims agreements negotiated between the Canadian government and First Nations. The two agreements that will be discussed here are the Inuvialuit Final Agreement and the Inuit Final Agreement which apply respectively to the Inuvialuit Settlement Region in the

Northwest Territories, and the Nunavut Settlement Area in the Nunavut Territory. These agreements are constitutionally and legislatively protected. As a result, government and private parties must conform to the rights and processes recognized under the agreements.

The Inuvialuit Final Agreement and the Inuit Final Agreement transfer lands and money to the Inuvialuit and Inuit respectively, and recognize Inuvialuit and Inuit wildlife rights. These wildlife rights include preferential or exclusive harvest rights to certain wildlife species, the right to receive compensation when those harvest rights are adversely affected, and the ability to participate in wildlife management and conservation as a decision maker, expert and interested party. The agreements also establish First Nations-government joint management structures for land and water planning and authorization, environmental assessment and wildlife management.

Wildlife rights and wildlife management for beluga whales and polar bears are also subject to international agreements and conventions that are either negotiated to include or recognize First Nation rights. These agreements include the proposed *Inuvialuit Inupiat Beaufort Sea Whaling Agreement*; and the *Agreement on the Conservation of Polar Bears and their Habitat, 1973* between the Arctic circumpolar nations.

Inuvialuit rights to beluga whales and the national and international management regime is discussed first, followed by Inuit rights to polar bears and the management regime for polar bears. The topics can be quite complex, so the intent is only to provide an overview of these issues, and to use this overview as the basis for comments and reflections on the use of traditional knowledge. Further reference materials are found in a bibliography attached to this paper.

## Beluga whales

The beluga whale is a medium sized cetacean belonging to the group known as odontocetes or toothed whales, which includes sperm whales, killer whales, dolphins and porpoises. The narwhale is the closest relative to the beluga whale. The name for the beluga whale's name is derived from the Russian word for white. Beluga whales occur throughout arctic and subarctic waters in North America, Greenland, Europe and

Asia. They are often found in ice-covered regions in winter and spring and in coastal waters in summer and autumn.

The Bering Sea beluga whale population ranges throughout the Bering, Chukchi and Beaufort Seas. They winter in the drifting ice of the Bering Sea, moving in summer to concentration areas scattered on the coast from Bristol Bay to the Mackenzie River delta in Canada. The Inuvialuit, as well as indigenous peoples from Alaska and the former Soviet Union, depend upon and harvest for whales for subsistence purposes from the Bering Sea population.

The Inuvialuit Final Agreement recognizes Inuvialuit harvesting rights for beluga whales. The Fisheries Joint Management Committee, the Inuvialuit Game Council and the Hunters and Trappers Committees are involved in monitoring that harvest and beluga whale management in the Inuvialuit Settlement Region.

The Inuvialuit Game Council, assisted by the Hunters and Trappers Committees, is established as the Inuvialuit voice on wildlife issues under the Agreement. The Inuvialuit Final Agreement also establishes the Fisheries Joint Management Committee as an Inuvialuit-government joint management board with responsibilities for fisheries, including beluga whales, in the Inuvialuit Settlement Region. The Fisheries Joint Management Committee and the Inuvialuit Game Council have distinct roles which include the right to set harvest limits, and to advise and participate in any beluga management regime for the Inuvialuit Settlement Region.

The Beaufort Sea Beluga Management Plan has evolved as a result of the Inuvialuit Final Agreement, and institutions and rights under that agreement. The Agreement does not protect the entire plan; instead it protects certain aspects of the plan, and the Inuvialuit rights and the processes that led to the development of the plan. The plan incorporates extensive community consultation and includes the major stakeholders such as government and industry. In conjunction with the Hunters and Trappers Committees Beluga By-laws and Tourism Guidelines, the plan is the central management tool in the Inuvialuit Settlement Region for regulating the beluga whale harvest and protecting beluga whales.

The first version of the plan was developed by the Fisheries Joint Management Committee in 1991, in cooperation with the Hunters and Trappers Committees of Aklavik, Inuvik, Paulatuk and Tuktoyaktuk, and the Department of Fisheries and Oceans, after several years of discussion and extensive community consultation. The oil and gas industry also participated in the evolution of the first version of the Plan and, in particular, focused on the identification of zone boundaries. A second printing of the plan occurred in March 1993 with a third printing occurring in 1997.

The Inuvialuit Final Agreement requires that the knowledge and experience of both the Inuvialuit and the scientific community be used to achieve wildlife conservation. Two aspects of the Plan illustrate the incorporation of Inuvialuit traditional knowledge. The most recent version of the Plan discusses why the Fisheries Joint Management Committee and other signatories chose not to establish a number for the maximum allowable harvest. This was due to a belief that the traditional and anticipated take by individual Inuvialuit hunters was significantly below the annual sustainable harvest for the Bering Sea beluga whale populations. Therefore, no number was required for the maximum allowable harvest. The Inuvialuit have always believed that their harvest did not have an appreciable impact on the Bering Sea beluga whale population, and that the population was much larger than western science and scientists believed. More recent scientific evidence derived from a 1992 aerial survey of beluga whales in the Western Arctic have established the presence of far more than 20,000 whales in the population, a substantially greater estimate than the original "scientific" estimates of 7,500 whales.

The Plan has supporting programs for monitoring and research, and education and public awareness. The objective of monitoring and research is to provide necessary and new biological information for the conservation, management and optimal utilization of the beluga whales, and for the implementation of Plan. This is accomplished by the incorporation of traditional ecological knowledge, the involvement of the Inuvialuit in the research project, and Inuvialuit implementation of research and monitoring.

The Beaufort Sea Beluga Management Plan also operates within an international framework. The *International Convention for the Regulation of Whaling* was negotiated

in 1946. Membership is open to all nations, whaling and non-whaling. The Convention established the International Whaling Commission. The International Whaling Commission has instituted a commercial ban on whaling, though "scientific whaling" is still conducted by signatory nations, including countries such as Japan. Canada has withdrawn from the Convention, in part as First Nations such as the Inuit and Inuvialuit have indicated their opposition to both the Convention and to Canada's participation. Inuit and Inuvialuit subsistence whaling of beluga whales continues despite the actions of the Commission.

The Inuvialuit, whose subsistence whaling is in the Western Arctic Region of Canada, and the Inupiat, their counterparts in northern Alaska which hunt this same stock of beluga in US waters, are also negotiating an international indigenous whaling agreement. The proposed Inuvialuit Inupiat Beaufort Sea Beluga Whale Agreement is an international beluga management initiative underway between the Inuvialuit and the Inupiat. This is a draft agreement between the Inuvialuit and the Inupiat to work together to cooperatively manage a shared resource. The agreement will be signed by the chairs of the Inuvialuit Game Council, the North Slope Fish and Game Management Committee and the Kivalina Whaling Captains Association.

In the preamble to the agreement, the Inuvialuit and the Inupiat state they will manage their use of beluga whales in accordance with the Beaufort Sea Beluga Management Plan, and the Alaska Beluga Whale Committee Management Plan respectively. Within the agreement, the parties agree to establish an Inuvialuit and Inupiat Beluga Commission consisting of three appointees from each of the Inuvialuit Game Council and the North Slope Fish and Game Management Committee, and one appointee from the Kivalina Whaling Captains Association to oversee the terms of the agreement. The parties agree the Commission will meet, to share information on their respect beluga harvest data and planned research, and, where desirable, to conduct joint research.

## Polar Bears

Polar bears are Arctic marine mammals. Canada's polar bear management regime is established under international conventions, federal, territorial and provincial

governments, and land claim agreements. Polar bears are harvested for commercial and subsistence purposes throughout the Northwest Territories and the Nunavut Territory by the Inuvialuit and the Inuit peoples in accordance with this overall framework.

Polar bears also migrate outside the Nunavut Settlement Area, and are subject to harvesting and tourism pressures outside this area. One such population is the Hudson Bay polar bear population which migrates between the lands of the Nunavut Territory and the province of Manitoba, and offshore waters and ice in Hudson Bay. The Wapusk National Park in Manitoba, and the adjacent provincial lands are the prime denning area for this polar bear population.

There are considerable tourism uses for this population of polar bears in northern Manitoba, particularly in the area around Churchill, Manitoba and to Wapusk National Park. Manitoba First Nations provide guiding and naturalist services with respect to polar bears. Currently there is no commercial hunting of polar bears by Manitoba First Nations. However, tourism and future harvesting of polar bears in Manitoba and offshore waters and ice could adversely affect the population available for harvesting in the Nunavut Territory.

The Inuit Final Agreement is an agreement that focuses on wildlife and marine species within and external to the Nunavut Settlement Area, due to the Inuit peoples dependence on marine resources. The preamble to the Agreement lists the objectives of the agreement including the objective of providing Inuit with wildlife harvesting rights and rights to participate in wildlife decision making. Article 5 of the Agreement addresses wildlife, and creates a framework for wildlife management and Inuit rights in and external to the Nunavut Settlement Area. These management regimes and rights apply to a variety of species including caribou, beluga whales and polar bears. Only polar bears are addressed here.

The Agreement establishes the Nunavut Wildlife Management Board as the main instrument for wildlife management in the Nunavut Settlement Area. This board has Inuit board members and staff, and is required to consider Inuit traditional knowledge in its decision making. Certain wildlife provisions in the Inuit Final Agreement also apply

outside the Nunavut Settlement Area, but to lands and offshore waters within Canadian jurisdiction. These lands and waters include those located in the Inuvialuit Settlement Region, which is west of the Nunavut Settlement Area, and province of Manitoba and Hudson Bay, both of which are south of the Nunavut Settlement Area.

Part 9 of Article 5 of the Inuit Final Agreement focuses on international and domestic interjurisdictional agreements for wildlife. Legislation implementing these agreements must treat the Inuit on at least as favourable a basis as any other aboriginal people in Canada. The Nunavut Wildlife Management Board also has a role in the negotiation or amendment of domestic interjurisdictional agreements commensurate with its status and responsibilities in the management of wildlife in the Nunavut Settlement Area. In those situations, the Nunavut Wildlife Management Board and the Minister are required to consider terms of domestic interjurisdictional agreements and international agreements when setting harvest levels in the Nunavut Settlement Area.

Canada, the United States, Denmark, Greenland, Norway and Russia are members of the *Agreement on the Conservation of Polar Bears and Their Habitat, 1973*. The Agreement provides that polar bears may be harvested by local people using the traditional methods in the exercise of their traditional rights and in accordance with the laws of that country. The Agreement also provides for a joint management approach to polar bear management and the sharing of research.

The Inuit and Inuvialuit in the Nunavut and Northwest Territories are involved in a subsistence and commercial harvest of polar bears that is subject to the *Agreement on the Conservation of Polar Bear and Their Habitat, 1973* and the provisions of the Inuvialuit and the Inuit Final Agreements. Local communities receive quotas for harvests of polar bears. The community can then transfer that quota to sport hunters for a fee. The United States permits the import of polar bear trophies from approved populations in the Northwest Territories and Nunavut Territory, including the populations near the western portion of Hudson Bay, if certain requirements are met. These requirements are that Canada has a monitored and enforced sport hunting program, that populations are maintained at sustainable levels, and that actions occur consistently with the Convention.

Domestic interjurisdictional agreements for polar bears are also being negotiated. The governments of Canada, the Nunavut Territory and the province of Manitoba are also working on a *Memorandum of Understanding Western Hudson Bay Polar Bear Management*. The June 8, 1999 draft memorandum includes the establishment of a sustainable annual harvest of the western Hudson Bay polar bear population, and an equal apportionment of that harvest between Manitoba and the Nunavut Territory. Though the Nunavut Wildlife Management Board is not a signatory to this memorandum, it would participate in these negotiations as a result of the Inuit Final Agreement.

Manitoba First Nations have harvesting rights and participate in wildlife management under a myriad of rights and agreements. These include wildlife harvesting rights under the *Manitoba Natural Resources Transfer Agreement* (1930), historic treaties between the federal government and the First Nations from the 19th and early 20th Century, under wildlife management agreements between the Manitoba government and the First Nations, and under specific multi-jurisdictional agreements such as the management agreement for the Wapusk National Park. The rights and agreements extend to all wildlife, and include polar bears.

Traditional knowledge is directly or indirectly incorporated in all aspects of polar bear management. If one considers the regime applicable to the Hudson Bay polar bear population, both the Inuit and Manitoba First Nations participate in polar bear management. The Inuit participate and incorporate Inuit traditional knowledge through rights and management processes in the Inuit Final Agreement. The Manitoba First Nations participate through federal and provincial processes, and through the management regime for the Wapusk National Park. The memorandum of agreement between the governments of Nunavut, Manitoba and Canada also suggests the Manitoba First Nations will soon begin exercising rights to harvest polar bears.

## Expanding role of traditional knowledge

The portion of the paper illustrates the participation of Canadian First Nations in wildlife rights and management for reindeer, caribou, beluga whales and polar bears; and the means by which traditional knowledge is now incorporated. The role of

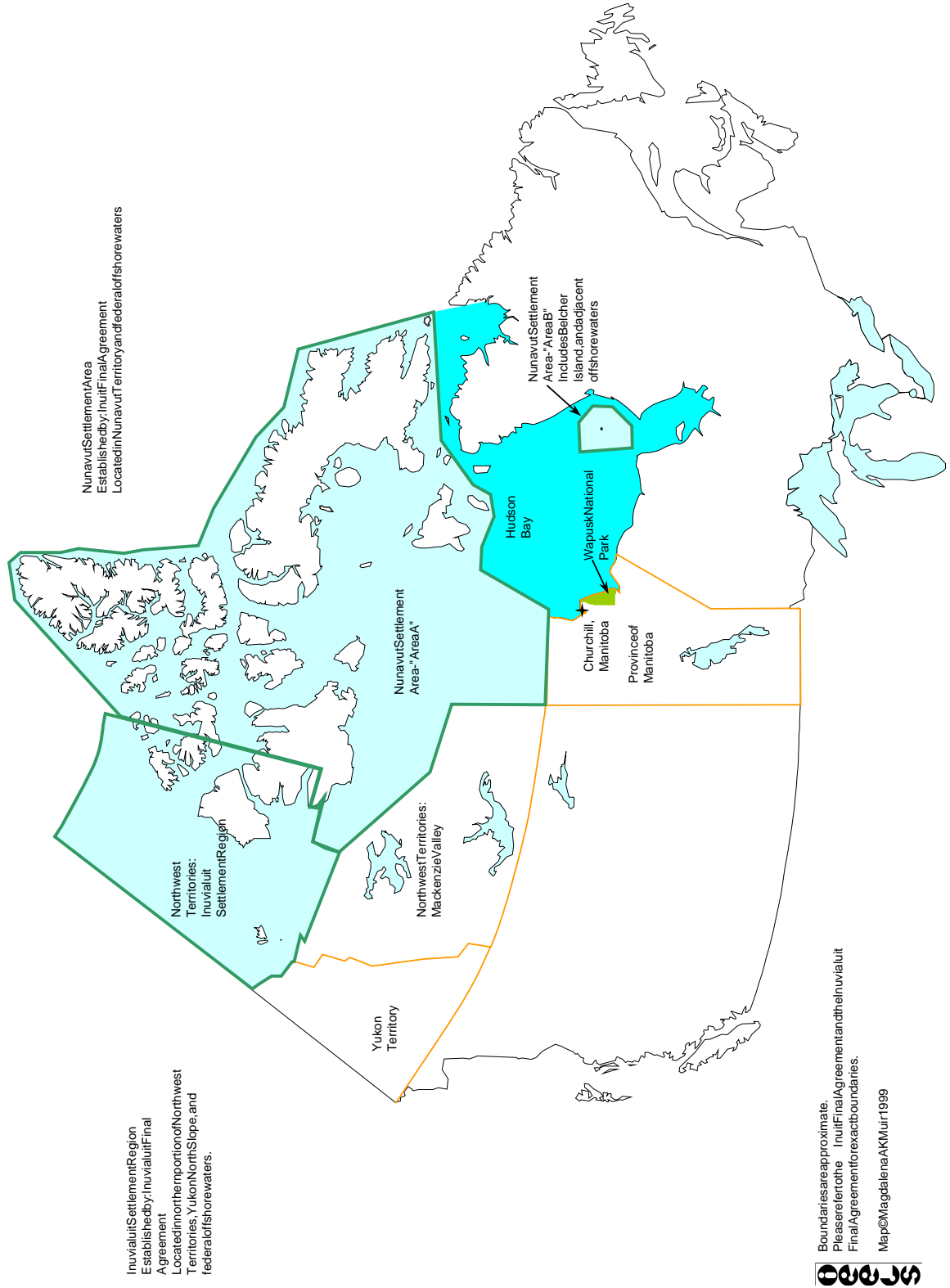
traditional knowledge is likely to expand in several ways in the future. Based on their knowledge and perspectives, the author of this paper will speculate on several possible developments.

Canada is somewhat unique to the extent that its northern regions are subject to complex and extensive land claims agreements that impact all aspects of resource management. These land claim agreements are the product of Canada's history and legal system, an early recognition of the rights of indigenous peoples for wildlife, and Canada's focus on joint management strategies. Other circumpolar arctic countries have different circumstances and are not likely to enter into identical land claims agreements. Despite these differences, wildlife rights and management models from northern Canada influence other Arctic circumpolar countries and are likely to result in greater participation of indigenous peoples in wildlife issues. As a result, there will be a fuller consideration and greater incorporation of traditional knowledge in wildlife uses and management.

Similarly, there is likely to be more extensive recognition of indigenous rights, the participation of indigenous people, and the role of traditional knowledge in international agreements. Indigenous peoples are receiving greater recognition by international organizations and by national governments in all areas. In the future, this is likely to result in the greater participation of indigenous peoples in both international agreements between governments, and agreements between indigenous peoples in the circumpolar Arctic countries concerning wildlife. This development will again result in increased consideration of traditional knowledge in wildlife uses and management.

Lastly, similar to other areas of science, traditional knowledge and scientific knowledge are likely to be more closely integrated in the future. The increased study of traditional knowledge suggests the findings of traditional knowledge parallel the findings of well-conducted scientific research. Therefore, the historical knowledge and ongoing observations of the indigenous peoples mostly closely connected and reliant on the wildlife resources will be integrated more closely with scientific knowledge acquired by academics and scientists.

# Map of Canada: traditional knowledge and northern wildlife management



## Conference Notes and Remarks

## Traditional Knowledge Proposal

This traditional knowledge proposal was submitted to the UNESCO Memory of the World Program in May 1999.

### Project

Compilation and Preservation of Existing Records of Traditional Knowledge of Indigenous Peoples within the Arctic Circumpolar Region (Northwest Territories)

### Institutions

The Prince of Wales Northern Heritage Centre and the Arctic Institute of North America will take a lead role in the implementation of this project, with the participation of indigenous organizations and academic institutes. The Centre and the Institute have historically worked in partnership with relevant organizations like the Dene Nation, the Gwich'in Social and Cultural Institute, and the Inuvialuit Cultural Resource Centre.

### Project status

This is the first project in a series of projects to document and preserve existing records of the traditional knowledge of Arctic indigenous peoples. This project will focus on the records of Dene, Inuit and Inuvialuit residing within the Northwest Territories. Future projects could address remaining regions of Canada, the United States, Greenland, Iceland, Finland, Norway and Sweden and the former Soviet Union.

### Content

There are significant existing records of the traditional knowledge of the Dene, Inuit and Inuvialuit peoples of the Northwest Territories. These records are located in a number of sources and in a number of mediums, some of which are becoming obsolete. No accurate compendium has been made of these records. Therefore, the true ambit and extent of these records is unknown. As a result, these records are not readily available or usable by the indigenous peoples, academic researchers or interested parties. In the absence of this compendium, duplicative projects may be undertaken, and gaps within existing traditional records are not addressed.

This project will result in the creation of a compendium of existing records of traditional oral knowledge, including an index of the information contained in these records. Upon completion, this compendium of the records and their contents will be made available on the website of the Prince of Wales Northern Heritage Centre.

## Remarks

Extensive records have been created to document different aspects of the traditional knowledge of indigenous peoples of the Northwest Territories of Canada. These records have been created by a variety of sources. The Prince of Wales Northern Heritage Centre, in conjunction with the Northwest Territories Archives, has a central role in storing and preserving some of these records. Other records are held by a variety of parties, including indigenous organizations. However, no party has yet undertaken the onerous task of reviewing all the existing records and creating a compendium of the records and index of the information contained in these records. In the 1960s and 1970s, Nellie Cournoyea (then with the Canadian Broadcasting Corporation and now Chair of the Inuvialuit Regional Corporation) initiated a project to record the legends and life experiences of the Inuvialuit and certain Dene peoples (the Gwich'in and North Slave peoples). These records were subsequently turned over to the Northwest Territories Archives in 1990. The collection consists of 1013 oral recordings and 1.2 linear meters of transcriptions. A basic finding aid has been prepared but none of the Inuvialuit oral history recordings have been translated.

Other oral recordings of the traditional knowledge of the Inuit, Inuvialuit and Dene have been deposited with the Northwest Territories Archives and the Prince of Wales Northern Heritage Centre. Further records are in the possession of the Dene Nation, the Gwich'in Social and Cultural Institute, and the Inuvialuit Cultural Resource Centre. The Centre has worked in partnership with all these parties in the past, and would work collaboratively with them in creating the overall compendium of the existing records and their contents.

Despite the regional focus of this project, this project can be viewed as part of an integrated approach for preserving traditional knowledge for the Arctic Circumpolar Region. Taking the example of traditional ecological knowledge, there are common

worldviews within the Arctic Circumpolar Region with such concepts of animal renewability and the necessity to show respect. There is also commonality of practices with caribou hunting techniques for the Cree, Dene, Inuit, and Inuvialuit peoples of Canada and Alaska (U.S.) suggesting a diffusion of knowledge and practice in these three very different cultural groups. The various Cree and Dene peoples of North America also have their counterparts in terms of adaptations and lifestyles with the Saami and most of those Russian groups, again as illustrated by the example of similar caribou hunting techniques .

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## Biographies

### Magdalena AK Muir

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Magdalena AK Muir is president of International Energy, Environmental and Legal Services. Ms Muir has been active in this capacity in wildlife management, resource management and environmental assessment in relation to First Nations and northern land claims agreements. Ms Muir works extensively in the areas of energy, environment and business negotiations in North and South America. Lastly, she teaches environmental and natural resources law for the University of Calgary Faculty of Continuing Education.

Ms Muir is a Research Associate of the Arctic Institute of North America, past Chair of the Canadian Bar Association National Environmental Law Section, and past Chair of the Canadian Energy Institute (Alberta Branch). In these capacities, she lectures and publishes on energy, environment and northern land claims agreements; and coordinates written and oral submissions on federal and international environmental legislation and policy. Ms Muir is also completing a Masters of Law on energy regulation in South America in conjunction with the University of Calgary Law Faculty and the Energy Institute at the University of Houston.

### Lloyd NBinder

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Lloyd Norman Binder is a Principal with Kunneq Resource Development Corporation, which provides services such as business feasibility study and planning; accessing public, private and commercial financing; renewable resource and tourism projects scoping, assessment and development. In this capacity, Mr Binder has initiated

and accessed financing for projects such as Russian Saami Land Use and Occupancy Mapping for trained Saami in two communities in Murmansk Region, and the "Circumpolar Aboriginal People and Co-management Practice Conference" which explore current issues and methods in resource management. Mr Binder has also published extensively, including "Coping With the Cash", a financial review of four northern land claims settlements, and "Aboriginal People and Resource Co-management", a study of the resource co-management under the Inuvialuit Final Agreement

Mr Binder is an Inuvialuit beneficiary, based in Inuvik. Mr Binder has a degree in Economics, University of Calgary, Alberta and is a Research Associate with Arctic Institute of North America. He has previously been employed with the government of the Northwest Territories for a period of 15 years, his last position being Regional Superintendent of Economic Development and Tourism. From 1981 to 1982, he was president and general manager of the Inuvialuit Development Corporation, and previously was owner and manager of commercial and residential construction and renovations company.

## Related publications by the authors

### Magdalena AK Muir

"Contrasting approaches to aboriginal water management: joint management and multi-stakeholder processes," paper for "National symposium on water law", Toronto, 9 and 10 April 1999.

*Report on legal issues pertaining to the establishment of a marine protected area for beluga whales in the Inuvialuit Settlement Region*, to be published by the Arctic Institute of North America and the Natural Resources Institute, University of Manitoba in 1999.

"Alternative and market-based approaches to environmental protection in the oil and gas industries," paper for the "Emerging air issues for the 21<sup>st</sup> century: the need for multidisciplinary management" conference in Calgary, 24 September 1997.

"Environmental regulation of the Canadian energy business in the context of the Americas," paper for the Inter-American Bar Association conference in Rio de Janeiro, 21 May 1997.

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### Lloyd N Binder

*Coping With the Cash - A Financial Review of Four Northern Land Claims Settlements With a View to Managing Economic Opportunities From the Next Generation of Land Claims Settlements in the Northwest Territories* for NWT Legislative Assembly. By Mike Robinson, Mark Dickerson, Jack Van Camp, Wanda Wuttunee, Michael Pretes and Lloyd Binder. 1989

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