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Resource Management in Wood Buffalo National Park: Striving for Cooperation.

by

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ABSTRACT

Resource Management in Wood Buffalo National Park:
Striving for Cooperation.

As efforts to conserve natural resources grow in scope and prominence, it becomes increasingly important to examine resource use and resource users, particularly within the confines of protected areas. The least-known group of resource users are aboriginal hunters. This study provides information on the traditional ecological knowledge, land use and hunting strategies, as well as the harvest of moose by a community of Cree hunters located in Wood Buffalo National Park.

This information is used to determine whether cooperative management is an appropriate strategy for both Wood Buffalo National Park and the resource users, the Little Red River Cree; allowing for sustainable use of the resource while respecting constitutional law.

The research revealed that cooperative management is an achievable goal within Wood Buffalo National Park, but that much work must be done to ensure that a legally binding agreement will benefit both parties as well as the environment.

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DEDICATION

For the people who are the solid ground upon which my house is built.

Mom and Dad, Jack and Scott.

Thank you.

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CHAPTER ONE
INTRODUCTION

As efforts to conserve natural resources increase in scope and prominence, it becomes increasingly important to examine resource use and resource users. Hunting wild animals is a consumptive use of a renewable resource. But just as consumptive does not necessarily equate with destructive, renewable does not mean either limitless or permanent. The task of wildlife management is to conserve animal resources – in the sense of making sure that they are able to continue to renew themselves – while allowing for sustainable use of those resources.[1]

Subsistence hunting is especially dependent upon long-term conservation, since subsistence involves continuous use of many natural resources over several generations. As well, aboriginal material and spiritual culture is often based on the hunt and the animals that are hunted, thus creating additional reasons for wise use of resources.[2]

Traditionally to the Cree of the northern Boreal forest, the harvest of moose each season was a cultural event, with hunters from the community making camp in the bush for several days until the hunt was over. Today in many northern aboriginal communities, this tradition continues. Subsistence hunting, of moose in particular, represents an important aspect of the community. A sustainable number of this species is required to maintain its cultural, spiritual and economic importance.

The importance of sustainable wildlife resources to aboriginal peoples cannot be overstated. In all land claim settlements since 1975[3] in Canada, fish and wildlife conservation and use have received enormous attention. Provisions to ensure the

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[1] Huntington, Henry P. 1992. Wildlife Management and Subsistence Hunting in Alaska. University of Washington Press, Seattle. p. xii.

[2] Ibid.

[3] The James Bay Settlement between the Government of Canada, the Government of Quebec and the Cree and Inuit people of the James Bay territory was the first recognized comprehensive land claim negotiated in Canada. The settlement was ratified in November 1975.

continued supply of animal species are found in all of the settlement agreements. This is seen as a reflection of recognized lifestyles and treaty rights of aboriginal people.

Also arising from the northern land claim settlements are new National Parks.[4] These agreements contain requirements for aboriginal participation in park management as well as guarantees regarding the traditional harvest of wildlife within park boundaries. The land claim settlements, rather than national park policy or legislation determine the role of aboriginal peoples in planning for and managing national parks. This has given rise to subtly different kinds of parks in northern and southern Canada. Aboriginal people in the north, where parks are tied to land claims, play a more important role in park planning and management than their counterparts in the south. In addition, many aboriginal peoples in the south must look to treaties and the National Parks Act and policy, rather than to comprehensive land claim settlements to protect their interests.[5]

Since the first Canadian national park was established in 1887,[6] park policy has largely been dictated by governing bodies, scientists and park managers. However, recent management literature emphasizes the need to involve aboriginal peoples in protected area planning and management to allow exploitation of natural resources for subsistence purposes.[7] Despite this acknowledgement, wildlife use and management continues to be one of the main areas of contention within the park system.

Wildlife management always involves social policy making as well as wildlife and habitat manipulation, and as a result it also always requires both biological and socio-cultural knowledge.

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[4] Aulavik, Ivvavik and Vuntut National Parks were all created through northern land claims.

[5] Berg, Lawrence et al. 1993. The Role of Aboriginal Peoples in National Park Designation, Planning, and Management in Canada. In: *Parks and Protected Areas in Canada – Planning and Management*. Eds. Philip Dearden and Rick Rollins, Oxford University Press, Toronto, Ontario. P. 237.

[6] Canada's first national park - Banff – was created by the Rocky Mountains Park Act on June 23, 1887.

[7] Berg et al 1993. P. 226.

The socio-cultural databases of wildlife management are especially critical when there are major threats to the wildlife, or major conflicts over wildlife resource issues among politically significant sectors of a population, or when the diverse groups of resource users or managers do not share a common cultural heritage.[8]

The existing wall of distrust between aboriginal people and wildlife managers is due in part to a refusal by government scientists to recognize socio-cultural data in the form of indigenous knowledge and indigenous management. The resulting lack of exchange between the indigenous system of management and the scientific system of management has led to a situation where they generally operate, if not in opposition, at least in ignorance of each other, with the welfare of the wildlife and fish populations upon which traditional users remain dependent, almost wholly the responsibility of scientifically based management.[9]

In recent years, wildlife managers and the practice of wildlife management have come under attack on numerous fronts, including (1) questions about the effectiveness of the top-down approach to resource management, which discounts the input of local users (Berkes, 1981); (2) challenges to the scientific objectivity of the culture of wildlife management (Freeman, 1989); and (3) assertions that wildlife science, which is ideally based on objective, scientific knowledge, is also a political and economic exercise that requires balancing the often conflicting demands of conservationists, industry, native peoples and the state (Usher, 1986). In the Canadian Arctic, the result has been an increased emphasis on the practice of co-management.[10]

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[8] Feit, Harvey A. 1987. North American Native Hunting and Management of Moose Populations. *Swedish Wildlife Research*, Suppl. 1, 25-42.

[9] Freeman, M.M.R. 1985. Appeal to Tradition. In Brøsted, *Native Power*. P. 265.

[10] Collings, Peter. 1997. Subsistence Hunting and Wildlife Management in the Central Canadian Arctic. *Arctic Anthropology* Vol. 34, No. 1, pp. 41-56.

Co-management or cooperative management,[11] as it is more often referred to south of 60°, has developed as a system of management where government and aboriginal people alike, are able to represent their interests and concerns while sharing information from scientific studies and aboriginal harvesters. Co-management is used as a tool to reduce conflict over resource use and development, to encourage preservation of the environment, to involve resource users and civil servants in the process of researching decisions, and relies upon consensus to achieve decisions rather than a majority vote on given issues. In an ideal situation, local users and wildlife managers come together, pool their expertise and knowledge, and jointly develop strategies for maintaining wildlife.[12]

One of the most common sources of information provided by aboriginal peoples for use within the context of co-management is the native harvest survey.[13] Harvest studies or surveys have become part of the standard "tool kit" of co-management.[14] Harvest statistics are counts, or estimates of the quantity of a particular species of wildlife taken in a specific area or by a specific group of people over a period of time. Harvest

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[11] The terminology used to describe co-management varies. North of 60° co-management is the norm while in Alberta, cooperative management is the preferred term. Parks Canada uses the term 'joint management' and partnership agreements are most often used in an industrial context. For the most part, the different terms refer to the same thing. Cooperative management is the term that the Little Red River Cree Nation has adopted to describe their agreement.

[12] Collings 1997.

[13] The term "native harvest survey" seems to have come into common use as a result of the implementation of the James Bay and Northern Quebec Agreement of 1975, involving the Cree and Inuit of northern Quebec and the federal and provincial government's. Usher, P.J. et al. 1985. An Evaluation of Native Harvest Survey Methodologies in Northern Canada. Environmental Studies Revolving Funds Report, No.004. Ottawa, xii + 249p.

[14] Roberts, K. 1996. *Circumpolar Aboriginal People and Co-management Practice – Current Issues in Co-management and Environmental Assessment.* Arctic Institute of North America and Joint Secretariat – Inuvialuit renewable Resource Committees. P. 79.

statistics may thus be presented as totals for either a geographic region or a category of harvesters [or a combination of the two].[15]

Much of the work on native harvest surveys has occurred in the Canadian Arctic as well as in the James Bay land claim area. Aside from these two areas, native harvest statistics in Canada have typically been limited to the commercial take by native peoples from trapping and commercial fishing, based on purchase records, export permits and nominal harvester reporting requirements.[16] In Alberta, wildlife managers acknowledge that aboriginal harvest occurs, but they have no idea what the extent of the harvest is. Therefore, this data is unavailable for use in the calculations of hunting seasons or permit numbers for limited-entry hunts (usually called draws).[17]

The study sought to answer the following research question:

Is cooperative management an appropriate strategy for both Wood Buffalo National Park (WBNP) and the resource users, the Little Red River Cree Nation (LRRCN); allowing for sustainable use of the resource while respecting constitutional law.

To achieve this purpose, five objectives were identified. These objectives are:

1. document traditional knowledge and current land use associated with moose hunting by Garden River hunters;
2. determine the current harvest of moose by hunters within the study area;
3. investigate the existing Treaty and Constitutional rights of aboriginal hunters within WBNP;

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[15] Usher, Peter J. and George Wenzel. 1987. Native Harvest Surveys and Statistics: A Critique of Their Construction and Use. *Arctic* Vol. 40, No. 2 (June 1987) p. 145-160.

[16] Ibid. p. 148.

[17] GO1, Personal Communication, July 1996.

4. examine the potential for cooperative management within WBNP; and

5. make recommendations regarding cooperative management issues and the implementation of an agreement.

The research served an additional purpose for the community. The results of hunter interviews were compiled in a community report. Aspects of traditional knowledge of moose and community development issues that are not directly pertinent to the thesis goal are described in the LRRCN report, entitled "Hunting in the Bush is Our Culture." The report includes many interview quotes and leaves out scientific terminology, making it accessible to the community. This document, upon completion will belong to the community and members will be able to discuss and act upon identified issues and recommendations if they so choose. Contents of the report will be used by the First Nation in future resource management planning within the context of cooperative management

The following document is organized into eight chapters. The second chapter provides the reader with historical context to the research. Chapter Three outlines the methods used while conducting the research. Chapter Four presents the relevant collected data. Chapter Five addresses the Treaty Rights of aboriginal hunters within the National Park and relates them to park regulations. Chapter Six describes cooperative management and looks at the potential for an agreement. Chapter Seven provides discussion and analysis of the research objectives and Chapter Eight deals with recommendations and conclusions regarding cooperative management and community issues related to the research.

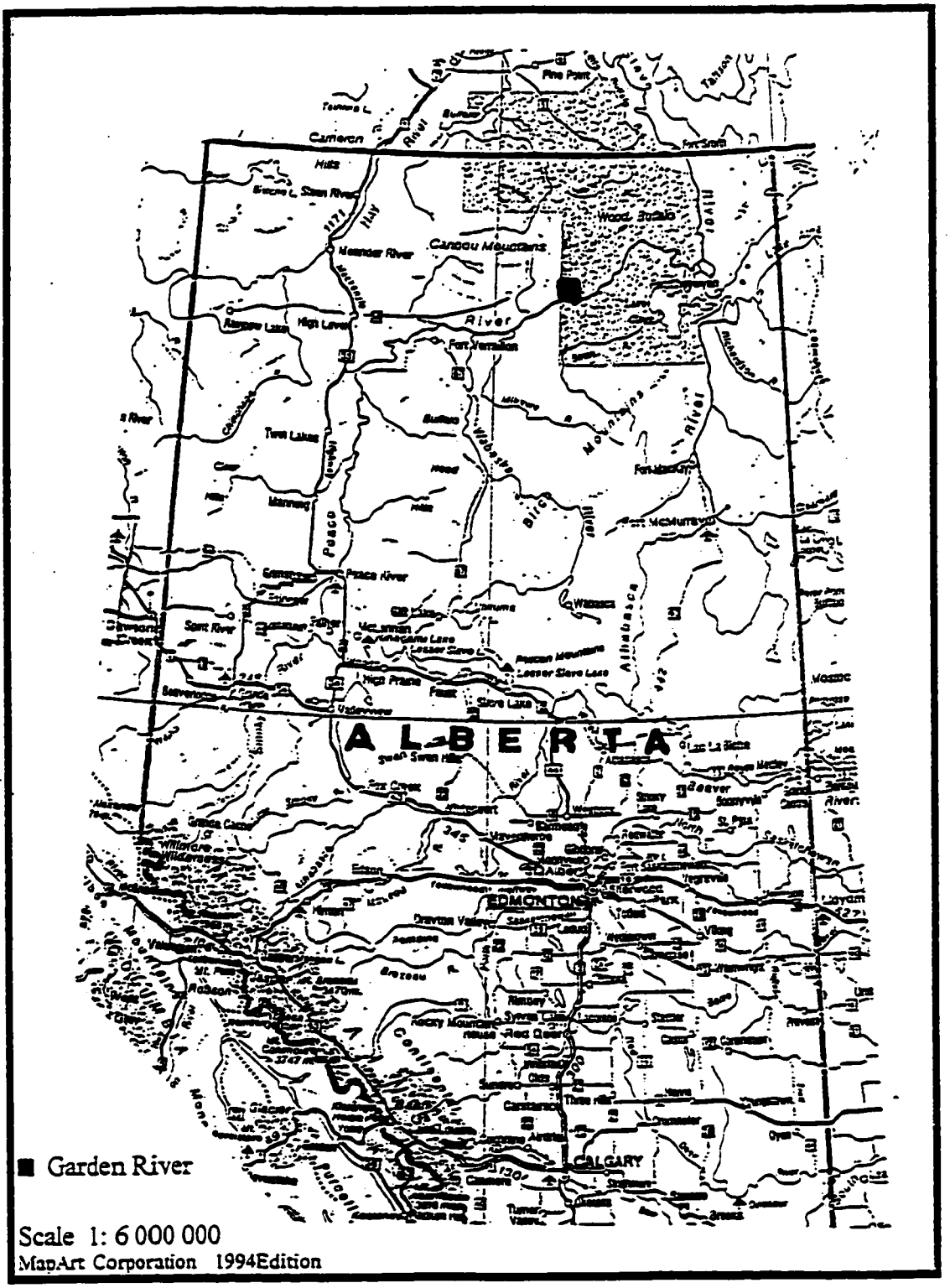

Figure 1.1 Garden River, Alberta

CHAPTER TWO
BACKGROUND TO STUDY

2.1 The Little Red River Cree

Prior to European contact, the Beaver occupied not only the entire basin of the Peace River below its junction with the Smoky, but the district around Lake Claire and the valley of the Athabaska River. The inhabitants of Lesser Slave Lake, the "Slave" Indians mentioned by Mackenzie, were thought to be one of their bands, although this is by no means certain.[18]

To the east were the Chipewyan, the most numerous Athapaskan tribe in northern Canada in the first half of the eighteenth century. Although the exact boundaries of the Chipewyan are uncertain, they seem to have claimed possession of the vast triangle enclosed by a line from Churchill to the height of land separating the headwaters of the Thelon and Back Rivers. They also occupied an area running south past the eastern ends of Great Slave and Athabaska Lakes to the Churchill River and to the coast, south of Churchill. After the Hudson's Bay Company established its post at Churchill in 1717 the Chipewyan, well supplied with firearms, drove the coast Inuit northward, and oppressed the two Athapaskan tribes in the northwest, the Yellowknives Dene and Dogrib, by denying them access to the trading post.[19]

The Cree disrupted this situation in the mid-eighteenth century. The distribution of Cree speakers at European contact is difficult to determine. They seem to have occupied lands surrounding James Bay and along the western shore of Hudson Bay, north almost to the Churchill River. Their territory appears to have extended as far as Lake Winnipeg to the west and Lake Nipigon to the south. Seventeenth-century accounts indicate that they frequently visited the northern shores of Lake Superior, and on a

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[18] Jenness, Diamond. 1963. *The Indians of Canada* Sixth Edition. Issued under the authority of the Secretary of State. National Museum of Canada. Bulletin 65, Anthropological Series No. 15. p. 382-383

[19] Ibid. p. 385.

number of occasions they were reported to be fishing at Sault Ste Marie as guests of the Ojibwa.[20]

During the fur trade period, after the Cree obtained early access to firearms through trade on Hudson Bay, their territory was dramatically increased. Lured by profits from furs, the Cree expanded far to the west, eventually occupying southern portions of the Western Subarctic as far as the Peace River of Alberta.[21] In the process, the Cree drove out or destroyed the "Slave" Indians of Lesser Slave Lake and sweeping the Beaver from the valley of the Athabaska, confined them to the basin of the Peace. This same group fought intermittently with the Chipewyan until about 1760, when the two tribes concluded an armistice.[22]

One of the groups of Cree that separated the Beaver and Chipewyan gave rise to the Little Red River Cree. *Several families had travelled northwest together to find land suitable for hunting and trapping. The Beaver and Chipewyan met them and a battle took place. The Cree were losing and some people were sent for aid. "Old Sewepagaham" brought his families to help and the Beaver and Chipewyan were defeated. We still live between the Dene [Beaver] and the Chipewyan.*[23]

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[20] McMillan, Alan D. 1988. *Native Peoples and Cultures of Canada – An Anthropological Overview*. Douglas & McIntyre, Vancouver/Toronto. p. 101.

[21] Ibid.

[22] Jenness 1963. p. 383 & 385.

[23] First Nation Interview #04 and FN2, Personal Communication. 1997.

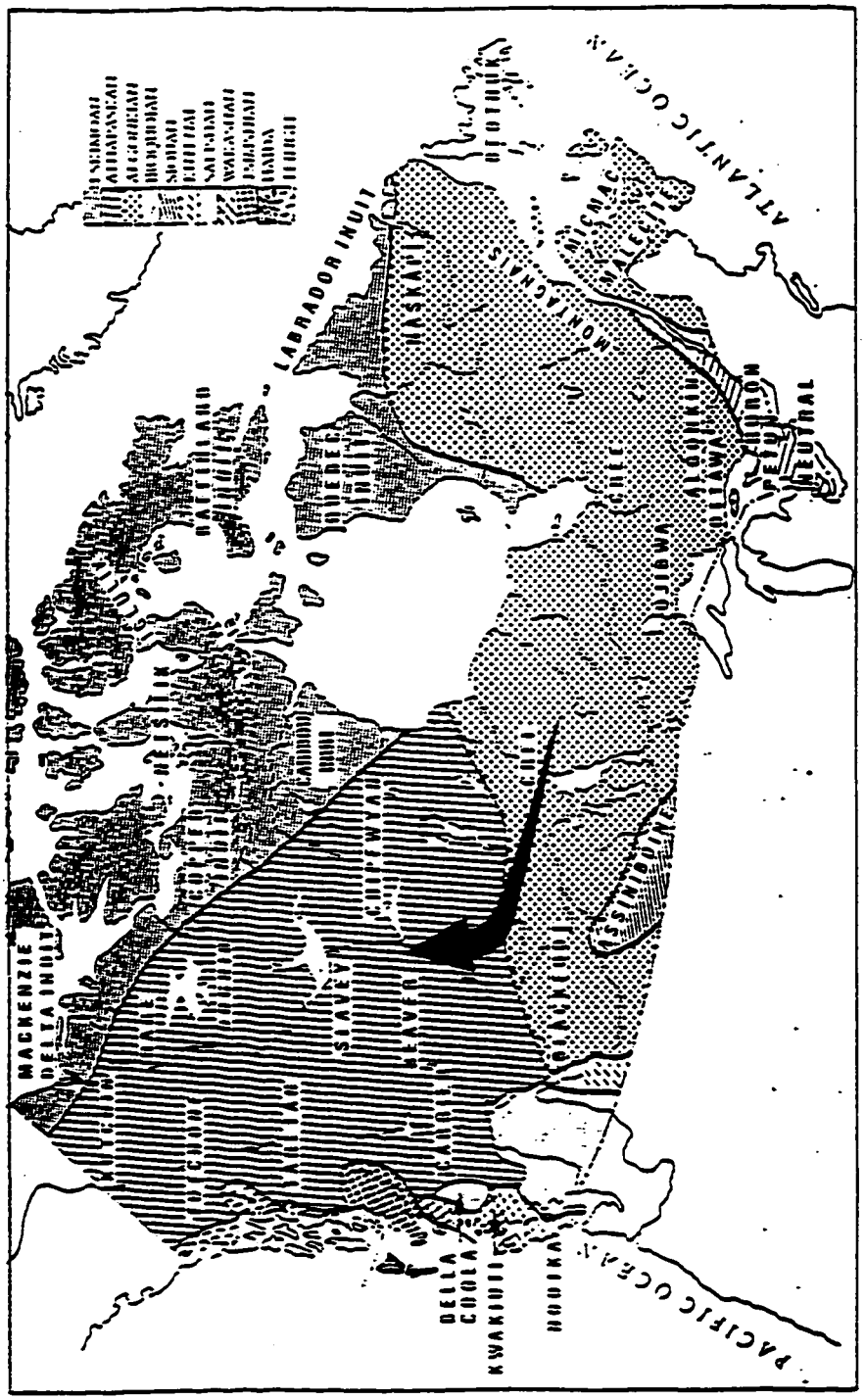

Figure 2.1 Cree movement into Alberta (adapted from McMillan, A. 1988).

The first official mention of the Little Red River Cree is found in Treaty No. 8, signed in 1899.[24] The statement showing the number of Indians who joined Treaty No. 8 in A.D. 1900 and received annuity and gratuity, lists nine Little Red River Indians as receiving 108.00 cash paid.[25] It is thought that the original designation occurred because these Cree were living along the Mikkwa River, which translates in English to Red River.[26]

Throughout the eighteenth and nineteenth centuries, the Little Red River Cree ranged across a forest base of over 70,000 square kilometres.[27] They were primarily hunters, with moose, caribou, bear and beaver the main prey. However, failure to take big game meant that smaller but more plentiful animals such as hare became crucial for survival. Geese and other waterfowl were also seasonally important and fishing, while not as highly valued, was important, allowing social groups to assemble at good fishing locations during summer.[28]

Three to five nuclear families, usually related although sometimes linked only by bonds of friendship made up the hunting group, living and travelling together throughout most of the year. The community was the largest social aggregate, consisting of all those who gathered at one location during the summer months, generally at a favorite fishing locale on the shore of a lake or river. Later, trading posts became centres of such gatherings.[29]

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[24] Treaty No. 8, and Report of Commissioners. Reprinted from the 1899 Edition by Roger Duhamel, F.R.S.C. Queens Printer and Controller of Stationary. Ottawa, 1966. KEE NOO SHAY OO, one of the original signatories to Treaty No. 8 is the grandfather of a Little Red River Cree hunter interviewed in this study.

[25] Ibid. p. 25.

[26] FN2, Personal Communication, 1997.

[27] Cooperative Management Phase II Action Plan. 1996. Written for the Little Red River Cree Nation and Tallcree Tribal Government. High Level, Alberta. p. 3.

[28] McMillan 1988. p. 102.

[29] Ibid. p. 103.

Locations such as The Jackfish River Settlement, Big Slough, Little Fishery, Garden River and Fifth Meridian, where a trading post was built, were places along the Peace River where the Little Red River Cree gathered (See figure 2.2). The Treaty did not alter the traditional practice of travelling in search of game and furs. However, traditional activities were affected by the creation of Wood Buffalo Park.

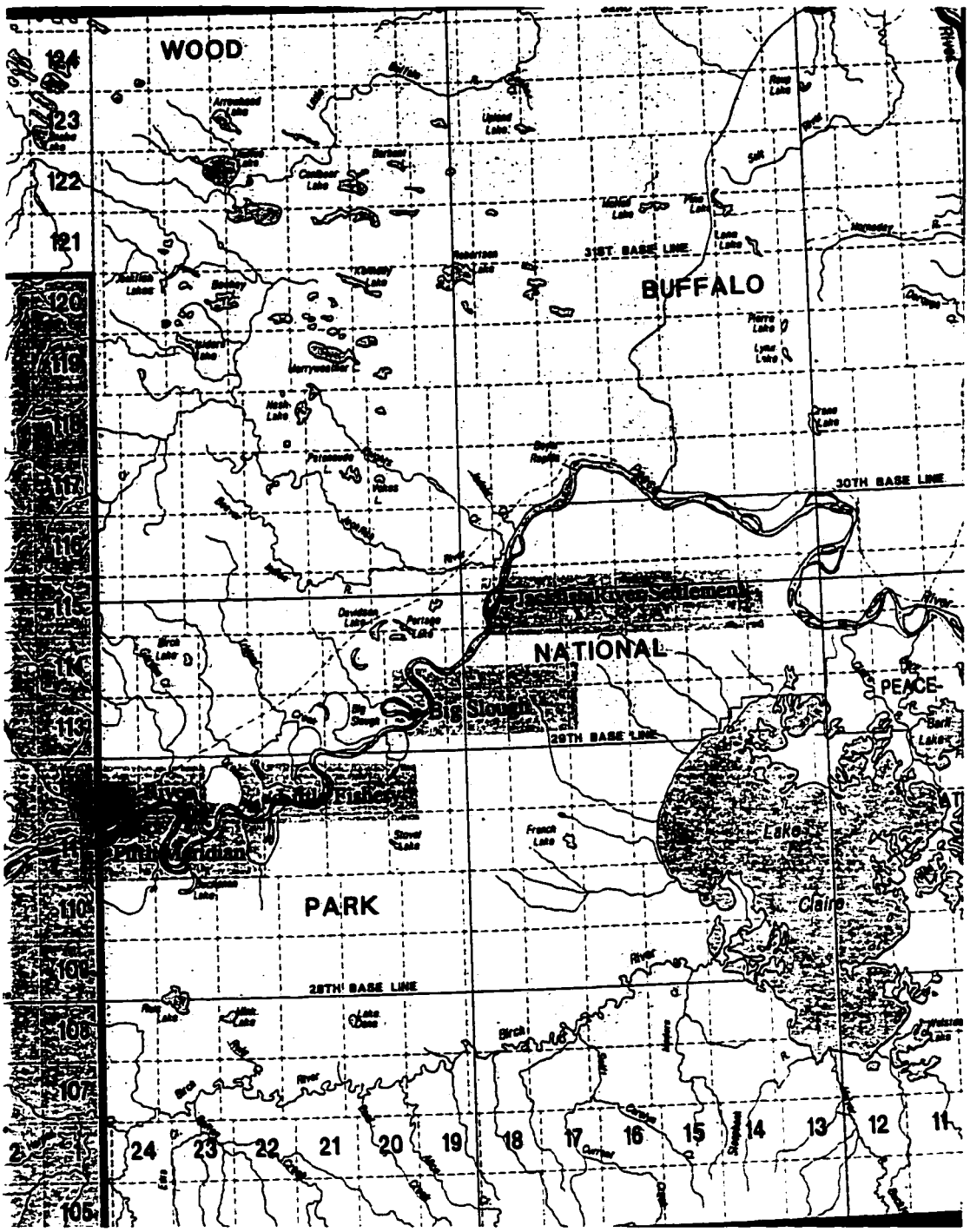

Figure 2.2 Traditional Meeting Places along the Peace River.

2.2 Wood Buffalo National Park

The earliest record of the existence of buffalo in the Lower Slave River area was left by Samuel Hearne, who crossed Great Slave Lake in the winter of 1771-72 and who found them "plentiful."[30] In his description of the journey, which took him to the mouth of the Mackenzie River in 1789, Alexander Mackenzie reported the existence of large herds of buffalo along Slave River. An outline of the range and number of the buffalo in the northern regions of Canada also was provided by observations of members of the Franklin expedition in 1820 and other early explorers. Recorded observations after 1840 disclosed a growing scarcity of buffalo in northern Canada and up to 1870, the disappearance of the species in the outlying districts of their habitat. Estimates of the numbers of buffalo made in 1888, during an investigation into the resources of the Mackenzie Basin instituted by a Senate committee ranged from small bands to several hundred head.[31]

Several moves to extend legal protection to buffalo in northwestern Canada were made prior to the actual establishment of the park.[32] In 1907, Inspector A.M. Jarvis of the Mounted Police pointed out that effective and easy protection of the herds would be possible if the area inhabited by buffalo were at once turned into a national park.[33] In his annual report for 1913, the Commissioner of National Parks, J.B. Harkin, observed that a

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[30] The Great Mackenzie Basin. Reports of the Select Committees of the Senate (Canada) 1887-1888. King's Printer, Ottawa, 1910. In: Lothian, W.F. *A History of Canada's National Parks.* Published by Parks Canada under the authority of the Hon. Warren Allmand, Minister of Indian and Northern Affairs, Ottawa, 1976. p. 61.

[31] Lothian 1976.

[32] Ibid. In 1877, the Northwest Territories Council approved ordinance (No. 5) for the protection of buffalo. The ordinance was repealed the following year, but in 1890, the Territorial Game ordinance (No. 11) of 1888 was amended to protect Buffalo. The Unorganized Territories Game Protection Act of 1894 and successive legislation confirmed this protection. Following the creation of the Province of Alberta, the killing of buffalo was prohibited by the Alberta Game Act of 1907.

[33] Ibid. Annual Report, Northwest Mounted Police, 1907.

proposal to establish a protected area for the preservation of the herd of wild buffalo in the Fort Smith country was under consideration.

By 1914, the buffalo population had increased to approximately 500 head, and by 1922, there were between 1500 and 2000 in the Athabasca and Mackenzie districts. When the Northwest Territories Branch took over in 1921, the staff stationed at Fort Smith began planning for the creation of a buffalo park.[34] When news of this reached the Indians, it caused them great concern. The future buffalo park would be carved out of their own hunting and trapping grounds. On Treaty days in 1922, the Indians of Fort Smith-Fort Fitzgerald Band, voiced their feelings to Indian Agent Card:[35]

> Chief Squirrel asked if I had any information of the intention of the government to make a reserve for the wood buffalo, with the consequent exclusion of the band from their ancient hunting and trapping grounds. He was told that I had no information on the subject, that should the matter come up, their interests would be protected.
>
> The report of the possible creation of a large reserve west of Smith, as reserve for the wood buffalo, caused a long and hostile discussion. The purpose of which was that from time immemorial they had made their living from the district, and that when they made treaty they were solemnly assured, in the preamble to the treaty, that their former mode of life would not be interfered with except insofar as it would be in their interest, and would be necessary for the preservation of game. It was pointed out to them that there was no official foundation for the report.[36]

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[34] The area in which the park was eventually located was governed by several departments prior to Wood Buffalo's establishment, including the Northwest Territories Council and the Department of the Interior before this department created the Northwest Territories Branch in 1921. See Lothian, W.F. 1976.

[35] Fumoleau, René OMI. 1973. *As Long As This Land Shall Last – A History of Treaty 8 and Treaty 11 1870-1939*. McClelland and Stewart Ltd., Toronto, Ontario. P. 255.

[36] Ibid.

The justice of the Indians' claim was evident. To exclude them from the park would be a violation of Treaty promises. This was emphasized by Breynat and Card in their efforts to have the Indians' rights recognized.

> When the matter of creating Wood Buffalo Park was under consideration, representations were made by Bishop Breynat and Mr. Card, the Indian agent at Fort Smith, on behalf of certain Indians who had hunted and trapped over that area in former years. It was claimed that those Indians enjoyed a perpetual right to hunt and trap in that area, but that there would be not more than 30 or 40 of them. (As it turned out there were three times that number).
>
> In order that the matter of creating the park be no longer delayed, the Department acceded to this request granting to those Treaty Indians who had hunted and trapped in the area to the north of the Peace River prior to the passing of Order in Council P.C. 2498 of the 18th December 1922, a continuation of the **right** to hunt and trap therein during the time hunting etc., was lawful in the Province of Alberta.[37]

The Wood Buffalo Park was established on December 18, 1922, and covered 27,195 square kilometres. Shooting buffalo within the park was strictly forbidden. Treaty Indians were allowed to hunt other game and trap fur-bearing animals. The buffalo were well protected and well cared for. The Government sent more rangers, game wardens and veterinarians to the Wood Buffalo Park after 1923 than there were Indian agents or doctors in the entire Northwest Territories. The public archives of Canada retain voluminous files on the convictions imposed on native people trying to infringe on the buffalo's rights.[38]

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[37] Fumoleau 1973. p. 256. Emphasis added.

[38] Ibid., p. 226, 257.

Following the establishment of the Park, several events took place that would further impact the lives of the Cree. In 1925, the transfer of surplus plains buffalo from Buffalo National Park at Wainwright, Alberta, to Wood Buffalo Park commenced – a move that profoundly affected the character and health of the existing herds of wood buffalo. Between 1925 and 1928, a total of 6,673 plains buffalo were transplanted into the park. By 1926, some of the buffalo had crossed the Peace River to the south and in order to incorporate their new range, Wood Buffalo Park was enlarged to an area of 44,807 square kilometres.[39]

Then, in 1951, the Northern Administration Branch, which then controlled the administration of the park, authorized the first major harvesting of mature and over-mature timber along the Peace River. Prior to 1955, three large areas of timberlands, designated the Peace Delta, Big Island and Athabasca Blocks, had been selected for logging. During 1955 and 1956, four timber berths in the Peace Delta and Big Island blocks were disposed of by public competition, and in 1962, a fifth berth on the Athabasca river was granted. Of the original operators of these berths only one, Swanson Lumber Company managed to conduct a successful economic operation. This company gradually acquired all cutting rights and by 1970, operated three sawmills on the Peace River. These included the Sweetgrass mill located about 16 kilometres upstream from the Athabasca, one near Garden River, 13 kilometres east of the parks west boundary and a third mill just west of the boundary. Company townsites were developed at these mill-sites, complete with schools and churches. At the Sweetgrass and Garden River mills, airstrips were also constructed.[40]

Resource development in the traditional territory of the Little Red River Cree resulted in a migration of families to Garden River and those who were employed by the sawmill took up permanent residence there. Their way of life continued to focus on

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[39] Lothian, W.F. 1976. *A History of Canada's National Parks*. Volume 1. Published by Parks Canada under the authority of the Honourable Warren Almand, Minister of Indian and Northern Affairs. Ottawa, Ontario. p. 62.

[40] Lothian 1976. p. 64.

hunting, trapping and fishing, but now incorporated seasonal and permanent employment. After the sawmill closed in the early 1970s, many of the people stayed in the settlement.

During this time, two Little Red River Cree reserves were designated. These were the Fox Lake and John D'or Prairie reserves, located west of the park's boundary. Garden River was not designated as a reserve, but continued to exist within the park boundaries. By 1980, most members of the Nation were residing within these three small, isolated communities[41] (See Figure 2.5).

Today, Wood Buffalo is one of the largest parks in the world, with a total area of 44,807 square kilometres. It is a UNESCO[42] World Heritage Site and the Peace-Athabasca Rivers freshwater delta is a designated RAMSAR[43] wetland. Within this wetland is the only known nesting site of the whooping crane.[44] In 1992, logging activities were suspended in the Park.[45]

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[41] Cooperative Management Plan Phase II. 1996. p. 3.

[42] United Nations Educational, Scientific and Cultural Organization.

[43] The Convention was adopted in Ramsar, Iran, in 1971, by 18 countries and came into force in 1975. Presently there are over 80 countries that are contracting parties to the Ramsar Convention, covering 75% of the world's lands. The Conventions broad aims are to halt the worldwide loss of wetlands and to conserve through wise use and management, those that remain. Ramsar is the only environmental treaty dealing with a particular ecosystem.

[44] *State of the Parks – 1990 Profiles*. Minister of Supply and Services Canada 1991. Published under the authority of the Minister of the Environment, Ottawa, Ontario. T & H Printers, Gloucester, Ont. P. 168.

[45] Logging in the Park was suspended after a suit was filed by The Canadian Parks and Wilderness Society in 1992, where they alleged continued logging within a National Park was a breach of duty in the nature of a trust or fiduciary duties owed by the Government of Canada pursuant to the National Parks Act.

However, Wood Buffalo remains an anachronism in Canada's system of national parks, and steps are being taken to bring its management into conformity with accepted national park policy.[46] Much of this abnormality is attributed to the continuance of hunting, trapping and fishing by aboriginal peoples within a National Park. The State of the Parks – 1990 Profiles, lists the traditional harvest of wildlife, especially moose as an internal threat to the park[47] and the community of Garden River is described as a non-conforming land-use in the parks management plan.[48] Efforts are underway to have the community designated as an Indian reserve and subsequently excised from the park.

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[46] Lothian 1976. P. 65. These steps included the proposed boundary changes, which will result in the excisement of Garden River, as well as the proposed buffalo-culling program to eliminate diseased animals.

[47] Supra note 43. p. 169.

[48] Wood Buffalo National Park Management Plan. 1984.

Figure 2.3 Wood Buffalo National Park.

2.3 Garden River

One of the areas currently occupied by the Little Red River Cree is Garden River, a community of approximately 350 people. Garden River is a remote northern Alberta community, connected to nearby reserves and towns by a winter road during the cold months and a bush road during the dry season. At other times, it can only be accessed by small plane or helicopter. Such remoteness has likely contributed to the continuance of traditional activities. Extensive use of the land for subsistence, cultural, spiritual and economic purposes is still a part of day to day life.

Figure 2.4 South End of Garden River

The park recognizes certain families within Garden River as having privileges to hunt and trap in the southwest quadrant.[49] This area of the park is collectively known as the group trapping area. Since the park's creation, these hunters have had an exclusive privilege[50] to hunt within this area based on ancestral lineage rather than treaty rights. Eligibility for permit is based on a person being a direct descendent of someone who has hunted or trapped in the park.[51] This scenario is unique among national park's located south of 60° latitude.

Hunting is one of the traditional activities still carried out by a vast majority of people within the community. A recent survey in the community showed that 91 percent of those interviewed indicated that they used the land year round and hunting was one of the activities identified as most frequently engaged in.[52]

Development concerns in the 1990s prompted the Little Red River Cree Nation to write a statement regarding wildlife populations.

> Prior to the 1960s there were a number of wildlife species on which the people of Garden River relied to meet their sustenance needs. Seasonal reliance upon wildlife for sustenance was grounded in sustainable levels of hunting and fishing within this large forest land-base. In the main, people hunted moose, buffalo, caribou and deer, plus several species of geese and ducks, and fished for a variety of river and lake

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[49] WBNP Management Plan. 1984. p. 9.

[50] 'Privilege' is the term used by Parks Canada to describe the current use of the park by aboriginal people.

[51] Draft Wildlife Harvesting Regulations - Wood Buffalo National Park. June, 1995. Those wishing to hunt within the park must be able to trace their family line to a Parks Canada document, listing the names of people hunting in the area of the park prior to its creation. However, given that aboriginal hunters were nomadic, it is highly likely that some individuals hunting in the area were not included on the list.

[52] A Report of Wisdom Synthesized from the Traditional Knowledge Component Studies. 1996. Northern River Basins Study Synthesis Report 12. Lea Bill and Jean Crozier. Edmonton, Alberta. p. 103.

> species. Trends in recent years include: increased farmland conversion, fluctuating water levels because of dams, declines in numbers of caribou and bison and growing industrial contamination of the Peace River, which has led to an abandonment of the sustenance fishery. This has resulted in decisions by community elders to actively discourage sustenance hunting of caribou and buffalo because continued hunting will threaten the very viability of these wildlife species. These decisions, coupled with migration of the ducks and geese onto farmlands and abandonment of the Peace River fishery have led to a dependence upon a single wildlife species for the majority of the community's protein need. In short, the moose has become "the only game in the forest".[53]

Issues such as these prompted the LRRCN to begin the collection of information about critical wildlife habitats and selected wildlife species. The hope is that the knowledge collected will be integrated into ecosystem management plans set out under a cooperative management agreement between the First Nation and Parks Canada under the jurisdiction of Heritage Canada. One of the selected wildlife species chosen for study was moose, hence the impetus for this research.

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[53] Cooperative Management Phase II Action Plan. 1996. Sec. 7. p. 2.

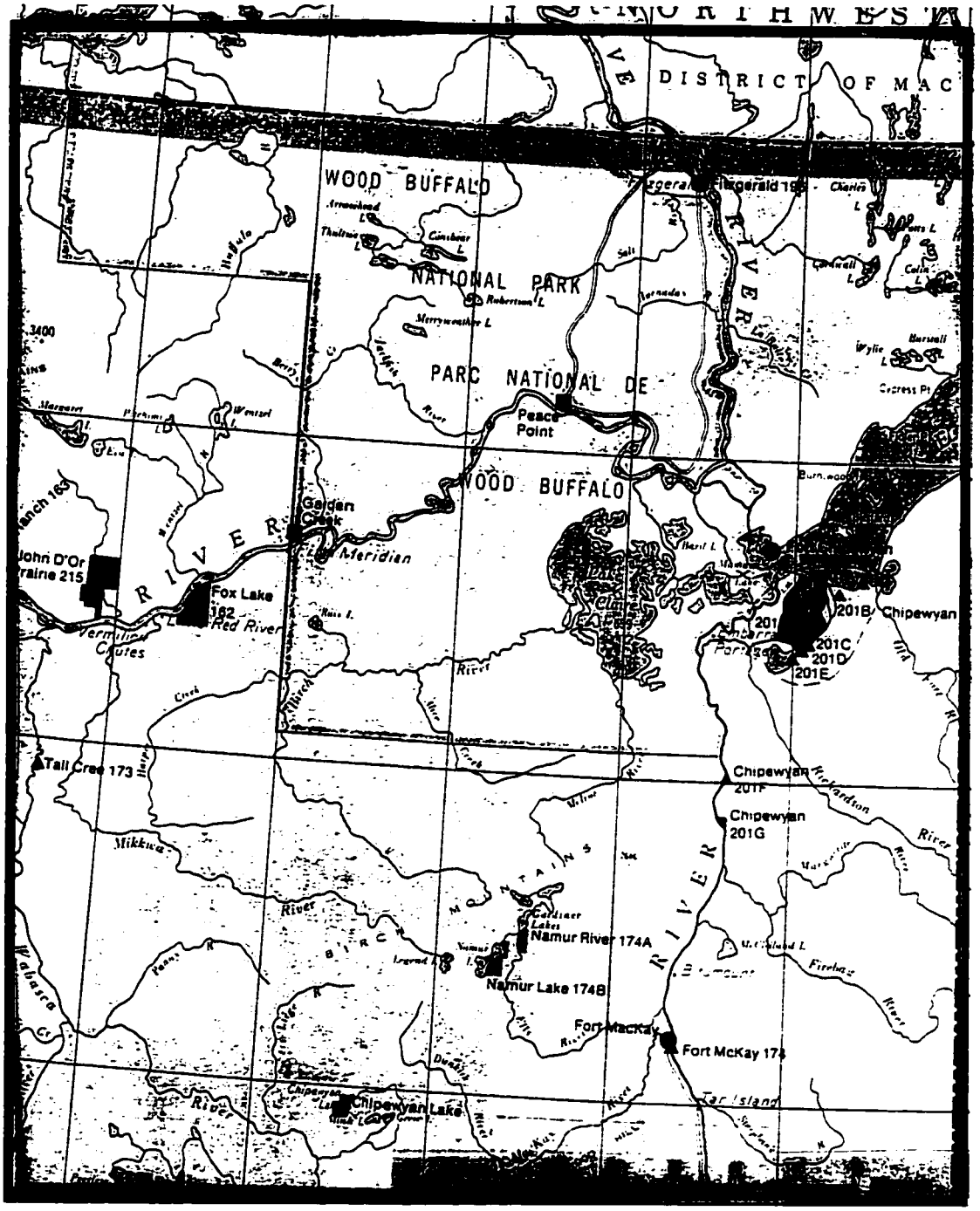

Figure 2.5 John D'or Prairie, Fox Lake and Garden River.

CHAPTER THREE
METHODOLOGY

3.1 Ethics Approval

Prior to beginning the study, the proposed research had to meet ethical standards as set out by the University of Calgary. Ethics approval was sought and granted by the Joint Faculties Research Ethics Committee in February 1996 and by the University's Ethics Committee in June 1996. In order to meet the requirements of the ethics committees', the research had to assure anonymity and confidentiality of the participants to the study, and risks and benefits were clearly stated. In addition, I had to agree that all taped interviews would remain stored for the required three years, after which they will be destroyed according to University of Calgary policy.

3.2 Community Selection

Sometime in 1996, The Little Red River Cree Nation determined that as part of an ecosystem management plan, research on the harvest of moose and collection of traditional knowledge of their people was needed. At the same time, I had decided on a research topic and simply needed a community willing to take part. My selection as a researcher happened somewhat serendipitously. After making a short conference presentation on the type of research I intended to undertake for my degree, I was approached by a representative of the Little Red River Cree Nation. From the brief meeting that followed I was invited to make a presentation to members of the First Nation in High Level, Alberta in February of 1996.[54]

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[54] Because the weather in February of 1996 was quite miserable, making driving somewhat unsafe, my father chose to accompany me to this meeting. Without realizing it, we impressed upon the community elders our commitment to family, an important trait to have when working in aboriginal communities. This was a factor in the communities' decision to invite me to work with them. It also gave my father insight into the communities that he might not have had otherwise.

The meeting was attended by council members and band staff as well as elders representing all three little Red communities, John D'or, Fox Lake and Garden River. I was asked to describe the intended research objectives and methods and attendees were given the opportunity to comment and ask questions. Notification of chief and council approval of the study occurred a few weeks later. Council members and elders had determined that Garden River would be the best community for the research. Reasons for their choice included the small size of the community, proximity of housing which would make it easier to access interviewees and the community's location within Wood Buffalo National Park. Ongoing negotiations with the park administration concerning harvesting regulations made research in Garden River particularly relevant.

The First Nation identified the research that was needed and I was invited to conduct the study. The First Nation also determined which of their three communities would most benefit by my presence there. In this way, the study fell into a community participation style of research in that it was initiated and directed by the community, but an outside researcher was desired and invited to conduct the study.[55]

Research in Garden River was conducted over two time periods. The first part of the study began in June of 1997 and lasted five weeks. The second period of study occurred in September and lasted two weeks.

3.3 Study Area

The study area included the community of Garden River, but had a larger geographic boundary called the group trapping area. This area encompasses the 8208 square kilometre region within which Garden River hunters are entitled to hunt and trap. The region extends to the west and south boundaries of the park and to the Jackfish River Settlement to the east and the northern portion of the group trapping area extends into the Caribou Mountains.

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[55] For an in-depth discussion of community participation please refer to Ryan and Robinson. 1996. Community Participation Research: Two Views from Arctic Institute Practictioners. *Practicing Anthropology*, Vol. 18, No. 4 p. 7-11.

The majority of hunting areas are located within the study boundary and all of the moose recorded as harvested were shot within the group trapping area (See Figures 3.1 and 3.2). While some hunters do occasionally hunt on Provincial land, the preference is to hunt on traditional lands within the park. Moose reported killed on Provincial land are not included in the harvest.

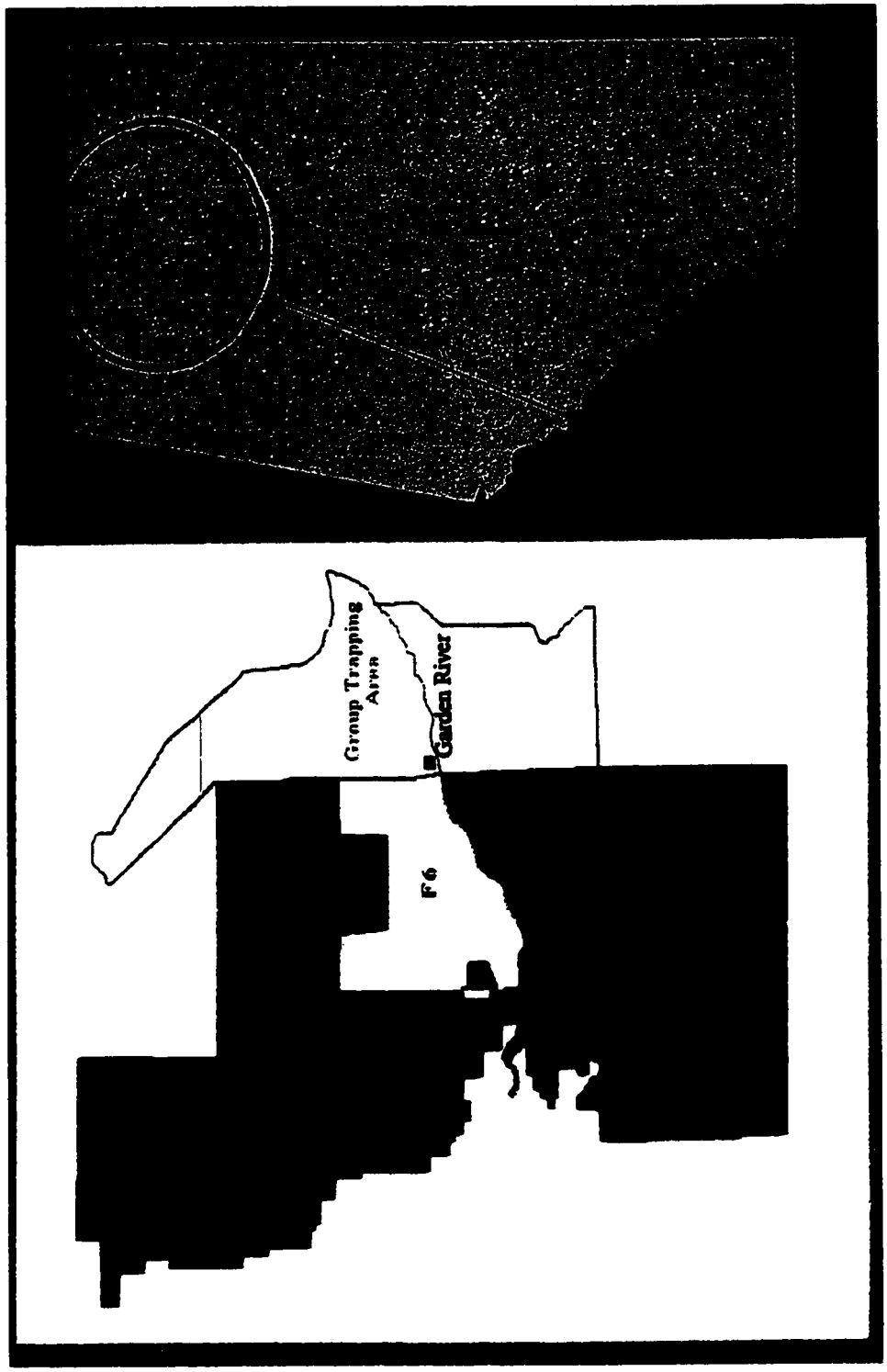

Figure 3.1 Group Trapping Area

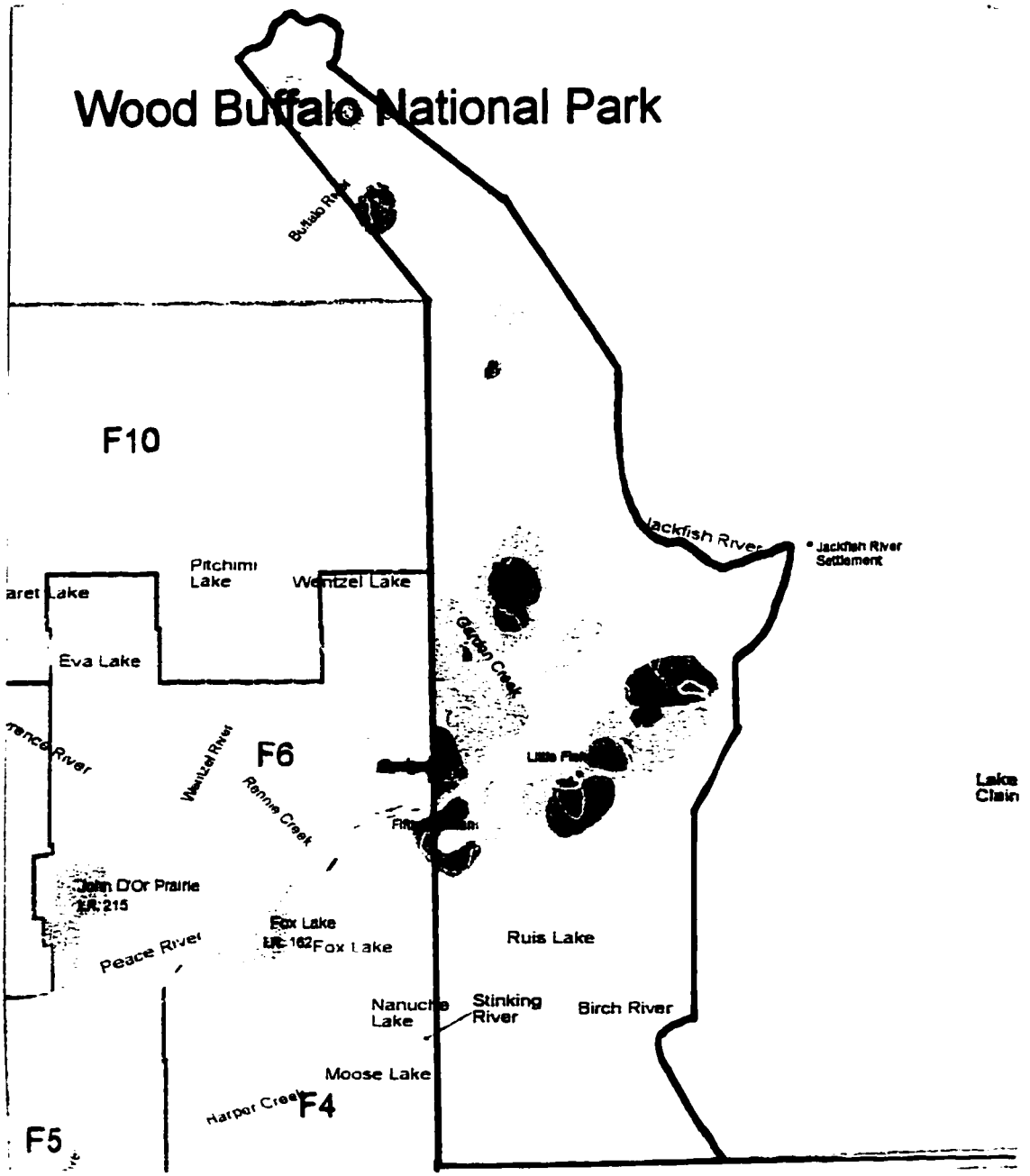

Figure 3.2 Boundary of Study Area.

3.4 Interview Content

In this study, the type of data I sought to document was both quantitative and qualitative in nature. Early in the research proposal stages, I decided that the survey method would most suit the study. The survey method as described by Robson[56] is a collection of standardized information from a specific population, or some sample from one, usually but not necessarily by means of questionnaire or interview. Surveys are well suited to descriptive studies where the interest is, say, how many people in a given population possess a particular attribute, opinion or whatever. However, survey data can also be used to explore aspects of a situation, or to seek explanation and provide data to answer research questions.

Before entering the community, a questionnaire was devised that consisted of both quantitative and qualitative sections. The quantitative section contained questions on personal data such as age and number of dependants as well as questions pertaining to the moose harvest during the 1996-97 season. The qualitative section focused on issues relating to:

1. moose hunting strategies and practices
2. moose ecology and biology, including population
3. moose management
4. traditional knowledge transfer
5. spirituality
6. diet
7. hunting regulations, and
8. cooperative management

In addition, I asked interviewees to identify hunting areas and travel routes to hunting areas on a map.

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[56] Robson, Colin. 1993. Real World Research – *A Resource for Social Scientists and Practitioner-Researchers*. Blackwell Publishers, Oxford, UK. P. 49.

3.5 Participant Selection

Initially I was paired with a young male living in Garden River who was well respected by elders and community leaders that would act as a community liaison for the project. At our first meeting, he gave me a quick background of the community and explained a few cultural beliefs and practices that I should be aware of during my stay in Garden River. He also suggested names of hunters to contact and introduced me to an elder in the community. Over coffee, the elder, the community liaison and myself discussed the research and the interview questionnaire. This discussion and a subsequent conversation with my community liaison led to a refinement of the questionnaire. A copy of the final interview questionnaire used throughout the study is included as Appendix A.

The first potential problem occurred during the first week of study. After an initial contact was made, the gentleman who was identified as the most knowledgeable hunter in the community refused to participate in the research. It was soon discovered that several of the hunters were under the impression that I was working for WBNP and therefore were unwilling to share information on their seasonal moose harvest and hunting practices. This situation needed to be quickly remedied and after a few frantic phone calls the misunderstanding was corrected. I subsequently met with the hunter several times and was asked to accompany him and his family on their fall hunt. This misunderstanding was not only a learning experience in and of itself, but it also gave me some insight into the current situation between hunters and the park administration.

Early in the first week of the research, my community liaison was asked to work on another project in John D'or, which he accepted, and thus I was left on my own in Garden River for the remainder of the project. However, his invaluable advice proved useful in the following weeks.

By and large, most surveys of traditional ecological knowledge are aimed at recording so-called "expert" knowledge on the environment shared primarily by elders, experienced hunters, and sophisticated resource users. However, modern aboriginal communities are not built exclusively of elders and experienced hunters, but rather, they

consist of a great variety of residents of various ages, social and educational backgrounds and occupations.[57] To measure the variation in knowledge I chose a cross section of community hunters.

In total, I conducted 22 interviews in Garden River with hunters ranging in age from 16 to 85 years. This sample represents approximately 44 percent of the potential hunters in the community. Potential interviewees were initially identified by the community liaison. As the interviews progressed, more potential informants were identified or met along the road and the list of interviewees grew. People within the community identified potential interviewees whom they considered good to excellent hunters. An effort was made to include these hunters in the sample. Identification of good hunters by other members of the community was considered more reliable than self-description by interviewees. It was noted in this study that Garden River hunters are generally modest when describing their own hunting ability, but are accurate in their rating of other hunters. This trend has been noted in other studies with aboriginal hunters.[58] The final sample of hunters covered a broad spectrum of hunting ability that enabled the study of transfer of knowledge and changes in hunting practices. Four of the five male elders[59] in the community were interviewed. All of the hunters surveyed were male because women rarely hunt moose themselves, although they often accompany their partners on a hunt.[60] Information on the role of women was shared with the researcher on many occasions in informal settings. Personal communications with community members also occurred outside of the interview setting. Other conversations occurred with teachers as well as staff of the local health unit.

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[57] Krupnik, I and N. Vakhitin. 1997. Indigenous Knowledge in Modern Culture: Siberian Yupik Ecological Legacy in Transition. *Arctic Anthropology*, Vol. 34, No. 1, p. 237

[58] Ferguson, M.A.D. and Francois Messier. 1997. Collection and Analysis of Traditional Ecological Knowledge about a Population of Arctic Tundra Caribou. *Arctic* Vol. 50, No. 1 (March 1997) p. 17-28.

[59] Elders in Garden River were identified as people over the age of 70.

[60] FN3, Personal Communication, 1997.

On other occasions, I spoke at length with employees of the park and provincial environmental protection agents. These communications were useful in placing the community in context with outside influences. Of those contacted for interviews, two hunters refused to participate and the fifth elder was not interviewed due to illness.[61]

While in the community, I attended a community meeting with WBNP and a public information session with Daishowa-Marubeni, a pulp mill harvesting just outside the boundaries of the park. These meetings were useful in helping to identify community concerns within the context of the research.

To ensure confidentiality, each participant in the research was assigned a number. Formal interviews with Garden River hunters are identified as First Nation Interviews. All other personal communications were assigned an alphabetical designation with a corresponding number.

3.6 Community Data Collection

I conducted all of the interviews individually, although in some cases, a translator who was a member of the interviewee's family was also present. In one case, a husband and wife were interviewed together. Prior to the interview, my research sponsors were identified, the purpose of the interview was described, and issues of confidentiality were discussed. Participants were also informed that they could choose not to answer any questions asked and they could stop the interview at any time. Interviewees were also given a choice as to whether they preferred to have their interview tape-recorded or hand written. After consent was given, the interview began.

The average interview was an hour in length, although some participants were interviewed for longer periods of time and sometimes more than once. The length and number of interviews was dependent upon the participant's knowledge and willingness to share their information. The style of the interview was open-ended, but based upon a list of questions that addressed the research issues.

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[61] Refer to section 3.10.

Open-ended questions are more appropriate in an aboriginal setting, where knowledge is often related through stories rather than in question-answer format.[62] This style of interview allows the participant to direct the session to a certain extent, and tends to create a less formal atmosphere. It was often observed that interviewees felt more comfortable when discussing topics informally and some of the most interesting conversations took place post-interview. I recorded these conversations in a journal at the conclusion of the interview.

Tape-recorded and written interviews were transcribed onto computer during the period of study. A content analysis of interviews was not attempted until all of the interviews were complete in order to avoid leading questions in subsequent interviews. Once the interviews were finished, they were read randomly and recurring statements and ideas as well as contrasting statements were highlighted. This was done to find patterns and common themes within age categories and amongst age categories. These themes form the basis of the research findings and analysis. The advantage of identifying themes through interview analysis was that I was able to discover patterns and themes in the interviews rather than create them and many important issues relevant to the research question became readily apparent. This method not only answered the initial research question, but it also meant that the community was able to direct the study to issues that will prove most useful to the people.

Interviews were broken down into six age categories. The low number of interviewees below the age of 40 is due to this age group being employed outside the community during the time of the study. The following table outlines the number of interviewees in each age group.

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[62] Johnson, M. Ed. 1992. *LORE – Capturing Traditional Environmental Knowledge.* Dene Cultural Institute and the International Development Research Centre, Hay River, NWT. P. 3.

Table 3.1: Garden River Interviews

Age Category	Number of Interviewees
Under 30	4
30-39	2
40-49	5
50-59	4
60-69	3
Over 70	4

At the end of each interview I presented the hunter with a map of the study area, and by placing an overlay over a federal base map, we created maps for each participant. Hunters were asked to mark hunting areas, trails and cabins. Other hunting related sites such as meat caches were also identified. Some hunters showed me where they shot their moose during the season and one elder pointed out the place where he shot his first moose as a young man.

These overlays were used to create a set of digitized maps using Spatial Analysis Systems (SPANS) and Corel Draw 7.0 by Penner and Associates, Edmonton.

3.7 Validation

One of the aspects of community participation is community verification.[63] I had hoped that there would be opportunity to showcase the report at an open house in Garden River. However, time constraints meant that this would not occur until possibly the following spring. As an alternative, a final draft of the report was sent to a community contact within the LRRCN. The contact shared the report with individuals within Garden River and map sites were subsequently validated. Letters of support are included in Appendix C.

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[63] Ryan, J. 1995. *Doing Things the Right Way: Dene Traditional Justice in Lac La Marte, N.W.T.* University of Calgary Press and the Arctic Institute of North America, Calgary, Alberta.

3.8 Data Collection from Outside Sources

There are no available data on moose population estimates for the group trapping area within which the Little Red River Cree hunt. In order to ascertain a sustainable level of harvest, one must be able to estimate current moose population levels within this area. In December of 1996, Alberta Environmental Protection surveyed the region adjacent to the Group trapping area. The area surveyed is referred to as Wildlife Management Unit (WMU) 540 and is located west of the park's boundary. The reserve communities of Fox Lake and John D'or are located within this unit. WMU 540 contains habitat, which is similar to the habitat located within the group trapping area, south of the Peace River. WMU 534 is the management unit located above WMU 540, just adjacent to the Caribou Mountains. This unit was surveyed in 1993. The upper portion of the group trapping area contains habitat similar to that of WMU 534. Therefore, estimates of moose populations within WMU 540 and 534 are extrapolated to this area of study.

Alberta Environmental Protection completed an aerial survey in both the 1993 and 1996 moose population surveys. Using the actual numbers of moose sighted, each stratum of the area was assigned a high, medium or low designation. The average density of moose found in all the stratum of WMU 540 and 534 was 0.16 /sq. km.

Although hunters are not using the entire area for hunting purposes, the population estimate is based upon the total group trapping area. Moose range over the entire territory and individuals will move in and out of areas frequented by hunters. The total square kilometre coverage of the group trapping area is 8208.683 square kilometres. Using the average density of moose from WMU 540 and 534, the current population estimate within the group trapping area is 1313 moose.

Methods used to determine sustainable harvest levels are based on formulae for moose harvest on provincial land (See Chapter Four). Estimates of the number of hunters utilizing the group trapping area were obtained from WBNP staff and subsequently validated by members of the First Nation.[64]

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[64] FN1, FN2, Personal Communication, 1997.

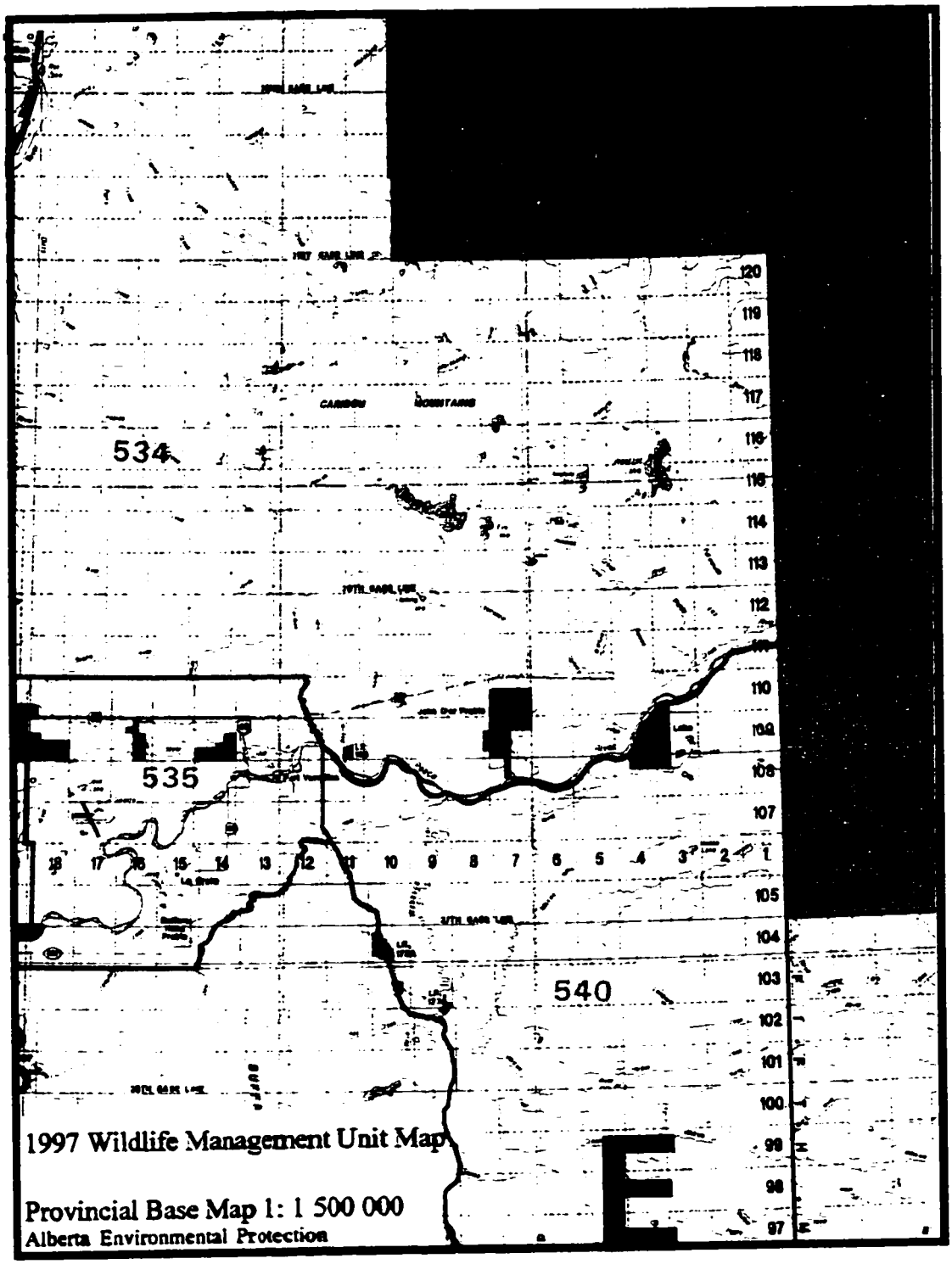

Figure 3.3 Game Management Units 540 and 534.

3.9 Researcher as Participant

The second period of study took place in September after a two month absence from the community. An important aspect of traditional knowledge is "learning through doing." Spradley writes in The Ethnographic Interview that field work involves the disciplined study of what the world is like to people who have learned to see, hear, speak and act in ways that are different. Rather than *studying people*, ethnography means *learning from people*.[65]

In order to learn about and understand the setting, in which the research took place, I learned words in Cree that related to the study such as the word for moose (moosh-wa) and the word for hunting (ma-chee), as well as conversational words and sentences. I also felt it was important to put the interviews into context by taking part in a moose hunt. This was the purpose of the second period of study. During this part of the research, I spent eight days in the bush with a hunter and his family. We were unsuccessful in our attempts to find moose. However, daily activities included two periods of moose calling as well as tracking and discussions on a variety of research-related topics. Other, more female oriented tasks included fleshing a moose hide and cleaning small game. I also observed a duck hunt.

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[65] Spradley, James P. 1979. *The Ethnographic Interview.* Harcourt Brace Jovanovich College Publishers, Orlando, Florida.

Figure 3.4 "Learning through Doing."

3.10 Limitations of Study

The first potential limitation of the study is the survey sample. The sample size of the survey represents slightly less than half of the potential hunters in Garden River. Many hunters in the younger age cohorts were employed outside the community while I was there and interview dates and times were often difficult to arrange. This resulted in a lower number of interviewees in the 30-39 category. A limited budget did not allow me to spend time in the community during seasons when this age category is found in town. However, the spring and summer seasons are times when elders and hunters in the above 50 category are most often found within the settlement and thus the most experienced hunters were available for interviews.

Budget and time constraints also limited the amount of time I was able to spend on the land. Increased time spent in the bush would have resulted in a better

understanding of the traditional knowledge employed while hunting. Observing a moose kill, the associated spiritual observances and butchering techniques would have provided me with insight not available to most researchers. However, seasonal variation this year resulted in a later mating season for moose and consequently the fall hunt I participated in was unsuccessful to the extent that a moose was not harvested. The hunt was successful in that I learned many of the techniques used while hunting such as how to track moose on land and in water. I also experienced the disappointment of not bringing meat back to the community after many days of trying.

My age and gender did not appear to be a limiting factor in this study and for the most part, race did not hinder my ability to gather traditional knowledge and harvest information. Of the two hunters that refused to participate, only one stated that his reason for refusal was based on race. Other community members dismissed this attitude, feeling that it was highly inappropriate given the level of established rapport between the community and myself. The other hunter that refused to participate did not give a reason.

An additional limit to the study is the inherent nature of the research. The harvest survey method is limited in that it represents a "snapshot in time." While the survey may actually be an accurate representative of continued harvest, research on seasonal harvest of moose can only claim to be relevant for that season. Data collected in all other subject areas remains relevant over time.

Finally, population estimates and sustainable harvest projections are based on available data from adjacent areas. More accurate estimates can only be surmised using actual population data from the study area.

CHAPTER FOUR
RESULTS OF STUDY

The field work for this research project totaled seven weeks. This short length of time might lead one to assume that a minimum of information was collected. This is not the case. The people of Garden River were open and honest about a wide variety of research related subjects, all of which I have attempted to include in the thesis document. This study is not simply about moose; it is also about the people that depend on moose. In order to illustrate the opinions and depth of knowledge within the community, I have included as many direct quotes as possible within the document.

4.1 Traditional Ecological Knowledge

The first time I killed a moose I was 15 years old. I usually hunted with my father, but this time alone, I had great joy in my success. My success was because of my father's teachings. After I shot my first moose, my parents knew I had a good sense of direction. They trusted me to go out by myself.[66]

For thousands of years, aboriginal peoples used knowledge of their local environment to sustain themselves and to maintain their cultural identity. Only in the past decade has the western scientific community recognized this knowledge as a valuable source of ecological information. Today, a growing body of literature attests not only to the presence of a vast reservoir of information regarding plant and animal behaviour but also to the existence of effective indigenous strategies for ensuring the sustainable use of local natural resources.[67]

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[66] First Nation Interview #10, June 1997.

[67] Johnson, M. Ed. 1992. *LORE – Capturing Traditional Environmental Knowledge*. Dene Cultural Institute and the International Development Research Centre, Hay River, NWT. P. 3.

The term traditional ecological knowledge is one of the terms used to describe the body of knowledge held by a group of people that live in close contact with nature. This knowledge may also be labeled as folk ecology, ethnoecology, traditional environmental knowledge or wisdom.[68] The term traditional ecological knowledge is used here because this term implies awareness in aboriginal societies of the systemic interactions among the components of an environment, and the position of humans within the ecosystem.[69]

One of the goals of aboriginal peoples and responsible scientists is to integrate traditional knowledge with western science but cultural barriers continue to prevent this integration.[70] Scientists are often reluctant to accept traditional knowledge as valid because of its spiritual base. What they fail to recognize is that spiritual explanations often conceal functional ecological concerns and conservation strategies.[71] These concerns and strategies are based on long-term observation and hypothesis. The use of the word ecological rather than environmental acknowledges the scientific aspect of traditional knowledge.

For the purposes of this study, traditional ecological knowledge is defined as:

> *The sum of the data and ideas acquired by a human group on its environment as a result of the group's use and occupation of a region over many generations.*[72]

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[68] Johnson, 1992.

[69] Ruddle, K. 1993. The Transmission of Traditional Ecological Knowledge. *Traditional Ecological Knowledge – Concepts and Cases*. Ed. Julian T. Inglis. International Program on Traditional Ecological Knowledge and International Development Research Centre, Ottawa, Ontario.

[70] For an in-depth comparison of traditional ecological knowledge and western scientific knowledge please see Roberts, K. 1994.

[71] Johnson, M. and R. Ruttan. 1991. *Dene Traditional Environmental: Pilot Project.* Dene Cultural Institute, Hay River, N.W.T.

[72] Mailhot, José. 1994. 2nd ed. *Traditional Ecological Knowledge. The Diversity of Knowledge Systems and Their Study*. Great Whale Environmental Assessment: Background Paper No. 4, Great Whale Public Review Support Office.

Traditional ecological knowledge or TEK includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use. It also includes the body of ideas and concepts that a group possesses concerning the environment. TEK may encompass spiritual, cultural and social aspects as well as substantive and procedural ecological knowledge. TEK may also include customary rules and laws, rooted in the values and norms of the community to which it belongs.[73]

TEK is cumulative, which is to say that it has been developed and transmitted over many generations, and it is dynamic in that it adapts itself to new technological and socio-economic conditions.[74] The quantity and quality of traditional ecological knowledge varies among community members, depending upon gender, age, social status and profession. Much like western science, traditional ecological knowledge builds upon the experience of earlier generations and adapts to the new technological and socioeconomic changes of the present.[75]

To the Cree of Garden River, the moose is central to the traditions and culture of the community. When asked about their first moose kill, all of the hunters interviewed recalled vividly their experience. In every case, the hunter knew how old he was and where the hunt took place. In most cases, the hunter was in his early to mid-teen years and often was alone the first time he shot a moose. Many hunters expressed both their fears before the hunt and their pride in accomplishment felt after.

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[73] Doubleday, N. 1993. Finding Common Ground: Natural Law and Collective Wisdom. *Traditional Ecological Knowledge – Concepts and Cases*. Ed. Julian T. Inglis. International Program on Traditional Ecological Knowledge and International Development Research Centre, Ottawa, Ontario.

[74] Mailhot, Jose. 1994.

[75] Johnson 1992. p. 4.

The first moose kill is an important stage in the hunter's life. After this stage, the hunter is entrusted more to be on his own in the bush, and he is thought capable of providing for his family. One elder recalled the moose kill as his first test of manhood.[76]

One would expect that this connection to the moose would result in deeply embedded knowledge about the animal within the community. This expectation is supported by the information gathered in the interviews. All of the hunters interviewed, from the youngest to the oldest, recognized the importance of the moose to the survival of the people and the culture.

What makes a person a good hunter is knowing about the moose and how it lives, knowing where to find it, what it eats and where it goes.[77] Hunters interviewed over the age of 50 were extremely knowledgeable about the ecology, seasonal movements and habits of moose. Hunters between the ages of 40 to 49 were also quite knowledgeable, but their information covered a much smaller land base. Each individual has preferred areas where he hunts each year. This extensive use of one or two areas over several years means that hunters have detailed knowledge about the moose population found there. Within these areas, the hunter can identify places where moose will forage, where they can be found during mating season and where they will give birth to their calves. *We know where to expect to see tracks and where we won't see them. The moose seem to travel in a pattern, so we always know where to go.*[78] For hunters over the age of 40, traditional knowledge passed down from elders is augmented by first hand, or observational, information. Hunters under 40 also hunt, but their knowledge is largely second-hand. Their information is based on what their parents or grandparents have told them, rather than through direct observation.

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[76] First Nation Interview #05, June 1997.

[77] First Nation Interview #18, June 1997.

[78] First Nation Interview #19, June 1997.

In the fall, during rutting season, the cow moose stays close to the river away from the wolves and the bull moose comes to those areas where there are cows. During this time, both sexes are concentrated along the rivers. Along some rivers, there are so many moose that they leave trails, like bison. After the rut, both the males and females move away from the rivers into the forest. Bull moose move over large areas after the rut and they are more difficult to find than the cow moose. At the beginning of winter, the moose are in high places, in the hills. In about February, if the snow gets too deep in the hills, the moose come back to the rivers. At this time in the winter, they can be found along the rivers again. In the spring, the bull moose move away from the rivers but the cows can be found on islands near water. They give birth to their young on the islands because there they are better protected from wolves. They stay on the islands until summer. In July and August both the males and females go to the lakes and swamps to get away from the bugs. Once the bugs go away, they all head back to the rivers for the mating season.[79]

In addition to seasonal movements, hunters also described the seasonal fitness of both the bull and cow moose. *In the fall, just before the rutting season starts, the bulls are fat. They stay fat throughout the rut, but after the rut, the bull moose gets skinny. By October, there is no fat on them. They stay that way all through the winter and into spring. The bulls start to gain weight again in late summer. The cows are different, they stay fat all the time, except in the spring. At this time of year [spring], all the moose are skinny.*[80]

Other examples of skills associated with knowledge include the ability to identify a bull or cow moose, based on tracks as well as the approximate size of the moose and the time the track was made. *The cows and the bulls have different shaped hooves. The cow's hooves are close together and slightly pointy. The bull's hooves are larger and rounder and are easy to identify in snow because of how the hoof is dragged.*

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[79] First Nation Interviews #01 and #04, June 1997.

[80] First Nation Interview #04, June 1997.

The hunter must also look at where the willows have been browsed nearby. You can tell if the willow was browsed today or yesterday by looking at the willow and also at the weather. The willow changes in the sun where it has been eaten. If it is a very hot day, it may have been earlier that the moose was there.[81]

4.2 Hunting Strategies

The three main hunts identified correspond with the seasonal movements and fitness of moose. Hunters make choices about where and when to hunt moose based on the amount of energy required to find and transport moose in relation to the size and health of the moose harvested. By far, the most important hunting period is the fall hunt. This occurs in September and October, during the rutting season. Hunters from Garden River take part in the fall hunt more than any other hunt, and approximately two-thirds of the total moose harvest occurs during this time. The fall hunt corresponds to a time when both male and female moose are found near bodies of water, particularly rivers, in high densities. In addition, both the male and female moose are "fat" at this time. During this period, less energy is expended to find a moose than at other times of the year. Hunting camps are set up along the rivers, and hunters do not need to venture far to harvest moose. Moose calling attracts mating bulls in particular, but the increased density of both males and females means that cows are much easier to find as well. Hunters do little or no tracking at this time. All of the hunters interviewed took part in the fall hunt, except for elders who no longer hunt for themselves.

The second most important hunting period for the Cree of Garden River is during the winter trapping season. This is especially true for those hunters over the age of 50 whose main occupation during the winter is trapping. Only one of the interviewees under the age of 40 hunted in the winter and only half of those interviewed between the ages of 40 and 49 took part in a winter hunt. Although the winter harvest makes up most of the remainder of the seasonal harvest, it may be inappropriate to label this time as a hunt. Moose killed during the winter are usually incidental to trapping. If hunters who travel

[81] First Nation Interview #17, June 1997.

along their trapline on foot or on skidoo come across a moose they may choose to shoot. The hunter will only shoot moose along his trapline if he can transport it easily back to his cabin. If the hunter has a choice, the preference at this time of year is a cow, as the bulls are very skinny.

The third identified hunting period formerly took place in summer. This is another time of year when the energy expenditure is low in relation to the hunt result. *The moose go into the water in the summer because of all the flies, so they are pretty easy to find. In the summer you don't do much hunting in the bush, you mostly hunt in the water, and wait for the moose to come to the water. When you are paddling, the moose walk along the water. You watch for tracks along the water edge and you can also tell if they have been in the water because they disturb the weeds in the water. You can see that from a long ways away.*[82]

The traditional summer period of hunting is now restricted due to the park-imposed closed season from May 10 to September 1.[83] Many hunters expressed their dismay at this lost opportunity to hunt and to teach their children to hunt. The loss of this hunting period is felt to have limited their ability to transfer traditional knowledge to children who must be in school during the remainder of the year.

Spring did not appear to be of great importance to the hunters of Garden River. Most hunters stated that even before restrictions were put in place, they generally did not hunt in the spring unless they absolutely needed the meat.[84] Decreased fitness was listed as one of the reasons for not hunting moose in the spring.

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[82] First Nation Interview #04, June 1997.

[83] The closed season corresponds to the calving season for moose, which begins in mid-May and runs to late June. The summer closure is likely to protect the calves until they can live on their own.

[84] First Nation Interview #10, June 1997.

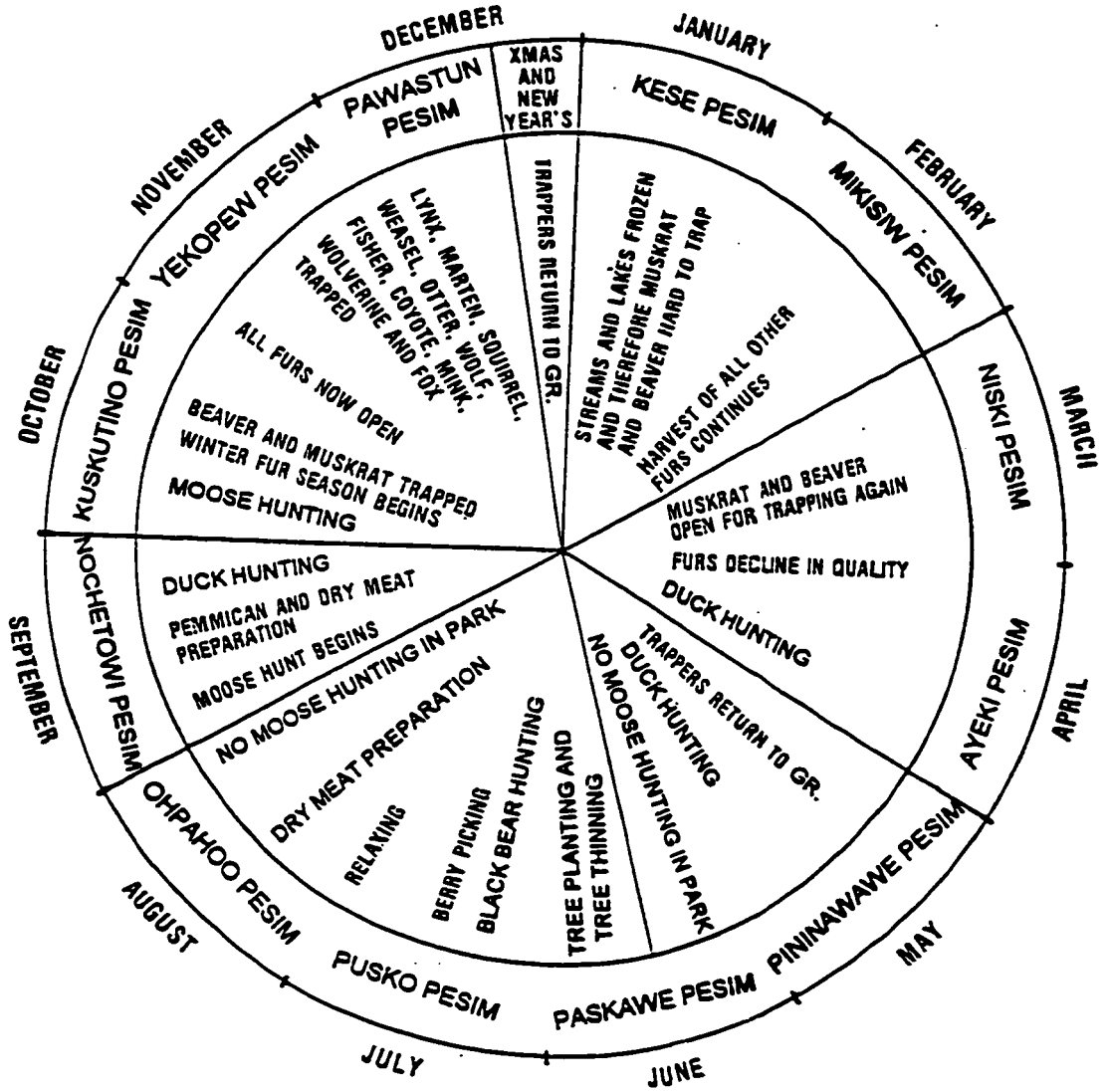

Figure 4.1 Garden River Seasonal Round

In addition to making choices about when and where to hunt moose, Cree hunters of Garden River may also choose what type of moose to hunt. Whether or not the hunter makes these choices is dependent upon his level of skill in the hunt. Hunters who feel assured of success are more choosy than those who are less confident. Some of the hunters interviewed choose not to hunt cows in the spring to allow the calves to grow.[85] These hunters stated that they would only kill a baby moose if they needed it to survive.[86] Bull moose are preferred if these hunters harvest in the spring. In the summer, both males and females as well as calves may be harvested. Calves are often given to elders because the meat is tender and easier to eat. This is true also if calves are found inside a cow hunted in spring. During the fall hunt, both bull and cow moose are desirable, but after the rut and throughout the winter, cow moose are preferred. Younger male and female animals between the age of two and three are also preferred because of the higher quality and tenderness of meat.[87] All of those hunters interviewed stressed that moose are only killed when they are needed. In addition, the hunter must have the means to transport the moose either to his camp or home. If he does not, the moose is not shot.

One other important factor included in the hunting strategies of the Cree is weather. The weather is a factor that will influence the energy expenditure of the hunter in relation to the hunting result. During the fall calling season, calm days are preferred. When there is no wind, the moose call goes farther and the moose can hear it better. This also explains why tracking is not the method of choice in the fall, since moose would hear the footsteps of the hunter from a long distance and makes an easy escape.[88] At all other times of the year, and while tracking in the bush, windy days are preferred. *The wind is a friend to the hunter.*[89] In the late fall and winter, light falling snow is good for

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[85] First Nation Interviews #15 and #21, June 1997.

[86] First Nation Interview #15, June 1997.

[87] First Nation Interview #01, June 1997.

[88] FN1 Personal Communication, 1997.

[89] First Nation Interview #17, June 1997.

two reasons. As with the wind, the snow makes it harder for the moose to hear the approach of the hunter. Freshly fallen snow also makes it easier for the hunter to track the moose, as well as identify the sex and approximate size from track observation. Soft snow is preferred to snow that has crusted over. Hunters felt that it was not good to hunt on crusty snow, because they made too much noise. Only when it had snowed enough on top of the crusted snow, were hunters able to hunt again with snowshoes.[90]

The Cree hunters of Garden River continue to base their hunting strategies on long held traditional ecological knowledge. Hunters in this study clearly illustrated how their hunting practices are guided by the elements of their environment. Informed and responsive decisions are made based on long-time observation and changes in their surroundings. The strategy for the hunters is to choose times of the year and environmental conditions where their opportunities for success and efficiency in the hunt are highest. The hunts during all three hunting seasons reflect this strategy.

Research with Cree hunters in other parts of northern Canada has shown that the strategies used by subsistence hunters were highly reliable and efficient. Aboriginal hunters would be expected to optimize the reliability of their harvests by generally hunting game when their chances of success are relatively high, in order to best assure subsistence for their families and communities.[91] This is the case with Garden River hunters.

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[90] First Nation Interview #04, June 1997.

[91] Feit, Harvey A. 1987. North American Native Hunting and Management of Moose Populations. *Swedish Wildlife Research*, Suppl 1, 1987:25-42. p. 30.

4.3 September 1996 - July 1997 Seasonal Harvest

Native harvest statistics are counts, or estimates of the number of each species of animal taken over a specified period of time, in a specified area by a particular group of native people.[92]

Commercial and sport harvest statistics have been collected in most cases in North American jurisdictions for many years. The conventions for generating such statistics, and the often substantial limits on their reliability are widely known among management agencies, which nevertheless view them increasingly as useful and necessary management tools.[93]

In contrast, native harvest statistics are collected in few jurisdictions, for reasons that include: the small number of aboriginal people and their supposed inconsequential harvest; the assumption that existing systems for recording commercial and sport harvest statistics include the bulk of aboriginal harvests; and the lack of any perceived need to manage wildlife in districts where aboriginal people are significant users of the resource.[94]

In those areas where native harvests have been recorded, the reasons for doing so have had little to do with wildlife management. Instead, harvest research has formed an integral component of a much wider investigative set concerned with the study of subsistence as constituted by social and cultural as well as economic practices.[95]

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[92] Usher et al. 1985. *An Evaluation of Native Harvest Survey Methodologies in Northern Canada.* Environmental Studies Revolving Funds Report No. 004, P.J. Usher Consulting Services, Ottawa, Ontario. P. 7.

[93] Ibid.

[94] Usher et al. 1985.

[95] Wenzel, G. 1997. Using Harvest Research in Nunavut: An Example from Hall Beach. *Arctic Anthropology* Vol.34, No. 1, pp. 19.

In this research, the data for seasonal moose harvest obtained through hunter surveys is compared to the theoretical sustainable harvest of the local moose population. The harvest statistics thus serve a duel purpose; assessing the current subsistence practices of Garden River, while at the same time, creating useful data for wildlife management plans. As well, the study reveals the differences between traditional ecological knowledge and western scientific knowledge and seeks the potential for integration through sharing.

4.3.1 Hunter Survey Information

Most hunters described the 1996-97 moose harvest as "not very good" or "average". This was largely attributed to poor hunting conditions during the fall harvest. Most hunters concentrate their efforts along the rivers during the fall hunt. *In the fall of 1996 the water was really high on the Peace River and the moose couldn't get around. The banks were too soft by the river and the moose would just sink, so they didn't come near the river. That is why the hunting was not that good.*[96] Hunters stated that the moose had to move to drier areas for the rut.[97]

Even with less than desirable weather conditions, the fall hunt accounted for a large portion of the total seasonal moose harvest for Garden River. More than half of the interviewed hunters identified what time of year their harvest occurred. The following table outlines the seasonal harvest breakdown based on the data gathered from interviews.

Table 4.1: Seasonal Moose Harvest Breakdown (Percentage Harvested)

% Fall Harvest	% Winter Harvest	% Spring/Summer Harvest	% Total
68.6	28.6	2.9	100.1

[96] First Nation Interview #19, June 1997.

[97] First Nation Interview #18, June 1997.

The table illustrates the importance of a successful fall hunt. Over two-thirds of all the moose harvested by this sample of hunters were harvested in the fall.

While the numbers of moose harvested during the 1996-97 season was described as lower than usual by some hunters, of those interviewees that were hunting moose, the average level of success was very high overall. Harvest success is measured over the entire season and is dependent solely on whether the hunter struck and retrieved a moose.[98] To be successful in the hunt, a hunter must harvest a minimum of one moose. There is no differentiation between those hunters who harvest one moose, and those who harvest more than one moose. In each case, the hunter was successful.

The following table illustrates hunter success among the age categories of hunters interviewed. The over 70 category has been excluded because these hunters were not active in the 1996-97 season.

Table 4.2: Hunter Success Rates

Age Category	% Success Rate
under 30	75
30-39	0
40-49	60
50-59	75
60-69	100

Among those hunters surveyed, there is an identifiable trend downward in the percentage success rate as age decreases, with the exception of the under 30 category. The 0 % success rate in the 30-39 category may be the result of a low survey sample and one should not assume that this is an indicator of low hunting ability in this age category. The number of successful hunters from the sample of 18 was 12, resulting in a 67% success rate for the 1996-97 moose harvest.

[98] There were no reported cases where a hunter shot and possibly killed a moose, but did not retrieve the animal.

This is higher than the 50% provincial estimate for licensed hunters in Alberta.[99] The inclusion of the 30-39 age category has the effect of lowering the percentage success rate substantially. Without this category, the percentage success rate jumps to 78%. It is highly probable that hunter success rate falls somewhere in between these two figures.

The total harvest of the 18 active hunters surveyed was recorded for the 1996-97 season. The sample of hunters surveyed covers a broad spectrum of hunting ability from hunters who rarely harvest moose to those who harvest several moose every year. Efforts were made to include hunters who had a reputation of being good to excellent moose hunters. However, in most cases I was not aware before the interview how successful in the hunt each interviewee was during the season. The following table illustrates the breakdown of harvests within each category.

Table 4.3: Moose Harvest by Age Category

Age Category	# Moose Harvested
under 30	18
30-39	0
40-49	11
50-59	21
60-69	7
over 70	0

The harvest of this sample of hunters totaled 57 moose. Harvest data was based on hunter recall and this number is considered accurate. Aboriginal hunters have a good idea not only of what they themselves take, and from where, but also what their immediate social group – their household or extended family, their hunting party, their trapping or outpost camp, or perhaps even their village – has harvested in recent times.[100]

[99] Moyles, David. Personal Communication, August 1997.

[100] Usher 1985. p. 8.

Aboriginal people have traditionally relied on oral transmission of knowledge and information, which probably results in a much greater emphasis on accurate recall and recounting of events or knowledge than in a culture in which there are alternatives to memory, such as writing, for ensuring the continuity of knowledge.[101] Reliability of harvest recall increases also, when the species in question is of great importance to the hunter, is harvested in low numbers, or is significant from a cultural or spiritual perspective. All of these categories apply to moose.

Response bias was considered negligible in this sample of hunters.[102] The reported harvest per hunter, which is higher than park regulations permit, supports this claim. If the total harvest is averaged for the 18 active hunters, each hunter is harvesting approximately three moose each. This is a theoretical average only, since some hunters will be unsuccessful, while others will harvest more than the average depending upon their hunting ability and opportunities. In the under 30 category, the harvest is very high. In this sample, two of the hunters were extremely successful, harvesting more than the average while the other two hunters did not. The success of these two hunters is attributed to a strong link with one of the most highly respected hunters in the community.

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[101] Usher, P.J., DeLancy D., Wenzel G., Smith, M. and White P. 1985. *An Evaluation of Native Harvest Survey Methodologies in Northern Canada.* Environmental Studies Revolving Funds Report, No. 004. Ottawa, xii + 249p.

[102] "Response bias arises from the fact that in any social survey there may be a difference between the true answer to a question and the respondent's answer to it." See Usher, P.J. and G. Wenzel. 1987. "Native Harvest Surveys and Statistics: A Critique of their Construction and Use." Vol. 40, No. 2. p. 145-160. In this study, wording of the questionnaire, confidentiality considerations and my affiliation with the First Nation created a situation where respondents had little or no motivation for misrepresentation of harvests.

Other information details the breakdown of bulls, cows and calves harvested by the hunters surveyed. As with the seasonal breakdown, not all hunters identified the sex of the moose harvested. For those hunters that made this distinction, the following ratio was found.

Table 4.4: Ratio of Bulls: Cows: Calves (Percentage Breakdown)

% Bulls Harvested	% Cows Harvested	% Calves Harvested	% Total
69	26	5	100

The number of hunters taking part in the fall hunt, the high percentage of moose harvested during the rut, and the attraction of bulls to moose calls explains why the 1996-97 bull to cow harvest ratio was 3:1 among this sample of hunters. For every calf that is killed, approximately 13 bull moose and 5 cow moose are harvested.

A summary of the data shows that the fall harvest is most important to the community, providing over two-thirds of the total harvest each year. Of the moose killed, bulls represent two-thirds of the total harvest. The similarity in these harvest statistics implies that most of these bulls are killed during the fall hunt.

From hunting permit records and personal knowledge of park staff, Wood Buffalo National Park estimates that there are a total of between 70 and 100 hunters active within the group trapping area of the park. Of these, approximately 50 to 60 hunters are from Garden River.[103] Members of the First Nation felt that there are approximately 70 hunters from all three communities hunting in the park and 50 of those are from Garden River. Using the community's estimate, the proportion of hunters that were interviewed represents approximately 44% of all active hunters in Garden River. Interviewed hunters represent a range of hunting ability from low to excellent. From the data collected, it is possible to estimate the total harvest for the community of Garden River within precisely specified confidence limits.[104]

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[103] Taylor, Eugene, Personal Communication. September 3, 1997.

[104] Usher et al. 1987. p. 154.

4.3.2 Harvest Statistics

Based on the total number of active hunters as provided by community members, the estimated total harvest of Garden River is 158 moose. The estimate of the total harvest based on 70 successful hunters within the group trapping area is 222 moose.

When success rates are factored into a statistical equation, the estimated total harvest lowers. With an average harvest of three moose per hunter and a maximum success rate of 78%, the total harvest by 50 Garden River hunters inside the park is 117 moose. If 70 active hunters from the three communities (John D'or, Fox Lake and Garden River) are included in the estimate, the total harvest is approximately 164 moose per year.

Using extrapolated population estimates from Alberta Environmental Protection, the average density of moose within the group trapping area was 0.16 /sq. km. This area encompasses 8208.683 square kilometres. Using the average density of moose from WMU 540 and 534, the current population estimate within the group trapping area is 1313 moose.

The total seasonal harvest for Garden River is based on 50 hunters. This number was initially provided as an estimate by WBNP staff and subsequently confirmed by community members. In 1996-97, Garden River hunters harvest an estimated 158 moose. The following equations provide explanation as to how the total seasonal harvest was derived.[105]

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[105] Ibid.

$$NR = n_1 + n_2 \ldots n_i \quad (1)$$

where NR = reported harvest; n = individual harvest report; i = harvesters reporting

In this study sample, i = 18. Individual harvest reports are not included to protect the hunters that provided harvest data for the study. However, it is known that NR = 57.

$$NT = NR\ (j/i) \quad (2)$$

where NT = total harvest; j = total number of harvesters.

therefore, $NT = 57(50/18) = 158$

Community members confirmed the park estimate of 20 additional hunters from John D'or Prairie and Fox Lake. Using the same equation, an estimate of the total harvest by all hunters within the group trapping area is as follows:

$$NT = 57(70/18) = 222$$

The estimate of the total harvest based on 70 hunters within the group trapping area is 222 moose.

When success rates are factored into the statistical equation, the estimated total harvest lowers. Using an average harvest of three moose per hunter and a maximum success rate of 78%, the total harvest by 50 Garden River hunters inside the park is 117 moose.

$$NT = j * s_m * a \qquad (3)$$

where j = total number of harvesters; s_m = maximum success rate; a = average number of moose harvested per hunter;

$$NT = 50 * .78 * 3 = 117$$

When all active hunters from the three communities (John D'or Prairie, Fox Lake and Garden River) are included in the estimate, the total harvest of moose is 164. The statistical equation that includes success rates is provided below.

$$NT = 70 * .78 * 3 = 164$$

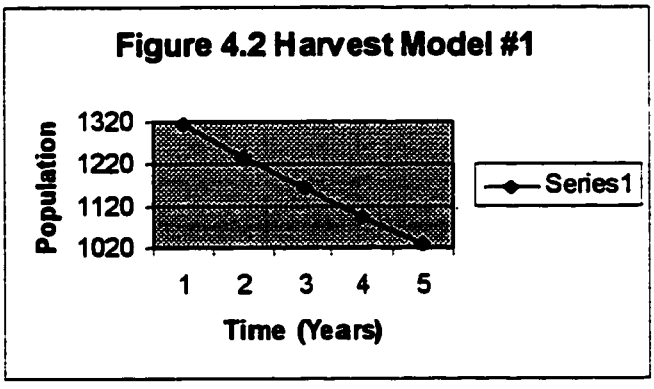
The total harvest of 164 moose represents 12.5 percent of the total estimated population in the group trapping area using the estimate of 1313 animals. The sex breakdown of the harvest is as follows:

113 bulls, 69% of the harvest
43 cows, 26% of the harvest
8 calves, 5% of the harvest

Several modeling scenarios were looked at to determine if the current seasonal harvest is sustainable.

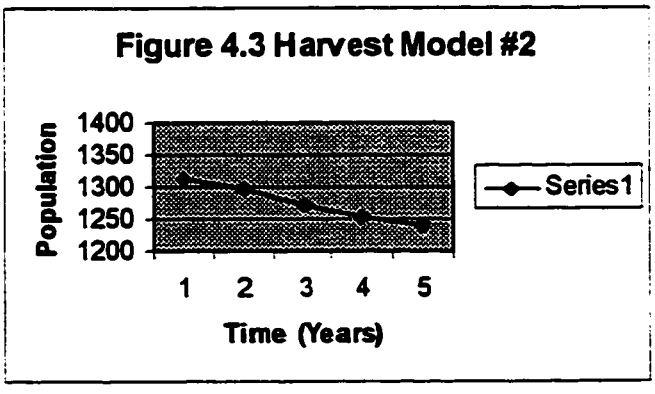
Scenario #1

The harvest number is 164 moose for the season with a Bull: Cow: Calf ratio of 13:5:1. These are the actual data obtained during the survey. Assuming 50 percent calf mortality due to natural predation and a population of 1313 moose, the population will continually decrease over the next five years. Therefore, the current harvest is unsustainable.



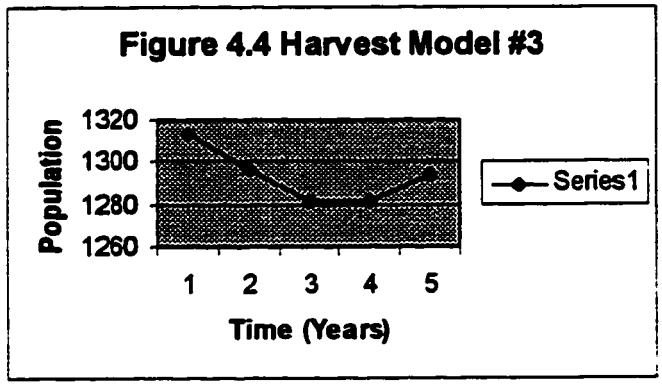
Scenario #2

The harvest number is 164 moose for the season with a Bull: Cow: Calf ratio of 13:5:1. Again, this data was obtained during the survey. Assuming 40 percent calf mortality due to natural predation and a population of 1313 moose, the population will continue to decrease over the next five years. Again, the current harvest is unsustainable.



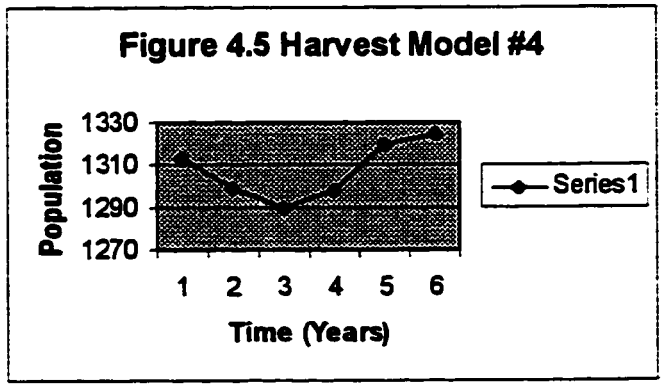
Scenario #3

The harvest number is 164 moose for the season with a Bull: Cow: Calf ratio of 15:2:1. The adult cow harvest is reduced, with more bulls being taken. Assuming 40 percent natural calf mortality and a population of 1313 moose, the population will decrease over the next five years. This decrease will not be as substantial as in the two previous scenarios.



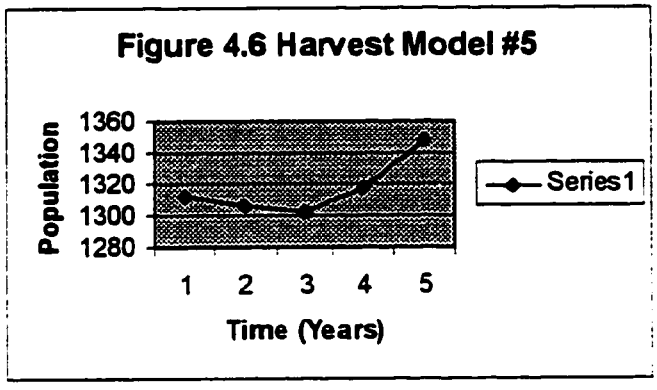
Scenario #4

The harvest number is maintained at 164 for the season with a Bull: Cow: Calf ratio of 15:1:2. In this scenario, the number of calves taken is increased and there is no harvest of adult cows. Some yearling cows may be taken. Assuming 40 percent calf mortality and a population of 1313 moose, the population will increase over the next five years.



Scenario #5

The harvest number is reduced to 154 moose for the season with a Bull: Cow: Calf ratio of 15:1:1. The harvest of adult cows is reduced to zero, with minimal harvest of yearling cows allowed. Assuming 40 percent calf mortality and a population of 1313 moose, this scenario predicts the most substantial population increases over the next five years.



The modeling scenarios indicate that the current harvest is unsustainable. It is not the number of moose per say that is of concern, but rather the ratio of Bulls: Cows: Calves. On Provincial land, licensed hunters are only allowed to harvest bull moose. Environmental protection recommends this management strategy, based on the idea that in order to ensure sustainable populations, the breeders within that population must be protected. The breeders in this case would be the adult cows. In the last two scenarios where the harvest of adult cows is reduced to zero, the total population saw a marked increase. Where adult cows are harvested as in the first three scenarios, total moose population decreased over time.

These modeling scenarios are simplified to the extent that they cannot account for increased mortality during harsh winters. Nor do they account for population increases due to decreased predator populations or increased secondary habitat creation through fire. The only factors in the model are aboriginal hunting and normal natural predation.

It is also important to recognize that these models are based upon extrapolated population data. However, the management strategy recommended by Alberta Environmental Protection would remain the same regardless of the estimated population. From a western scientific opinion, it is always the best strategy to change the harvest ratio where bull harvest is high, cow harvest is very low or zero, and calf and yearling harvest is higher than the cow harvest.[106]

Aboriginal hunters in the study had a very different opinion of how moose populations are affected by hunting. When asked what he thought of a management strategy where only bulls were killed, one hunter replied: *you don't get new moose if you kill all the bulls.*[107] For Garden River hunters the harvest of moose does not involve the consideration of ratios and statistical modeling. Instead, it is based upon need, practicality and conservation for future use.

[106] Moyles, David. Personal Communication. November 1997.

[107] First Nation Interview #03, June 1997.

4.4 Moose Populations

You can't kill all the moose. There are lots of moose in the bush.[108]

Over half of the hunters interviewed indicated that the population of moose in the Garden River area is increasing. Hunters who based their opinion on first-hand observation were considered most reliable. Number of observed tracks, increased sign of moose, actual moose sightings and success in hunting were used as indicators of population increases or decreases. Several reasons were listed for an observed increase. A reason often cited for an increase in moose population was a bad fall hunt in September of 1996. Many hunters stated that a bad fall hunt one year is often followed by a good fall hunt the next year. Others cited restrictions on moose hunting as a factor in the increase of populations. Hunters are more wary about hunting than in the past, due to park restrictions on hunting seasons and number of moose per hunter. This has decreased traditional hunting to some extent. Hunting was the factor mentioned most often as a human effect on moose populations.

Other causal factors for an increased moose population included improved quality and quantity of willow stands found in fire burned areas and previously logged areas.[109] Access issues associated with logged areas are not as much of a concern in the park, as they are on Provincial land.

Hunters also identified negative influences on the population of moose. These included an increased wolf population in the past three to five years and the attraction of moose to roads.

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[108] First Nation Interview #03, June 1997.

[109] First Nation Interview #01, June 1997.

Elders over the age of 70 and many of the hunters over 40 spoke of a moose cycle. These hunters stated that in some years there are a lot of moose in an area and then the next winter the numbers will decrease there, but increase in other areas.[110] Many hunters stated that moose populations fluctuate naturally.

These fluctuations are dependent on many factors, including weather, insect populations, natural predators and availability of good forage. Hunters stated that scientists and park employees mistook the seasonal movements of moose for population changes.[111] Often, park managers have thought that populations were low because they were looking in the wrong places or moose were not in predicted areas due to changes in weather or habitat.

Another phenomenon that was mentioned by hunters over 70 was described as a "moose migration."[112] The most recent migration was said to have occurred in 1995. An elder describing this movement said that in 1995, *there were a lot of tracks moving in one direction, to the northeast. All of a sudden the moose vanish and you have to go a long way to find a moose. When they migrate they populate an area for a while. Some areas where there are usually no moose are populated because of this migration.*[113] Another elder describing this migration stated that, *the older people use to say that the moose move down south. If there were lots of moose and the next year they were gone, the people said that they would make a big circle and then come back from a northwest direction.*[114] Interestingly, when the two stories are pieced together they form a circle. Hunters in the 60-69 category spoke of moose movements also, but other interviewees did not substantiate a migration.

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[110] First Nation Interview #05, June 1997.

[111] First Nation Interview #04, June 1997.

[112] First Nation Interview #10, June 1997.

[113] Ibid.

[114] First Nation Interview #17, June 1997.

Figure 4.7 Moose calling during the Fall Hunt

4.5 Moose Conservation

Everything has a part in nature and in how we live, the animals, the plants, trees, everything. If you take away something, eventually it affects the whole system.[115]

Because Garden River is situated inside a protected area, a unique scenario exists. Very few Little Red River Cree from the two reserve communities outside the park have hunting privileges inside the park. Therefore competition from other hunters for moose is minimal.

Hunters that are not hunting outside the park are not exposed to the additional pressures faced on provincial land. Here, competitors for moose include licensed hunters, non-licensed hunters, outfitters and poachers. Interviewees who spent time

[115] First Nation Interview #19, June 1997.

hunting on provincial land expressed concern for moose populations in the future more often than did those hunters who only hunt within the park. One interviewee, who hunts outside the park regularly, stated that some places should be protected for the moose.[116] However, this attitude is rare and the general consensus among the interviewees is that regulations are not needed to maintain moose populations.

The concept of conservation as an ethical relationship between people, land and resources is similar in both aboriginal culture and western scientific culture. In both settings, it means the wise use of land and resources so as not to destroy their capacity to serve future generations.[117] However western scientific ideas associated with conservation, such as protected areas, regulations on harvest and restrictions on land use are thought unnecessary.

The reason why Cree hunters feel regulations are unnecessary to protect moose populations is very simple. For hundreds of years, the Cree have been hunting in this area with little or no impact on the moose population. Previous experiences show that aboriginal methods used to conserve game populations work. A hunter does not waste what he kills and he takes only what he needs. *There is no use to kill something if it is going to go to waste. If you can't pack it out, then you don't shoot it. That is how people "managed" in the past.*[118]

There are two rules for the moose hunt that are adhered to by all the interviewees. The first rule of moose hunting is not to waste anything. Moose meat is highly regarded and it is unacceptable practice for any part of the meat to be wasted. Younger hunters who are unfamiliar with butchering techniques may bring their kill to parents or grandparents and those who do not know how to tan moose hides give them to those who do. In this way, waste is avoided. *When you kill something, you always bring it back here [to the community]. You don't leave anything outside and just throw it away. We*

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[116] First Nation Interview #15, June 1997.

[117] Meffe, G. and C. Ronald Carroll. 1994. *Principles of Conservation Biology.* Sinauer Associates, Inc. Sunderland, Massachusetts.

[118] First Nation Interview #19, June 1997.

use everything. Sometimes, we use the leg bones for a tool to take the flesh out of the moose hide.[119]

The second rule is to share. From the youngest hunter to the oldest, the concept of sharing continues. If a moose is killed, the meat is shared with family members and friends regardless of whether they were involved in the hunt or not. Often one moose is shared with five or more related families. Many hunters stated that after sharing, their own family had only enough meat left for a week of meals. The first people who are provided with meat are the elders.

Figure 4.8
Fleshing Tools made from Moose bone.

[119] First Nation Interview #07, June 1997.

If a hunter takes more than his family can use, the excess is shared with other community members. Research in other communities has shown that although sharing of excess is expected and highly regarded, there seems to be a limit to how much excess a hunter can harvest. Hunters who harvest more than can be shared or consumed in a reasonable period of time are tolerated but publicly stigmatized.[120] Inappropriate hunting practices would result in a similar community backlash. One interviewee stated that if he knew someone was killing moose for only certain parts he would report him.[121] Negative attitudes toward hunters who kill for antlers or trade in animal parts were universal among the interviewees.

These ideals, combined with low numbers of hunters within the park are considered sufficient measures to ensure long-term moose populations. Lack of competition within the park boundaries has likely contributed to the belief that moose populations will remain as they always have.

One of the questions asked during interviews was how hunters determined when to stop hunting in an area. Conservative attitudes are apparent in their answers. *You can tell when it is time to hunt in another area. When there are fewer tracks and visible signs of moose, then you move to a different area. You don't kill moose until there are no tracks.*[122] *The moose have been overhunted if there are no tracks. You shouldn't wait until there are no tracks left before you go to another area. It is better if there are still some tracks left when you leave it.*[123] Hunters are aware of the status of moose populations within their hunting areas and efforts are made to leave areas when numbers appear to be low. Seasonal rotation of areas may also occur. If a hunter has little success in his preferred hunting area one year, he will hunt in another area the following year.[124]

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[120] Collings, 1997.

[121] First Nation Interview #18, June 1997.

[122] First Nation Interview #05, June 1997.

[123] First Nation Interview #17, June 1997.

[124] First Nation Interview #01, June 1997.

4.6 Hunting Then and Now

Hunting in the bush is our culture. A person taught to hunt in the bush will always want to hunt in the bush.[125]

All of the hunters interviewed had some knowledge of moose and moose hunting. However, there are differences in the level of knowledge, the acquisition of knowledge and how this knowledge is used, among the various age categories.

Hunters over the age of 70 are no longer actively harvesting moose, but they may participate in the hunt by camping out with their family while they are on the land. These hunters have extensive knowledge about traditional hunting routes, seasonal movements of moose, traditional hunting practices and particularly, the spiritual and cultural importance of moose to the Cree people. All of the hunters over 70 were trackers. This method of hunting requires intimate knowledge of the habits of the moose in order to be successful. When these hunters were active, they spent long periods of time travelling along family trails to hunt moose. They also may have hunted along the river in boats as they got older, but the elders interviewed stated that they did not hunt from vehicles. Elders who travel outside the community by river or vehicle continue to make observations on moose populations by looking for tracks along the banks of the rivers or along the roadsides.

In this survey sample, hunters between the age of 50 and 69 were similar in their level of knowledge. This age category is still very actively involved in both hunting and trapping and therefore much time is spent on the land. These hunters acquired their information through first hand observation and experience as well as from elder's stories. As with hunters over 70, hunters between 50 and 69 identified themselves as trackers.

Hunters between the ages of 40 and 49 are also quite knowledgeable. Their knowledge is a mixture of direct experience and second-hand knowledge. The hunters in this age category know how to track moose and often this is the preferred method for hunting. However tracking takes a great deal of time, and since these hunters may be

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[125] First Nation Interview #17, June 1997.

employed for part or all of the year, the time required may not be available. Consequently this age group employs a mixture of hunting methods in order to obtain moose. Methods include hunting from boats along the river and from vehicles along the road.

Below the age of 40, the level of knowledge changes substantially. An older, more experienced hunter always accompanies these hunters and the length of stay in the bush is usually short in duration. Either their fathers or their grandfathers have taught all of the interviewees in this age category to track, but many stated that they rarely employ this method of hunting. Lack of confidence in their ability to track alone as well as insufficient time were stated as reasons for not tracking.[126] For these reasons, hunting from boats or vehicles is common in this age category. The knowledge of these interviewees is largely based on second-hand knowledge transferred from parents or grandparents. Exceptions to this rule exist where a young hunter has strong links to an older, more traditional hunter. In this case, the level of knowledge is highly dependent upon the age of the young hunter's role model and the amount of time they devote to hunting.

A change in hunting style among the young was noted by every interviewee in the study. This trend was of particular concern to the elders of Garden River. Hunting in the bush is a cultural identifier, and therefore a decrease in traditional hunting methods, such as tracking, is viewed as a cultural loss. Older hunters expressed concern, often with emotion, when speaking of their younger counterparts.

If you kill 10 moose on the way from Garden River to John D'or, I would say that you are not hunting. We call that hunting like a crow because a crow flies around and looks for food. You have to go out in the bush and track your game. That is what makes a good hunter.[127]

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[126] First Nation Interviews #14 and #20, June 1997.

[127] First Nation Interview #19, June 1997.

Even though we were young, we had to be taught how to hunt in the bush. Nowadays, everything is different. Everybody just jumps in a boat when they want to go hunting. The people should learn to hunt in the bush. The young aren't taught and they are losing their culture.[128] *When the young people go out they don't observe what the hunter is doing. They don't know how to butcher a moose or other animals. The young women today, they don't know how to make moose hides.*[129] *I think that the younger hunters are missing out on the value of the hunt. They don't realize how hard it is to hunt by foot, to track a moose. Very seldom do people hunt by walking or stalking animals. In the past, that was mainly the way we hunted. Now we will go out on the river and if there is road access, we go out in vehicles.*[130] *The young have no hunting knowledge or sense of direction.*[131] *If they go in the bush, they'll get lost.*[132]

There was disagreement by those surveyed whether the number of young men hunting will increase or decrease as the population of Garden River rises. However, most interviewees agreed that even if the numbers of hunters increase, it would not have an impact on the moose population. This is because of a change in hunting methods by young hunters.

I don't think that there will come a time in the future when we will not be able to hunt because of low moose populations. The reason I think this way is because there are not that many people hunting away from the road. Long ago, the people hunted all over, they walked all over. More of the younger hunters are hunting from the road.

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[128] First Nation Interview #17, June 1997.

[129] First Nation Interview #11, June 1997.

[130] First Nation Interview #08, June 1997.

[131] First Nation Interview #07, June 1997.

[132] First Nation Interview #10, June 1997.

With the population going up there may be more hunters, but they will be hunting in areas where it is easy to get to. The pressure will increase near roads and rivers and will decrease away from these areas.[133]

There will be more hunters in Garden River as the population increases, but there will be hardly anyone in the bush. Hardly anyone goes in the bush now. When I used to go into the bush you would see people. Sometimes they would get a moose before you would. Now it's different. You don't see anyone in the bush anymore. In the future, there won't be that many hunters in the bush. I worry about what will happen in the future if the young people don't know how to hunt moose and respect the animals.[134]

The number of people who are hunting is dwindling because fewer people are trapping or actively looking for moose in the winter. When we get a moose now, we have to share with more people.[135]

It is generally felt that those hunters who rely on access routes to hunt along will be less successful than hunters who track will. This is particularly true of Garden River hunters who have only the river and an often impassable road as points of access. Therefore, increases in numbers of hunters will not dramatically alter the total seasonal harvest of the community. *If you don't track the moose you won't find anything. You need to move around. I think that I am missing a lot by not hunting the old way. I would probably kill more moose if I tracked.*[136]

As discussed in the hunting strategy section, hunters generally go after game when chances of success are high and the amount of energy required is low. Therefore, it makes sense that hunters take advantage of improvements in technology, which make hunting faster and easier. This would be of particular importance to hunters who have limited time to devote to the hunt because of work commitments, such as those in the 30 and 40 age range.

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[133] First Nation Interview #19, June 1997.

[134] First Nation Interview #21, June 1997.

[135] First Nation Interview #06, June 1997.

[136] First Nation Interview #20, June 1997.

Hunting from roads or rivers will not ensure success in the hunt. However, if a moose is killed using this method, the amount of time and effort invested is generally small when compared to the return. This in part, explains the increase in this type of hunting method.

One other factor related to the decrease of traditional hunting methods is the decrease in the number of trappers in Garden River. Trapping is an occupation that requires the individual to spend a great deal of time on the land, walking and observing changing environmental conditions and animal populations. Presently, the only full time trappers in Garden River are over the age of 50 and trapping in general is considered to be a dying occupation. This decrease in trapping is also associated with a decrease in traditional ecological knowledge and thus traditional hunting methods.

Figure 4.9 The Hazards of Hunting in the Bush

4.7 Land Use - Mapping

People are not going as far out to hunt from the community, so the population is probably good outside that area and then they come into the areas where people are hunting so there always seems to be the same number every year.[137]

Seasonal Hunting Map (Figure 4.10)

The seasonal hunting map differentiates from those areas that are for winter hunting only, fall hunting only and both hunting periods. The winter areas in blue are quite far from the community and hunting in these areas requires a period of stay in the bush. As indicated in the Hunting Strategies section, fewer hunters are taking part in the winter hunt, therefore the areas marked in blue are used less frequently than in previous years. The winter harvest has become less important to the community as the number of men involved in the occupation of trapping decreases. In Garden River, there are no men under the age of 50 engaged in trapping as a full time occupation, although some men still trap occasionally to stay in touch with the land.[138]

Long, costlier distances between the point of harvest and the community, harsher weather conditions and decreased fitness of moose, particularly bulls are other reasons to not take part in a winter hunt. These factors create a scenario where the energy expended to track, butcher and transport moose from winter hunting areas to Garden River, may be high compared to the return.

For hunters who do not engage in trapping throughout the winter, fall hunting areas that are closer to the community present a more realistic option. Subsequently, areas identified as being used year round are closer to home and generally more accessible.

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[137] First Nation Interview #01, June 1997.

Use Intensity of Hunting Areas (Figure 4.11)

This map illustrates the use of hunting areas by the 22 interviewees. Areas of high intensity are the riparian zones along the Peace River and along the road from Garden River to Wentzel River. Hunting areas are restricted mainly above the Peace River in this sample of hunters. Those areas identified as high intensity areas are within reasonable distance from the community, the farthest hunting area being no more than five hours away by boat. As with the seasonal hunting map, hunters concentrate in areas that are easily accessible by vehicle or boat. These areas are also where moose gather to feed (riparian zones) or where travel is easier (along roadways).

[138] FN1, Personal Communication, 1997.

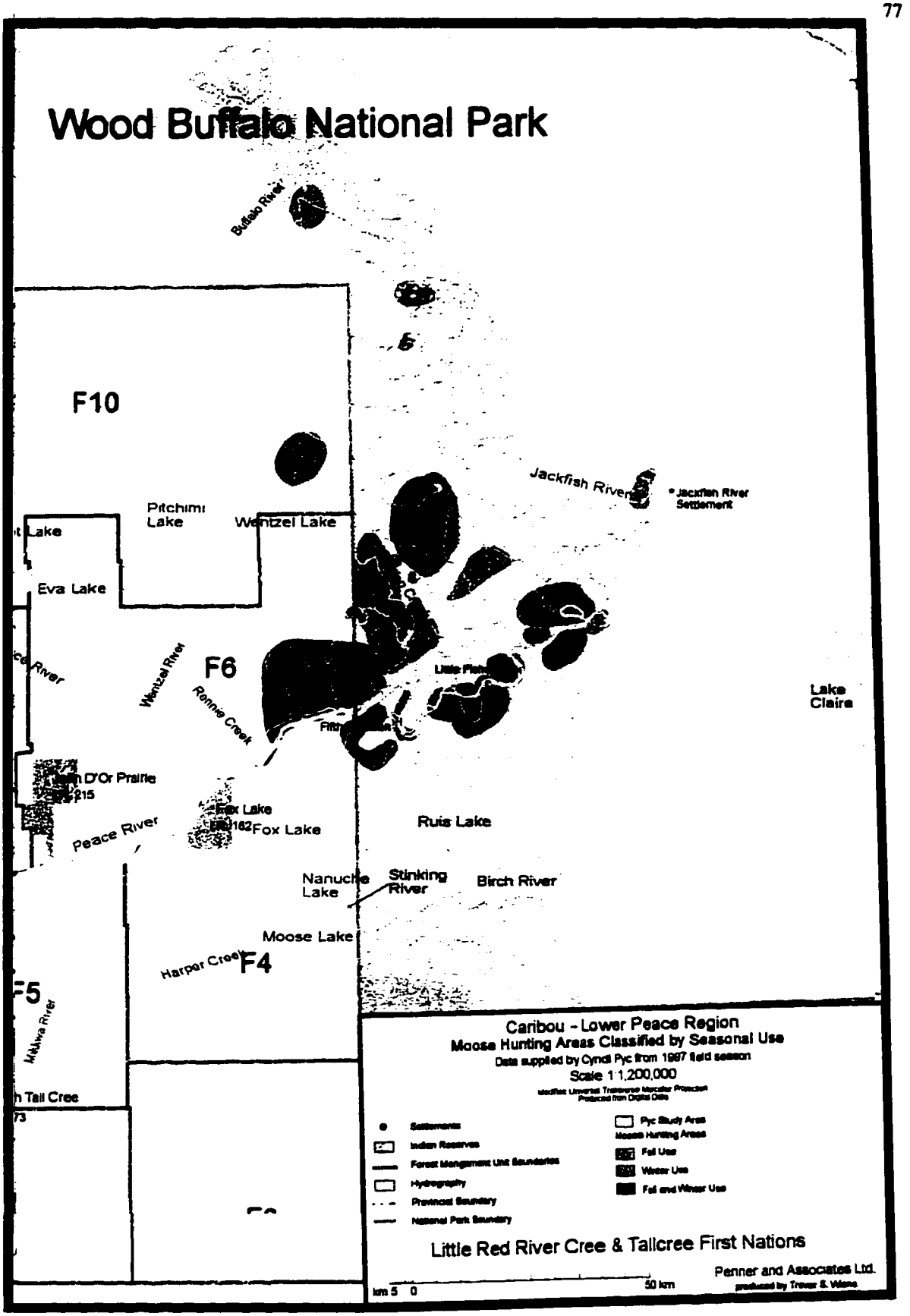

Figure 4.10 Seasonal Hunting Map

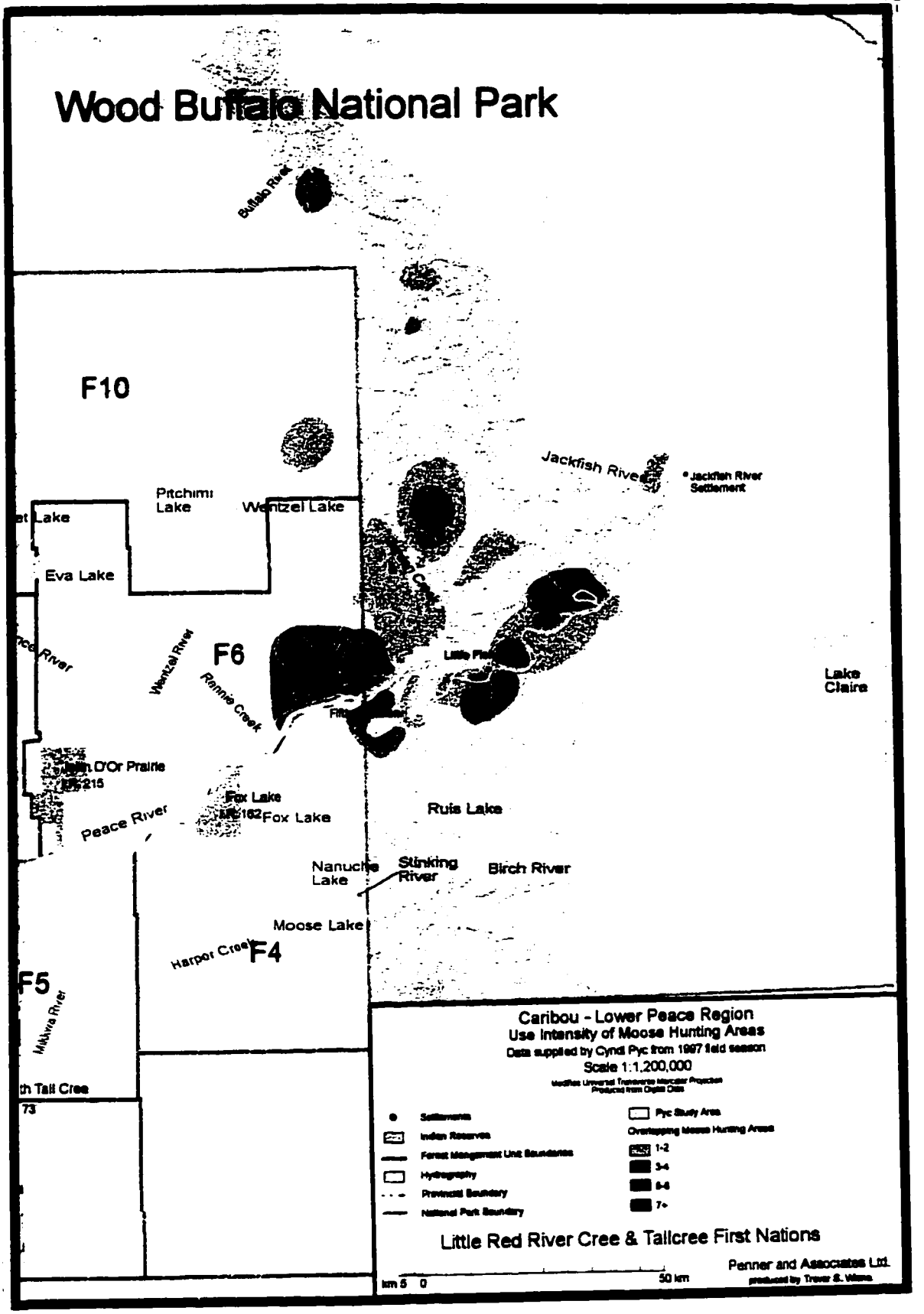

Figure 4.11 Use Intensity of Hunting Areas

Hunting Areas by Age Category (Figure 4.12)

This map depicts a trend towards hunting closer to the community. Older hunters cover a larger area for hunting than do younger hunters. Many of the younger hunters will continue to hunt in traditional areas used by their parents or grandparents, but they may not travel over the entire traditional area as their elders once did. The oldest interviewee would not identify an area on the map, saying, "when I was young we hunted all over this country. *To show our hunting area I would have to draw a line around this entire map.*[139]

This map illustrates the most interesting finding in the study. It graphically portrays the concerns of the elders. Younger hunters do not travel over the land as their parents and grandparents did. This results in less knowledge about the land, and an associated decrease in knowledge about the animals that live on the land. A decrease in land use results in a decrease in traditional ecological knowledge, and according to the elders, a loss of culture. The next generation of hunters will learn from those who do not have extensive knowledge, and the circle will continue to shrink.

Fortunately, this is only a recent trend. There are still many hunters in the community with knowledge of traditional territories, who can pass on their knowledge to those in the younger age cohorts. However, knowledge transfer must occur, sooner rather than later.

Land Use Map (Figure 4.13)

This map illustrates the total use of the group trapping area by identifying trails and cabins that people have used while hunting and trapping. Trails or river routes often connect hunting areas (shown in gray). In addition to trails and cabins, two meat caches are identified. These meat caches are no longer used, but were built by one of the elder interviewees and his family. *We would prepare pemmican and we would cache meat on*

[139] First Nation Interview #17, June 1997.

a scaffold, like a little cabin in the trees with a roof on it. It was framed in such a way that not even a squirrel could enter. The tree house was placed on four trees that were growing in a square on the ground. The bark was peeled from the four supporting trees and the platform was overhung. The peeled trees had claw marks on them where bears tried to climb up.[140]

[140] First Nation Interview #10, June 1997.

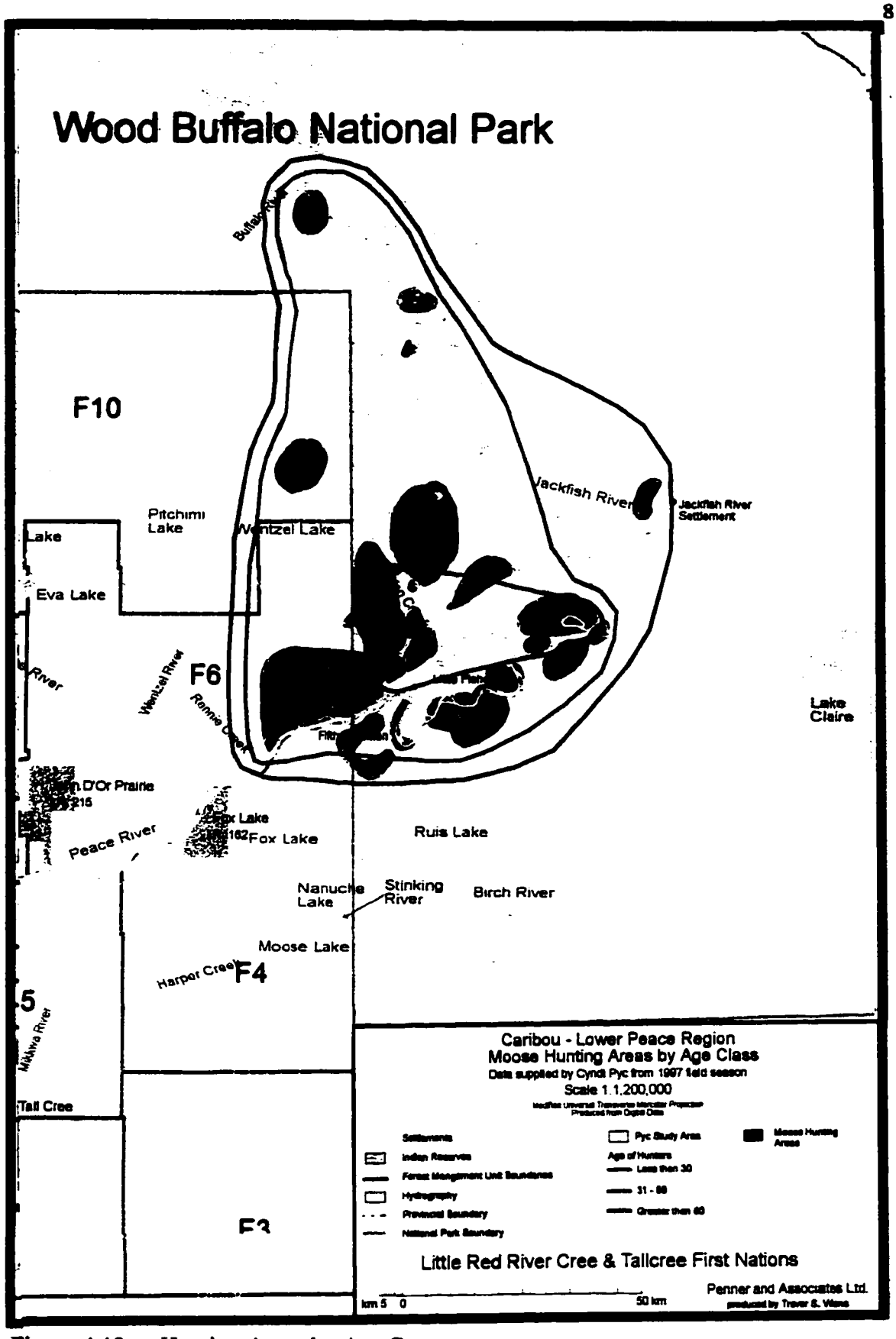

Figure 4.12 Hunting Areas by Age Category

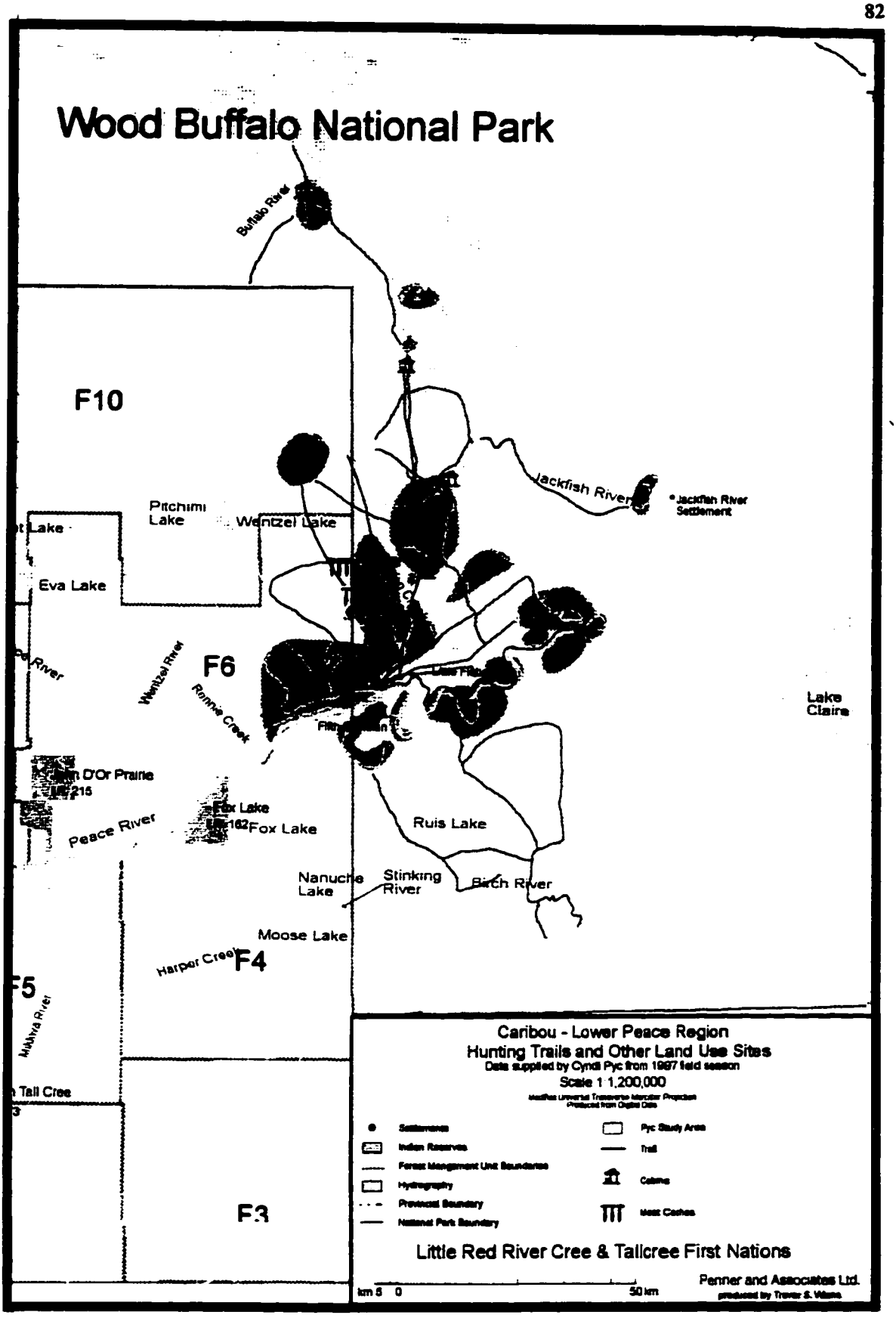

Figure 4.13 Land Use Map

4.8 Moose in the Diet

If it weren't for moose in the diet, many of the people here, particularly the children would be malnourished.[141]

As part of the interview, questions were asked to determine the extent to which moose remains an important part of the Cree diet. In the main, people described their diet as containing more store bought, more moose meat or half and half. When moose is eaten at a meal, it is the largest part of the meal.

In the over 70 age category, all of the interviewees stated that they ate more moose meat than store bought meat. Because they are no longer actively hunting, they are provided with meat by other members of the community.

People still bring me moose meat, now that I don't hunt. Whatever I got in my hunting days, I shared with all the people. Now the younger generations are the ones who go hunting, so whenever they have moose meat, they bring me some. I get enough moose to last me throughout the year. I live off the moose, the rabbit and the bear.[142]

In the 60-69 age group, two of the three interviewees ate more moose meat than store bought. The third interviewee ate more store bought meat. This hunter was unable to hunt during the season of the study due to illness.

Below the age of 59, only one hunter stated that his family ate more moose meat than store bought. The remainder of those interviewed below 59 either ate half moose meat and half store bought or more store bought meat. The age cohort that ate the most store bought food was the 40-49 category. Again, this age group is more likely to be permanently employed in the community leaving less time for hunting activities.

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[141] OT1, Personal Communication, 1997.

[142] First Nation Interview #11, June 1997.

The youngest age cohorts still have a certain percentage of moose in their diet. For all of the interviewees below the age of 40, moose comprised either half of their diet or less than half. Many of these interviewees are being provided for by other family members, most of whom are above 50.

Elders expressed concern for the young people because of the change in their diet. One man said that younger people were overweight now because they ate more store bought food. *Meat from the forest is lean. Long ago, we ate mostly meat, and not very much sugar, so we were not fat and we were healthy.*[143] Higher incidences of disease, such as diabetes and bad teeth in young children were also attributed to a change in diet.[144]

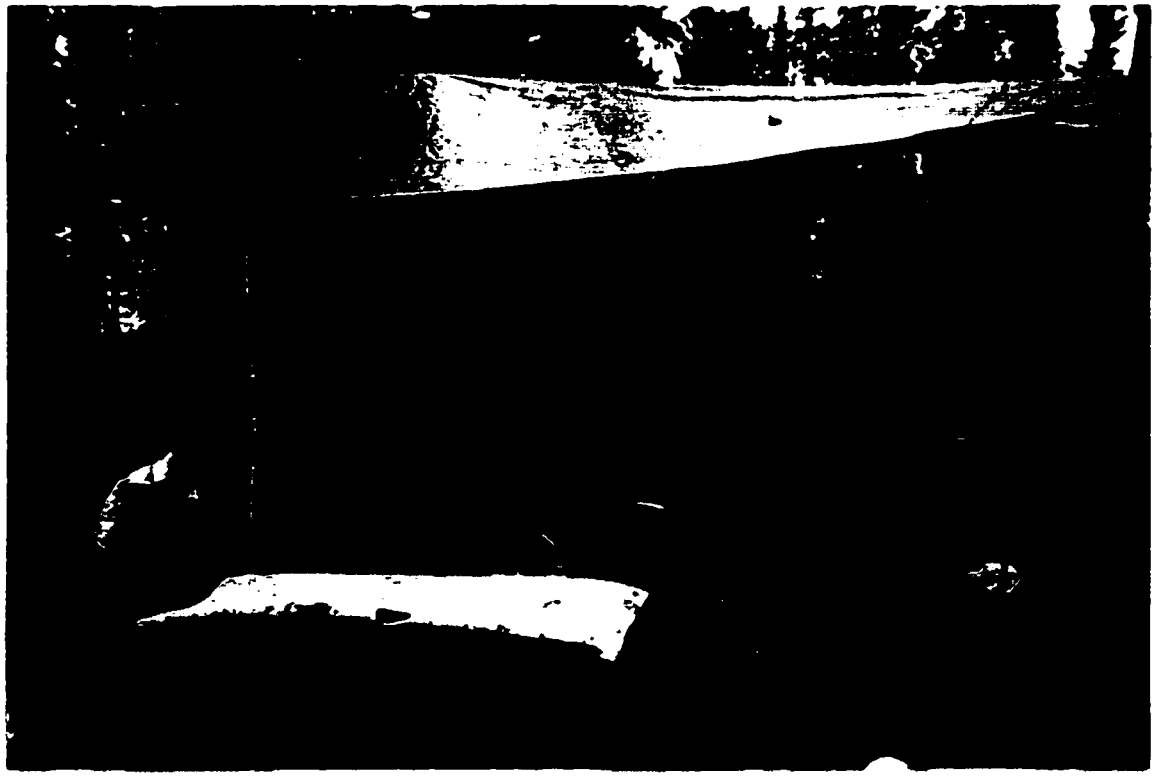

Figure 4.14 Drying Moose Meat

[143] First Nation Interview #05, June 1997.

[144] FN4 Personal Communication, 1997.

4.9 Park Regulations

The new young guys who work for Parks come into the community and try to tell us how to do things. They don't understand that the people have lived here for hundreds of years.[145]

Currently, Garden River hunters whose ancestors were originally granted the privilege to hunt and trap within the boundaries of Wood Buffalo, maintain this privilege under permit. In addition to licensing requirements for aboriginal hunters, Wood Buffalo also has several regulations related to hunting and trapping.[146] The 1994 Draft Management Plan for Wood Buffalo Park claims to treat the traditional uses of the park by aboriginal peoples as a natural factor within park ecosystems. However, the State of the Parks 1990 Profiles, lists traditional harvest of wildlife, especially moose, as an internal threat to the park.[147]

As predicted, questions regarding park regulations sparked interesting responses from all of the hunters interviewed. The community was unhappy with not only the regulation of moose hunting, but also with the methods used to notify hunters of regulations and the lack of evidence presented to support the regulations. I observed that there exists a large amount of misinformation and confusion in the community as to what regulations are currently in place for moose hunting. Many hunters spoke of regulations that have been rescinded in the park's latest draft management plan.[148]

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[145] First Nation Interview #11, June 1997.

[146] Draft Wildlife Harvesting Regulations WBNP, June 1995.

[147] Environment Canada Parks Service Publication. 1991. *State of the Parks - 1990 Profiles.* Ottawa, Ontario. p. 169.

[148] The regulation allowing trappers who are living on their trapline to harvest more than one moose is one regulation that was rescinded in the 1995 Draft Wildlife Harvesting Regulations. However, none of the interviewees were aware of this change in regulations.

The two regulations most often discussed were the closed season between May and September and the one moose per permit per year. Many hunters stated that these two regulations have the most adverse impact on the community.

The closed season covers the period of time when the traditional summer hunt would have taken place. The loss of this hunting season is important for a variety of reasons. The first reason is largely economical. Not hunting during the summer has an effect on the total harvest of the community. A loss of this resource in the spring and summer months means that people must eat more expensive store bought food.

The second impact of a closed season is important from a biological perspective. If hunters cannot hunt in the months of July and August, they are forced to rely more heavily on the fall hunt. Because more bulls are harvested during the rut, the general moose population loses a higher proportion of bulls than cows over the entire season. This was illustrated by the harvest ratio of three bulls to every one cow. If hunters were allowed to hunt in the summer months, this ratio should become more even. However, Alberta's Natural Resources Service allows licensed hunters to hunt bulls only in order to keep a good population of cows for breeding. Therefore, the current harvest ratio may be acceptable from a western scientific game management perspective.

The third impact arising from the closed season may be the most negative. This is a cultural concern. *Traditionally, the land was our teacher; our school was in the bush. The younger generation tends to stay in the community because of the school; their children go to school. The kids are not being taught the old ways and parents don't take the time to show their kids the way of living in the wilderness.*[149] *Not many teenagers are going out with their parents and they are losing their culture because they have to go to school for better jobs. It would be nice if they could go to school and also go into the bush to learn to hunt. Teaching them verbally is useless. They need to see and learn by doing.*[150]

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[149] First Nation Interview #11, June 1997.

[150] First Nation Interview #10, June 1997.

Many people acknowledge the importance of education in the schools as well as on the land. The school year begins in September and ends in June. The only two months that parents are free to take their children into the bush are July and August. In order to teach their children traditional hunting methods, parents must choose to hunt within the closed season and risk prosecution or they can take their children out of school for the month of September. The only other option is to exclude their children from the hunting experience. This situation plays a large part in the decrease in a transfer of traditional ecological knowledge, the result being fewer hunters utilizing traditional methods of hunting such as tracking and the use of smaller areas for hunting purposes.

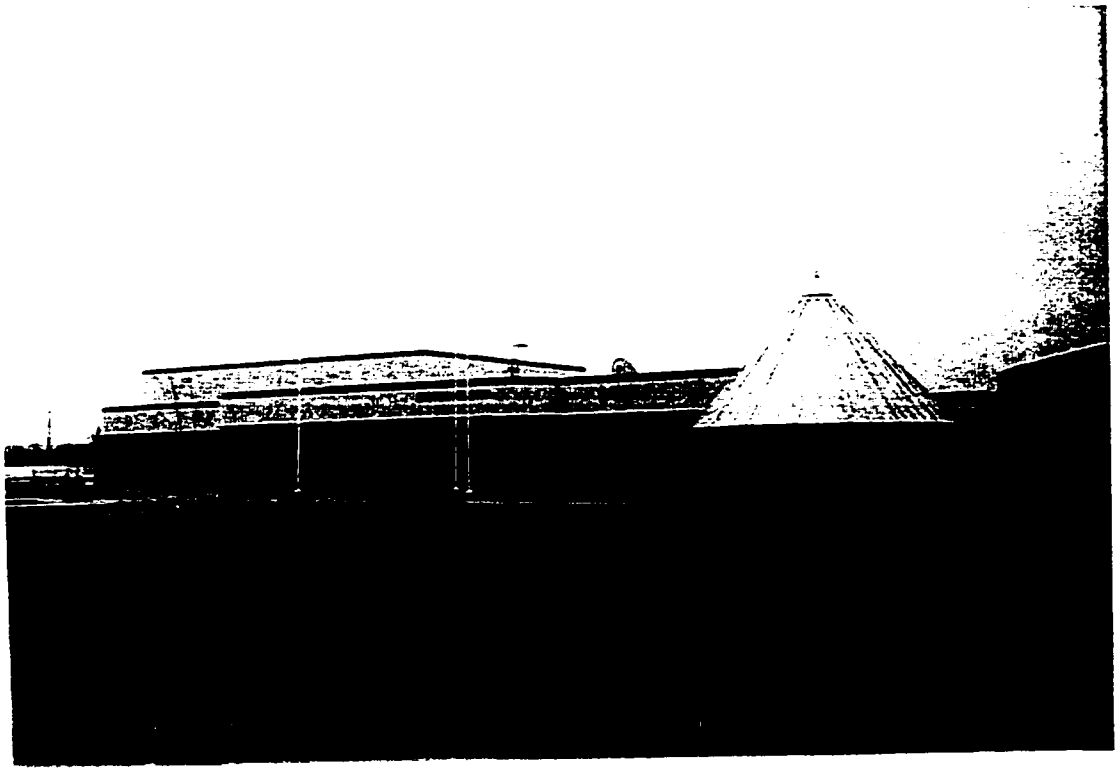

Figure 4.15 Sister Gloria School in Garden River

The second controversial regulation is the restriction on the number of moose that may be harvested by a hunter each season. As discussed in the section on "Hunting Then and Now" sharing is an important part of the Cree culture. One hunter stated that *the regulation of one moose per hunter is wrong because when people kill a moose they share it with family members and friends so that one moose doesn't last. One hunter can give a moose out to ten different families so you don't get much out of it.*[151]

Only one hunter that was interviewed stated that one moose would be sufficient for his family. For the most part, hunters harvest what moose they need, regardless of whether they break the one moose per permit regulation. Hunters repeatedly stated that they hunted moose for their survival and if their family needed to eat they killed moose.

This kind of regulation does not account for the cultural uniqueness of aboriginal communities, with their emphasis on sharing. A regulation that allocated a sustainable number of harvestable moose for the entire community, rather than a per hunter allocation would likely be more acceptable from the community's perspective.

Given that hunters harvest only what they need at present and according to both hunters and park staff moose populations are stable, the current permit restriction appears unjustified. The justification of regulations affecting aboriginal rights is an issue that has been explored within Canadian courts.

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[151] First Nation Interview #02, June 1997.

CHAPTER FIVE
TREATY RIGHTS IN WOOD BUFFALO NATIONAL PARK

Many of Canada's national parks were designated at a time when both the federal and provincial governments did not acknowledge the existence of aboriginal or treaty rights and title. There was little appreciation within government that parks could be used to support and maintain aboriginal peoples and to protect their land-based cultures.[152] The task of park planning and management was placed in the hands of various government branches, with aboriginal peoples given little, if any, input into decision making regarding their traditional lands.

The rights of Treaty Indians to hunt, fish and trap on provincial Crown lands have been addressed by the Supreme Court of Canada and in several legal publications. Treaty rights within the boundaries of national parks have been virtually ignored. The following chapter makes an argument for the continued existence of treaty rights within Wood Buffalo National Park and discusses current regulation of traditional activities by treaty entitled Little Red River Cree as well as the level of consultation between the park administration and the First Nation.

5.1 Treaty Eight

In 1899, the northern Cree in the area surrounding the Peace River took treaty with the federal Crown. This numbered treaty, known as Treaty Eight, included provisions for hunting, trapping and fishing rights. The relevant section is as follows:

> ... the said Indians do hereby cede, release, surrender and yield up to the Government of the Dominion of Canada, for Her Majesty the Queen and

[152] Berg 1993. p. 232.

> Her successors for ever, all their rights, titles and privileges whatsoever, to the lands included within the following limits, that is to say:---[153]
>
> And Her Majesty the Queen hereby agrees with the said Indians that they shall have the right to pursue their usual vocations of hunting, trapping and fishing throughout the tract surrendered as heretofore described, subject to such regulations as may from time to time be made by the Government of the country, acting under the authority of Her Majesty, and saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes.[154]

In the Report of the Commissioners attached to Treaty Eight, the Commission writes:

> But over and above the provision, we had to solemnly assure them that only such laws as to hunting and fishing as were in the interest of the Indians and were found necessary in order to protect the fish and fur-bearing animals would be made, and that they would be free to hunt and fish as they would be if they never entered into it.[155]

These solemn promises between the Crown and the Indian Nations, which were subsequently entrenched by section 35(1) of the Constitution Act 1982, form the basis of the Little Red River Cree treaty hunting rights.

The history of the park's creation is a conflicting mixture of conservation and resource harvesting. In addition, there was controversy over aboriginal hunting and trapping rights within park boundaries. The Wood Buffalo National Park Management

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[153] Treaty No. 8 Made June 21, 1899 and Adhesions, Reports, etc. Reprinted from the 1899 edition by: Roger Duhamel, F.R.S.C. Queen's Printer and Controller of Stationary. Ottawa, 1966.

[154] Ibid.

[155] Ibid. p.6.

Plan 1984 states that "The original intent had been to have the park free of hunting and trapping."[156] However, this is disputed by archival documents that state:

> It is not the intention or desire of the Department to prohibit any persons, whether Whites, Indians or Half-breeds, who formerly legally hunted and trapped this area, from continuing to do so ... So that while the Department wishes to protect the buffalo which may feed over that area, it also wishes to protect the Indians and others who hunted and trapped there in the past.[157]

An earlier letter to the Deputy Superintendent General of Indian Affairs stated:

> In the time to come I hope that we may be able to make the Park a sanctuary and that no person will be permitted to hunt or trap therein. ... This however, can only be done by creating a large reserve for the Indians, perhaps north of Great Slave Lake - one of the conditions being that they should not hunt and trap in the Wood Buffalo Park.[158]

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[156] Wood Buffalo National Park Management Plan 1984. p. 9.

[157] RCMAFS, file: Conditions des Indiens, Finnie to Mercredi, 30 June 1926. In: Fumoleau, René, OMI. 1973. As Long As This Land Shall Last - A History of Treaty 8 and Treaty 11 1870-1939. McClelland and Stewart Limited, Toronto, Ontario. p. 257.

[158] Department of Indian Affairs and Northern Development, Ottawa, file 1003-2-5, Vol. 1, Richards to Finnie, 15 April 1929. In: Fumoleau, René, OMI. 1973. As Long As This Land Shall Last - A History of Treaty 8 and Treaty 11 1870-1939. McClelland and Stewart Limited, Toronto, Ontario. p. 257.

The intent of the government in creating the park as told to the aboriginal people is reflected in statements by the elders.

> The park was created to protect our hunting grounds for us.[159]

The recognition of traditional use and treaty rights of aboriginal peoples during the establishment of Wood Buffalo is reflected in park policy regarding hunting and fishing rights. In accordance with treaty rights, aboriginal peoples, and later their descendants, were granted hunting and trapping rights within the park under permit, provided they had hunted and trapped there before the park was established.

The hereditary rights of persons other than those of aboriginal descent, who had hunted and trapped in the park south of Peace River prior to its establishment, were also recognized within that area of the park. Originally, the National Parks Game Regulations, with amendments, were made applicable to the park, but in 1949, distinct game regulations for Wood Buffalo Park were established.[160]

The park's stance has changed a great deal since these liberal beginnings. Treaty rights are no longer recognized within the park's boundaries. This shift is reflected in the change of language from that of "right" in 1922, to "privilege" in 1997. Today, Garden River hunters, whose ancestors were originally granted the right to hunt and trap within the boundaries of Wood Buffalo, maintain this privilege under permit.[161] Eligibility for permit is based on a person being a direct descendent of someone who has hunted or trapped in the park.[162] In addition to licensing requirements for aboriginal hunters, Wood Buffalo also has several regulations related to hunting and trapping. Permits are subject

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[159] First Nation Interview #05, June 1997.

[160] Lothian 1976. p. 64.

[161] Wood Buffalo National Park Management Plan 1984. p. 8.

[162] Draft Wildlife Harvesting Regulations - Wood Buffalo National Park. June 1995.

to cancellation where the park superintendent has reasonable grounds to believe that the holder has violated these regulations.[163]

Current park policy on treaty rights is based upon the belief that Wood Buffalo Park is land that has been taken up for "other purposes" as outlined in Treaty Eight. Therefore, treaty rights are said to be extinguished. Because of this, park authorities feel that it is within their jurisdiction to regulate current aboriginal use of parklands. However, an increasing number of legal cases involving aboriginal and treaty rights have created doubt in this line of reasoning.

5.2 The Cases

The courts have dealt with the rights of aboriginal hunters at some length, in criminal cases involving treaty Indians and fish and wildlife infractions on provincial land. These judicial decisions have resulted in a legal clarification of treaty rights and aboriginal rights on both provincial and federal lands. One case that deals with treaty rights on provincial park land is *R. v. Sioui*.[164]

In this case, four members of the Huron Band were charged with cutting down trees, camping and making fires in places not designated in Jacques-Cartier Park, in the province of Quebec. The Supreme Court found that the area encompassing Jacques-Cartier Park was covered by treaty. The province of Quebec argued that through various legislative enactments, treaty rights had been extinguished within the park. By making the territory in question a park, the Quebec legislature suggested that there was a clearly expressed intention to prohibit the carrying on of certain activities in this territory, whether or not such activities are protected by an Indian treaty.[165]

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[163] National Parks Act. Wood Buffalo National Park Game Regulations. P.C. 1978-3324.

[164] *R. v. Sioui*, [1990] 3 C.L.N.R. 127, [1990] 1 S.C.R. 1025.

[165] *R. v. Sioui.* p. 157.

The Court found that treaty rights had not been extinguished and stated that:

> A legislated change in the use of the territory thus does not extinguish rights otherwise protected by treaty. If the treaty gives the Hurons the right to carry on their customs and religions in the territory of Jacques-Cartier Park, the existence of a provincial statute and subordinate legislation will not ordinarily affect that right.[166]

Having determined that treaty rights continued to exist, the Court then looked to the question of the territorial scope of those rights. To answer the question as to whether the treaty document overrode the park regulations, the court stated the following:

> Jacques-Cartier Park falls under the category of land occupied by the Crown, since the province has set it aside for a specific use. ... As occupancy has been established, the question is whether the type of occupancy to which the park is subject is incompatible with the exercise of the activities with which the respondents were charged. ... For the exercise of rites and customs to be incompatible with the occupancy of the park by the Crown, it must not only be contrary to the purpose underlying that occupancy, it must prevent the realization of that purpose.[167]

Furthermore,

> Protecting the exercise of the customs in all parts of the territory frequented when it is not incompatible with its occupancy is in my opinion the most reasonable way of reconciling the competing interests.[168]

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[166] Ibid. p. 157 as per J. Lamer.

[167] Ibid. p. 158.

Although *Sioui* is a case pertaining to provincial Crown land, it remains an important case in relation to treaty rights on federal Crown lands because of its discussion of compatibility of uses. A later case that addresses the issue of incompatible uses, is *R v. Badger*.[169] In *Badger*, the Supreme Court spent a great deal of time interpreting the rights outlined in Treaty Eight. To begin with, Justice Cory addressed the limitations of treaty rights.

> Treaty No. 8 guaranteed hunting rights subject to two limitations. First there was a geographic limitation. ... Second, the right could be limited by government regulations passed for conservation purposes.[170]

The courts recognize *Badger* as the authority on the geographic limitations of Treaty Eight hunting rights. Using the rules of liberal interpretation and considering what the Indians would have understood at the time of signing, Justice Cory stated that:

> In 1899, Treaty Indians would have understood that land had been 'required or taken up' when it was being put to a use which was incompatible with the exercise of the right to hunt. An interpretation of the Treaty properly founded upon the Indians' understanding of its terms leads to the conclusion that the geographical limitation on the existing hunting right should be based on the concept of visible, incompatible land use. ... If the lands are occupied, that is, put to visible use which is incompatible with hunting, Indians will not have a right of access. Conversely, if privately owned land is unoccupied and not put to visible

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[168] *R. v. Sioui.* p. 157.

[169] *R. v. Badger*, [1996] 2 C.L.N.R.

[170] Ibid. p. 78.

> land use, Indians pursuant to Treaty No. 8 will have a right of access to hunt for food.[171]

The case that has been hailed widely as a landmark judicial statement on the nature of aboriginal rights, and on the constitutional protection afforded them is *R. v. Sparrow*.[172] The case of *R v. Sparrow*[173] dealt with the right to fish for food by aboriginal peoples, and the right of Government to pass laws regulating the hunt for food. *Sparrow* was an aboriginal rights case, rather than a treaty rights case. However, the *Sparrow* test developed for aboriginal rights has relevance to treaty rights in regard to extinguishment, infringement and justification by the Federal and Provincial Crowns.

In *Sparrow*, as in all aboriginal rights cases, the aboriginal claimant had to prove the existence of an aboriginal right. The proof of an aboriginal right often follows the rules of the *Van der Peet* [174] test, as follows:

> ... in order to be an aboriginal right an activity must be an element of a practice, custom or tradition [or law] integral to the distinctive culture of the aboriginal group claiming the right.[175]

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[171] *R. v. Badger*. p. 78-79. The term visible was defined as land that was fenced, had buildings that appeared to be in use on it, was being used to grow crops, graze livestock etc.

[172] Usher, Peter J. Some Implications of the *Sparrow* Judgement for Resource Conservation and Management. Alternatives Vol. 18 No. 2, 1991.

[173] *R. v. Sparrow*, [1990] 3 C.L.N.R. 160., [1990] 1 S.C.R. 1075.

[174] *R. v. Van der Peet*, [1994] 4 C.L.N.R. 221.

[175] Ibid. p. 310

In a treaty right case, the existence of an aboriginal right need not be proved since the effect of Treaty Eight was to replace aboriginal hunting rights with treaty hunting rights.[176] As long as the right being claimed is covered under treaty and was not extinguished prior to 1982, that right is protected by section 35(1) of the Constitution.[177] Once the treaty right has been established, the next phase of the *Sparrow* test is the test for extinguishment. Recent cases[178] have held that the standard for finding that an aboriginal right has been extinguished is extremely high, at least in those cases where the instrument relied upon to extinguish the right is not a constitutional one.[179]

Treaties represent an exchange of solemn promises between the Crown and Indian nations and are agreements held to be sacred. Therefore, it would seem that the test for extinguishment of treaty rights should be even higher than that held for aboriginal rights, which are more difficult to establish in the existence phase of the *Sparrow* test. In both *Horseman*[180] and *Badger*, the standard held by the courts for finding that the treaty right to hunt commercially was extinguished was rather low, and these cases should be looked upon as exceptions, rather than the rule for meeting the requirements of the *Sparrow* extinguishment test.

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[176] Please see section 5.1 p. 89.

[177] Section 35(1) states: "The existing aboriginal and treaty rights of the aboriginal peoples are hereby recognized and affirmed."

[178] See R v. *Gladstone*, [1996] 4 C.L.N.R. 65., R v. *Van Der Peet*, [1996] 4 C.L.N.R. 177., *R v. N.T.C. Smokehouse*, [1996] 4 C.L.N.R. 130.

[179] The NRTA is one such constitutional instrument that has been used to extinguish certain treaty rights. See *R. v. Horseman* and *R. v. Badger*. Parker, Catherine and Cheryl Sharvit. 1996. "From *Badger* to *Adams* and *Cote*. The Implications of s. 35 for Resource Managers." Unpublished paper, University of Calgary, Faculty of Law. p. 24.

[180] *R. v. Horseman*, [1990] 3 C.L.N.R.

The *Sparrow* extinguishment test follows that outlined by Hall, J. in *Calder v. Attorney-General of British Columbia*.[181] In that case, Justice Hall stated that "the onus of proving that the Sovereign intended to extinguish the Indian title lies on the respondent and that intention must be 'clear and plain.'"[182]

In order to consider if and when the right to hunt for food may be restricted by legislation, the third test of *Sparrow* must be considered. This test is the infringement test. Once the existence of the right to hunt for food is established, the aboriginal claimant must show a *prima facie* infringement of the right. The test as set out in *Sparrow* is as follows:

> The first question to be asked is whether the legislation in question has the effect of interfering with an existing aboriginal right. If it does have such an effect, it represents a *prima facie* infringement of s. 35(1).[183]

The treaty right may replace the aboriginal right, but the test remains the same. The right to hunt for food is protected by Treaty, and therefore it is easier for the claimant to show infringement. Treaty rights are documented, whereas aboriginal rights must be defined by those who claim them.

The final test laid out in *Sparrow* involves justification of an infringement. The Supreme Court found that if the Crown proves that restrictions are required to meet the goals of conservation, then an infringement may be justified according to the *Sparrow* test.

In most cases, the criteria for determining whether an infringement of a treaty right has taken place and whether it can be justified can be translated from *Sparrow* to the

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[181] *Calder v. Attorney-General of British Columbia*, [1973] S.C.R. 313. The *Sparrow* test has been further defined in more recent cases such as *R. v. Gladstone*, *R. v. Van der Peet* and *R. v. N.T.C. Smokehouse*. Supra note 33.

[182] Ibid. p. 404.

[183] *R. v. Sparrow*. p. 1111.

treaty context. Treaty rights, like aboriginal rights, may be unilaterally abridged, but this does need to be justified by the Crown.[184]

5.3 Treaty Rights in Wood Buffalo National Park

Having summarized the relevant case law, it is necessary to address the position of Wood Buffalo National Park on treaty rights within park boundaries. One question that must be addressed is the claim that treaty rights within the park have been extinguished. The Crown has asserted that the right to hunt was extinguished by the Treaty Eight provision which effectively disallows hunting on lands taken up for other purposes.[185] To determine if this is the case, the applicable interpretive principle must be borne in mind.

> Treaties and statutes relating to Indians should be liberally construed and any uncertainties, ambiguities or doubtful expressions should be resolved in favour of the Indians. In addition, when considering a treaty, a court must take into account the context in which the treaties were negotiated, concluded and committed to writing. As a result, it is well settled that the words in a treaty must not be interpreted in their strict technical sense nor subjected to rigid modern rules of construction. Rather, they must be interpreted in the sense that they would naturally have been understood by the Indians at the time of signing. This applies, as well, to those words in the treaty, which impose a limitation on the right, which has been granted.[186]

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[184] *R. v. Badger*, [1996] 1 S.C.R. p. 812.

[185] *R. v. Norn.*.

[186] *R. v. Sioui.*

An interpretation of the Treaty properly founded upon the Indians' understanding of its terms leads to the conclusion that the geographical limitation on the existing hunting right should be based upon a concept of visible, incompatible land use.[187]

Wood Buffalo National Park does fall under the category of land taken up for other purposes, or occupied by the crown. However, current visitor use of the park is low due to its remote location, the circuitous road access system, the low population in the region, and the lack of any high capability recreational resources in the park with the ability to generate and sustain intensive use.[188] This scenario suggests that the type of occupancy to which the park is subject is not incompatible with the exercise of traditional hunting activities. To meet the requirements of *Sioui*, the exercise of traditional hunting activities must not prevent the realization of the park's purpose.[189] The Wood Buffalo National Park Draft Management Plan 1994 states:

> Hunting, trapping, fishing and gathering are ongoing activities in Wood Buffalo and are traditional uses of park resources. Traditional use is not an anomalous activity and is considered to be a natural factor within park ecosystems.[190]

From this statement one concludes that the purpose of the park has not been compromised to date by the continuance of hunting in the Garden River area. The existence of the park itself is not incompatible with the continuance of traditional hunting activities.

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[187] *R. v. Sioui.*

[188] Lothian 1976.

[189] "The parks purpose is to protect an outstanding and representative example of the Northern Boreal Plains natural region and small portions of the Southern Boreal Plains and the Northwestern Boreal uplands: and to enable present and future generations to continue to appreciate and experience the park's wilderness environments." WBNP Management Plan 1984.

[190] Wood Buffalo National Park Management Plan Draft 1994. p. 23.

One other case that is particularly relevant to the extinguishment discussion in the context of WBNP is *R. v. Norn.*[191] In this case, a Chipewyan Indian was charged with firing a rifle within 100 metres of the centre line of a highway in contravention of s.36(5) of the Wood Buffalo National Park Game Regulations, and unlawfully hunting game without a permit in violation of s.18(a) of the regulations, thereby committing offenses contrary to s.8(1) of the National Parks Act, R.S.C. 1985, c.N-14. This case dealt with the extinguishment of treaty rights within Wood Buffalo National Park and found:

> *There is no evidence to support the position of the Crown that the hunting, fishing and trapping rights of the Indians would be extinguished on lands taken up within the ceded tract for "other purposes"* except for the uncertainty implied in the "saving and excepting" clause.[192]

The onus of proving that a treaty or Aboriginal right has been extinguished lies upon the Crown. In addition, there must be "strict proof of the fact of extinguishment" and evidence of a clear and plain intention to extinguish treaty rights.[193]

There is nothing in the National Parks Act[194] that demonstrates a clear and plain intention to extinguish the treaty right to hunt on parklands. Nor is there an express intent to extinguish these rights in the Wood Buffalo National Park Game Regulations. Historical documents show that at the time of the park's creation, treaty rights were recognized within the boundaries of Wood Buffalo Park.[195] These rights continue to exist.

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[191] *R.. v. Norn* [1991] 3 C.L.N.R.

[192] Ibid. p. 143. As per Spence Prov. Ct. J. (emphasis added)

[193] *R. v. Sparrow.*

[194] National Parks Act. R.S., c. N-13, s. 1. 1985.

[195] Fumoleau 1973. p. 255-256.

5.4 Regulations Affecting Treaty Rights

Having determined the continued existence of treaty rights to hunt within the park, the final test in *Sparrow* remains: to what extent can these rights be limited or restricted? In *Sparrow*, the court held that any interference must meet a high standard of justification, consistent with the fact that in dealing with aboriginal peoples the honour of the Crown is always at stake.[196] The Supreme Court found that if the Crown proves that regulations are required to meet the goals of conservation, then an infringement is justified according to the *Sparrow* test. As in the test for extinguishment, the test for justification should meet a higher standard for treaty rights, than that held for aboriginal rights.

At present, Wood Buffalo National Park places a variety of restrictions upon the aboriginal hunters within its boundaries. However, only those that pertain to the hunting of moose will be discussed here.

In *R. v. Norn*, Spence J. found that the regulation concerning the prohibition of hunting without a permit in Wood Buffalo National Park met the test outlined in *Sparrow* for determining the validity of regulating Indian rights and therefore further justification according to the *Sparrow* test was unnecessary:

> The regulation is reasonable as it is part of the game management for the park to ensure that there is game for future generations; the requirement of a permit does not present undue hardship to the accused nor does it adversely interfere with the exercising of his right to hunt.[197]

> At this stage, *Sparrow* does not require that the regulations be justified but only that they be reasonable, not impose undue hardship and not interfere with the holders means of exercising that right. In applying this test, in the

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[196] *R. v. Sparrow*. p. 1109.

[197] *R. v. Norn*. p. 136.

> circumstances, the permit process, at the most, is inconvenient and, at the least, *an insignificant restriction of his treaty rights.*[198]

There is **no stage** at which *Sparrow* does not require that the regulations be justified. In *Sparrow*, Dickson, C.J. and La Forest J. acknowledge the need for justification in the treaty context:

> As we have pointed out, management and conservation of resources is indeed an important and valid legislative objective. Yet, the fact that the objective is of a "reasonable" nature cannot suffice as constitutional recognition and affirmation of aboriginal rights. Rather, the regulations enforced pursuant to a conservation or management objective may be scrutinized according to the justificatory standard outlined above.[199]

By stating that the permit requirement is an "insignificant restriction of the treaty right," Spence J. concedes a *prima facie* infringement of the treaty right, and therefore this infringement requires justification. In *Badger*, Cory.J. writes:

> In summary, it is clear that a statute or regulation, which constitutes a *prima facie* infringement of Aboriginal rights, must be justified. In my view, it is equally if not more important to justify *prima facie* infringement of treaty rights. The rights granted to Indians by treaties usually form an integral part of the consideration for the surrender of their lands. For example, it is clear that the maintenance of as much of their hunting rights as possible was of paramount concern to the Indians who signed Treaty No. 8.[200]

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[198] *R. v. Norn.* (Emphasis added)

[199] *R. v. Sparrow.* p. 1118-1119

[200] *R. v. Badger.* p. 107.

In *Sparrow*, it was held that in considering whether an infringement of Aboriginal or treaty rights could be justified, the following questions should be addressed sequentially.

> First, is there a valid legislative objective? In the case of moose hunting regulations in Wood Buffalo National Park, it must be determined if the objectives of Parliament in authorizing the department to enact regulations regarding hunting are valid. The objectives of the department in setting out the particular regulations should also be scrutinized.
>
> If a valid legislative objective is found, the analysis proceeds to the justification issue. The special trust relationship and the responsibility of government vis-à-vis aboriginals must be the first consideration in determining whether the legislation or action can be justified.
>
> Further questions might include whether there has been as little infringement as possible in order to effect the desired result; whether in a situation of expropriation, fair compensation is available; and whether there has been consultation with respect to conservation measures being implemented.[201]

All hunters from Garden River are required to obtain a general hunting permit in order to hunt moose within the park. The allotment of permits is based upon ancestral lineage. Each permit holder is allowed one moose per permit year. Other regulations pertain to the method of hunting allowed as well as a seasonal restriction for moose hunting.[202] The requirement of permits, or licenses is discussed in recent cases.

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[201] *R. v. Sparrow*. p. 183-187. In: *R. v. Badger*, [1996] 2 C.L.N.R. p. 111. (The *Sparrow* analysis is used here in reference to hunting rights rather than fishing rights).

[202] National Parks Act. WBNP Game Regulations and Draft Wildlife Harvesting Regulations WBNP June, 1995.

In *Nikal*,[203] Millward, J. at trial, found that the food fishing licensing scheme as a whole constituted a *prima facie* infringement of the aboriginal right. He pointed out that using licenses only to keep track of those who can fish achieves little and simply provides the department with a number of people that are fishing with a license.

Also in *Nikal*, the court found that the aboriginal right included

> ...the aboriginal right to choose the period of time...the right to select persons intended to be the recipients of the fish for consumption, the right to select the purpose for which the fish is to be used, that is, for food or ceremonial purposes, and the manner of fishing.[204]

Justice Cory, in the Supreme Court decision on the same case, had a much different take on the matter of licensing. He found that a license itself is not an infringement. In his opinion, "a license may be the least intrusive way of establishing the existence of an aboriginal right for the aboriginal person as well as preventing those who are not aboriginal from exercising aboriginal rights."[205] Cory also argued that the establishment of a licensing system might aid resource managers in estimating the number of fish harvested. However, Cory J. found that the terms of the license could be infringements if they contradicted the appellant's rights. For instance if they

a) prescribed waters in which fishing could take place
b) the type of gear which can be used
c) the fishing times and days[206]

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[203] *R. v. Nikal*, (1991) C.L.N.R. 162.

[204] Ibid. p. 167.

[205] *R. v. Nikal.* [1996] 1 S.C.R. 1013. p. 1053

[206] Ibid. p. 1063.

Wood Buffalo regulations specify how many moose a permit holder can kill in one season. In addition, harvesting regulations for moose set a closed season between May 10 and September 1.[207] There are also regulations pertaining to the use of certain motorized vehicles (i.e. boats, all-terrain vehicles) while moose hunting. According to the above noted decisions, the terms of the permits are an infringement on the treaty rights of the Cree.

Wood Buffalo National Park has completed one moose population survey in the southeast portion of the park covering traditional lands of the Fort Chipewyan Cree. The park states in the Draft Wildlife Harvesting Regulations:

> With virtually any wildlife management system in Canada where harvesting takes place, the harvest is managed for long term sustainability. This is done through a combination of census techniques to monitor the population, harvest studies to monitor the harvest, and research to better understand the ecology of the species. Quotas, limits or other management actions are based on information collected with the cooperation of harvesters.[208]

No survey has been completed for the region comprising the group trapping area of Garden River hunters. Therefore, the park does not have information on the population of moose within the area hunted by the Little Red River Cree. In addition, very little is known about the resource use practices of Garden River hunters. Hunters in Garden River stated that park wardens had not visited hunting camps for at least three years.[209] Aboriginal hunters are reluctant to share information on wildlife harvests and harvesting practices for fear that their rights to hunt will be taken away.[210] Lack of data

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[207] Draft Wildlife Harvesting Regulations WBNP June, 1995.

[208] Ibid. p. 2.

[209] FN1, Personal Communication, September 1997.

[210] Auger, George, Personal Communication, December 1996.

means that a sustainable level of harvest cannot be ascertained. Predictions of seasonal moose harvest based on the number of permits granted to aboriginal hunters will amount to the same questionable estimates based on the number of hunters in a given community.

Given the lack of data available on moose populations, sustainable harvest and current harvest levels, it is difficult to see how the current regulation of treaty hunting rights through permit may be justified according to the *Sparrow* test. Wood Buffalo National Park does not meet the justificatory standard of scrutiny outlined in *Sparrow.*

5.5 Consultation

Sparrow required consultation with affected aboriginal peoples regarding conservation measures as part of the justification analysis and lower courts have subsequently required consultation in the context of developing resource management plans and conservation measures.[211]

Wood Buffalo National Park Game Regulations state the following:

> 56.(2) The Director-General may, by notice, alter the open seasons and bag limits for any game set out in schedule II... and (3).(a) restrict or prohibit hunting or trapping in any area of the park. ... Every notice issued pursuant to subsection (2) or (3) shall be posted by the Superintendent in conspicuous places in the Park.[212]

This does not appear to meet the standards of consultation as outlined in *Sparrow* and subsequent case law. Consultation is required for the creation of regulations, not at the time of notification. With respect to the information component of consultation, the courts have required that the aboriginal people affected should be fully informed of all conservation measures and resource use decisions and provided with details on their potential effect on aboriginal users.

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[211] *R. v. Nikal.*

In addition, the Crown has a duty to inform itself of the uses and practices of First Nations on Crown lands. Resource managers must also disclose to the band the steps being taken to arrive at any allocation, and the reasons for any measures, which interfere with aboriginal [treaty] rights.[213]

The *Sparrow* analysis provides a reasonable, flexible and current method of assessing conservation regulations and enactments. In regard to protected areas, the analysis should proceed on a case by case basis.

In Wood Buffalo National Park, the current situation falls short of meeting court standards in many respects. First and foremost, the park must recognize the treaty rights of Cree hunters of Garden River. Once this occurs, limitations of these rights by regulation must be examined using the *Sparrow* test.

It would be wise for resource managers within WBNP to concentrate more on the collection of harvest data through consultation and co-operation agreements, rather than continue current licensing schemes. Given their conservation focus, courts will be reluctant to strike down any reporting requirements. However, they may require the Crown to demonstrate that the information collected is actually useful for conservation purposes.[214] It is likely that communities would request the same demonstration.

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[212] National Parks Act WBNP Game Regulations.

[213] *R v. Sampson* (1995), 16 B.C.L.R. (3d) 252 . Disclosure of conservation measures affecting treaty rights should follow the same rule as for aboriginal rights.

[214] Parker, Catherine and Cheryl Sharvit. 1996. "From *Badger* to *Adams* and *Cote*. The Implications of s. 35 for Resource Managers." Unpublished paper, University of Calgary, Faculty of Law. p. 24.

CHAPTER SIX
COOPERATIVE MANAGEMENT

Since 1995, the LRRCN has acted jointly with the Tallcree First Nation[215] to nurture the cooperative management and planning processes within their traditional territory. Various interests have been represented in cooperative discussions, including the Government of Alberta, Canadian Heritage and representatives of the forestry and oil and gas sectors. Discussions and agreements focus upon the implementation of an ecosystem based resource management strategy for sustainable development within their traditional territory.[216]

The focus of this chapter is to give an overview of cooperative management in general and describe the potential agreement with Canadian Heritage. This agreement, when executed, will establish a Cooperative Management Board and provide authority to this board for development of recommendations to Canadian Heritage regarding management of the southwestern quadrant of Wood Buffalo National Park - the group trapping area and boundary of the study.

6.1 Cooperative Management – What is it?

Since its introduction, the concept of co-management has evolved considerably, but there is still no generally accepted definition.[217] It is most simply viewed as "the sharing of power and responsibility between the government and local resource users."[218]

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[215] The Tallcree First Nation is located south of the LRCCN. Cooperation and intermarriage between these two groups occurred traditionally and continues to present day.

[216] Cooperative Management Phase II Action Plan. P. 1-2.

[217] Berkes, F., George P., and Preston, R. J. 1991. Co-management: The evolution in theory and practice of the joint administration of living resources. *Alternatives*, 18(2)12-18.

[218] Ibid. p. 12.

In its broadest form, co-management is a concept based upon non-traditional actors, such as local resource users or First Nations, influencing how the state manages a natural resource.[219]

Osherenko defines a co- [cooperative] management regime as an institutional arrangement in which government agencies with jurisdiction over resources and user groups enter into an agreement covering a specific geographic region and spelling out: 1) a system of rights and obligations for those interested in the resource; 2) a collection of rules indicating actions that subjects are expected to take under various circumstances; and 3) procedures for making collective decisions affecting the interests of government actors, user organizations, and individual users.[220]

Despite a lack of universal agreement on the definition of co-management or cooperative management, current agreements labeled as such appear to have achieved some measure of success.[221] Because of this, the concept and process of cooperative management has gained significant popularity in Canada, particularly between First Nations and Government and in regard to natural resource management such as wildlife.[222]

Berkes et al. (1991) explains that there is a continuum of co-management arrangements from those that merely involve, for example, some local participation in

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[219] Campbell, Tracey. 1996. *Aboriginal Co-management of Non-Renewable Resources on Treaty or Traditional Territory*. Masters Thesis, University of Calgary, Calgary, Alberta. P. 50.

[220] Osherenko, Gail. 1988. *Sharing Power with Native users: Co-management Regimes for Native Wildlife*. Ottawa: Canadian Arctic Resources Committee Policy Paper 5.

[221] A Cooperative Management Agreement between Manitoba Environmental Protection and three First Nations resulted in a three-fold increase in the number of moose within the first few years of its existence.

[222] Chambers, Fiona-Grace. 1997. An Overview of Provincial Forestry Co-Management Agreements and First Nations in Canada. Submitted in fulfillment of EVDS 783.54. University of Calgary, Calgary, Alberta.

government research being carried out, to those in which the local community holds all the management power and responsibility.[223]

Modeled on Arnstein's "ladder of citizen participation,"[224] levels of co-management can be depicted as rungs of a ladder, each corresponding to the degree to which citizens share power in government decision making.[225]

	Self Management	
7	Community Control Or Partnership	• Institutionalized joint decision making • Equal partnerships established when species shared or migratory • Power delegated to the community when resources are manageable locally
6	Management Boards	• Common objectives pursued • Community and local users participate in policy and decision-making
5	Advisory Committees	• Initiation of partnerships in decision-making • Agreement to share power and responsibility • Search for common objectives • Committee often ad-hoc and with advisory powers only
4	Communication	• Initiation of two-way communication • Local concerns are deemed legitimate and enter research agendas • Government retains all power of decision-making
3	Cooperation	• Working together with Government directing and controlling • Use of local knowledge and research assistants • Some appreciation of other party's abilities, mutual respect
2	Consultation	• Initiation of face-to-face contact • Community consulted on projects • Feedback available on research results • Users may be heard but not heeded
1	Informing	• One way communication; often using technical language • Users generally informed about rules, regulations and changes
	State Management	

Figure 6.1. Continuum of Co-management[226]

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[223] Berkes, F. 1981. "The Role of Self-regulation in Living resources Management in the North," *Renewable Resources and the Economy of the North*, M.M.R. Freeman, Ed. Ottawa: Association of Canadian Universities for Northern Studies, pp. 166-178.

[224] Arnstein, S. 1969. "A Ladder of Citizen Participation," *Journal of the American Institute of Planners*, 35, pp. 166-178.

[225] Berkes, F., George P., and Preston, R. J. 1991. "Co-management: The evolution in theory and practice of the joint administration of living resources." *Alternatives*, 18(2)12-18.

The seven levels of management range from a level comparable to complete government control to a level representative of self-management or an equal sharing of responsibilities. The four lower levels of the continuum deal with varying levels of participation, ranging from none to the start of two-way communication.[227] According to many, it is only the three upper levels that should be classified as co-management.[228]

The goals of cooperative management vary depending upon the stakeholders involved. Where cooperative management involves First Nations, it focuses on the concept of combining state level, scientific resource management systems and local-level, traditional resource management systems.[229]

> When traditional environmental knowledge is combined with modern science knowledge, better decisions about the future can be taken. The combination of the two types of knowledge – traditional and scientific – to make decisions about conservation, land-use planning and industrial development, is called co-management.[230]

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[226] Adapted from Berkes et al. 1991. Co-management: The Evolution in Theory and Practice of the Joint Administration of Living Resources. *Alternatives*. 18(2) 12-18

[227] Roberts, K. 1994. *Co-management: Learning from the Experience of the Wildlife Management Advisory Council for the Northwest Territories*. Masters Thesis. University of Calgary, Environmental Design. p. 20.

[228] See Berkes (1991), Roberts (1994), and Campbell (1996).

[229] Campbell 1996.

[230] Robinson, M., T. Garvin and G. Hodgson. 1994. *Mapping How We Use Our Land: Using Participatory Action Research*. ANDC and Canada/Alberta partnership Agreement in Forestry. The Arctic Institute of North America, Calgary, Alberta. P. 2.

Management of renewable resources such as wildlife appears to be a logical starting point for integration of traditional ecological knowledge with western science. It is increasingly evident that the knowledge, perceptions and concepts of local resource users are not only pertinent but also necessary to properly manage the use of wildlife populations. In the first place, management practices based solely on western scientific methods have been less than successful in many cases and broad gaps exist in the scientific knowledge of the natural environment.[231] Traditional ecological knowledge shared within the context of cooperative management may provide the information needed to close those gaps.

Presently, hunters are wary of sharing traditional ecological knowledge with game managers trained in the western scientific context. However, interviewees in this study indicated that a formal cooperative management agreement might alleviate the current reluctance of hunters to share harvest information. This is another reason for choosing the cooperative management option.

6.2 Why Cooperative Management?

As described in Chapter five, the treaty rights of the Little Red River Cree within Wood Buffalo National Park continue to exist. Therefore, one may ask why the First Nation has opted for a cooperative management approach rather than focus on the recognition of treaty rights by Canadian Heritage.

The LRRCN has never accepted the assertion of the Crown that Treaty Eight was a document that extinguished their dominion within traditional territories.[232] However, as illustrated by other First Nation challenges,[233] the legal route is often lengthy and expensive and confrontation is not a welcome option. In addition, any move by the First

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[231] Mailhot 1994.

[232] Cooperative Management Plan Phase II. 1996.

[233] The Delgamuukw Case was decided in December of 1997 after thirteen years in the courts.

Nation to pursue a legal challenge to the treaty right issue would force the park to remove itself from present negotiations until the courts determined the issue.[234]

There is also the concern by both parties that recognition of treaty rights within WBNP could have negative impacts for both the park and the Cree. It is unknown whether or not recognition of treaty rights would extend to all treaty eight signatories rather than just the present aboriginal users.[235] If treaty rights were recognized for all treaty eight Indians, there exists the possibility of an influx of aboriginal hunters into the park.[236]

This increased pressure on wildlife populations might disrupt the current hunter-prey balance leading to conservation concerns. Whether Garden River hunters could maintain their current hunting privileges in this scenario is unlikely.

The possibility for continued improvement in park-community relations through cooperation and the fact that co-management appears to be working in many cases are other reasons to opt for cooperative arrangements rather than the alternatives identified above. As well, the response of aboriginal peoples to the idea of cooperative management has been overwhelmingly positive.[237] For many aboriginal peoples, cooperative management represents the first real opportunity for their knowledge and voice to be heard and potentially heeded.

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[234] Evans, Maurice. Personal Communication, 1998.

[235] Bankes, Nigel. Personal Communication, October 1997.

[236] Neal, Vern. Personal Communication, October 1997.

[237] Waquan, Chief Archie. Resource Co-management in Wood Buffalo National Park: The Cree Band's Perspective. *Native People and Renewable Resource Management, The 1986 Symposium of the Alberta Society of Professional Biologists.* p. 81-85.

For these reasons, the Nation has chosen to negotiate with the Provincial and Federal governments, for the establishment of practical agreements capable of demonstrating that shared responsibility for resource management decisions is possible.[238]

Currently, the relationship between Wood Buffalo National Park and the First Nation correlates to the first rung of the cooperative management continuum, but is rapidly moving toward the second rung. This relationship exists without a cooperative management agreement. It is logical that the relationship between the two parties should be at the second stage prior to cooperative management negotiations if there is any hope of eventually coming to some sort of agreement. Indeed, if this were not the case, it is difficult to imagine how the potential for agreement would exist at all.

6.3 The Community's Opinion

Co-management would be good. It wouldn't be like now, where only the park wardens make the regulations. This way the people would be there, they would be helping make the regulations.[239]

Approximately half of the interviewees in Garden River were aware of the term co-management or cooperative management, but for many people it was not clear exactly what the term meant and how it would benefit the community.

There have been a couple of meetings here in Garden River about co-management, but I don't think that people have a good idea what it is all about. We know that the band is trying to work together with Parks Canada to develop a new set of regulations and to develop the park in a better way for everyone.[240]

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[238] Cooperative Management Phase II Action Plan. 1996. P. 21.

[239] First Nation Interview #04, June 1997.

[240] First Nation Interview # 06, June 1997.

In general, the attitude toward cooperative management was a positive one. It represents a new option, one that could empower the people in the community. In addition, some hunters indicated that a formal agreement would improve the relationship between the park and the community.

I would like to see cooperative management happen between the park and Little Red. Even representation would be good. I think that some of the regulations are not fair for us. The park makes regulations without notifying people. They just say it is a regulation and the people have no say. That is why, if we have a co-management agreement it might be the answer for the people. At least we would have some say in the regulations. At least we would be notified.[241]

Other hunters are more hesitant about cooperative management, recognizing that it must be more than words on paper.

I am not sure about co-management. I always ask, how are we going to benefit? If co-management is just to recognize their [the park's] laws without having any benefit for the community, then there is no use having it. The way the board is set up seems good, but it is no use if there is a board and the minister doesn't have to listen to the board. If that co-management is just there for the park, just to say "we have a management board" and just to get it established and have it on paper, then it is no use. It makes it look like the park is listening but they may not be. The community may end up not having any influence.[242]

6.4 The Cooperative Management Regime

The LRCCN has determined that the primary purpose of the board would be to provide advice and recommendations to the Minister regarding the National Parks Act, WBNP policy and management plans, including regulations within the group trapping area. The cooperative management board may also make recommendations to the

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[241] First Nation Interview # 02, June 1997.

[242] First Nation Interview # 19, June 1997.

Minister related to parklands outside the group trapping area, where the ecological integrity of the park's ecosystem may be affected.[243]

The cooperative management board will be composed of ten members, five members to be appointed from the community and five representatives from government. In addition, the departmental operations manager of WBNP shall sit on the board as an ex-officio non-voting member.

The cooperative management regime as outlined above meets the requirements of level 5 or 6 on the continuum of co-management. According to some academics[244] this regime does not represent co-management at all, but rather is at a level between placation and partnership. The contrast between the opinions of the communities directly affected by cooperative management agreements and those who study the theory of co-management should be noted. Community members are likely to support arrangements that improve upon the status quo and are seemingly more understanding of the evolutionary process of cooperative management, recognizing that in order to climb the ladder, you must take one step at a time.

6.5 The Potential for Cooperative Management

Within Wood Buffalo National Park the potential for cooperative management to work exists for a variety of reasons. As with most bureaucratic systems, there has been reluctance within parks to devolve its responsibilities of wildlife management to local resource users. However, developments in the late 1970s, changed the attitude of the Canadian Parks Service somewhat. During the Berger inquiry into a proposed gas pipeline from the Mackenzie delta and northern Alaska, Justice Berger proposed a new type of park, a 'wilderness park', to preserve wildlife, wildlife habitat, and natural

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[243] LCRRN Draft Memorandum of Understanding dated June 6, 1997.

[244] See Campbell (1996), T. K. Roberts (1994), and James Stauch, *Resident Participation in Non-Profit Hou*sing, Masters Defense Project, EVDS, June 1997.

landscapes in the northern Yukon, and to underpin the still vibrant traditional economy of the Inuvialuit and Dene.[245]

The 1979 Parks Canada Policy tried to respond to Aboriginal and land claim issues and to Justice Berger's report by including within its policy, sections defining a new relationship between local people and potential national parks. Section 1.3.13 states:

> Where new national parks are established in conjunction with settlement of land claims of native people, an agreement will be negotiated between [the Canadian Parks Service] and representatives of local communities prior to formal establishment of the national park creating a **joint management regime** for the planning and management of the national park.[246]

In the 1980s, several new national parks were created north of 60° pursuant to land claims and co-management boards composed of government and aboriginal representatives are involved in the management and planning processes within these parks.[247] Finally, in 1986, a co-management agreement in association with a land claim was reached between WBNP and the Fort Chipewyan Cree Band. However, the status of this agreement is uncertain since the wildlife advisory board has suspended meetings at the Cree Band's request.[248]

It appears that at present, Wood Buffalo National Park has policy, precedent and previous experience from which it can begin cooperative management negotiations with the LRCCN. As well, the level of cooperative management that the LRCCN seeks at this

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[245] Berger, T.R. 1977. *Northern Frontier, Northern Homeland*, James Lorimer, Toronto. 2 vols.

[246] Parks Canada Policy. 1979. Department of Indian and Northern Affairs, Ottawa. 40. Emphasis Added.

[247] Berkes et al 1991.

[248] Evans, M. Personal Communication, January 1998.

point does not require a transfer of jurisdiction or authority from the government to the First Nation. This is of particular concern to environmental groups involved with national parks, who fear the loss of protected areas once jurisdiction is transferred.[249]

At this stage, the people of Garden River are supportive of a formal agreement with WBNP. However, fewer than one third of those interviewed felt that they had the time or the interest to be a member of the board. The support of the community and a strong link to them from the co-management body is essential, particularly with respect to ensuring the incorporation of indigenous knowledge into management decisions.[250] In addition to support, there must be individuals within the community who are committed to representing the populace at large. This is particularly true of local hunters and trappers since their input will be integral to the creation of new park regulations.

As discussed in the chapter four, most hunters are reasonably happy with the way things are now. Even though cooperative management could improve the current situation, lack of competition for moose and the continued ability to provide for families with minimal park interference has meant that there has been little impetus for change.

In addition, the current goal of the co-management proposal is to reach an advisory level only. At this stage, final decisions-making authority remains with the minister and there is a danger that unless attempts are made to move up the co-management continuum community support will wane. It is important that once cooperative management is initiated, the process continues to evolve. Aboriginal groups who participate in a failed co-management agreement are unlikely to support a second or third endeavour.

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[249] The Canadian Parks and Wilderness Society was present during a meeting to negotiate a memorandum of understanding on cooperative management in Garden River.

[250] Osherenko 1988. P. 42.

CHAPTER SEVEN
DISCUSSION AND ANALYSIS

At the outset of the study, five objectives were identified. The first objective was to document the traditional ecological knowledge and current land use of Garden River hunters. During the research I discovered that the people of Garden River have a depth of traditional knowledge. Given that the information collected during the spring of 1997 only dealt with a single animal species, one can assume that the information shared barely scrapes the surface. The fact that there continues to exist a fountain of knowledge within the community does not diminish however, the disturbing trend of loss of knowledge within the younger generations.

7.1 The Shrinking Circle

The biggest concern of elders and hunters was the change in hunting practices by younger people within the community. Changes included the amount of time spent on the land, the shorter distances travelled from the community, the use of motorized vehicles for hunting and a general loss of knowledge about hunting and animal species. Elders linked these changes to a perceived cultural loss.

These concerns were graphically portrayed during the land use mapping exercise. The map of moose hunting areas by age class shows the shrinking circles surrounding the areas used for hunting.[251] The comparison between an elder who could not draw a circle around his former hunting areas because the region was too large to a circle extending no more than 50 kilometres from Garden River illustrates this disturbing trend.

There appear to be several reasons for this change in hunting practices among hunters under the age of 30, where the shrinking circle is most apparent. To begin with, there has been a shift away from the traditional occupations of hunter and trapper and therefore the focus of life has moved from the land to the community. Younger people are more likely to seek employment within the community working for the Band, the

[251] Refer to Figure 4.11.

nursing station or the school, where they can earn higher wages. Employment within the community means that parents can stay at home with their children while they attend school and also take part in extracurricular activities such as hockey.

Employment and extracurricular activities limit the amount of time individuals have to spend on the land. Day and weekend trips have become more common than extended stays in the bush and thus technology plays a larger part in hunting practices.[252] Snowmobiles and motorized boats allow hunters to travel long distances in shorter times. Moose are hunted in more accessible areas along rivers and trails or roads. Thus, speed of travel, shorter hunting expeditions and the use of easy access routes result in limited knowledge of the land and moose.

For some of the young hunters, travel along accessible routes using motorized vehicles may be their only perceived option. If the hunter does not have the confidence to travel in less used areas or is unfamiliar with the region, safety concerns will determine their route. In this case, initial lack of traditional knowledge leads to further erosion.

Berkes identified technological change as one of the conditions that threaten indigenous management systems.[253] However, this view is too simplistic. Technology plays a role in the loss of traditional ecological knowledge, but ultimately, it is the loss of traditional knowledge that threatens traditional management systems.

Education of children in school is viewed as an additional detriment to the continuance of traditional practices. Osherenko[254] states that a key problem for the indigenous system arises when rules, once widely followed are no longer passed down to the younger generation. Children learn values in school that conflict with values essential to their native culture – values that stress individuality and competition over community and co-operation. As well, new authority figures (school teachers, outside experts) begin

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[252] This trend has been noted for Inuit communities as well. See Condon et al. 1995. The Best Part of Life: Subsistence Hunting, Ethnicity, and Economic Adaptation among Young Adult Inuit Males. *Arctic*. Vol. 48, No. 1 p. 31-46.

[253] Berkes, F. 1985. Fishermen and the Tragedy of the Commons. *Environmental Conservation*. 12(3):199-206

[254] Osherenko 1988. P.5.

to displace the elders, reducing the likelihood of compliance with previously held social norms. Additionally, students attending conventional schools have few opportunities to learn the skills of the land from their elders. When children are not taught on the land from a young age, learning to snare rabbits and trapping small game, they may never graduate to a level where they are capable of hunting large animals such as moose. In effect, they will not be able to provide for their families from the bush.

The other difficulty is that there is a high rate of drop out from the school system and very few young people from Garden River are attaining the grade 12 level of education required to enter in the mainstream workforce.[255]

Without intervention, the expected outcome of the shrinking circle is a decrease in the level of traditional ecological knowledge combined with low education levels resulting in a future generation of children that will not have the skills to survive in a traditional way or within an increasingly technological society.

One other condition that Berkes believes has the potential to threaten indigenous management systems is human population growth.[256] The majority of interviewees in the study did not think that population growth in the community would adversely affect moose populations because of the shift away from the bush to the community. As more and more younger hunters move away from hunting in the bush, older more experienced hunters will be increasingly relied upon to provide for not only extended families, but for the community as a whole.

7.2 Sustainable Harvesting

The second objective of the research was to determine the current harvest of moose by hunters within the study area. The 1997 Moose Harvest Survey was successful in documenting the seasonal harvest of Garden River hunters and estimating the total harvest within the group trapping area. However, the opinion of the hunters as to whether the harvest is sustainable differs from that of Alberta Environmental Protection.

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[255] OT2, Personal Communication, June 1997.

The population models supplied by Alberta Environmental Protection indicate that the present harvest is unsustainable in the long run. Therefore, management planning within the context of a cooperative management agreement should consider the models used by provincial wildlife managers. One must remember, however, that the models are based on extrapolated data from adjacent areas while hunters speak directly of the area in question.

It is the opinion of those hunters surveyed that the population of moose within the study area is healthy at the present time and that changes in populations vary naturally. Interviewees also believe that the current harvest is modest enough that it will not affect the number of moose negatively. This belief is based on many years of experience and acquired knowledge and thus their opinions should be taken very seriously. However, it is possible that a loss of traditional ecological knowledge will change conditions in the future and affect whether hunting can continue as it always has.

Traditional management systems are intimately linked with cultural values, ethics and cosmology. Management and harvesting are conceptually and practically inseparable. Knowledge comes from the experience of every aspect of harvesting itself – travelling, searching, hunting, skinning, butchering and eating. It is accumulated by every individual and shared intimately and constantly with every household, the family or whatever is the social unit of production. It is also shared with the larger society and handed down in the form of stories from one generation to the next. The collective knowledge becomes the cultural heritage of the community.[257]

Elders in Garden River believe that this knowledge can only be accumulated through hunting in the bush, and spending time on the land. If younger hunters do not learn these cultural values and knowledge of the land is lost then concepts of sustainable harvest will be lost also. Elders of the future will not hold the same expansive knowledge we have come to expect of elders today. The result could be that there will be increased

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[256] Berkes 1985.

[257] Usher, Peter. 1986. *The Devolution of Wildlife Management and the Prospects for Wildlife Conservation in the Northwest Territories*. CARC Policy Paper #3 Canadian Arctic Resources Committee Publishing Program.

reliance on the state system of management to ensure sustainability of moose populations and traditional ecological knowledge will play a lesser part.

7.3 Treaty Rights

The third objective of the research was to investigate the existing treaty and constitutional rights of the Cree within Wood Buffalo National Park. Historical documents and Supreme Court decisions support the opinion that treaty rights were not extinguished on park land and section 35 of the 1982 Constitution Act recognized and affirmed those rights.

It appears that current treatment of hunting rights as 'privilege' only, is unconstitutional and it is only a matter of time before one of the First Nations bordering WBNP takes the matter to trial. Rather than allow the matter to stew in the courts for several years, Wood Buffalo National Park and their governing body should take a proactive stance on the matter. Parks Canada policy states:

> i) **In new national parks, the treaty rights of Indian people and those rights recognized in native land claim settlements will be honoured** and extractive activities which are the subject of such rights can only be terminated after agreement has been reached with the people concerned.[258]

Parks Canada should extend this policy to Wood Buffalo National Park. It has long been acknowledged that because of the traditional use of park lands by aboriginal peoples, Wood Buffalo is more similar to northern parks in Canada than its southern counterparts. This move would afford aboriginal peoples the rights that they are entitled to, on their traditional lands.

The acknowledgement of treaty rights would likely extend to all treaty eight signatories that have ancestral rights to hunt within the park. However, it is unlikely that

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[258] Parks Canada Policy. 1979. Department of Indian and Northern Affairs, Ottawa, Ontario. Section 3.2.11. Emphasis Added.

this will compromise the purpose of the park due to a large influx of hunters. Wood Buffalo is largely inaccessible, having only three points of entry during perfect weather conditions. As well, there is a limited system of trails, known only to those hunters who have used them continuously over the years. Even if initially more aboriginal hunters came to the area to hunt moose, these barriers would likely prevent them from hunting in the area long term. Provincial lands, with their network of cutlines and access roads present an easier, less time consuming option.

7.4 Cooperative Management

The fourth objective of the study was to examine the potential for cooperative management within WBNP. From the research, I determined that there is potential for cooperative management within Wood Buffalo National Park. Indeed, it may be a necessary option if both the park and the Cree are to adopt a proactive stance where wildlife management is concerned. Very little information exists about the population, health and movement of moose within WBNP. There are many hunters within the community with a wealth of traditional knowledge pertaining to moose populations and wildlife populations in general. Co-management, relying on traditional bush skills and land stewardship, may provide more efficient management of the resource base. It will increase the awareness of and compatibility with local needs and may well enhance the level of bush skills in the community by increasing the number of local people effectively occupied in land stewardship activities.[259] Policy and precedent are in place to begin the process of cooperative management.

[259] Berkes et al. 1991.

7.5 The Research Question

In meeting the objectives of the research I was able to answer the original research question:

> Is cooperative management an appropriate strategy for both Wood Buffalo National Park (WBNP) and the resource users, the Little Red River Cree Nation (LRRCN); allowing for sustainable use of the resource while respecting constitutional law.

In addressing the first part of the question, the research indicates that cooperative management is an appropriate strategy for Wood Buffalo National Park and the Little Red River Cree Nation, but not at the level the First Nation is attempting to achieve. Co-management, when it is successful can provide the forum for information sharing and sound management decisions based on mutual consent. The benefits of co-management between the First Nation and the park will far outweigh any perceived costs. The park will benefit by increased cooperation resulting in better harvest data and greater adherence to agreed upon hunting regulations and recommendations. The First Nation will benefit through increased responsibility and ownership over their traditional lands as well as the potential for employment in wildlife research and management. Consideration of views of community members will ensure that regulations and enforcement are appropriate to the local situation.

However, given that Wood Buffalo National Park does not recognize treaty rights within the park, any cooperative management agreement reached at this time would not be based upon the constitutional rights of aboriginal peoples.

Bearing in mind that co-management is a process that must be achieved one rung at a time, it is conceivable that the LRRCN and WBNP can move to level 3 and 4 at the present time. The First Nation would like to attain a level of co-management that corresponds to level 5 or 6 on the co-management continuum. In the current political climate of Wood Buffalo, these levels can not be attained. At level 5 or 6, there is an

initiation of partnerships and an agreement to share power and responsibility. This implies that the agreement is between equals. At present, the aboriginal people believe that hunting moose within the park is their right under treaty. The government believes that the aboriginal people continue to hunt within the park only because they have been granted this privilege. A cooperative management agreement will not make the First Nation and the park partners of equal standing. Unless the issue of treaty rights is addressed, cooperative management will not move beyond an advisory level. Until treaty rights are acknowledged, cooperative management can improve a poor situation by creating a forum for much-needed improvement in the dialogue between the two groups.

Local level input into state-level resource management systems is a necessary and inevitable next step in the evolution of natural resource management. Where sustainable resource use is a management objective, national parks can benefit from decentralizing power and responsibility and returning more resource management to local communities.[260]

However, there is still much work to be done before an agreement can be assured success into the future. All parties to the future cooperative management agreement must ensure that steps are taken to create successful partnerships into their children's generation.

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[260] G.A. Klee, ed. 1980. *World Systems of Traditional Resource Management.* John Wiley & Sons, New York.

CHAPTER EIGHT
RECOMMENDATIONS AND CONCLUSION

Several recommendations arose as a result of this study. These recommendations, when implemented will enable the cooperative management agreement to reach a level where the First Nation and Wood Buffalo National Park can make wise, informed decisions based on a mixture of traditional ecological knowledge and western science.

These recommendation include:

1. Address the loss of traditional ecological knowledge among Garden River youth;
2. Implement a community controlled, long-term moose harvest survey;
3. Improve the communication between WBNP and the community through education and cross-cultural sensitization;
4. Acknowledge treaty rights within WBNP and adopt policy to accompany that acknowledgement; and
5. Pursue research to document the current population levels of species such as moose within WBNP in cooperation with the community.

The following provides reasoning and suggestions for each recommendation.

8.1 Recommendations

1. Address the loss of Traditional Ecological Knowledge.

The most important finding of the study was the identification of concerns within the community. These concerns deal with a change in hunting practices of young Cree hunters, and a loss of traditional knowledge among both men and women. The loss of traditional knowledge can occur in only a few generations and therefore it is essential that community leaders begin to combat this problem in homes and in school.

The key to intervention lies in a strengthening of both transfer of traditional knowledge and education within schools. Many interviewees discussed the potential for combining these two types of knowledge. However, it was pointed out that the transfer of traditional knowledge must take place within a setting that is appropriate to the learning. As one elder puts it: *It would be nice if they could go to school and also go into the bush and learn to hunt.*[261]

The school year should reflect the cultural uniqueness of the community. Hunters take their families with them into the bush during the fall more than any other time. If the school year were changed so that classes began in October and went until July, parents would not be forced to choose between taking their children out of school or not taking them into the bush. This is also true for employees of the school, who would like to be on the land at this time. Another option is to change the length of holidays such as Easter to accommodate a later start date for the school year.

Additionally, exercises that incorporate the transfer of traditional knowledge could be added to the school curriculum. Examples include field trips into the bush with elders, going out on a trapline for a day, or classes that teach children how to make tools, find medicinal plants, moose call or prepare a moose hide in an outdoor setting.

Teachers should have the opportunity to take part in these outings also. For many teachers, working within a different cultural setting in addition to living in the remote north, is a strange and sometimes frustrating experience. A cross cultural workshop for teachers prior to the school year that deals with the unique cultural traits of the community would be extremely useful. Teachers should also have a community member they can go to when they need to ask questions regarding Cree language and customs.

The people of Garden River have many ideas about how the level of traditional knowledge can be increased among the young. Community meetings addressing this issue might help to raise awareness and ultimately improve communication between those who have traditional knowledge and those who would like to gain this knowledge.

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[261] First Nation Interview #10, June 1997.

2. Moose harvest survey continuation.

The harvest data collected during the course of this project, while useful, is limited to a period of time and to a subset of hunters within Garden River. In anticipation of a Cooperative Management Agreement with WBNP and Heritage Canada, it would be wise for the community to begin collecting data on an annual basis. This information will be useful for future management of moose hunting within the context of cooperative management. It will also illustrate changes in community harvest over time.

As well, the community could initiate a full-scale harvest survey to determine the total subsistence use of the community. This harvest survey would collect data on the bush harvest, including all types of wild game. This type of survey illustrates the economic benefits of the bush harvest to the community. It can also be used as part of a diet analysis.

Given the small size of Garden River, harvest numbers could be collected from all hunters within the community. Confidentiality concerns may be addressed by collecting only harvest data and age category of hunter. The first section of the appended questionnaire could be used for future harvest surveys.

The moose harvest survey should be expanded to all three Little Red River communities. This would ensure that all of the hunting by the LRRCN within WBNP is documented. Information sharing might also begin on provincial lands, following the format developed for the group trapping area within the park.

In addition, the traditional ecological knowledge collected from Garden River elders during the cultural inventory project of 1996 should be compiled for areas within the park.[262] This information might be needed if treaty rights become an issue within WBNP.

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[262] At the time of writing, the cultural inventory project was not in a publishable form and therefore no reference is available. McCormack, P. Personal Communication, February, 1998.

3. Increase communication and information sharing.

The issue of community-park relations was a major item of concern raised quite often among interviewees. Hunters felt that the biggest problem with the current relationship is a lack of communication. Interviewees would like to see the regulations explained to them. Most people were open to the possibility that a scientist could come in and explain the parks reasoning behind management plans. Biologists not necessarily affiliated with the community of Garden River who are able to speak on these issues should be involved in these presentations rather than local wardens. This will avoid prejudgment based on individual conflicts.

Community members viewed Western science as having utility, but most hunters felt that a combination of "book" science and their knowledge would better serve the environment. Sensitization to each other's knowledge and attainment of that knowledge might help to close the ideological gap between the western and traditional management systems.

Exercises to aid this sensitization might include field trips where biologists and hunters are paired together to compare information. As well, hunters could be taught how population models are created and how these models influence conservation initiatives.

Finally, open community meetings to allow for greater local input and dissemination of information should follow up meetings between WBNP and community representatives.

4. Acknowledgement of Treaty rights.

Wood Buffalo National Park must take a proactive stance on treaty rights within the park and acknowledge the rights of traditional resource users. Unless park rhetoric changes from privilege to right, the two parties can not operate as equals within the context of cooperative management.

Wood Buffalo should adapt its policy so that it reflects a park vision more closely related to northern parks. Park policy for new national parks, adopted in 1979, should be extended to include existing parks such as Wood Buffalo.

5. Initiate species population surveys.

Laws can change very quickly. Once the treaty rights of aboriginal hunters within WBNP are recognized by the courts, current regulation will be deemed unconstitutional and further infringement of treaty rights by regulation will have to be justified based on conservation. To prepare for this, Wood Buffalo National Park needs to aggressively pursue research to determine current population levels of moose within the park. Research must be done in cooperation with the aboriginal resource users and incorporate traditional ecological knowledge at all stages. This is a key factor in acquiring accurate information. Hunters indicated that biologists often look in the wrong place for moose depending upon the season and the weather.

In addition, more information must be gathered regarding the moose migration described by elders. This migration may take the moose on to unprotected Provincial lands where overhunting and industrial development are factors in their survival. Once the movement of moose is ascertained, then management strategies can be developed to protect this migrating population.

8.2 Conclusion

In 1996, the Royal Commission on Aboriginal Peoples recommended that government:

> Recognize that First Nations did not consent to loss of title to their lands or to extinguish all rights to their lands when they signed treaties. A more reasonable interpretation is that they consented to share and co-manage lands and resources.[263]

The purpose of this study was to determine if cooperative management is an appropriate strategy for the Little Red River Cree and Wood Buffalo National Park, allowing for sustainable use of the resource while respecting constitutional law. To answer this question, I had to live within the park, get to know the aboriginal resource users, go on a moose hunt, map the land and seek advice from outside sources.

The use and management of national parks determine sustainable wildlife populations. Aboriginal and non-aboriginal people seek to achieve the protection and maintenance of the natural environment in ways that are specific to their respective cultures.[264] Today, two separate groups manage the use of moose.

The park creates a set of regulations based on the ideals of western science and state management. The hunter, with infinite knowledge about the land he grew up on, creates a set of rules based on need, practicality and conservation. These two parties aim to work together within the context of cooperation.

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[263] Royal Commission on Aboriginal Peoples. 1996. *People to People, Nation to Nation: Highlights from the Report of the Royal Commission on Aboriginal Peoples.* Ottawa, Minister of Supply and Services Canada.

[264] *Aboriginal Involvement in Parks and Protected Areas.* Eds. Jim Birckhead, Terry De Lacy and LauraJane Smith. Australian Institute of Aboriginal and Torres Strait Islander Studies Report Series, Aboriginal Studies Press, Canberra 1992. p. 74.

In order to do that they must learn about each other's system while strengthening their own. Differences in perceptions of aboriginal communities and governing agencies responsible for wildlife management should be addressed through ongoing dialogue. Each party to the cooperative agreement should be open to alternative knowledge, ideas and attitudes about the environment and the practices by which resources can be used and managed. A two way learning process, where Aboriginal people would teach non-Aboriginal people and vice versa, is required to ensure that there is an equal exchange between cooperative groups and policy must be implemented that reflects the equality they aim to achieve.

This communication is imperative if both groups are to be responsible for the cooperative management of Wood Buffalo National Park. With the right balance of time, commitment and respect, cooperative management is an option that will benefit both the people and the moose.

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FN – First Nation Personal Communication

GO – Government Personal Communication

OT – Other Communication

APPENDIX A
INFORMED CONSENT FORM

Research Project Title:	Maintaining Sustainable Moose Populations in Northern Alberta – A Cooperative Management Strategy
Investigator:	Cynthia D. Pyc
Funding Agency:	University of Calgary, Little red River Cree Nation

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, please ask. Please take the time to read this form carefully and understand any accompanying information.

The purpose of this research is to collect traditional ecological information on moose as well as information about Aboriginal hunting patterns. This information may be used to develop wildlife management strategies regarding moose/human interactions within the study area. You have been contacted because of your ecological knowledge of moose and moose hunting.

Participation in this research will involve being interviewed by the researcher. Interviews should not exceed 2 hours in total and may be broken up into two or more sessions. The interview consists of three parts: The first section deals with personal data such as age and number of household members. The second section deals with hunting specifics such as number of moose harvested in a season and where harvesting took place. The third section consists of open-ended questions dealing with traditional ecological information as well as personal observations and opinions relating to moose management and cooperative management agreements.

The interview will be kept strictly confidential and will not be made available to anyone but the principal investigator (C. Pyc). Summarised information from the questionnaire may be made part of the final master's Thesis publication, but under no circumstances will your name or any identifying characteristics be included in the report. Original interview notes and audio will be stored by the researcher under lock for a maximum of three years, at which time they will be destroyed.

Interview information will not be used to harm the community or the participants of the study. The researcher hopes that cooperation between the community and game managers will increase due to this research and that improved conservation plans will benefit both the natural and human communities. There will be no monetary compensation for participation in the research.

Participants of the study can receive updated information regarding the research project throughout the study by contacting Cynthia Pyc at the number listed below.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. If you have further questions concerning matters relating to this research, please contact: Cynthia Pyc at: 220-4044

If you have any questions concerning your participation in this project, you may also contact the Local Areas Ethics Committee and ask for Rich Revel, 220-3622.

Participant	Date
Investigator/Witness(optional)	Date

APPENDIX B

INTERVIEW QUESTIONNAIRE

1. Age group under 29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ 60-69 ☐ 65+ ☐

3. Number of dependants (children, elders or family members living with you) _____

4. How old were you the first time you killed a moose?

5. How do you prepare for a hunt? (I.e.: do you go in a group, day, week in bush)

6. What time(s) of year do you generally hunt moose?

7. Did you hunt moose this past year (Sept. '96 - June '97)? Yes ☐ No ☐

8. Did you harvest any? If so, how many? _____

9. Can you tell me the sex? _____

   Approximate age? _____

   Other (weight, height, health) _____

10. How many families did you share your moose with?

11. How much did you keep for your family?

12. How long does the meat you keep last?

13. Do you eat more moose meat, store bought meat or equal amounts?

14. How much of the moose do you use?

15. What type of moose do you prefer to get?

16. What kind of weather do you like to hunt in?

17. What changes have you seen in the moose population in this area for the past few years? (I.e.: health, migration patterns)

18. What makes the moose population go up or down?

19. Where do you find moose?

20. Do you think there should be regulations for moose hunting?

21. What do you think of the regulations now?

22. Do you think there is a difference between older hunters and younger hunters?

23. How do you decide which area to hunt in each year?

24. Are there any traditional rules for moose hunting?

25. How do you show respect for the moose?

26. How would you feel about working with the Park to manage moose populations?

27. What do you think about the current regulations?

28. How have the regulations affected you?

29. What regulations would you change?

30. What do you think of cooperative management between the park and the community?

31. Would you be willing to be on a cooperative management committee if an agreement is reached? If yes, why? If no, why not?

32. Would you be willing to tell the committee how many moose you harvest each year?

33. Would you be willing to adjust your harvest times or sex choice for moose if the committee found that moose populations were not sustainable at the current harvest rate?

34. If yes, why? and if no why not?

35. In your opinion, what can be done to make sure that there will always be enough moose to hunt?

36. Could you map your hunting territories?

APPENDIX C.

VALIDATION LETTERS

MEMORANDUM

COPY

TO: Chief Johnsen Sewepagaham

FROM: Jim Webb

DATE: March 6, 1998

RE: **Support for the Research Report Prepared by Cynthia D. Pyc, BSc, University of Calgary/"Hunting in the Bush is Our Culture" The 1996/97 Moose Harvest Survey and Traditional Knowledge Collection for Garden River, Alberta (November, 1997)**

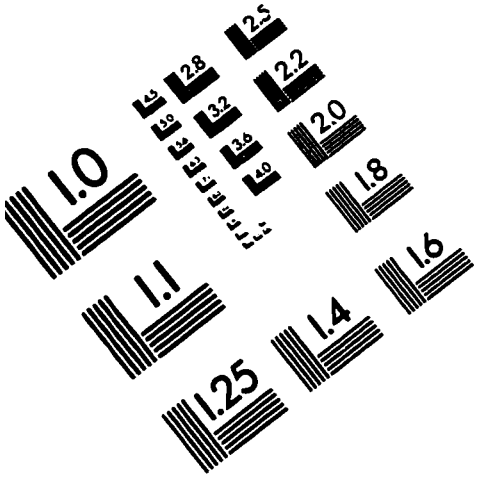
I have reviewed this report, including Appendix D concerning Treaty Rights in Wood Buffalo National Park, and recommend that the Nation provide strong written support for the work documented by Cynthia D. Pyc among the elders and community members of the Nation who hunt and trip within Wood Buffalo National Park. Generally, I find Ms. Pyc's work to be clear and concise, logical in approach to topic, and well grounded in the information provided by elders and community members. I believe that her report is an accurate account of current and past hunting practices within the Park, the system of naturalized knowledge (ie; traditional ecological knowledge), which inform these hunting practices, and community concerns related to moose hunting. In those instances where Ms. Pyc offers opinions and conclusions, or recommendations, she has been careful and prudent in ensuring that these are capable of support by the information, and that they do not require a reviewer to "read into" the report. This report, and Ms. Pyc's work within the Little Red River Cree Nation, is a high, professional quality. She has produced a report which can be used by the Nation, and its members, for a number of purposes. I recommend that this document be distributed to members of our Nation for their review and comment. I recommend that copies be provided to Council, to the Board of Education and to the Kayas Cultural College.

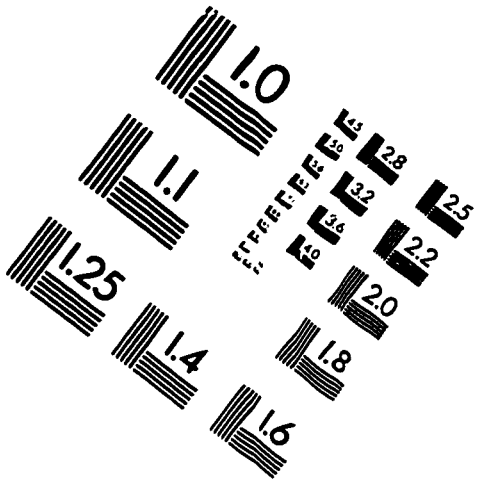
Jim

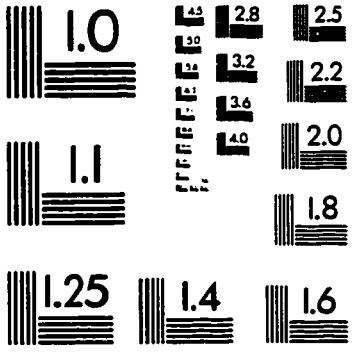
JW/wr

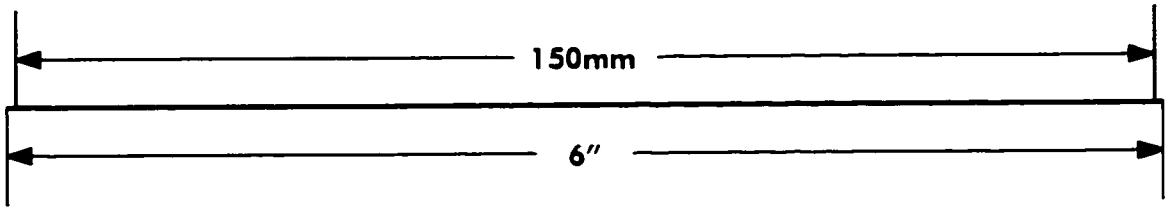
c.c. Vern Neal
Celestin Nanocch
→ Cynthia Pyc

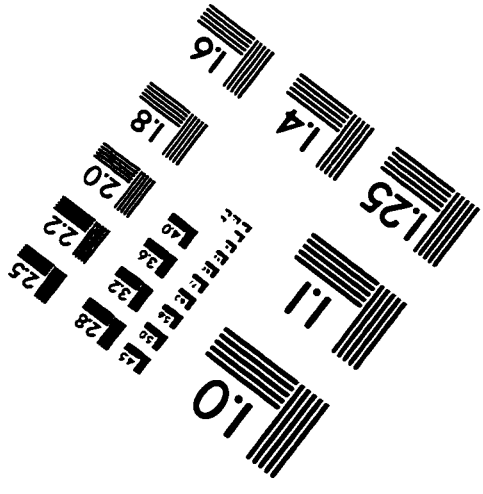
IMAGE EVALUATION
TEST TARGET (QA-3)

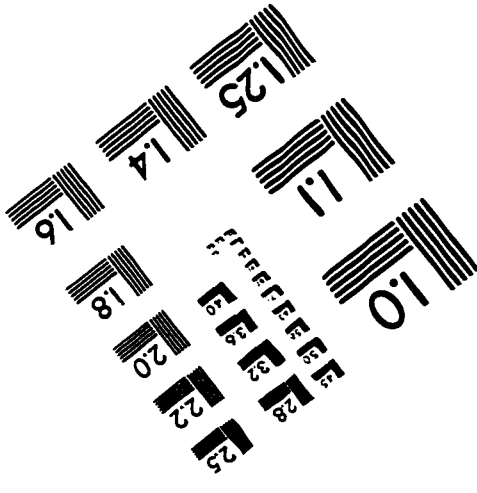












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