

**CANADIAN RESOURCE CO-MANAGEMENT BOARDS AND THEIR
RELATIONSHIP TO INDIGENOUS KNOWLEDGE:
TWO CASE STUDIES**

by

Stella Spak

A thesis submitted in conformity with the requirements
for the Degree of Doctor of Philosophy,
Graduate Department of Anthropology,
University of Toronto

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ABSTRACT

Northern Canada has seen the emergence of various forms of resource co-management agreements over the last decades. Co-management arrangements either result from land claims agreements between Canada and First Nations/Inuit, or crises (real or perceived) regarding a particular resource. Co-management boards consisting of Indigenous and government representatives, often claim to base their natural resource management decision-making on both biological resource science and the represented Indigenous peoples' traditional environmental knowledge. Traditional environmental knowledge research has become a rapidly growing field of academic inquiry. The abilities of co-management bodies (who formulate or advise on natural resource policies) to rely on the represented Indigenous communities environmental knowledge has not received much attention.

This research compares the capabilities of the crisis-based Beverly and Qamanirjuaq Caribou Management Board (BQCMB) and the land -claims-based, Gwich'in Renewable Resource Board (GRRB) to rely on the knowledges and concerns of represented Dene and Gwich'in communities in their operations. The structural, cultural,

and legislative framework of the solely advisory BQCMB differs greatly from that of the policy-making GRRB. This thesis analyzes how such differences affect the Boards' relationships to the environmental knowledge of the communities.

Fieldwork conducted over the 1996-98 period in communities represented at the Boards and at BQCMB and GRRB meetings thus aimed to understand the communities' experiences with the Boards.

The BQCMB's relatively weak status as solely advisory to governments, coupled with its community representative structure, hinder its ability to achieve meaningful community participation, and subsequently its ability to rely on Dene environmental knowledge. The GRRB, on the other hand, has the power to make policies and establish rules and regulations for the region it covers. This, coupled with its culturally appropriate community representation and meeting structure, permits inclusion of Gwich'in environmental knowledge. Ultimately, however, the ability to operate according to Dene and Gwich'in environmental knowledge and views of appropriate interaction with the land, is circumscribed by the wider Euro-Canadian bureaucratic structures within which both boards have to operate. Only knowledge that does not challenge the Euro-Canadian construction of reality is being used.

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LIST OF ABBREVIATIONS

AMB	Archipelago Management Board
BQCMB	Beverly and Qamanirjuaq Caribou Management Board
CMG	Caribou Management Group
DIAND	Department of Indian Affairs and Northern Development
GEKP	Gwich'in Environmental Knowledge Project
GCLCA	Gwich'in Comprehensive Land Claim Agreement
GNWT	Government of the North West Territories
GIS	Geographic Information Systems
GRRB	Gwich'in Renewable Resource Board
GSA	Gwich'in Settlement Area
HBC	Hudson's Bay Company
IK	Indigenous Knowledge
NWMB	Nunavut Wildlife Management Board
RWED	Resources Wildlife and Economic Development
RCMP	Royal Canadian Mounted Police
RRCs	Renewable Resource Councils
SIFC	Saskatchewan Indian Federated College
TEK	Traditional Environmental/Ecological Knowledge
TK	Traditional Knowledge

INTRODUCTION

“The ability to dominate derives in part from imposing one’s construction of reality as the natural order of things” (Jean–Marc Philibert 1990).

This quote eloquently pinpoints the central problem experienced by many contemporary Canadian resource co-management boards. Canadian resource management, especially in northern regions, is currently going through a period of reassessment and change often resulting in co-management agreements. Co-management is a term generally employed to refer to arrangements through which different stakeholders of specific resources are brought together to form a board that will address their differing experiences and concerns. The term is sometimes used to refer to arrangements between industry and regional stakeholders. In the Canadian context, it generally refers to arrangements between First Nations and governments, or even more specifically, First Nations representatives and government renewable resource employees. I will use this meaning of co-management in this thesis.

As a result of bringing First Nations representatives and government biologists together, co-management boards generally claim to rely on the environmental knowledge of the First Nations communities in combination with the Western biological knowledge of the government biologists. In reality, most boards have great difficulties living up to such claims. All too often, mainstream Canadian scientific/bureaucratic information¹ and

¹ While I could refer to this as knowledge it is largely impersonal information rather than knowledge, a term carrying more personal connotations.

culture dominate the co-management process.

The specific focus of this research is to examine why scientific/bureaucratic resource management practices occupy such a dominant and privileged position in Canadian resource management that they even prevail in many co-management settings.

This question will be examined through the detailed analysis of the functioning of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB). The BQCMB was established in 1982 and brings Dene, Inuit and Government representatives from the NWT, Nunavut, Northern Manitoba and Northern Saskatchewan together in order to ensure the safeguarding of the Beverly and Qamanirjuaq caribou herds.

I decided to use the BQCMB as my main case study because it is often referred to as a model co-management board that other boards should emulate (Osherenko 1988). I attended all BQCMB meetings over the Nov. 1996- June 1998 period and spent time in four First Nations communities represented at the Board in order to understand how the “model” co-management board actually works for the represented First Nations communities.

In order to better understand how the structural, cultural and legislative setup of a co-management board can facilitate the reliance on different forms of knowing in the co-management process, I also took a comparative look at the functioning of a relatively new land claims-based co-management board. I therefore ended my research year by visiting the office of the Gwich'in Renewable Resource Board (GRRB) in Inuvik and attending one of its board meetings in a Gwich'in community. The GRRB has been in existence since 1994 and spent over \$400, 000 on Gwich'in knowledge projects during its first two years of operation alone. These Projects documented Gwich'in knowledge on 20

fish and wildlife species important to the Gwich'in, mainly through accompanying knowledgeable individual on the land and interviewing Elders. The results were published in a report called "Nahn Kat Geenjit Gwich'in Ginjik" (Gwich'in Words About the Land) and redistributed to the communities. While the GRRB is not without problems, its experience provides an interesting contrast to that of the BQCMB and helps in coming closer to understanding how one can create co-management settings which enable Indigenous resource relationships and knowledges to inform policy-making.

It should be noted that, rather than collecting Dene or Gwich'in environmental knowledge per se, the focus of this research is on the relationships the two co-management boards exhibit to Dene and Gwich'in environmental knowledge. While I thus extensively explore the wider issues behind the different ways of knowing, I did not set out to collect the environmental knowledges of the communities.

Different forms of Knowing and the Culturality of Knowledge:

Government and academia frequently refer to the knowledge Indigenous peoples have of their surroundings as "Traditional Ecological Knowledge" or TEK (See chapter 2 for a detailed analysis of the historical roots of the TEK concept). TEK is not, however, a concept without controversies. These controversies surround the classification of TEK.

Many scientific disciplines have been interested in the knowledge non-Western societies have of their environment, anthropology being most prominent in this regard. The last decades have nevertheless seen an unprecedented increase in scientific research on what is now generally referred to as the Traditional Environmental Knowledge (TEK) of Indigenous peoples. TEK is, therefore, now a concept used to refer to local knowledge

world-wide. It is, however, important to keep in mind that there are many different forms of TEK. The environmental knowledge of Dene in Canada is, for example, fundamentally different from that of Mende in Africa².

Research into TEK is currently executed not only by anthropologists, but also by researchers from various other disciplines. The drive behind this "popularity" to document TEK partially stems from the fear that "the knowledge is dying with the Elders" and therefore has to be documented for future generations. Reliance on TEK is also increasingly seen as a more viable and at times cheaper alternative to conventional approaches. This applies in particular to international development projects and at times also to domestic resource management questions, especially in areas in which the conventional approach failed. The very nature of TEK, however, makes its documentation and resultant classification by Western science intrinsically difficult if not impossible (see Cruikshank 1998 et al).

A fundamental aspect of all sciences or systems of knowing is the fact that, regardless of their presumed degree of objectivity, they are all, without exception, a part of the culture from which they come (see chapter 2 for more on this issue) The embeddedness and culturality of all knowledge is an important reality often overlooked by western science. If one claims that TEK is culturally bound and Western science is not, thus assuming that the latter reigns on a higher level of free logic, one is ignoring the history of Western science. Nader points out that the idea of contemporary Western ways of knowing as the greatest source of truth is a recent cultural fact rather than a long established theory (Nader 1996:3). The use of the term science to describe the search for knowledge or truth began only in the 1300s, but until the 1700s it was used as a general

² Chapter 2 will explore this issue in detail.

description of knowledge as such. It was only in the 1700s that a distinction was made between theoretical and practical knowledge, science becoming associated with theoretical knowledge and experimentation, soon to be matched by a particular method (Williams 1985:277 and White 1967). This separation of science from knowledge in general is very much an historical and cultural reflection of the development of Western society at large. The cultural pattern of Western society is very much reflected in its understanding of science: "Modern Western science is a habit of mind that mirrors the compartmentalized societies in which it is embedded" (Young 1972:102). One can therefore argue that different ways of knowing and understanding knowledge, or as it is called by Western society, science, are always a reflection of the society or culture which brings them forth.

Being highly stratified, compartmentalized and materialistic, Western society has, not surprisingly, brought forth a superb exploration of the material world around us by separating its phenomena into the smallest parts, thus hoping to understand their functions. While the material and physical knowledge gained through this method of understanding is vast and has given humanity a revolutionary understanding of the cause and effect of numerous organisms and phenomena, it has been argued that this reductionist compartmentalizing separation and analysis of the elements surrounding us also poses a barrier to understanding the whole (Freeman et al.1992). This approach, moreover, places humans in a superior position over nature. Essentially seeing humans as being in charge of nature this cognitive model is based on control, dominance and human superiority reflected in the unquestioned right to manipulate.

In Western society one often encounters the view that an ultimate understanding and explanation of the universe around us can only come through Western scientific research. Comments contrary to this assumption have nevertheless often been made by exactly this science's greatest "explorers". Heisenberger, for example, pointed towards a serious flaw in the reductionist Newtonian paradigm when he discovered that it is not possible to know what nature is really about since one has to pin it down in order to study it scientifically, and is thus changing it prior to its examination (Heisenberger in Knudtson 1992). Asked about the possibility of expressing absolutely everything scientifically, Einstein remarked: "Yes it would be possible, but it would make no sense. It would be depiction without meaning - as if you described a Beethoven symphony as a variation of wave pressure" (Einstein in Clark 1971:243). Thus, while Western science has much to contribute to humanity's knowledge, its approach alone, as many of its scientists point out, will not lead to ultimate understanding.

By separating and compartmentalizing the different aspects of nature around us, Western science is making it difficult to understand their ultimate relatedness. However, this understanding is necessary in order to comprehend interrelated systems such as the ecosystem.

Scientific recognition of the existence and importance of TEK does not provide for the automatic acceptance and/or recognition of the larger paradigm behind it. While the ensuing exploration of TEK led to the recognition of its importance for fields such as international development (see Brokensha, Warren and Werner 1980), TEK has, for example, generally been relegated to the place of practical, anecdotal, situation-specific and most important of all, a-theoretical knowledge.

Anthropologists (Levi-Strauss 1966: 1-3) have claimed that the knowledge or TEK of Indigenous peoples is a-theoretical; this assumption, however, is incorrect. The fact that a knowledge system does not separate theoretical and practical knowledge in the same way as science has in its recent history does not make this knowledge system a-theoretical. Van der Ploeg, when discussing the knowledge of Andean potato farmers, points out that there is theory in, what he calls, "art de la localite". He argues, however, that this theory is organized in a fundamentally different way than scientific discourse: "...the syntax for instance is not the nomological one of science; the scope is not a presupposed universe but one specific to the localized labour process itself" (Van der Ploeg in Hobart 1993:210). Van der Ploeg further points out that when trying to improve specific potato plots, Andean farmers interpret, evaluate, cultivate and improve each plot through a cluster of bipolar and rather metaphorical concepts (ibid 211). The interaction of theory and practice in Andean potato farming thus allows for the constant regulation and adaptation of potato genotypes to produce the needed specific phenotype. Scientific separation of theory from practice leads to theoretically superior potatoes which lack practical applicability (Van der Ploeg 210-224). Therefore the scientific separation of theory from practice does not necessarily lead to superior resource management capabilities and, most important of all, should not be assumed to mean that knowledge systems without this separation are lacking theoretical knowledge. The tendency toward generalization in the theories of Western science can thus, at times, be an obstacle to understanding particular site-specific problems of a resource. The particularized knowledge of Indigenous science coupled with its holistic approach to understanding can be more appropriate for such situations.

The Issue of Defining Traditional Environmental Knowledge and who Defines it:

The definition of Traditional Environmental Knowledge (TEK), and the issue of who defines it, have significant effects on its use in co-management. While I am using the term Traditional Environmental Knowledge (TEK) throughout this thesis, there is no universally accepted definition of the term TEK, and TEK is not the only term used to refer to Indigenous science. Other terms used are Indigenous Knowledge (IK), Traditional Ecological Knowledge (also TEK), Local Knowledge (LK), or simply Traditional Knowledge (TK). While each of these terms can be seen as having a slightly different focus (Berkes 1999) they are all used by scientists to refer to Indigenous science. Whether TEK, or one of the other terms, is employed, many Western scientists see TEK as the knowledge Indigenous peoples have of the plants and animals in their environment, including their overall interaction. Definitions such as: "Traditional Ecological Knowledge (TEK) is the system of knowledge gained by experience, observation, and analysis of natural events that is transmitted among members of a community" (Huntington 1998:66) are often used to define TEK. Parts of this knowledge are further often paralleled with the scientific discipline of ecology. While such a definition is not necessarily wrong, it is very limiting and can lead to the control of what TEK is and is not by non-practitioners of this knowledge rather than the actual knowledge holders. If it is assumed that TEK has to be something that can be placed into and explained through specific parts of the Western scientific system, then much of the contributions TEK can make will be circumscribed by another system's assumptions. Referring to Western science's need to house TEK in familiar concepts, McGregor, an Anishinawbe scholar, writes: "TEK as it is generally presented, consists of the knowledge non-Aboriginal academics think Aboriginal people possess, rather than the knowledge

itself” (McGregor 1995:126). Similarly, Brooke points out that: “Defining Traditional Knowledge is the responsibility of First Nations and Inuit. It may not be possible, or advisable for one definition to be adopted universally” (Brooke 1993).

While some Indigenous people are using the term “TEK” their definition is generally much more inclusive. LaDuke, an Anishinawbe, for example, defines TEK as: “...the culturally and spiritually based way in which Indigenous people relate to their ecosystems” (LaDuke 1994). This definition is much more holistic and all-encompassing than the more common definition of TEK, thus speaking of the difference in the approach Western and Indigenous science take toward knowing.

Addressing the problem of expressing one way of knowing through the eyes of another, Clarkson (1992:1) points out that: “Wherever there is a dominant perspective that is so readily accepted and widely influential that it can unconsciously exclude all other perspectives, the process of real communication and understanding is diminished tremendously”. Thus, even if the importance of Indigenous science is recognized by Western scientists, it is often difficult for Western scientists to approach and learn from Indigenous science as a system of knowledge valid in its own right rather than something to be incorporated and framed in their own way of thinking. While there are exceptions, the term TEK is thus unfortunately all too often used to express Western scientific understandings of Indigenous science. The use of the term in co-management settings is particularly prone to reflect only biological understandings of indigenous science. While I will at times have to use the term TEK or TK throughout this thesis, it is important to keep its various interpretations and ambiguity in mind.

The unwillingness of many Western scientists to recognize the cultural influences underlying all ways of knowing contradicts Western science's own principals of critical scientific enquiry and is therefore not only unscientific but essentially dangerous. The danger of such a view lies in its consequences. The scientist is led to believe that his/her knowledge is the only possible reality, the only truth. In this context all other views are viewed as faulty, imperfect, or in other words, unscientific. This assumption further leads to the belief that other forms of knowing are essentially on a lower scale of development. They are seen as being more primitive and not as evolved as Western science. Applied to natural resource management in Canada, this means that Western science-based scientific/bureaucratic resource management practices are seen as representing the pinnacle in human understanding of resource management while all other practices are assumed to occupy lower ranks of scientific development. While such an attitude may accept that some aspects of non-Western knowledge are valid and important, it will always maintain that its method should be the underlying principle of all resource management. Statements such as: "Addition of TK may help to fill many of the information gaps which now exist (in caribou biology)"(Wakelyn 1996:7) exemplify this attitude.

Parallels to Other Areas of Indigenous/State Relations:

Surprising similarities to the issues surrounding the definition and acceptance of TEK-based concepts in natural resource management can be found in the issues surrounding the legal recognition of Indigenous title to land. The rationale behind governmental acceptance of TEK-based concepts or Indigenous concepts of title to land follows the same

philosophy. Whether the Indigenous knowledge concerns resource management or title to land, only Indigenous concepts in support of Western principles of land title or resource management are accepted. Concepts challenging the Western rationale are disregarded. Keeping this fundamental similarity in mind it will be interesting to look at the history and rationale behind Canada's argumentation in regards to land title.

In her in-depth analysis of the 130 year history of the Aboriginal title issue in British Columbia, Dara Culhane (1998) traces the history of British colonial law relating to land title back to various early 20th century judgments. One of them is the often-cited (see Asch et al 1997) 1919 judgment *Re: Southern Rhodesia (Africa)*. In this judgment it is stated that:

“The estimation of the rights of aboriginal tribes is always inherently difficult. Some tribes are so low in the scale of social organization that their usages and conceptions of rights and duties are not to be reconciled with the institutions or legal ideas of civilized society. Such a gulf cannot be bridged. It would be idle to impute such people some shadow of the rights known to our law and then transmute it into the substance of transferable rights of property as we know them...

On the other hand, there are indigenous people whose legal conceptions, though differently developed, are hardly less precise than our own. When once they have been studied and understood they are no less enforceable than rights arising under English law. Between the two there is a wide tract of much ethnological interest, but the position of the natives of Southern Rhodesia within it is very uncertain; clearly they approximate rather to the lower than to the higher limit.

- Lord Sumner, Judicial Committee of the Privy Council of the British House of Lords, 1919.

Essentially this judgment pronounces English law to be the proverbial yardstick against which Indigenous peoples' legal concepts have to be examined. If their ways of thinking are similar to that of English law then they are valid, if they are not, then English law takes

precedence since it assumes itself to be the best, most developed legal thinking at the pinnacle of the evolutionary development of law. Discussing this judgment, Dara Culhane points out that: “Lord Sumner relied on secular social theory, re-articulating and re-legitimizing the now archaic-seeming assumptions of 1722 in the pseudo- scientific language of Social Darwinist evolutionism (the attempt to apply Darwin’s theories of evolution in the plant and animal worlds to human history) that had become entrenched by 1919. “ (Culhane 1998: 67). In practical terms, Lord Sumner argued that Indigenous societies with communal land ownership were at such a low end of the evolutionary scale that their title to land could not be counted. Only societies with individual land ownership, he argued, were civilized enough to be counted (Culhane 1998:68). Lord Sumner thus simply and ethnocentrically sided with the familiar discounting the validity of the unfamiliar. If one views Lord Sumner’s ruling in the context of the anthropological thinking of the early 20th century it reflected theories which were already outdated at the time. By then the evolutionary theories of Sir Henry Maine, Edward Tylor and Lewis Morgan had been replaced by the cultural relativism of Franz Boas, Malinowski, and Radcliffe–Brown. Cultural relativism’s most basic argument was that all human cultures were equal and should be judged on their own terms, not on the basis of another culture’s evaluative criteria.

This development in anthropology had come about as a result of the realization that the evolutionary theories of the 19th century “armchair anthropologists” who theorized without leaving their ivory towers, did not hold when anthropologists actually ventured into the field. In 1921 Viscount Haldane, adopting the position of cultural relativism launched a critique of Lord Sumner’s ethnocentric evolutionist ruling arguing that aboriginal title could also be communal (*Amodu Tijani v. Southern Nigeria* 1921). While Haldane’s and Lord

Sumner's rulings differed greatly, they both maintained that colonial courts held the right to decide what form of landownership should be recognized and what form should not be recognized. Thus, there was no question that aboriginal title should be determined through the examination of the individual aboriginal societies as they were understood by the colonial court. The legal adaptations of European social theory which aboriginal claimants had to use as frameworks within which to present their cases thus differed, but the legal legitimacy of British colonialism and the right of the colonial court to decide such issues was not questioned by either of these rulings (Culhane 1998:70). The paradox of this situation is ironic. Insights into the validity of another culture's systems as something to be judged on their own terms rather than through European cultural values are being recognized, while at the same time the right of the British colonial court, (a culturally based evaluative system) to analyze and pass judgment on them is not questioned.

Seemingly, oblivious to such contradictions, 20th century judges in Canada would select from either one of these precedents (or others), sometimes even using them in combination, as a rationale for their decisions in Aboriginal rights and title litigation (Culhane 1998:70).

Thus we have a situation that is essentially equivalent to the scenario found in contemporary Canadian natural resource administration. The last decades, as discussed above, have seen an emergence of increasing recognition of the importance of Indigenous peoples' environmental knowledge for natural resource management. Many established resource co-management boards claim to base their management decisions on this knowledge in combination with scientific/bureaucratic resource management practices. While espousing such laudable goals of including this different form of knowing into the

management of particular resources, such boards rarely seem to question the validity and right of Euro-Canadian resource management practices to provide the framework within which these other forms of knowing have to “fight for shelving space”. This right to determine society’s overall approach to resource management is generally assumed to be a given, again essentially due to the belief that it is based on knowledge (Western science) which occupies the pinnacle of the evolutionary development of ways of knowing. Thus, as with law, the validity of the fundamental principles underlying the whole debate are rarely questioned.

This thesis will thus seek to dig beneath the surface of conventional resource management practices, examining the scientific and cultural assumptions on which they are based. Keeping in mind Lord Sumner’s judgment to only recognize systems as valid when they come close to his own understandings, this thesis will further examine co-management in the light of just such an approach. Are Canadian resource managers only willing to acknowledge the validity of aboriginal knowledge and resource management practices which come close to their own understandings?

What is a Resource ?

Indigenous people and government resource “managers” have a fundamentally different way of seeing and understanding a resource. Their understanding of what constitutes optimum resource management is therefore also fundamentally different. The term resource management itself is a European expression exemplifying European attitudes and approaches toward nature. It is an expression stemming from the world-view put forward by Western industrialized societies who mainly view a resource as

something to be “tapped into” and used, generally in way of providing raw materials for various industries. In this view a resource is something to be used and controlled by humans. In this approach the proper management of such a resource (at least as far as its renewable plant and animal “components” are concerned) ensures its optimum economic exploitation without depleting or destroying its reproductive capacity e.g. its sustainable use in order to ensure the continuation of the resources as far as they are deemed necessary for human survival. This anthropocentric attitude is a key component upon which the government resource management rationale is based. The usage of the term “management” in regards to resource activities further conveys the impression that humans actively manage a resource as if they could assign each component of the resource a specific task.

This way of seeing the world and its resources is diametrically opposed to the understandings and paradigms within which Indigenous people operate. The most important distinction between European and Indigenous attitudes towards nature is that Indigenous peoples have never seen themselves as being separate from or above nature. In this world-view humans are a part of nature. They thus cannot control or manage that of which they are a part, but they can and have to regulate their own behaviour in order to ensure the continuation of the balanced reciprocity which exists between them and their surroundings.

When I began talking to Dene hunters about their experience in regard to the Beverly and Qamanirjuaq Caribou Management Board (BQCMB), many immediately stopped me in my tracks to point out that they did not see how one could manage caribou as if one were God. One could only control one’s own behaviour in order to ensure that it did

not negatively impact on the caribou. An important aspect of this, they pointed out, consists of treating hunted animals with respect (Samuel, Enzoë 1998).

The term “resource management” is thus a European concept based on human dominance over nature which disregards non-Western views and understandings. Not surprisingly, there is no equivalent term for resource management in Indigenous languages. The closest one can come in translation is “looking after a resource” (Notzke: 1994). As one can see, Indigenous people and government resource “managers” have very different understandings of the human/environment relationship and consequently of what a resource is. It will thus be important to see how these different understandings influence the co-management process.

A Short History of Co-management in Canada:

In the literature, co-management agreements in Canada are often divided into “land claims based” or “crisis based” agreements (RCAP 1996). This classification refers to the “events” that led to the creation of a co-management agreement.

Land claims-based resource co-management agreements:

Since 1975 Canada signed thirteen “agreements” with First Nations/Inuit (James Bay and Northern Quebec Agreement (1975); Northeastern Quebec Agreement with the Napaski Indian Band (1978); Inuvialuit Final Agreement with the Inuit of the Western Arctic (1984); Gwich’in Comprehensive Land Claim Agreement with the Gwich’in of the Mackenzie River Delta, NWT (1992); Nunavut Land Claim Agreement with the Inuit of the Eastern and Central Arctic (1993); Sahtu Dene and Metis Agreement with the Great Bear Lake region of the NWT (1993); Vuntut Gwich’in Agreement, Yukon (1993);

Nacho Nyak Dun Agreement, Yukon (1993); Champagne and Aishihik Agreement, Yukon (1993); Teslin Tlingit Agreement, Yukon (1993); Little Salmon/Carmacks First Nation Agreement, Yukon (1997); Selkirk First Nation agreement, Yukon (1997); Nisga'a Final Agreement, British Columbia), referred to as "Land Claim Agreements". Federal and provincial governments hold the position that conservation-oriented renewable resource regulations established in the provinces and territories prior to the signing of a land claim agreements are not extinguished through such agreements (Berkes in Pinkerton 1989:189). Thus, once a land claim agreement is initiated, wildlife and resource management within the claim area is subject to a "double administration" which consequently leads to the co-management of the natural resources in the claims area.

Crisis-based resource co-management:

A real or perceived resource crisis is another factor leading to the creation of co-management agreements. This form of co-management is established as a result of conflicting views and understandings between provincial/territorial renewable resource agencies and First Nations regarding a specific resource. It is essentially a tool to avert and prevent conflicts over specific resources and generally focuses on one particular species. The Beverly and Qamanirjuaq Caribou Management agreement of 1982 was the first crisis-based resource co-management agreement to be established in Canada. Due to the diverse situations out of which such agreements arise, it is difficult to define the exact nature of crisis-based co-management agreements. They range from relatively powerless advisory boards to cooperation agreements of a "Nation to Nation" quality in which neither side can make decisions regarding the resource without the full consent of the

other side (e.g. the Gwaii Haanas Agreement). Between these two ends of the spectrum a vast array of differing agreements referred to as co-management exists.

The Co-management Literature:

The last two decades have seen an increased focus on co-management in academic and government publications (Usher 1986; 1991; 1993; Pinkerton 1989; Osherenko 1988; Wheeler 1988 Notzke 1994; Berkes ;1991;1994; Doubleday 1989; Cizek ,1990; DIAND et al). While some publications are of a rather descriptive nature or bear strong political influences, many make valuable contributions to the co-management debate. Some of the more recent publications (e.g. Berkes, 1994; Hensel & Morrow, 1998; Stevenson, 1999) even focus on the causes hindering real co-management from taking place. Publications on co-management are nevertheless mostly general or, if a specific co-management board is discussed, they are descriptive or self - promoting. To the best of my knowledge little research has been done focusing directly on the actual knowledge integration of specific co-management boards. Osherenko (1988), for example, writes about the BQCMB and the supposed reliance of the Board on the Dene and Inuit TEK. She, nevertheless, solely relies on publications to arrive at her conclusions, taking the Board's statements of knowledge integration at face value rather than critically examining the actual Board in regards to such claims.

This research thus examines the actual functioning of two co-management boards, approaching them as cultural entities. Employing anthropological tools such as participant observation for the study of co-management boards, this research focuses on the boards' overall structures and power relationships. Special attention is thus given to

the style and language the boards employ for their meetings; do the boards rely on Euro-Canadian models and decision making processes for their meetings, or do they reflect the consensus-oriented approach of the represented indigenous communities? What are the boards' relationships to the represented communities? How do the communities feel about their representation through the Board? These are the main questions I examine. I further focus on the epistemologies behind the government/ Indigenous members comprising such a board. Too much is readily accepted as a given in the co-management debate. I thus examine and question the assumptions behind all factors impacting the co-management boards. I begin with the assumption that all human activities and systems of thought are culturally based. While traditional academic inquiry into First Nations issues generally took European cultural practices as a given and proceeded to examine the "other", I will focus equally on the Euro-Canadian and Indigenous practices and beliefs as they impact on resource co-management.

The theoretical and practical discussions of Indigenous science, Western science, the culturality of knowing, co-management and different views of a resource will thus be used as a background against which the overall operative culture of two specific co-management boards will be examined.

Methodology:

I decided to use the Beverly and Qamanirjuaq Caribou Management Board as my main case study since it is the oldest crisis-based resource co-management board in Northern Canada (established in 1982) and thus has a relatively long working history that can be examined in addition to its current operations. In order to compare the experience

of this “old” crisis based resource co-management board to land claims-based co-management I also examined the functioning of the “new” (established in 1994) Gwich’in Renewable Resource Board.

I began by approaching the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) for permission to attend its meetings. I was invited to attend and in November 1996 I sat in on my first BQCMB meeting in Winnipeg (Manitoba). (The BQCMB alternates between meeting in cities and Dene, Inuit or Metis communities). At that meeting I approached the Board’s community representatives explaining my research to them and asking how I should go about obtaining their communities’ permission to visit in order to understand the communities’ experience with the BQCMB. I was hoping to visit one community in each of the (at the time) three jurisdictions (Manitoba, Saskatchewan and the NWT) from which the BQCMB draws its representation. I wanted to cover the three jurisdictions in order to understand how the different social, economic and political structures within which the communities exist affect their relationship to the BQCMB. I did, nevertheless, restrict my research to Dene communities. While this allowed me to gain a deeper cultural understanding, I also decided to restrict my research to Dene communities because the BQCMB, I was informed, did not have much importance to Inuit communities who had recently gained representation through the Nunavut Wildlife Management Board (NWMB).

I eventually gained permission from Tadoule Lake in Manitoba, Fond du Lac in Saskatchewan and Lutsel K’e in the NWT to visit and conduct my community research. Through personal contacts and friendships I also spent some time in the community of Lac Brochet (on the same circle flight that services Tadoule Lake) and did speak with

community members about the BQCMB (at which they are also represented) but since I had not been given formal permission to conduct research in that community I did not carry out any formal interviews with community members there.

In June of 1997 I began my fieldwork in Tadoule Lake, and at the BQCMB meeting in Wollaston Lake, Saskatchewan. I approached the BQCMB meetings through participant observation (I generally tried to be a silent observer of the meeting but at times I was pulled out of my silent state) and communication with government and community board members during coffee and evening breaks. I also taped the meetings after having been given permission to do so. The noise (background such as air conditioner etc. and simultaneous speaking) level at most meetings was unfortunately quite high, so that I also had to rely on extensive note taking since not all taped sessions were clearly audible. While I attempted to formally interview some board members I quickly discovered that semi-directed communication was much more informative than formal interviews, which tended to stiffen and restrict the whole process. I followed similar procedures for the BQCMB meeting in Thompson Manitoba in November 1997 and the BQCMB meeting in Tadoule Lake in June 1998.

After spending some time getting acquainted with Tadoule Lake (various people in the Band office and the BQCMB representative were helpful in that process) and visiting people so they could get acquainted with me, I began to conduct unstructured open-ended interviews with Elders. I had shown the questions I wanted to ask to the communities BQCMB representative and the Chief and also had guidance from the two translators' with whom I worked, one of whom had been a former BQCMB representative. I further relied on the translators guidance in directing me to individuals I

should interview. I also conducted unstructured interviews with younger community members with whom I could communicate in English, regarding their experience with the BQCMB. After my first stay in Tadoule Lake in the summer of 1997, I returned in the Winter/Spring of 1998, and in June of 1998 at which time the BQCMB met in Tadoule Lake. During my subsequent visits I was invited to accompany friends on caribou hunts and to go ice fishing. I refrained from any further formal interviews in favour of communication and discussions regarding the BQCMB with the few community members who actually had experiences with the BQCMB. The fact that the BQCMB met in Tadoule Lake in June of 1998 was very fortunate since it allowed me to observe the BQCMB's functioning in a community I knew and gave me the advantage of talking to community members about their impressions of the BQCMB during and after the Board's visit to Tadoule Lake.

I visited Fond du Lac in Northern Saskatchewan in the fall of 1997. While I had been staying in the Nursing Station in Tadoule Lake (the community's extreme housing shortage coupled with the Nursing Stations offer of accommodation prevented my accommodation with a family) I managed to arrange for room and board with a young family in Fond du Lac. They facilitated my introduction into the community and temporarily made me part of their family. I was also warmly received by the community's BQCMB representative and his family. My translator and her family also did their best to welcome me into their family. Fond du Lac is much larger than Tadoule Lake, with a population of over 700; these contacts were therefore of great importance for my introduction to the community since a foreign face did not necessarily warrant the curiosity that it had in Tadoule Lake. I proceeded as in Tadoule Lake with the exception

of extensive interviews and communication with the community's BQCMB representative, who is older than Tadoule Lake's representative, and was much more interested in discussing the BQCMB.

In Lutsel K'e my research (Summer 1998) was guided by the community's Land Wildlife and Environment Committee, which initially approved my research, helped with the introductions and generally oversaw my research. I was again helped by a translator when conducting open-ended interviews with Elders, while I simply discussed their BQCMB experience with younger English-speaking community members once we got better acquainted. I also discussed the BQCMB with the community's BQCMB representative although he, similar to Tadoule Lake's representative, was younger and did not have all that much to say on the subject of his BQCMB representation. The interviews conducted in all communities were transcribed and given back to the interviewees for approval, corrections and agreement to allow me to use the information.³

I also made extensive use of all secondary materials available on the BQCMB. These include the Board's Newsletter: "Caribou News" in its earlier version and "Caribou News In Brief" its current version, the BQCMB website (<http://www.arctic-caribou.com>) and the Board's minutes. In addition to these sources, I reviewed the literature and government documents pertaining to co-management, the communities I visited, Indigenous knowledge, Indigenous resource rights, treaties and their reference to resource rights etc. Apart from university libraries I conducted library and archival research in the National Archives (Ottawa), the Hudson's Bay Archives (Winnipeg), the National Aboriginal Forestry Association's document storage library

³ In order to protect participants, information of a political nature (such as comments on the operations of the BQCMB) is given throughout the text without citing the individuals names while statements reflecting oral history and knowledge are provided with references crediting the knowledge holders.

(Ottawa), and the Department of Indian Affairs and Northern Development library in Hull, among others.

After completing my fieldwork on the Beverly and Qamanirjuaq Caribou Management Board I approached the Gwich'in Renewable Resource Board (GRRB) in Inuvik. The Gwich'in Renewable Resource Board was formed as a result of the Gwich'in Comprehensive Land Claim Agreement signed in 1992. The Agreement covers the Gwich'in Settlement Area (GSA), and the Gwich'in Renewable Resource Board is the main instrument for renewable resource management in the GSA. It has been in operation since 1994 and has already spent unprecedented amounts of money on Traditional Knowledge projects. Since the GRRB is in charge of renewable resource management in a land claims area, it is automatically a co-management board. Land claims-based co-management boards do, however, operate in a very different setting than crisis-based resource co-management boards such as the BQCMB. The most important difference is that they are generally in charge of developing most policies and regulations for their area rather than simply advising provincial or territorial renewable resource offices on such policies, and that they have a real accountability to the communities in the land claim agreement.

I therefore decided that it would be important to compare my experience with the crisis-based Beverly and Qamanirjuaq Caribou Management Board to a land claims-based co-management board. I decided to choose the Gwich'in Renewable Resource Board for this comparative study in part because of the Board's strong focus on Gwich'in Traditional Knowledge. After contacting the Gwich'in Renewable Resource Board in the summer of 1998 I was immediately invited to sit in on one of its meetings and to visit its

main offices in Inuvik. The Gwich'in chair of the Board pointed out repeatedly that they were a public organization and that I therefore did not really need anybody's permission to attend their meetings. I thus set out for Inuvik in the fall of 1998. I spent some time in the offices of the Gwich'in Renewable Resource Board, talking to the Board's support staff such as its traditional knowledge coordinator, its fisheries and wildlife biologists, its Gwich'in trainees, the chair, and the director of the support staff. During my time in Inuvik I also attended a local Hunters and Trappers Association workshop. I then traveled to the small Gwich'in community of Tsiigehtchic (pop.250) where I attended the fall Gwich'in Renewable Resource Board meeting (the Board does not actually have a set schedule but meets whenever necessary). While in Tsiigehtchic I also visited the Gwich'in Social and Cultural Institute, which is a Gwich'in organization under the Gwich'in Tribal Council. Library and archival research on the Gwich'in and their land claim coupled with a review of the Board's minutes, the Board's publications and the Board's website were consulted for subsequent information.

2.0. THEORIES SURROUNDING INDIGENOUS KNOWLEDGE AND INDIGENOUS RESOURCE MANAGEMENT

The previous chapter introduced anthropology's long standing interest in the epistemologies and environmental knowledge of other cultures and briefly discussed the culturality of knowledge and the issues surrounding the definition of what is now often termed "traditional environmental knowledge" or "Indigenous knowledge". This chapter will provide a more in-depth discussion of the theoretical issues surrounding the history and development of the concept of traditional environmental knowledge (TEK) and its application within Canada and internationally. Traditional environmental knowledges differ greatly from each other since they are very detailed knowledges co-extensive with the natural world. The international exploration of such knowledges will thus reveal the problem of generalizing TEK. This chapter will also explore academic theories on Indigenous resource management.

The Historical and Intellectual Roots of the TEK Concept:

Many academic disciplines have been interested in what is now often referred to as TEK research and the subject is very interdisciplinary. The historical and intellectual roots of the academic enquiry into TEK do nevertheless predominantly stem from the developments of two distinct fields, ethno-science and human or cultural ecology.

Anthropology is, of course, a discipline that has always been interested in the understanding and knowledge different cultures have of their environment. In defining the ultimate goal of anthropology, Malinowski postulated, for example, that in his view it

was: “to grasp the natives point of view...to realize his vision of the world” (Malinowski in Hirschberg 1988:134). As early as 1900 works such as Barrows’ “The ethno-botany of the Coahuila Indians of Southern California” already specifically dealt with the environmental knowledge of indigenous peoples and later numerous other anthropologists (eg. Evans-Pritchard, Malinowski, Levi-Strauss, C. Geertz, R. Lee and others) published on what was referred to as folkknowledge or folkscience prior to the emergence of ethnoscience as a field of enquiry.

The term ethnoscience was coined in 1964 for research aimed at the discovery of the Indigenous peoples’ points of view regarding specific principles of classification and conceptualization (A.K. Romney, R.G.D. Andrade 1964 and Hviding 1996). Hardesty later defined ethnoscience more broadly as: “the study of systems of knowledge developed by a given culture to classify the objectives, activities, and events of its universe” (Hardesty 1977). A subset of ethnoscience, ethnobotany or ethnoecology was soon formed referring to the study of how human groups outside of the realm of western science organize and classify their knowledge of the environment and natural phenomena (Marten 1986:187). Research in this area was not restricted to anthropology but combined anthropology, biology and linguistics. Ethnobiology was in particular interested in using this “new” approach of inquiry to attempt to settle the longstanding debate in biosystematics of whether species were mental abstractions embedded in cultural practices or packages in nature (Gould 1980:207). Thus non-Western “folk-taxonomies” were contrasted with the Western Linnaean classificatory system in order to see to what extent they overlapped. The most prominent work in this area was Berlin’s

“Principles of Tzeltal Plant Classification” (1974) but earlier works of this nature, such as Conklin’s (1954) “The relation of Hanuoo Culture to the Plant World”, already existed.

Cultural ecology is the study of ecosystems that include people, focusing on the ways in which the human use of nature influences and is influenced by social organization and cultural values. Cultural ecology has its origin in the work of Julian Steward (1936) on the social organization of hunter-gatherer societies. Steward proposed a focus neither on environment nor culture, but the process of resource utilization in its fullest sense. Moving away from the ideas of anthropogeographic environmental determinism (the simple formula that environments shape cultures) he wanted to find out whether the adjustment of human societies to their environments required specific types of behavior or whether there was a latitude in human responses (Steward 1955:36). He thus analyzed the relationship between subsistence systems and the environment, the behavior patterns associated with a given subsistence technology and the extent to which the behavior pattern entailed in a given subsistence system affected other aspects of culture (Steward 1955:40-41). Through his approach Steward refined the “environments shape cultures” formula to “specific environmental factors shape particular cultural features”. He also saw these relationships as being subject to local variations in that factors which have a decisive influence on some cultures may have a lesser or different impact on others (Steward 1955:40-41; Milton 1997:478). Using this method Steward, more than anyone before him, delineated the field of human/environment interactions.

Geertz criticized this cultural ecology approach as proposed by Steward, pointing out that it underestimated the complexity, variability and subtlety of environmental and social systems (Geertz 1963) while Rappaport (1968) found that it focused too

extensively on culture as a primary tool through which to analyze the human/environment relationship. This critique of the cultural ecology paradigm led towards anthropology's adoption of the ecosystem concept with Geertz being one of the first to argue for its value as an entity of analysis (Geertz 1963).

Sir Arthur Transley had formally defined the ecosystem concept in 1935 (Golley 1984). The ecosystem concept had grown out of Transley's notion of the circles of affinity, defined as: "all those phenomena that are part of the total situation of an organism and that might influence it" (Moran 1990:4). The formal adoption of the ecosystem concept by biology and anthropology was slow but through the works of Odum (1953), Evan (1956) and Bate (1953) and the argumentation for its usefulness by Geertz (1963), the ecosystem concept began to appear in biology and anthropology in the 1960s. The ecosystem approach argued that humans were simply a species within the ecosystem which operated according to the laws of nature as understood through systems theory (Moran 1990:15). Humans, like other animals, the theory postulates, are regulated by nature which ensures that the equilibrium inherent in the natural order of things is not thrown out of balance. This regulation, it was believed, was achieved through Malthusian checks such as starvation, disease and density dependent suppression of natural fertility (Freeman 1989:93). Lees and Bates (1990) argued against this assumption, pointing out that resource scarcity can result in more intensified human harvesting, leading to resource depletion rather than human restriction of its use (Lees and Bates in Moran 1990:269). Human survival thus depends on a people's understanding of the natural system within which and from which they receive their livelihood since they possess the ability to destroy it, and thus themselves (Moon, Mann and Otto 1956:74-5). Therefore, in order to

understand the human/ environment relationship, it was found that one had to study the “...balance that must exist between man and his environment in order to ensure his well being”... (Machus 1976:12) by focusing on the human social system and its interaction with the ecosystem. The term human ecology was now predominately used to refer to research into this area (it should nevertheless be noted that cultural ecology and human ecology are often used interchangeably to refer to this area of study).

Once Western science’s analysis of the human/environment relationship had come this far (in the 1970s) it was only a logical step to recognize the importance of indigenous peoples’ knowledge systems, systems that had allowed them to survive in specific regions for centuries, not simply as interesting “baseline data” to test scientific hypothesis but for the indigenous science in its own right.

In his “Ecology of the Contemporary San People” Richard Lee pointed to the detailed knowledge the !Kung of the Dobe district have of their environment: “Their knowledge of the local environment, of the habits of game and of the growth phases of food plants is virtually exhaustive” (Lee 1978:101). And H. J. Heinz (1978) goes so far as to refer to the South African Bushmen as the original scientists in “The Bushmen’s Store of Scientific Knowledge”. Heinz not only gives examples of the Bushmen’s knowledge of their plant and animal surroundings and their insights into anatomy and physiology but also explores their philosophy. The merging interests in human ecology and ethnosience were soon combined into a field of study that in the 1980s began to be referred to as Traditional Environmental Knowledge research (Berkes 1999 Brokensah 1980 et al.). The emerging recognition of the importance of Indigenous environmental knowledge did not, of course, arise in an academic vacuum without Indigenous input. Indigenous groups

have a long history of insisting on the importance of their environmental knowledge. The last decades, especially, have seen a strong push from traditional groups in this regard. Thus, as Chief Robert Wavey put it in his keynote address to the International Workshop on Indigenous Knowledge and Community-based Resource Management held in Winnipeg in 1991: "It may be more accurate to state that the dominant European-based society, after 500 years, has finally stopped ignoring our traditional knowledge, laws and customs" (Wavey 1993:11).

The Rising Interest in TEK and Western Science's Relationship to it:

By the early 1980s, interest in what had now become known as Traditional Environmental Knowledge, Traditional Ecological Knowledge, or Indigenous Knowledge had spread to many fields. The importance of including and or consulting TEK quickly rose to prominence especially in fields such as international development (Brokensha 1980). Based on the idea that TEK had been undervalued and could make important contributions to natural resource conservation and management the International Conservation Union (IUCN), for example, founded a Traditional Ecological Working Group in 1984 and the United Nations undertook several initiatives such as UNESCO's program in traditional management systems in coastal marine areas (Johannes et al 1983). Recognition of the importance of TEK for sustainable development also led to the establishment of a global network of Indigenous knowledge resource centers. The focus of these centers is nevertheless mostly on agriculture and sustainable development rather than TEK per se (Berkes 1999:18).

All these activities not only created a rapidly growing body of literature dealing with TEK and resource management in developing nations, but also led to an increased focus on the existence of such knowledge and its importance for natural resource management within Canada and particularly in Canada's North (e.g. see *Traditional Knowledge and Renewable Resource Management in Northern Regions* ed. M.R. Freeman and Ludwig N. Carbyn 1988 et al.). Today, publications on many topics from natural resource management to health include recognition of the importance of TEK. Northern government publications, in particular, frequently include references to this knowledge. The Government of the Northwest Territories, for example, has established Traditional Knowledge Working Groups. Recognition of the importance of Indigenous knowledge does not, however, necessarily lead to the acceptance of the wider paradigm within which it is embedded. Thus, specific bits of Indigenous knowledge are all too often simply removed from their paradigm and made to fit into the Western scientific model of environmental knowledge and world-view rather than attempting to understand them from an insider perspective as a part of indigenous culture and society (Doubleday 1993:51).

Over the last 20 years TEK has gained unprecedented popularity on the national and international level (and seems to be perceived as a quasi political correctness fad by some). The theoretical and practical issues surrounding its representation, definition, strength and weaknesses have therefore received much attention.

Indigenous Knowledge Around the Globe and the Ecosystem Approach in

Anthropology:

A vast multitude of Indigenous knowledges exist around the globe and have informed peoples' relationships with their environment since time immemorial. Before focusing on the TEK debate and research in Canada, a brief look at such knowledge forms and research conducted in this area world-wide, will be informative.

The following exploration of global Indigenous knowledge will show Indigenous environmental conceptualizations unlike Dene epistemologies, thus revealing the diversity of Indigenous knowledge.

Discussing peoples' conceptualizations of their environment Roy Ellen (1993) explains that the Nuaulu of the central Moluccas have different categories for their environment. Uncut forests, "wesie" are contrasted with other types of land such as garden land "nisi", inhabited as opposed to uninhabited space and most importantly untamed as opposed to tamed space. Basing their economy on hunting and gathering as well as slash and burn agriculture, the Nuaulu conceptualize their environment as consisting of untamed wilderness as well as tamed spaces such as gardens. Nuaulu clans further see themselves as being connected to specific places likened to their appearance in myths. Mythic knowledge and identity therefore inform Nuaulu land use. Since the forest is seen as having a moral dimension there are right and wrong ways of engaging with it, making land use inseparable from specific sacred knowledge (1993:139).

The Nuaulu concept that the land has a moral dimension influencing human behaviour has parallels in Apache relations to the land. According to Apache Elder Annie Peaches: "The land is always stalking people. The land makes people live right... The

land looks after people”(Basso 1996:38) and forgetting place names and stories causes people to “forget how to be strong” (ibid:39). Place names are thus connected to stories which (often speaking of people’s misbehaviour and the consequences of such actions) instruct people in how to behave. The re-telling of these stories by Elders can, as Basso points out, be used as arrows aimed at people who misbehave, instructing them to change their behaviour (ibid:52-57).

Thus, while Nuaulu conceptualizations share the sacredness of land use with the Apache and Dene, their view of the environment as something to be divided into wild or tamed spaces fundamentally differs from Dene conceptualizations that do not see nature as wilderness.

Human relationships to their environment are shaped by their economic practices, which in turn determine the types of knowledges people specialize in. Thus, it is not surprising that Mende rice farmers have detailed knowledges regarding, for example, the optimal combination of rice and soil types, and employ empirical methods, including cross pollination, to adapt their farming techniques to their environment (Richards 1993:155).

In Mende thought, wild spaces are separated from domesticated spaces and wild animals such as chimpanzees, while acknowledging their physiological closeness to domesticated humans, occupy an: “ontological niche reserved for hooligans” (ibid:154) while elephants are given ancestral status. This divergent view of chimpanzees and elephants results from the fact that the chimpanzees are given to raiding fruit trees around the villages while the elephants are instrumental in clearing forested areas and dispensing rices with their dung (ibid:154). Since Mende use areas cleared by elephants for farming,

elephants play an instrumental role in enabling human farming. As a result it is the elephants rather than chimpanzees whom Mende see as their ancestors.

Unlike the Nuauu and Mende the Huaorani of Ecuador do not separate their environment into wild and domesticated spaces. While the Huaorani do grow manioc, Laura Rivale points out, that they are reluctant gardeners who's manioc plantations are grown for feasting rather than daily consumption involving very little physical or symbolic transformation of the forest (Rivale 1993:648). As a result, rather than dichotomizing the world around them, Huaorani perceptions of their environment focus on the similarities between plants and people. Huaorani recognize two different processes of growth and maturation which are used to classify plant species as well as categorize social principles with the help of which Huaorani can understand why their society goes through cycles of peace and expansion followed by warfare and demographic collapse (ibid:635). According to Rivale, Huaorani liken human bodily maturation to the vital energy contained in leaves or shoots, and the process of aging to vegetal decay. Thus, Rivale argues: "Huaorani conceptualization of their society is informed by their perceptions of differential growth processes in their forest environment, as well as by certain important symbiotic relations existing between plants, animals and people" (ibid:636).

As the following example from Malaysia indicates, non- Western forms of knowing are often ordered according to systems utterly foreign to Western scientific structures. It is thus important to note that human ways of knowing can be very different but that such differences do not reflect a right or wrong way of knowing. In her attempt to understand the classificatory system of the Chewong in Malaysia, Howell (1984), thus

comes to realize that a taxonomic scheme according to the hierarchical principles found in Western science, does not exist among the Chewong. There is for example no word for animals in general, or even a word that would encompass all species of ants (ibid:215).

This, Howell argues, does not mean that the Chewong do not order their knowledge about the animal and plant world, but rather that their system of organization is based on different principles. With a few exceptions the Chewong (predominantly hunter and gatherers who, according to Howell, also began to practice slash and burn agriculture around the 1920s) name each animal species individually thus basing their main emphasis on juxtaposition. Reflecting their own egalitarian social organization Chewong ordering of the external world does not place any plant or animal above any other, either conceptually or in practice (ibid:216).

It is further interesting to note that the Chewong see all humans, animals, trees and plants as having ruwai or soul, but that ruwai, being invested with a double meaning, also refers to a different property Howell translates as consciousness which (apart from humans) only some animals and plants have (ibid:244).

This separation of plants and animals into those with and those without consciousness is very different from Native epistemologies which do not deny the consciousness of any animals or plants. Thus, while the Chewong only include all beings attributed with consciousness as taking part in the workings of their society (ibid:244) Native epistemologies (such as for example Navajo natural philosophy) are based on the interrelatedness of all things in the universe (Pinxten et al 1983). Nature has a very cyclical character for Navajo in that all living beings and things in general are such that they serve one another to some extent. Plants, for example, can be eaten by animals,

which in turn can be eaten by humans or other animals and so on. Everything has a place and function in a long and mutually dependent chain that ultimately includes the whole universe. “To destroy or abuse (waste, spill, use disrespectfully) one element is, in the end, to disrupt the whole system. In this way, all phenomena in the Navajo universe are interrelated and interdependent” (1983:32). Humans thus do not live above, outside or interdependent of the rest of the world and their actions or states are clearly linked with those of the rest of the universe. “His (humans) mistakes, the disrespectful handlings of things, and his negligence disturb the good order in the universe, and consequently his own mental and/or physical health” (ibid:33).

The importance of respect is central to Native epistemologies. As the Kanien’kehaka (Mohawk) scholar Taiaiake Alfred explains, the fundamental principle of Indigenous social relations was respect (Alfred 1999: 25). Indigenous political tradition, he writes, is based on: “commitment to a profoundly respectful way of governing, based on a world-view that balances respect for autonomy with recognition of universal interdependence” (ibid:xvi). Respect for the autonomy and integrity of others is central to Indigenous ways of life. This emphasis on the importance of interacting in a respectful manner extends not only to people, but to all elements in creation. Respect in the Indigenous sense has very profound and all encompassing connotations.

For the Dene the most important aspect in their relationship with caribou is in their respect for them. This becomes apparent in Elders comments such as:

“You don’t even throw anything away of the caribou, you use everything” ...”Caribou is a special thing for the Dene people especially in Lutsel K’e here” (Madeleine Drybone 1998).

And

“Even the bones that you throw away, he says, you put it in one place and the food that you use, you have to eat, I mean use it all. You don’t throw any leavings away from the caribou. You make dry meats, pound meats, everything you make out of the caribou. You don’t throw bones away like you throw leavings like this out like that he says you have to put all the bones together and stash them in one place. That is how the people, our ancestors, respect the caribou... that is why we have the respect today, we have to respect the caribou whenever it comes. We don’t destroy them for no reason at all. We kill it for us to use” (Morris Lockhart 1998).

This respect is further seen to have a direct impact on caribou behaviour since caribou, as Elders in Lutsel K’e explained, still come to their community to give themselves to the people because they know that they will be respected. From the Native perspective the most important aspect of what government refers to as “resource management” is thus that resource users have respect for the resource.

A central problem in what has become known as TEK research is the attempt to understand environmental knowledge without understanding the deeper cultural logic within which it is rooted. Addressing this issue, Povinelli explains that in limited cases Aborigines and their non-Aboriginal neighbours agree on the explanatory terms of Aboriginal-land interactions. Euro-Australian ethnobotanists and ethnozoologists and Aborigines do, she points out, generally agree on the medicinal effects of certain plants and animals (1993:695). But, Povinelli continues, such agreement quickly evaporates when the discussion moves beyond what Aborigines perceive as “child-like descriptions of foods’ efficaciousness” (ibid). In the interpretation of regional environmental knowledge and events, cultural comodification quickly takes over. Thus, a potential problem with TEK research is that researchers may gather purely factual Indigenous

knowledge and proceed to incorporate it into their own epistemological reference system without giving much credence to the world-view within which such knowledge is embedded.

Political realities of control and globalization can also have detrimental effects on local knowledge. Focusing on Sri Lanka, Nireka Weeratunge (2000) points to the potential silencing of the local interpretative environmental discourse due to a felt need to adhere to widely adopted Western-based globalized rhetorical concepts. In “Nature Harmony and the Kaliyugaya” Nireka Weeratunge (2000) argues that the concept of “harmony” in regards to the human/environment relationship (e.g. living in harmony with nature) is a Western global discourse which, while borrowed by Sri Lankan environmentalists, has only varying levels of resonance with local cultural concepts. By searching in vain for a word equivalent to the English “harmony” in local languages, Weeratunge points out that concepts such as “living in harmony with nature”, frequently attributed to the human/environment relationship of Indigenous and rural populations, are based on Western concepts and discourses which do not necessarily find congruency with concepts found in the local discourse. Sinhalese, for example, Weeratunge continues, has concepts such as “compatible with the dharma of nature”, or “connected to the dharma of nature” but since Sinhalese has no word for “harmony” the actual concept of “living in harmony with nature” is a foreign introduction (ibid:252). Thus, due to a felt need to adhere to the global environmental discourse, local knowledge and interpretations are ignored and concepts not at home in the local discourse are adopted, supplanting (or adapting) local concepts and explanatory models.

While First Nations, for example, have had the concept of living in balance with all their human and non-human relations (a web of life from which nothing was excluded) before Europeans popularized the concept, this, as Weeratunge reminds us, does not automatically mean that the environmental relations of all Indigenous peoples are based on the same concepts.

In the case of Sri Lanka the global prevalence of the harmony discourse, Weeratunge explains, leaves no space for the articulation of an alternative local discourse such as the discourse on the Kaliyugaya (Age of Kali) according to which the world goes through four phases of disintegration which offer an alternative interpretation of the environmental crisis. Each age, according to the theory, also goes through an ascending and a descending phase which is tied to the level of virtue and vice achieved by previous beings. Thus, according to believers, the world is currently experiencing the descending phase of a Kaliyugaya and therefore in a state of chaos and disintegration with nature being in disorder and human beings full of vice. According to this theory the end of the Kaliyugaya will arrive through the coming of a new Buddha. (Weeratunge 2000:249-258).

If we consider the message of cultural determinism (the view that the world is defined through cultural perceptions) and apply it to the issues Weeratunge brings to our attention the following becomes apparent. While much of the global environmental discourse is seemingly respectful of non-Western and Indigenous cultures' relationships with their environment, it consciously or unconsciously forces them to adhere to a globalized discourse based on Western cultural perceptions (even if they are perceptions supposedly informed by their own views on nature).

The intercultural incommensurability of many concepts relating to the human/environment relationship requires further considerations. To begin with the idea of seeing nature as a separate entity is a view characteristic of Western cultures. Ingold (1996:117) states that the world can only be “nature” for a being that does not belong there, or sees itself as existing outside of nature. Many non-Western cultures do not have such a concept. If one is part of nature then the concept of “resource management” is peculiar. In many non-Western societies one’s relationship to one’s environment is based on a relationship of respect, reciprocity, and spirituality rather than management, a concept suggesting superiority, control and separateness from the environment. Western resource management is based on a series of precepts which are peculiar to it and are therefore untenable to non-Western epistemologies.

Discussing the western way of conceptualizing the globe, Ingold further argues in his essay “Globes and Spheres” (1993) that the Western way of portraying the world as a globe not only teaches us to value knowledge gained through models over that gained through experience, it also lead us to see ourselves as separate from the world and gives us the impression that the world belongs to us rather than we to the world. Ingold further draws our attention to the fact that much of today’s concern with the global environment has to do with how we are to “manage” this planet of ours without questioning if it is ours to manage. Such management, he continues, is often described as interventions. This, he points out: “implies that human beings can launch their interventions from a platform above the world, as though they could live on or off the environment, but are not destined to live within it” (1993:39). Ingold notes that the western way of conceptualizing our

relationship to the environment is plagued by serious “misconceptions” which are not shared by other cultures.

Thus, when one is attempting to combine TEK and Western Science for “resource management”, as is the case in Canadian Resource Management Boards, it is important to be aware of the fact that the ideologies underpinning each are not based on a universal logic but reflect specific epistemological understandings.

Traditional Environmental Knowledge Research in Canada:

In Canada, research conducted to support the development of potential land claims sparked academic interest in Indigenous land use and knowledge. Land use mapping in order to support the James Bay and Northern Quebec Agreement (signed in 1975) and the Inuit Land Use and Occupancy Project (conducted by Milton Freeman from 1973-76) were the first projects mapping Indigenous land use territories. Milton Freeman continued to work with Inuit communities focusing on sea-ice exploration and whaling, becoming a strong proponent of the importance of Indigenous knowledge as a source of environmental expertise for renewable resource management. Harvey Feit, who worked on the James Bay land use studies, developed a strong interest in the ethno-ecology of the James Bay Cree and introduced one of his students, Colin Scott, as well as Fikret Berkes (a biologist by training) to the area. Colin Scott’s work with the James Bay Cree focused, among other issues, on knowledge construction among Cree hunters and Fikret Berkes began to work with the James Bay Cree on the Cree fishery. Berkes, through his work with the Cree fishery, also became a strong advocate for the importance of relying on traditional environmental knowledge in natural resource management. As a

result of these developments, a strong representation of the importance of local environmental expertise began to develop in Canada.

In the late 1970s concern over the potential construction of an Alaska Highway natural gas pipeline and the effects of other industrial development on Northeastern British Columbia resulted (due to the efforts of the Union of British Columbia Indian Chiefs) in government funding for a land use and occupancy study of Northeastern British Columbia (Brody 1981:xvii). The Union of British Columbia Indian Chiefs asked Hugh Brody to help in designing a study similar to the land use and occupancy project that had been conducted for the Inuit. Brody reports on the results of the study in his book Maps and Dreams. What makes Brody's work of particular importance is that he manages to convey the mental space of places and approaches the environmental knowledge of the people by trying to understand it "from the inside" rather than through Western science.

Researchers interested in traditional environmental knowledge often have difficulties in refraining from likening such knowledge to conceptual categories they are familiar with. In his work on Inuit environmental knowledge and in particular the Hudson's Bay Eider in the late 1980s and early 1990s Douglas Nakashima argues that Inuit Taxonomy provides important ecological knowledge essential for environmental impact assessment. Nakashima points to the importance of Indigenous knowledge for environmental impact assessment since, he argues, it is based on ecological rather than Linnaen principles. While Nakashima's work is undeniably important, it speaks of the tendency to create parallels between Indigenous environmental knowledge and sub-disciplines of Western science, such as ecology. While such similarities do at times exist

it is important not to fall into the conceptual trap of attempting to fit Indigenous environmental knowledge into the overall epistemological framework of Western science.

In the 1980s and 1990s Peter J. Usher explored Indigenous resource management systems¹ and wildlife conservation in the Canadian North arguing for the existence of two models of wildlife management. The state system based on scientific and technical knowledge and a hierarchically organized bureaucratic administration and the Indigenous system based on communal property arrangements and consensus. Usher, while not arguing for the abandonment of the state management system, began to advocate the integration of both systems.

Between 1967 and 1973, without having a connection to land claims research or explicitly doing traditional environmental knowledge research, Adrian Tanner worked with the Mistassini Cree in Quebec and the Innu of Labrador focusing on the religious aspects of resource use and the ecology of hunting. He explored forms of symbolic meaning and their links to respect in the relationship of humans and animals. More recently he has also been exploring Algonquin conceptualizations of nature.

Presenting a departure from previous traditional knowledge research that had largely been initiated through outside interests, developments within the Dene Nation resulted in Dene initiated traditional knowledge research in the late 1980s. In 1987, 200 delegates representing the 26 communities and 14,000 people of the Dene Nation met to discuss their concerns about the future of their culture. The outcome of this conference was the formation of the Dene Cultural Institute whose overall purpose is to preserve and

¹ Since he was trying to convince Western administrators of the importance of the Indigenous expertise he had to use terminology the administrators were used to.

promote Dene culture through the coordination of research and educational activities. It was decided that traditional environmental knowledge should be the first area of research (Johnson 1993:2). As a result the Dene Cultural Institute, with the help of community researchers and academic advisers (such as Martha Johnson), conducted a Dene Traditional Environmental Knowledge Project in Ft. Good Hope and Colville Lake (NWT) between 1989-93. The project collected the communities' knowledge of animals (particularly moose, caribou, beaver and marten) and led to an international workshop in Ft. Good Hope on the documentation and application of traditional environmental knowledge through community based research (see Lore ed. Martha Johnson for proceedings). It is important to note that control over the project and the knowledge it collected essentially remained in the hands of the communities.

Conflicts Over the Access to Resources and Environmental Knowledge:

Discussing the concept of common property and its relation to Native land use Carl Hrenchuk (1993) points out that the views concerning northern territory, resources and property held by the majority of Canadians, conflict with those held by northern Native communities. To non-Native Canadians wilderness (a non-Native concept) and unoccupied Crown lands are held in trust for the common good by the state. To Native communities their traditional land use areas are not common but rather communal property with access to them not being open to all Canadians but shared or apportioned by custom among community members. After all it was these resources upon which the community was founded and has survived (Hrenchuk 1993:77). The problem resulting from these divergent views is that state decision-making is routinely imposed on such

community resources without the consent of the community, assuming the resource to be common property held in trust for all. Predictably, communities see the resulting loss of access to their resources as a great injustice. The clash of these different views, Hrenchuk argues, are at the root of the conflict surrounding northern development projects in areas designated as Crown lands but traditionally used by native communities (ibid:78).

Hrenchuk continues by stating that it is important to connect these divergent viewpoints and that resource managers interested in compliance with regulations regarding resource use must become cognizant of traditional ecological knowledge, and of the long-standing patterns of local control and use of resources (ibid). He thus infers that if both sides come to understand each other better, co-operation can be achieved. While this is desirable it is important to keep in mind that the problem ultimately lies in the very different value resources have for Native communities and the Canadian Government. For Canada Crown lands in the end simply represent repositories of potential resource wealth i.e. money. Thus, unless ownership of resources is more clearly defined, as is attempted by land claims agreements, resource conflicts resulting from these fundamental differences will continue.

Also referring to the situation in the Canadian North but specifically addressing the Traditional Environmental Knowledge/ Western science interface, Keith and Simon point out that conflicts between northern peoples and public officials are often not merely philosophical when they write that:

“The behavior of public officials -most notably of wildlife and marine biologists- in conservation debates and disputes often displays a detached arrogance, offensive to northern aboriginal peoples by its insistence on Western scientific methods as the sole measure of accuracy, and a thinly

veiled disdain for traditional knowledge of northern people” (1987:219).

Thus, conflicts over resource knowledge and resource management practices can be more about “turf” than the knowledge itself since many scientists are disdainful towards knowledge that originates from outside institutionalized Western science (Feyerabend 1987). Resource biologists may thus be unwilling to listen to experts who have not gone through Western scientific training, regardless of the knowledge itself.

In the end resource conflicts are often about power rather than knowledge. They are essentially fights for wealth. The Indigenous economy is demanding its share in the wealth of natural resources while the Federal Government is limiting their access to their resources. Resource biologists are therefore frontline representatives of this conflict and essentially pawns in the governments’ argument.

The Representation of TEK and its Differentiation from Western science:

How has TEK been portrayed and differentiated from Western science in the literature of the last decade and a half?

TEK is either defined in generalized terms or by way of comparing and differentiating it from Western science. In Sacred Ecology Fikret Berkes defines:

“...traditional ecological knowledge as a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment” (Berkes 1999:8).

Berkes further writes that traditional systems are situated within a larger moral and ethical context, there is no separation between nature and culture and nature is imbued

with sacredness (1999:9). Banuri and Apffel Marglin argue that Indigenous knowledge systems are characterized by their embeddedness in the local cultural milieu, the importance of community and a lack of separation between nature and culture, subject and object. In contrast they characterize Western scientific knowledge systems as disembodied, universalistic, individualistic and mobile with a strong nature/culture and subject/object dichotomy that essentially views nature as a commodity (Banuri and Marglin 1993). Also using the oppositional approach to define TEK Martha Johnson writes that:

“TEK is recorded and transmitted through oral tradition; Western science employs the written word; TEK is learned through observation and hands-on experience; Western science is taught and learned in situations usually abstracted from the applied context; TEK is based on the understanding that the element of matter (earth, air, fire and water) which are classified as inanimate, also have a life force and all parts of the natural world (plant animal and inanimate element) are therefore infused with spirit; TEK does not see human life as superior to other animate and inanimate elements: all life forms have kinship and are interdependent... TEK is holistic Western science is reductionist... TEK is intuitive Western science is analytical.... TEK is mainly qualitative; Western science is mainly quantitative ... TEK is based on diachronic data (long time series of information on one locality) Western science is largely based on synchronic data (short time series over large area)... TEK is rooted in a social context that sees the world in terms of social and spiritual relations between all life forms... Western science is hierarchically organized and vertically compartmentalized...”(Johnson 1992:7-8).

Though such comparisons are intended to emphasize the uniqueness of TEK and do help the reader in gaining an understanding of the subject matter, TEK, at the same time ironically suffers from such over-generalizations. There are many different kinds of TEK, some of which can be quantitative as well as qualitative, synchronic as well as diachronic

since the structure of TEK can be quite different from society to society. As a result it is easier to define what Western science is than it is to define TEK. While Western science is now applied across the globe, its roots reflect a very specific cultural development of thought, adherence to which, as Weeratunge points out, silences alternative local interpretations. TEK on the other hand is, as we have shown, a term used for many different knowledges, not all of which are commensurable.

While Johnson (1992) Usher (1986) and others attempt to present TEK as a monolithic whole to be situated in opposition to Western science, such exercises ignore the fact that TEK denotes the epistemologies of a vast variety of Indigenous cultures. It is thus not only difficult for people outside of a specific culture to define what the TEK of that culture is, it is also difficult to give one definition to the numerous knowledge systems referred to as TEK.

In attempting to understand and analyze the role of traditional knowledge in Canadian Indigenous societies Berkes (1999), Lewis (1993), Stevenson (1996), Nabhan (1984) and Kalland (1994) have pointed out that TEK could be studied on a series of levels. These various levels can be seen as a knowledge-practice- belief complex and are, as indicated in the chart below, seen as occupying three or four levels.

	<u>Berkes</u>	<u>Stevenson</u>	<u>Lewis & Kalland</u>	<u>Nabhan</u>
Level 1	Local knowledge of plants, animals, soil and landscape	Specific environmental knowledge	Local empirical or practical knowledge	Indigenous environmental knowledge
Level 2	Land and resource management systems that use the local environmental knowledge	Knowledge of ecosystem relationships	Paradigmatic knowledge or the interpretation of empirical observations	Management practices based on this knowledge
Level 3	Social institutions which enforce the resource management systems	Code of ethics governing appropriate human-environmental relationships	Knowledge embedded in social institutions	Religious beliefs about and ritual uses of plants and animals
Level 4	Worldview which shapes and gives meaning to the observations of the environment			

Rather than comparing traditional knowledge with Western science the above attempts to understand how traditional knowledge functions in the societies within which it is embedded.

Anthropological Writing on Aboriginal Resource Practices:

Anthropology in particular has long been interested in trying to understand Indigenous systems of resource management. (As noted in the introduction the term resource “management” is a Western concept foreign to indigenous resource interactions. I will thus try to stay away from this term as much as possible). As a result many theories attempting to explain the relationship between Indigenous resource users and their resources exist. One such theory is “Optimal Foraging Theory”. This theory is derived

from evolutionary ecology where it referred to a collection of models specifying the behaviors of an organism that has evolved to harvest resources according to maximum energy output-intake efficiency (Schoener 1971). Applying the same theory to humans, Optimal Foraging Theory postulates that human foragers develop behaviors that allow them to achieve the highest possible rate of energy capture while foraging (Winteralder 1983:202). While the hunt of large animals allows for a greater energy catch, this catch is evaluated in relation to the energy output necessary to achieve it. (Carefully making sure that one never outweighs the other). If large game become too scarce it would therefore be more efficient to concentrate on smaller game until the population has recovered. A balancing of the energy output costs thus prevents the over-harvesting of a specific resource. Proponents of the Optimal Foraging Theory further argue that the introduction of new technology does not change this behavior but only affects it by making hunting easier (ibid:237).

Optimal Foraging Theory therefore primarily focuses on practical and more or less unconscious aspects that could govern the interaction of indigenous peoples with their resources. The use of Optimal Foraging Theory to explain indigenous peoples' sustainable resource use is, while containing certain valid elements, problematic. Its reduction of the relationship hunters have with their environment to the purely mechanistic, materialistic and functional level, leaves out too many important factors influencing this relationship. Why for example, if this really were the only mechanism regulating harvest activities, did the introduction of energy efficient weaponry not result in specific species being over-harvested? Influenced by the "calorific obsession" of the

time, Optimal Foraging Theory attempts to apply a scientific model to a practice that only coincidentally fits into the model.

Speaking of human/animal interactions a Cree trapper in Robert Brightman's *Grateful Prey* explains that: "You got to keep it holy" (Brightman: 1993:1) when he refers to the handling of meat received from hunted animals. Animal spirits are seen as observing human conduct and subsequently rewarding or punishing the hunter depending on his actions (Brightman 1993:76). Adrian Tanner points out that the Mistassini Cree see animals as having personal relationships with their hunters. Thus he writes that:

"The hunter pays respect to an animal; that is, he acknowledges the animal's superior position, and following this the animal 'gives itself' to the hunter, that is, it allows itself to assume a position of equality, or even inferiority, with respect to the hunter"(1979:136).

Once an animal is hunted the Mistassini Cree, Tanner continues, observe various rites showing gratitude for the meat and expressing the hope of extending the good fortune to future hunts. Central to this attitude following the kill is a desire and the necessity to show respect towards the animal, which is achieved by treating its carcass properly (ibid:153). Colin Scott also notes that: "...respectful activity toward the animals enhances the readiness with which they give themselves, or are given by God, to hunters" (1996:82). And an important aspect of this respect is that the gift of meat received by the hunters is shared with others and not wasted. Therefore when discussing goose hunting he writes:

"The empirical availability of geese...varies with their treatment by hunters. The specification of "respectful" treatment in day-to-day hunting is as complex as the many situations of interaction, but the general and key notion is that technical efficiency in killing animals must be

balanced by restraint, and that only the latter can really guarantee the long-term viability of the former”(ibid).

Thus a hunter must strive for impeccable hunting techniques so as to avoid causing undue suffering. If a hunter, after trying hard, is unsuccessful in catching particular animals he has to direct his efforts elsewhere because those animals do not want to be caught. At the same time a hunter should not overtax the generosity of a particular animal partner and should only accept what he needs even if it is easy to take more (ibid).

Robert Brightman’s, Collin Scott’s and Adrian Tanner’s observation that animal spirits are seen as observing the conduct of hunters and later reward or punish the hunter depending on his actions are in line with the theory put forth by Harvey A. Feit in order to understanding Indigenous resource systems. Speaking of the Waswanipi Cree, Feit explains that Waswanipi hunters certainly have the skill and technology to kill too many animals but that it is part of the “responsibility of the hunter not to kill more than he is given, not to “play” with animals by killing them for fun or self-aggrandizement”. (Feit 1973:117). While hunters have the ability to over-harvest in the short term, doing so would be detrimental to their long term survival since taking too many animals and/or being disrespectful of their gifts (e.g. through wastage) will lead to the animals’ refusal to allow themselves to be hunted in the future.

Thus, Feit points out, while the mode of causality that animates the Waswanipi’s view of the ecosystem model is very different from a scientific account, the structural relationships are for the most part isomorphic. Waswanipi views incorporate ecological principles such as the concept that human/ animal relationships are systemic and based on sustainable yield usages (Feit 1973:117-118).

Feit continues to explain that Waswanipi hunters use “rotational hunting systems” which allows the animal populations to grow back since specific hunting territories are not harvested every year. He further comments that hunters will shift to fish and other smaller animals if moose and beaver become too difficult to hunt (e.g. if the needed energy output for their hunt makes their hunting inefficient) in certain territories (Feit 1973: 118-124).

Feit’s explanation of Waswanipi Cree resource management practices contains elements of all previously mentioned theories albeit in a different and complementary combination. His explanation comes closest to understanding how indigenous peoples manage to maintain a proper balance with their resources, but it does not completely explain the system. How over-harvesting is prevented in the case of human needs exceeding resource availabilities, for example, still remains unclear.

Many have argued for religion and religious taboos (see Ofori- Mensah 1992, Nelson 1983, Vecsey 1980, Anderson 1996, Ridington 1982 et al.) as the principal force regulating Indigenous peoples resource practices in Canada and Internationally. While practices that could be classified as religious do play a role in Indigenous resource use, the problem with this interpretation is that such arguments are based on Western rationalizations of religion. They are based on Western concepts and models of religion and thus deny Indigenous people agency or consciousness of what they are doing.

The Indigenous systems of values and regulations of the relationship between humans and animals furthermore continues despite several hundred years of Missionisation. All the communities I visited during my fieldwork are, for example, officially Christian (three are Catholic and one is Anglican) but traditional values

regarding the proper relationship with animals still exist in the communities. While some (e.g Calvin Martin 1978) have argued that traditional belief-based sustainable resource management practices automatically collapsed with the introduction of Christianity, this, as Tanner, Krech (1981), Brightman, Scott and others have shown, and as my own experience revealed, is not the case. In reality, there is a clear separation of Christian beliefs from Indigenous values when it comes to traditional resource practices.

It is difficult to come up with a definitive explanation for sustainable Indigenous resource interactions, at least in the Western scientific context. It is, however, safe to assume that sustainable Indigenous resource interactions are based on respect towards all animate and inanimate “things” and that this respect and gratitude for their existence carries certain responsibilities in how one is to properly approach and interact with them. Many native cultures, for example, stress the importance of making an offering to the animal spirits in order to thank them for their gifts of life.

Part of the difficulty in understanding Indigenous resource interactions also stems from the often very different epistemological outlooks of Western and Indigenous societies that make it difficult to successfully convey and understand concepts cross-culturally. Even concepts such as respect toward nature, which are at first glance simple and straightforward, often carry different connotations in the various cultural settings. Many would, for example, argue that Western people also respect nature but that such a respect does not automatically make their environmental interactions sustainable. While this is to some extent true it points to the difficulties associated with communicating human/nature relationships cross-culturally. Indigenous societies, for example, often view all aspects of nature as animate elements infused with spirit. Therefore, when they

speak of the importance of interacting respectfully with these spirits the notion of respect takes on different connotations than Western concern towards inanimate objects interconnected through cause and effect.

The difference in the Western and Indigenous approaches towards environmental health becomes apparent when we look at the different views on such practices as habitat replacement projects. Canadian environmental regulations do, for example, force northern mining operations to minimize their impact on the environment as much as possible. Habitat replacement projects, such as the draining of a lake and creation of a comparably re-stocked new lake elsewhere, are thus seen by biologists as viable practices to mitigate environmental impact. While such practices may keep fish populations at similar levels, they exemplify the essentially mathematical approach of Western resource management. Viewed through Dene ideas of respect rather than Western concern over numbers, such projects are very problematic. Habitat destruction, even if the habitat is recreated elsewhere, is disrespectful towards the spirits of the destroyed elements, is disrespectful behaviour toward the land.

The environmental knowledge of the Dene is thus not only comprised of their extensive knowledge of the behaviour and ecology of animals such as caribou, beaver or marten, but also of their knowledge of how to properly interact with the plants and animals, with the land. Central to their knowledge is the importance of treating the land and all its non-human inhabitants with respect. This respect toward the land goes further than not killing more than one needs and not wasting. In the words of a Lutsel K'e Elder: "We respect the caribou whenever it comes to our community...the caribou know that we

respect them, so that is why they come all the way down to the people here every year” (Eliza Enzoe 1998).

Thus when Indigenous people call for the importance of using and learning from their environmental knowledge they do not only refer to their specific knowledge of plants and animals but also to the importance of learning from their overall approach to the land. To only use their specific factual knowledge is not what Indigenous people mean by the recognition of the importance of their knowledge. As one Dene participating in the Dene Cultural Institute’s traditional knowledge study put it: “... The message has always been in our legends that the animals have to be respected... And everyone that uses this land, both the Dene and the oil companies will have to learn to respect this”. (Richard Kochon 1985 in Ruttan and Johnson 1993).

TEK and Co-management:

The recognition that local knowledge exists within a wider cultural and institutional framework is significant, especially in regards to its use in what is referred to as co-management arrangements. The challenges of integrating Western science and TEK in co-management arrangements are often not realized by practitioners of Western science, nor government policy makers. Since both Western science and Traditional Knowledge operate within and are informed by social institutions, an integration of the two requires a recognition and examination of the wider socio-cultural frameworks within which these knowledge systems exist. TEK is embedded within the social institutions of Native society and Western science is embedded within the social institutions of Western society. Co-management boards are Western government

institutions based on the social structures of Western society. Attempts to bring TEK to co-management boards without recognizing the wider social institutions within which it is embedded, in effect, represent the taking of knowledge from one reference system in order to subordinate it to another, thus reducing its authority.

In order to co-exist the two knowledge systems thus need to have institutions that are friendly to the expression of both ways of knowing.

Berkes does, nevertheless, caution against overemphasizing the differences between Western science and Indigenous knowledge, pointing out that the sources of conflict between Western and Indigenous science practitioners often have more to do with the power relationships between Western and aboriginal experts than the knowledge itself (1999:11). Thus, as long as the knowledges are brought together in culturally appropriate ways in a climate of mutual respect and power balance, they may work well together, complementing rather than contradicting each other.

In my own experience I have found that many Dene Elders are quite interested in Western science and do not disagree with it as a whole, but there are specific areas in which they see themselves as having a deeper understanding based on for example a century old relationship with caribou. Thus, they may disagree with particular aspects or practices of Western science, or feel that it is lacking certain understandings they are aware of, but that does not mean that they are against Western science per se.

A better way of looking at the interplay of TEK and Western science in regard to northern resource management would thus be to see them as potentially complementary rather than oppositional.

It is further interesting to observe that current ideas about “nature” in scientific disciplines such as physics are more in line with First Nations thinking than with conventional resource biology. Freeman argues that First Nations societies see the world around them not in terms of linear causal events but as constantly reforming, multidimensional, interacting circles where all factors are influences impacting other elements of the system as a whole (1992:10). Resource biologists are generally concerned with causality in their attempt to understand an essentially linear process of cause and effect. Such that: “if causes of observed effects can be measured and understood, then predictive statements about future outcomes can be made and the natural world can be managed” (Freeman 1992:10).

Since it has been recognized that ecosystems are complex systems of re-circulating energy matter and relationships, the Cartesian model of science fails in trying to explain the ecosystem (ibid). Leading physicists are now coming toward an understanding of the workings of natural events by means of their systemic relationship, or interdependence, outside of which they cannot be defined (ibid). Bateson further explains that: “Anything...should be defined not by what it is in itself, but by its relations to other things”. (Bateson in Capra 1982:66). While modern physics is thus coming to understandings similar to the views held by First Nations science, the institutionalized bureaucratic approach within which resource biologists operate is unfortunately slow to accommodate such realities.

Conclusion:

While drawing from the work of Freeman (1988;1989;1992;) Berkes (1988;1991;1994;1999) Scott (1989;1996) and Feit (1973; 1988) the approach and emphasis of my own research takes a somewhat different angle. Rather than focusing on TEK and Indigenous resource management practices themselves, my own work analyses the relationships co-management boards have with TEK. I thus examine the differing structures within which crisis-based and land claims-based resource co-management boards exist with a focus on their effect on the boards relationship to the TEK of the Indigenous communities it represents.

Drawing from both the research on TEK as well as the co-management literature (Usher 1986;1991;1993; Pinkerton 1989; Osherenko 1988; Wheeler 1988; Notzke 1994; Doubleday 1989; Cizek 1990 DIAND et al.) my research thus focuses on the issues surrounding the actual Indigenous knowledge integration through co-management.

3.0. RESOURCE CO-MANAGEMENT IN CANADA: ORIGINS AND OVERVIEW

Over the last 25 years an increasing array of natural resource co-management arrangements have been established in Canada. This chapter will discuss the theoretical, practical and historical issues behind this development. It will begin with an examination of Canada's relatively recent involvement in the conservation and management of northern resources looking at such conflicting issues as federally guaranteed treaty rights and provincial/territorial resource regulations. Once this "groundwork" has been established the agents behind the move to co-management will be explored introducing the co-management agreements. The chapter will conclude by introducing the cultural problem faced by co-management boards. Since the idea of "resource management" is essentially a Western cultural concept, resource co-management agreements are bound to be influenced by the cultural ideas behind this concept. The last section will thus look at the cultural framework within which co-management agreements operate.

Government Involvement in Northern Resource Management:

Beginning with the James Bay and Northern Quebec Agreements (signed in 1975) many co-management agreements between Indigenous peoples and Canadian government agencies have been signed. These agreements can be divided into two main categories based on their origin as either "land claims based" or "crisis-based". These agreements, while proposed by the federal government as new steps in the development of Northern Canada's bureaucratic resource administration, are essentially a continuation of the same

approach when viewed from the First Nation's perspective. Simple participation in the government's bureaucratic approach to natural resource management is not the goal of First Nations entering into co-management agreements. Rather, they are attempting to protect their rights to their natural resources. Thus, there generally exists a gap in the expectations of governments and First Nations with regard to resource management issues. The following overview of the history of southern involvement in northern resource management will show the beginnings of this problem.

The first government infringement on Northern Aboriginal resource use came with the passing of the Northwest Game Act in 1917. The Act was passed in response to pressure from three different interested parties. The Hudson's Bay Company wanted the government to regulate the trapping practices of incoming white trappers whose non-conservationist methods led the Bay to fear for the long-term survival of the resources their business was based upon. The Missionaries wanted the government to protect the Natives from the alcohol and prostitution they associated with the newcomers. The Dene wanted the government to recognize that their Native claims to land and resources had priority over those of the newcomers and that those rights were guaranteed in the treaties. The Dene demand was for the Crown to live up to the terms of the treaties and prevent non-Native newcomers from taking over their land (Abel 1993:189-90). According to Abel (1993:190) the message Ottawa actually heard from Indian Agents, RCMP Constables, Missionaries and Fur Traders was a distorted version of those demands.

The northern reports had coincided with a growing conservation movement in southern Canada. The Commission on Conservation¹ was particularly partial to

¹ The Commission on Conservation had been established with the help of Sir Wilfred Laurier in 1909. It was concerned with the protection and preservation of wildlife resources. It considered the education of

indications that heavy demands on wildlife were threatening important species such as beaver, caribou and wood bison and conservationists² soon called for the regulation of hunting and trapping in the Northwest. In 1916, the newly formed Advisory Board on Wildlife Protection³ took up the cause, and in 1917, shepherded the North West Games Act through Parliament (Abel 1993: 190). Soon after the passing of the North West Games Act the parliament of Canada also passed the Migratory Birds Convention Act⁴.

The passage of the North West Games Act was thus based on the strength of ill-informed southern conservationist concerns, rather than on the Dene's rights to protect the resources for their own use. The Act was created by southerners who did not actually know the North as northern Native peoples had in no way been involved in its creation. By this Act the government of Canada negated the Dene's Aboriginal and treaty right to manage and protect their resources for their own survival. The Act banned, for non-Natives and Natives alike, the hunting of wood buffalo, musk-ox and elk, set specific seasons for other species such as beaver and established licensing fees for trappers. All of the new regulations applied to Native hunters and trappers (except the license fee from which they were exempted since the Bay did not want to discourage business) and achieved the opposite of what the Dene had asked for. The new legislation weakened their use of resources protected by treaty rights. As Cox points out:

public opinion as to the importance of conservation and the promotion of measures that would protect wildlife and natural resources as its most important goals (Commission of Conservation 1919).

² Members of the growing movement of concerned citizens. A zoologist Dr. Gordon Hewitt was most notable among these as he submitted proposals to the Commission of Conservation regarding the regulation of hunting and trapping in the Northwest.

³ The Board was formed in 1916 upon the recommendation of the Minister of the Interior in order to assist in the drafting of legislation, supervise the enforcement of legislation and advise on matters such as the conservation of wildlife (Commission of Conservation 1919).

⁴ The Act (passed in 1917) was a joint international agreement between Canada and the United States and was thus paralleled in the United States. While the Act was designed to protect migratory fowl it simply ignored treaty rights by stipulating that these new regulations applied to all peoples (Weaver 1981:33).

“... the new [Northwest Game] Act marked the first significant infringement on the hunting rights of northern natives. Others were to follow in short order: The Migratory Birds Convention Act in 1918, and the creation of the Wood Buffalo National Park in 1922. The Northwest Games Act set the precedent for these initiatives... taken together, these measures placed wide restrictions on what northern natives could hunt, and when they could hunt. Restrictions put in place by “a few theorists” who had little practical knowledge of conditions in the country effected, and less of the people of that country” (Cox 1995:10-11).

Since these Acts fundamentally changed the First Nations relationship with Canada and ignored the guarantee of treaties as Nation to Nation agreements these Acts and regulations were met with anger and protest by First Nations. The federal government did not heed the Native concerns and refused to redress the problematic new regulations. In 1930 the federal government made a subsequent unilateral decision affecting northern Native peoples whose territories extended into the prairie-provinces, again without involving the affected First Nations in the decision-making process.

In 1930, the Dominion government, through the Natural Resources Transfer Agreement, negotiated the handing over of the control of local Crown land and natural resources to the prairie-provinces, thus allowing them to benefit from resource royalties (Rotman 1996:71). A key clause in the agreement stated the government of Canada agreed⁵ to recognize that provincial game laws equally applied to Natives as long as Natives had the right to hunt, trap and fish on unoccupied Crown land or other lands to which they might have “right of access” (Abel 1993:210). This vague and ambiguous clause did not constitute a protection of Native rights but was nevertheless an, albeit

⁵ The Crown was aware of its treaty obligations. A provisional agreement was made stating that unoccupied Crown lands now under provincial control may be set aside for Native use if the Superintendent General of Indian Affairs selected to do so in order to enable Canada to fulfill its treaty obligations (Rotman 1996:71).

weak, admission that Native peoples did have special rights under their treaties. As a result of this legislation the provinces began to subject First Nations living within their boundaries to provincial regulations, thus creating more restrictions on Native livelihoods in spite of the fact that section 88 of the Indian Act (1876) ensured that treaty rights were to have precedence over provincial laws of general application (Kulchyski 1994:9). In light of the fact that the Indian Affairs Branch actually encouraged Native peoples in the years following the depression to abandon farming in favour of more traditional subsistence practices (Lithman 1978:49), it was ironic that Native peoples were encouraged to hunt while at the same time restricted in their ability to do so.

Native anger and frustrations with the new provincial regulations were expressed in the following ways. Since they were essentially deemed illegal, resource regulations became more suspect in Native eyes. Native people simply ignored regulations that were considered violations of their treaty rights. Subsequently the continuation of hunting and trapping activities to Native people became a demonstration of the continuity of their treaty rights. While the NWT were not affected by the Natural Resources Transfer Agreement the Dene whose territories were in the northernmost areas of the prairie-provinces were affected.

The 1930s to the 1970s:

While subsequent amendments to the introduced Acts were made, most new disturbances of the Dene's traditional hunting and trapping activities over the 1930s and early 1940s resulted from the discovery of gold, silver and other ores in the Dene's traditional territories. By the late 1940s Canada renewed its interest in the North. In 1947

the Dominion Wildlife Service was created in order to consolidate Ottawa's activities in wildlife management and:

“Reports from wildlife surveys alarmed the conservationists in Ottawa, who became convinced that every major species of both fur and game animals was on the brink of crisis. Over-hunting was blamed; the Dene were accused of wasteful use of game by unsympathetic administrators with little knowledge of the realities of life in the north. A re-energized Advisory Board on Wildlife Protection argued successfully for more restrictions on hunting and more rigorous enforcement of the game regulations...Even so, there was uncertainty about the legal status of Native hunting. Opinion was divided about whether Natives were to be permitted to hunt for food (but not for commercial purposes) no matter what the season or if the game laws simply applied across the board to both Native and non-Natives. The game wardens seemed to believe the latter.” (Abel 1993:215).

As could be expected the Dene were outraged by most of the new regulations, again stressing that they went against their treaty rights. Instead of respecting the Dene's treaty rights, or believing in the Dene's knowledge of their own systems of wildlife conservation, the NWT decided that better wildlife conservation could be achieved through the introduction of trap-line registration. By 1949 trap-line registration certificates were issued from Fort Smith upon application to a game warden. It was believed that this new system would:“...foster individual initiative among trappers and gradually educate Native trappers in the idea and ideal of conservation” (Abel 1993:218). These new developments again frustrated the Dene. The community of Rae became most assertive in their refusal to abide by the new regulation arguing that: “...by treaty they have a trapping right over a vast amount of country...”(ibid 219). Most Dene in the Great Slave Region only applied for trap-line registration in the mid 1950s and in some areas they registered as family groups rather than individuals. In the late 1950s the Dene living

in the northern areas of Manitoba and Saskatchewan also saw the introduction of the trap-line system and again generally registered as family groups rather than individuals (ibid 220).

Over the following years the Dene continued to disregard regulations they believed to be unnecessary (and were at times charged with infractions). The Dene maintained that their treaty rights were violated by these externally imposed restrictions. They did, however, point out that they would cooperate with regional limitations to particular species if such limitations were founded on actual regional scarcities (ibid 221). Since the imposed regulations generally affected huge regions such as the whole of the NWT regardless of actual scarcities in particular areas, the Dene found the governments approach to resource management very unrealistic. Disregarding all knowledge the Dene had of their resources, Ottawa set on a course to “educate the Natives” who were perceived as having no idea of how game management works. Thus game management officials believed that the Dene had to adapt to non-Native theories of wildlife management and were completely unwilling to accept the Dene’s ideas on the subject (ibid 222). This general state of affairs persisted until the introduction of co-management agreements.

The Creation of Co-management Agreements:

Canadian resource co-management agreements between Indigenous peoples and the various levels of government or industry can be divided into two basic categories. They reflect their origins as either “land claims based” or “crisis based” resource co-management agreements.

Between 1975 and 2001 thirteen Land Claim Agreements were signed in Canada, all of which created resource co-management agreements. Land Claims are modern day treaties the main purpose of which is to provide for certainty and clarity of rights to the ownership of lands and resources. The opening of the North to potential industrial activities such as mining and hydroelectric developments are generally the main driving force behind the need to create certainty over resource ownership. Land Claims automatically result in co-management agreements since the federal government holds the position that provincial or territorial conservation-oriented statutes and regulations supercede treaty rights. All resource boards set up by Land Claims Agreements to look after the resources within the claims area thus have to work cooperatively with federal and provincial/territorial resource management agencies and are thus co-management boards.

Crisis-based⁶ co-management agreements, as the name implies, generally result out of a real or perceived resource crises and/or are set up in order to avert potential crises. Crisis-based co-management boards are thus in most cases set up as a tool for conflict resolution. They create a forum at which representatives from Indigenous communities, government and/or industry come together in an attempt to resolve their differences. The Beverly and Qamaniruaq Caribou Management Board was, for example, created in order to deal with the government's presumed caribou crisis and the Dene and Inuit's refusal to cooperate with regulations they believed to be based on the governments lack of knowledge about caribou.

⁶ While my research focuses solely on agreements between governments and First Nations, agreements between First Nations and particular industries operating in their territory are also referred to as crisis based co-management agreements.

Due to the nature of their origin, crisis-based resource co-management agreements are more volatile than land claims based co-management agreements. While some, such as the BQCMB, are long lived others such as the Temagami Stewardship Council collapse not long after they are established. New agreements roughly falling into the crisis-based category are continuously being created making it impossible to give an exhaustive overview of all such agreements. Further, lacking the clearly defined legal basis of land claims based agreements, crisis based co-management boards vary greatly in their regulative powers. Co-management is thus a term applied to a wide variety of co-management arrangements.

The following tables will give an overview of co-management agreements, listing them according to their actual co-management abilities:

Table 1: Land Claims-Based Resource Co-management Boards

Land Claim Agreement:	James Bay and Northern Quebec Agreement	Gwich'in Comprehensive Land Claim Agreement	Nunavut Final Agreement:
Co-management Board:	Coordinating Committee on Hunting, Fishing and Trapping	Gwich'in Renewable Resource Board	Nunavut Wildlife Management Board
In operation since:	1975	1994	1999
Representation:	Cree, Inuit, Quebec,	Gwich'in Territorial/Federal	Inuit Territorial/Federal
Members are appointed by:	Cree, Inuit, Quebec	Gwich'in Territorial/Federal governments	Inuit, Federal/Territorial governments
Area it covers:	Northern Quebec	Gwich'in Settlement Area	Territory of Nunavut
Resourc(s) it concerns:	Wildlife	Renewable Resources	Wildlife
Decision making power:	Only Advisory. No actual power to make decisions.	Structure supports Gwich'in policy-making. Ministerial override in principal, not yet used.	Structure supports Inuit policy-making. Ministerial override in principal, not yet used.

Adapted from: Royal Commission on Aboriginal Peoples Report 1996; Gwich'in Comprehensive Land Claim Agreement 1992; Nunavut Final Agreement 1993.

Land Claims Based Co-management Boards Continued

Land Claim Agreement:	Sahtu Dene and Metis Comprehensive Land Claim Agreement	Yukon Umbrella Final Agreement⁷	Inuvialuit Final Agreement
Co-management Board:	Sahtu Renewable Resource Board	Yukon Fish and Wildlife Management Board	Wildlife Management Advisory Council (NWT)
In operation since:	1994	1994	1985
Representation:	Sahtu Dene/ Metis Territorial/Federal	Yukon First Nations/Yukon Residents/ Territorial governments	Inuvialuit Territorial/Federal
Members are appointed by:	Sahtu Dene/Metis Territorial/Federal	Yukon Minister of Renewable Resources upon their respective nomination by the Yukon First Nations or the Yukon	Inuvialuit Federal/Territorial Governments
Area it covers:	Sahtu Dene/Metis Settlement Area	The Yukon	Portion of the Inuvialuit Settlement Region falling into the NWT
Resourc(s) it concerns:	Renewable Resources	Fish and Wildlife	Wildlife
Decision making power:	Structure supports Sahtu Dene/Metis policy-making. Ministerial override in principle, not yet used.	Primary instrument of Fish and Wildlife management in the Yukon. Subject to ministerial override.	Advises appropriate ministers on wildlife policies, management, regulation and administration ⁸

⁷ Includes the First Nation of Nacho Nyak Dun Final Agreement, the Vuntut Gwitchin Final Agreement, the Champagne and Aishihik First Nations Final Agreement and the Teslin Tlingit Council Final Agreement and as of 1997 the Little Salmon/Carmacks First Nation Final Agreement and the Selkirk First Nation Final Agreement.

⁸ The Wildlife Management Advisory Council covering the North Slope Area (Yukon) of the Inuvialuit Final Agreement follows the same principles, as does the Fisheries Joint Management Committee for the Inuvialuit Settlement Area .

Land Claim Agreement:	Nisga'a Final Agreement	Nisga'a Final Agreement
Co-management Board:	Wildlife Committee	Joint Fisheries Management Committee
In operation since:	2000	2000
Representation	Nisga'a Nation/Canada/British Columbia	Nisga'a Nation/Canada/British Columbia
Members are appointed by:	Nisga'a Nation/Canada/British Columbia	Nisga'a Nation/Canada/British Columbia
Area it covers:	The Nass Wildlife Area	The Nass Watershed Area
Resourc(s) it concerns:	Wildlife	Fish
Decision making power:	Recommends regulations and policies to the Nisga'a Lisims Government and the Minister	Recommends regulations and policies to the Nisga'a Lisins Government and the Minister

Adapted from: Royal Commission on Aboriginal Peoples Report 1996; Sahtu Dene and Metis Comprehensive Land Claim Agreement 1993; Umbrella Final Agreement 1993; Selkirk First Nation Final Agreement 1997; Little Salmon Carmacks First Nation Final Agreement 1997; Inuvialuit Final Agreement 1984; Nisga'a Final Agreement 1999.

Table 2: Crisis-Based Resource Co-management Boards

Co-management Board:	Beverly and Qamanirjuaq Caribou Management Agreement	Archipelago Management Board (resulted out of the Gwaii Haanas Agreement)	Central Regions Board
In operation since:	1982	1993	1994
Representation:	Dene, Inuit, Metis, Manitoba, Saskatchewan, NWT and Nunavut	Haida First Nation and Parks Canada	Hawiih of the Tla-oqui-aht First Nation, Toquaht First Nation, Ahousaht First Nation, Ucluelet First Nation and British Columbia
Members are appointed by:	Government upon community recommendations	Haida First Nation, Parks Canada	First Nations and British Columbia
Area it covers:	Beverly and Qamanirjuaq Caribou migration routes in the NWT, Nunavut, Manitoba and Saskatchewan	South Moresby/Gwaii Haanas National Park Reserve	262,592 Hectares adjacent to Clayoquot Sound
Resource(s) it concerns:	Caribou	Archipelago's natural environment, Haida culture	Land use and Resource management (mainly forestry)
Decision making power:	Only Advisory. No power to make decisions.	Policy making; no side can make decisions without the consent of the other side	Advisory, reviews policies and can request changes

Adapted from: Royal Commission on Aboriginal Peoples Report 1996; Beverly and Qamanirjuaq Caribou Management Agreement 1982; Gwaii Haanas Agreement between the Government of Canada and the Council of the Haida Nation 1993.

Crisis-Based Resource Co-management Boards Continued

Co-management Board:	Whiteshell Indian Advisory Board	Porcupine Caribou Management Board	Wabaseemoong First Nation⁹ (Whitedog Area Resources Committee)	Northern Flood Agreement Wildlife Advisory Board
In operation since:	1980s	1985	1991	1980s
Representation:	Whiteshell First Nation and the Province of Manitoba	Canada, Yukon, NWT, Council of Yukon First Nations, Inuvialuit, Gwich'in	Wabaseemoong First Nation, Government of Ontario	Province of Manitoba, First Nations and Manitoba Hydro
Members are appointed by:	First Nations and Manitoba	Yukon First Nation, Gwich'in, Inuvialuit, Yukon Gov. NWT Gov. Canada	Wabaseemoong First Nation, Government of Ontario	Province of Manitoba and Manitoba Hydro
Area it covers:	Whiteshell Area	Porcupine Caribou migration routes in the Inuvialuit Settlement Area, Gwich'in Settlement Area, NWT and Yukon	Wabaseemoong First Nation Traditional Territory	Northern Manitoba Churchill River Diversion
Resourc(s) it concerns:	Wild Rice	Caribou	Fish, Wildlife, Forrest, Wild Rice	Wildlife
Decision making power:	Advisory	Advisory	Advisory	Advisory

Adapted from: Smith 1991, Chambers 1998, Porcupine Caribou Management Agreement 1985.

⁹ Formerly known as Islington Band

Crisis-Based Co-management Boards Continued

Co-management Board:	Barriere Lake Trilateral Agreement	Mathias Colomb First Nation – Manitoba Moose and Caribou Co-Management Agreement	Little Red River Cree Nation and Tall Cree First Nation Forest Management Board
In operation since:	1991	1991	1995
Representation:	Algonquins of Barriere Lake; Government of Quebec; Government of Canada	Mathias Colomb First Nation; Manitoba Government	First Nations, Government of Alberta, Municipal District of MacKenzie, (+Non-voting members: DIAND and High Level Forrest Products)
Members are appointed by:	The agreement does not develop a co-management institution per se. It lays the foundation for a system of co-operative development	Mathias Colomb First Nation; Manitoba Government	First Nations, Government of Alberta, Municipal District of MacKenzie, (+Non-voting members: DIAND and High Level Forrest Products)
Area it covers:	Algonquin of Barriere Lake Land Use Area	Caribou and Moose habitat in the Mathias Colomb First Nations Land Use Area	First Nations Traditional Land Use Areas
Resourc(s) it concerns:	Forests and Wildlife	Moose and Caribou	Forestry
Decision making power:	Consensus, all sides need to agree	Advisory	Advisory

Adapted from: National Aboriginal Forestry Association Discussion Paper on Co-management 1995, Chambers 1998, Mitchikanibikok Inik. 1997.

As can be seen, co-management boards falling into the crisis-based category can greatly differ from one another (with the Archipelago Management Board being the only co-management board achieving a real power balance¹⁰), while land claims-based co-management boards, due to their common legislative framework, tend to be more alike.

The first land claims-based resource co-management board, the Coordinating Committee on Hunting, Fishing and Trapping (James Bay) is only advisory. However, this altered 20 years later with the more recent land claims based co-management agreements (the Gwich'in Comprehensive Land Claim Agreement; the Sahtu Dene and Metis Comprehensive Land Claim Agreement and the Nunavut Final Agreement) where policy-making is structured into the agreements but subject to ministerial override (eg. the Gwich'in Renewable Resource Board has to forward its decisions to the Minister of the GNWT). To date, the decisions of these boards have not been overruled by the Minister in charge (Dr. M. Robinson 1999). This does in part seem to be due to purposeful strategies of the Boards (knowing the limitations of their power) not to invoke ministerial override.

The Beverly and Qamanirjuaq Caribou Management Board and the Archipelago Management Board occupy the two opposite ends of the spectrum within which crisis-based co-management boards operate. The Beverly and Qamanirjuaq Caribou Management Board (BQCMB) was the first crisis-based resource co-management board to be established in Northern Canada and has frequently been presented by government and academia as a model co-management board (e.g. Osherenko 1988; Abrahamson 1994). It is nevertheless only an advisory board to the government with absolutely no decision-making power. The Archipelago Management Board (AMB) on the other hand

¹⁰ While not being a co-management board the Barriere Lake Trilateral Agreement is similar in this regard.

is the only Canadian co-management board to date in which all board members have equal decision-making powers. It is the only board in which both government and First Nations need the consent of the other side.

How did the Haida manage to force the government into creating an effective co-management board? Their position differed from that of other First Nations in one important aspect. Since 1981 Ninistints, a Haida village on South Moresby Island within the park administered by the AMB, had been a UNESCO World Heritage Site. It seems that the international visibility of the Haida played a role in their success in refusing to sign an agreement that would give them anything less than equal management powers (Gwaii Haanas Agreement between the Government of Canada and the Council of the Haida Nation 1993).

The Central Regions Board is a co-management board occupying the middle ground between the BQCMB and the AMB, while the other crisis-based co-management agreements are closer to the BQCMB in their actual decision making powers. The decisions of all co-management boards except the AMB, can be, however, ultimately over-ruled by government.

Thus, with only one exception, the ultimate control over the resources to be "co-managed" (through crisis or claims based co-management boards) remains in the hands of the Government of Canada. The agreements are nevertheless referred to as "co-management" agreements obscuring the actual nature of power relations.

The Cultural Framework of Co-management Boards:

Co-management boards generally claim to base their decision-making on Western science as well as the Traditional Environmental Knowledge (TEK) of the represented First Nations communities. Traditional Environmental Knowledge is a term used since the early 1980s to describe the knowledge of Indigenous and non-Western peoples world-wide. The importance of including or consulting this knowledge quickly rose to prominence in fields such as international development (Brokensha 1980). In Canada First Nations had, since the introduction of Euro-Canadian resource regulations, pointed to the importance of their extensive knowledge of their resources. The world-wide recognition of the importance of what became known as TEK thus helped First Nations in forcing governments to finally recognize their knowledge. Thus the importance of including TEK is now, at least theoretically, being recognized by co-management agreements. The recognition of the importance of TEK in resource management agreements can be seen as an important step forward for First Nations. The actual integration of this knowledge on an equal level with Western science does, however, seem to be difficult for most co-management boards. There are numerous reasons for this. Not only do co-management boards operate within a power structure that largely favours one side, they also function within the cultural framework of one side. The operational structure of boards such as the Beverly and Qamanirjuaq Caribou Management Board (as I will elaborate with my in depth-study) hinder the equal reliance on different forms of knowing. Most co-management boards operate within Euro-Canadian bureaucratic and scientific frameworks and assumptions of reality. They thus impose foreign categories and limitations on Indigenous board representatives. As a

result, co-management boards are subject to certain cultural domination affecting their whole existence.

Further, it is my contention that the approach of most co-management boards to the knowledge of their Indigenous representatives bears striking similarities to the issues surrounding the legal recognition of Indigenous title to land. Legal recognition of Indigenous title to land is only recognized when it is expressed in a way that comes close to Euro-Canadian legal concepts. Many co-management boards only accept Indigenous knowledge and views of a resource when they come close to Euro-Canadian scientific concepts.

Co-management boards which work within western cultural practices and assumptions of what constitute valid knowledge, what constitutes a resource, and to what end a resource should be managed, are greatly disadvantaging representatives who are not used to operating within those cultural assumptions and practices. This thesis will thus examine how the Beverly and Qamanirjuag Caribou Management Board and the Gwich'in Renewable Resource Boards are affected by this cultural domination. Further attention will be given to the extent to which the geographic and legislative differences between the advisory crisis-based BQCMB and the land claims-based GRRB affect the Board's relationships to the knowledge of the Indigenous communities they represent. Prior to delving into an examination of the two case studies, a more in-depth analysis of the theories behind the Canadian government's assumed need to manage northern resources will be helpful.

4.0. THE GOVERNMENT BIOLOGISTS' BUREAUCRATIC-BIOLOGICAL-CULTURAL FRAMEWORK OF RESOURCE MANAGEMENT

What are the ideas, theories and assumptions informing the government's approach to northern resource management? Do they clash with the practices according to which northern Indigenous Nations interact with their resources? This chapter will explore the cultural, political and cultural-scientific rationales on which government resource management practices are based. It will examine the extent to which the ideas of government resource managers concerning how northern Native peoples and their resources interact are based on Euro-Canadian cultural views of the relationship between people and resources. The imagined "caribou-crisis" of the late 1970s and early 1980s will be used as an example of this. I will thus explore how governments came to believe in such a crisis.

The Predator Prey Model:

Western scientists generally assume that the relationship between humans in the Arctic and Sub-arctic regions and the resources on which they depend is a simple predator-prey relationship. Milton Freeman explains:

"This essentially biological model proposes that in historic times the human predator was kept in balance with the food supply in such Malthusian checks as starvation, disease and density dependant suppression of natural fertility"
(Freeman 1989:93).

The upshot of this assumption is that humans will harvest as much as they can, and will thus deplete their resource if they are not held in check by nature. In the past, in the

Canadian North, so the assumption continues, a balance was maintained because humans in Northern Canada only had access to primitive technology, which did not allow harvesting to exceed certain limits. Contact with Europeans had brought new more efficient weaponry to northern regions and settlement into communities led to more sedentary populations. It was thus assumed that these changes would automatically result in the over-harvesting of resources in the populated zones (Freeman 1989:93).

In the government's view these changes have occurred in Northern Canada over the last two generations disrupting the Malthusian balance northerners had with their resources and resulting in over-harvesting. This theory thus assumes that Northern First Nations had not depleted their resources in the past simply because they had lacked the ability to do so. This theory is based on government assumptions with very little documented evidence to support the argument.

The following excerpts from a paper published by a biologist from the Canadian Wildlife Service in 1981 on the assumed decline of caribou herds (he later became a member of the Beverly and Qamanirjuaq Caribou Management Board) are a prime example of this view. The paper begins by stating that: "Several major populations of caribou in Canada and Alaska have declined sharply in this decade with over-harvest a common denominator" (Thomas 1981:2). The paper goes over the various population estimates for the caribou herds and uses graphs based on current and previous population estimates to show that the Beverly, Qamanirjuaq and Bathurst caribou herds were in extreme decline (ibid:3). To account for this supposed decline the author points to the following causes:

"I believe that overharvest and climatic variables are primarily responsible for declines in barren-ground caribou

population and that both alter the predator-prey equilibria. Man with modern weapons and machines is superimposed on the natural system which would be expected to undergo pronounced fluctuations in his absence”(ibid:8).

The author further goes on to explain the simple mathematical logic that:

“In order to maintain approximately a constant population size the allowable harvest of caribou over one year of age should equal recruitment less the natural mortality rate of caribou older than one year.”(ibid:5).

Giving estimated harvest numbers versus the annual growth rate of the caribou population and census numbers indicating the growth rate of the human caribou user population the author concludes that:

“The decreasing population of relatively unproductive caribou and the rapidly increasing population of users, with better access and equipment, means that the user group has outstripped the caribou resources of most regions in northern Canada. Management must be instituted before the populations sink to an insignificant level. Hunting restrictions and wolf control are necessary to allow the populations to increase in the next one or two decades to a level where the annual allowable harvest can be increased.” (ibid:17).

The author further points to the importance of educating caribou users so they understand these issues since he claims: “Hunters do not readily perceive that caribou numbers have decreased or that a problem exists” (ibid:16).

This quoted paper exhibits the classic views held by many government biologists about Northern First Nations hunting practices and gives a good overview of the basic model and theories underlying the government’s resource management approach. It is nevertheless seriously flawed. This numeric approach based on population numbers, harvest rates and animal population growth rates appears to be very rational, however it is severely limited by the very database upon which it is premised. In dealing with actual

northern animal populations the model is seriously flawed since the model is only as accurate as the numbers fed into the calculations. While it is difficult enough to get accurate animal population numbers for southern regions, it is extremely difficult to do so for northern migratory species such as caribou. Due to the unavailability of comprehensive data, the population estimates with which the biologists worked were (and often are) incomplete.

The Dene and Inuit's response to the presumed drastic drop in caribou numbers based on the biologists population models was vehement disagreement.¹ Their hunters had not observed any changes in the caribou population that would indicate a drastic decline (Snowden, Kusagak, Macleod 1982). The biologists' cultural conditioning led them to believe that their estimates were as accurate as possible. It also led them to believe that Native hunters did not understand the extent of human pressure on animal resources and need to be educated. This view also implied that Native people lacked any system of controlling their impact on animal populations and thus required to be regulated. These are the assumptions underlying the notion that provincial and territorial governments have to regulate aboriginal hunting practices in order to prevent over-harvesting. It is assumed that, left to their own devices, Northern people and resources would soon fall into the trap of the "tragedy of the commons" (Hardin 1968). Since Northern resources are public resources under Canadian law competition and greed would, according to the government's theory, win over reason and result in the depletion of the resources.

¹ See section 5.0. for further details on this issue which eventually lead to the establishment of the BQCMB.

The essentially “western” cultural assumption behind this theory becomes very evident in a speech by a past Canadian Minister of Fisheries and Oceans, Romeo LeBlanc, quoted in Ellinor Ostrom’s book, Governing the Commons:

“If you let loose this kind of economic self-interest in fisheries, with everybody fishing as he wants, taking from a resource that belongs to no individual, you end up destroying your neighbour and yourself. In free fisheries, good times create bad times, attracting more and more boats to chase fewer and fewer fish, producing less and less money to divide among more and more people (Romeo LeBlanc in Ostrom 1990:8)”.

By assuming this approach to be a universal human problem, rather than a culturally based assumption about human action, government legislation over northern resources was thought necessary. This reasoning is based on the European attitude towards a resource as something to be managed and abstracted according to economic models which see human life and well-being as something separate from nature. In this view it is assumed that resource harvesters only think of their immediate gain and do not know when to stop. They are therefore assumed to need resource managers who regulate their access to the resource while allowing them to harvest the resource at maximum sustainable yield levels. This assumption is solely based on Euro-Canadian experiences and rationales. It, for example, does not consider that Native resources are in the control of the community rather than public, or that traditional local level practices ensuring the resources long-term survival might exist. It further assumes that government science-based resource management agencies are impartial in regard to resource management issues and can be relied upon for purely objective information whereas the self-interest of indigenous resource users must compromise their objectivity (Freeman 1989:95). Unfortunately the Canadian public tends to believe in this assumption in regard to

resource management disputes. Referring to this questionable assumption, Freeman points out that:

“Scientists are like most other people in having strong personal feelings about issues close to them, including ensuring advancement in their careers... we need to remember that many issues involving science and society take place in a public, as well as a scientific arena. In public situations lower standards of proof are asked for and offered... In these public debates (as well as in some scientific discussions) it is not uncommon to find scientists willing to assume an advocacy position on one side or another of a controversial issue (pp 95-96).

Referring to the supposed 1979/80 caribou crisis Freeman further states that:

“ This recent incident suggests that state-management agencies are not always critical, nor rigorous, nor objective, and the ‘science’ used in support of management objectives may well be more ‘trans-science’ than real science (pp.100).

Asking what reason state managers could have had for misrepresenting caribou population trends Freeman writes that:

“A more likely explanation depends upon considering the increasingly intense competition for budgetary resources, and especially for research funds (Anon, 1985, p.2) at a time when the state-manager’s role in wildlife management is being challenged as never before by progressive advances in native self-government. Under such agency-threatening circumstances, an announcement that the great northern caribou herds are faced with the danger of extinction might reasonably be expected to generate public support (for mitigative action) that any government department would be pleased to receive at the best of times” (pp.100-101).

Thus, as Freeman indicates, government resource managers are often far from being neutral and purely objective in natural resource issues, but may follow political agendas.

The reality of the situation is that while Native populations have risen to reach pre-contact levels caribou populations have not drastically declined. This is especially of note since Native people have used modern harvesting techniques for some time and should thus, according to the predator-prey model, have exhausted the caribou resource since few areas have strictly enforced harvesting quotas (Freeman 1989:93). The predictive value of the predator-prey model is thus erroneous. It has also been used to restrict Native people from hunting when there is no rational or logical reason for so doing.

It seems that, apart from political interferences, scientific resource management models are often flawed in their practical application because they are (due to their extensive need of accurate quantitative data) often not able to reflect resource realities. The fact that government administrators generally continue to value such models over the knowledge and hands-on experience of First Nations who continue to live in and with the resource, simply speaks of their cultural conditioning to do so.

Addressing Western society's belief in the value of models, Ingold (1993) makes an interesting observation when he questions the validity of conceptualizing the world as a "global environment". By teaching children to see the world as a globe, he postulates, we are teaching them to objectify the earth and emotionally detach themselves from it thus learning to gain knowledge from models rather than real experience. The end result, he points out, is a society that values knowledge gained through models over real experiences (Ingold 1993:35). Ingold's theory essentially describes the phenomenon encountered in Canadian resource management. Mathematical models of resource interactions are valued over real experiences even if they have to rely on incomplete data.

A Clash of Beliefs:

As mentioned earlier, an important component of the Indigenous peoples' relationship with their animate and inanimate resources is based on respect and the belief that people are within the natural world. To respect animals is therefore to respect their own existence.

It is this respectful relationship with animals that, in the view of many Elders, is disregarded by government resource administrators. This "clash of beliefs" results from the different and often diametrically opposed worldviews held by government resource administrators and native resource users. While both sides hope to maintain healthy animal populations, the divergent views on what means should be used to arrive at such a common goal become evident in the community meetings of currently existing resource co-management boards.

In theory resource co-management is an attempt to pull together all knowledge available about a specific resource in order to find an optimal scheme for its use and protection. There are, nevertheless, often situations in which the method used by one side to ensure the future protection of a particular species is seen by the other side as a sign of ultimate disrespect, with detrimental results for the human relationship with the species. A good example of this is the ongoing dispute over satellite collaring² of caribou and other migratory species.

During both the Beverly-Qamanirjuaq Caribou Management Board and Gwich'in Renewable Resource Board meetings (1997/98) this topic was raised by Elders who strongly dislike this practice. To many Elders, this practice is a sign of ultimate disrespect

² The practice of satellite collaring is often referred to as tagging, a term stemming from earlier times when tags were used to transmit radio signals.

towards the animal. Since there is an Indigenous belief that animals consciously participate in hunting, a hunter can only kill animals that have allowed themselves to be hunted. The placing of a satellite collar around an animal instead of accepting its offer is denying the animal's right of choice and hence exhibits not only extreme disrespect towards the animal, but also endangers the continuation of everybody's survival. Further, good hunters often know where to find the animals in their territory as well as being aware of their health and general condition. Apart from finding satellite collaring disrespectful, some worry about the unfair advantage it gives humans who can use the signals emitted by collared caribou to find them (1997/98 BQCMB and GRRB meetings; Code 1997). Resource biologists, on the other hand, feel that since they do not know the caribou's migration patterns, they need satellite collars in order to gain information on which areas need to be protected from encroaching industrial pressures. This results from the fact that mining companies and other potential industrial developers pressure governments to clearly define caribou migration routes and other sensitive areas in order to be able to open the North to industrial development.

Thus, while both parties in their own understanding act in the best interest of the resource, the protective measures of one cultural group are seen as detrimental to the resource by the other. The knowledge and worldview upon which one group bases its actions are therefore sometimes in opposition to the knowledge and worldview of the other group. It is therefore important to realize that the approach each cultural group (Euro-Canadian or Indigenous) takes towards resource management rests strongly in that group's cultural world-view.

Keeping all this in mind, I will now examine how all these issues affect the functioning of the Beverly and Qamanirjuaq Caribou Management Board. Apart from the workings of the Board itself, I will examine its relationship to some of the Indigenous communities it represents.

5.0. CASE STUDIES: THE BEVERLY AND QAMANIRJUAQ CARIBOU MANAGEMENT BOARD AS AN EXAMPLE OF CRISIS-BASED RESOURCE CO- MANAGEMENT

This chapter will review the events that led to the establishment of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) in 1982. It will also examine the agreement establishing the BQCMB and look at the structure of the Board as well as its objectives. The Beverly and Qamanirjuaq Caribou Management Board was the first crisis-based resource co-management arrangement to be created in Northern Canada. It was established in 1982 as a result of the perceived "caribou crisis" and covers the vast area used by the two caribou herds after which it is named, thus ranging over four jurisdictions: the Northwest Territories, Nunavut, Northern Saskatchewan and Northern Manitoba.

The "Crisis":

The "crisis" was caused by the fact that biologists, given the task of coming up with a census of the caribou population, could (and can) only afford to fly over part of the extensive area used by the caribou when they attempted to count the animals. After "sampling" the herd population they proceeded to compile estimates of the total population of the herds. Their calculation was based on the assumption that the population density of the un-surveyed parts was similar to the density of those parts that were actually surveyed. This assumption was based on the relatively short experience of scientists with the North. The final result of the survey showed that the population size was dangerously low (with only 94 000 animals remaining) and most likely decreasing at a precipitous rate.

The Indigenous caribou user population disagreed vehemently with these census results, stating that the animal population density of part of the herd range is not necessarily a good indicator of the rest of the herd range. In that particular year, they pointed out, the caribou had moved further north than normally as a result of disturbances from mining operations and biologists. Therefore, they said, biologists had missed the bulk of the herd population (Snowden, Kusagak, Mcleod 1982:1-15).

The data and viewpoint of the biologists was nevertheless used by the provincial and territorial (Saskatchewan, Manitoba NWT) game officials and the government as the sole point of reference for the decision to impose severe hunting quotas on Inuit and Dene residents of the area. Predictably, the Inuit and Dene were angry and frustrated with this turn of events. They concluded that the biologists' decision had been made out of ignorance, disregarding their long-standing connection with the caribou and their profound knowledge of the animals habits. Furthermore, they were (and many still are) very doubtful of the utility of the biologist's knowledge since biologists do not spend much time in the caribou range and are southern city dwellers who lack day-to-day contact with the resource. The counter-argument of many biologists was that they did not believe the local people, who often had only a limited amount of formal education and therefore could not have much to contribute to caribou biology (Snowden, Kusagak, Mcleod 1982:1-6).

In order to address the "caribou crisis", representatives of five government agencies¹ re-activated a long standing Administrative Committee on Caribou Conservation² in 1979 as a Caribou Management Group (CMG). Due to the vast nature of

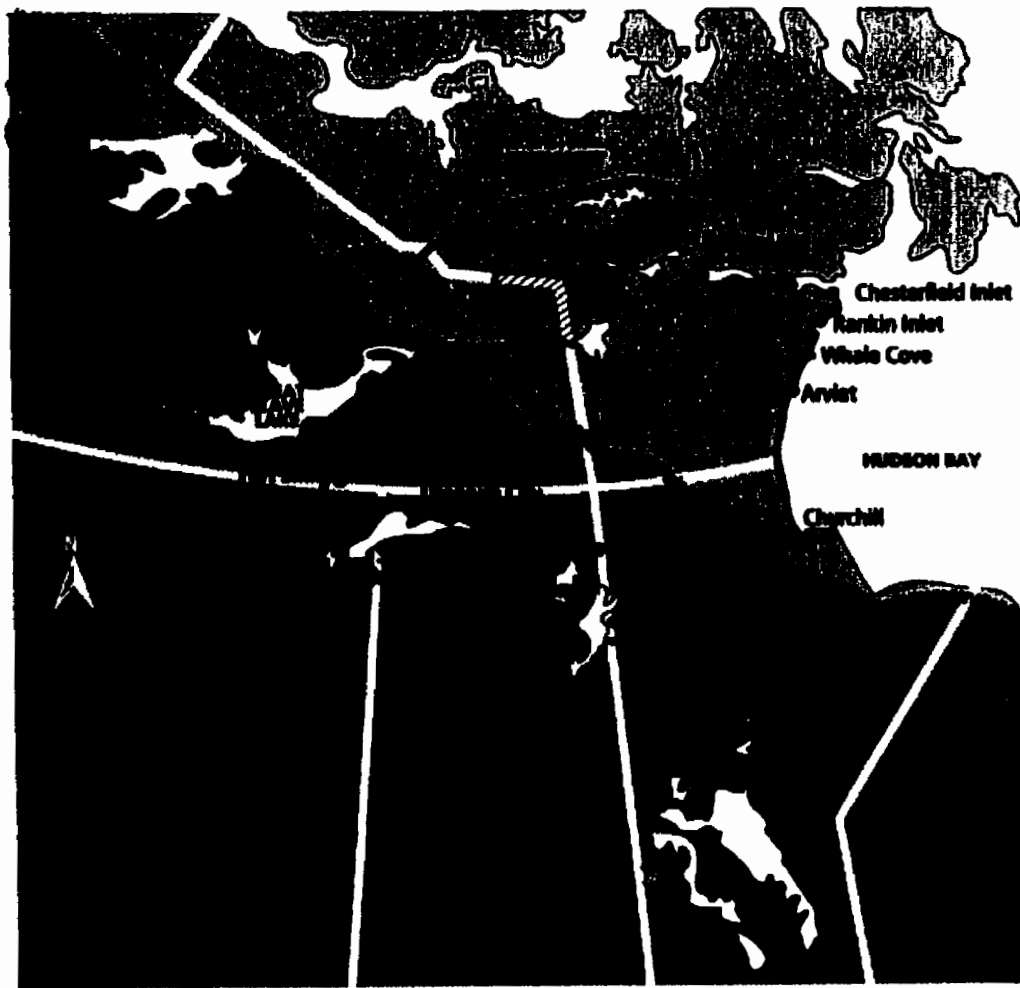
¹ DIAND, Environment Canada and the renewable resource organizations of the NWT, Manitoba and Saskatchewan.

² This Administrative Committee had been established during the presumed "caribou crisis" of the 1950s





the territory (see map below) and a lack of manpower to actively control hunting, the committee soon concluded that they could not effectively manage the herds without involving the indigenous caribou user groups. Thus, they extended an invitation to user communities to have representatives participate in their CMG. In answer to this, and in order to assert their rights to manage their own resources the Dene and Métis groups in Manitoba, Saskatchewan and the NWT called for a user-only Board which would include both treaty and non-treaty Indians who were the traditional hunters and would grant government officials advisory status only (Snowdrift Resolution of 04.30.81 neg.s 12/81:3). The Dene and Métis were concerned that aboriginal participation as community representatives on a government Board would erode existing treaty rights without giving them real management powers. A user only Board was rejected by the provincial and territorial governments (neg.s 10/81:3) and in June of 1982, after reassurances from the government that participation in an advisory board would not affect existing treaty rights, the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) was established (Snowden, Kusagak, Mcleod 1982; Osherenko 1988:95).

and had, while not being very active, functioned as a policy advisory body on northern caribou.

The Beverly and Qamanirjuaq Caribou Range



LEGEND

-  CALVING GROUNDS
-  RANGE OF THE BEVERLY AND QAMANIRJUAQ HERDS
-  LIMIT OF CONTINUOUS FOREST
-  THELON GAME SANCTUARY

The Nature of the Agreement:

The Beverly and Qamanirjuaq³ Barren Ground Caribou Management Agreement is in actual fact only an agreement between:

THE GOVERNMENT OF CANADA, as represented by the Minister of Indian Affairs and Northern Development and the Minister of the Environment, (hereinafter referred to as "Canada");

And

THE GOVERNMENT OF MANITOBA, as represented by the minister of Natural Resources, (hereinafter referred to as "Manitoba");

And

THE GOVERNMENT OF SASKATCHEWAN, as represented by the Minister of Northern Saskatchewan. (hereinafter referred to as "Saskatchewan");

And

THE COMMISSIONER OF THE NORTHWEST TERRITORIES, (hereinafter referred to as the "Commissioner").

WHEREAS the Kaminuriak herd and Beverly herd of barren ground caribou historically migrate across provincial and territorial boundaries;

AND WHEREAS the continued well-being and restoration of these herds and their habitat requires co-ordinated management, goodwill and co-operation amongst the above governments and the traditional users of these caribou;

AND WHEREAS the parties hereto recognize that, as well as the value of the caribou to all Canadians generally, a special relationship exists between traditional users and the caribou;

³ The spelling was changed from Kamimuriak to Qamanirjuaq in 1986 due to Inuit request.

Thus as one can see the Dene, Metis and Inuit who sit on the BQCMB as representatives are not actually party to the agreement. The agreement simply recognizes that a special relationship exists between the traditional users and the caribou. But the agreement further states that the objectives of the Board are:

a) to co-ordinate management of the Beverly and Kaminuriak herds in the interest of traditional users and their descendants, who are or may be residents of the range of the caribou, while recognizing the interest of all Canadians in the survival of this resource.

b) to establish a process of shared responsibility for the development of management programs between the parties here to and the traditional users of the Beverly and Kaminuriak herds.

c) to establish communications amongst traditional users, between traditional users and the parties here to in order to ensure coordinated caribou conservation and caribou habitat protection for the Beverly and Kaminuriak herds (1982:).

While it is clear what the interests of the traditional caribou users are it is not all that clear what exactly the "interest of all Canadians" is in the caribou. Further, in section C under "Board Responsibilities" it is stated that:

.... the Board shall have the following duties and responsibilities: To develop and make recommendations to the appropriate governments and to the groups of traditional caribou users for the conservation and management of the Beverly and Kaminuriak herds of barren ground caribou and their habitat in order to restore the herds, as far as reasonably possible, to a size and quality which will sustain the requirements of traditional users (1982:1).

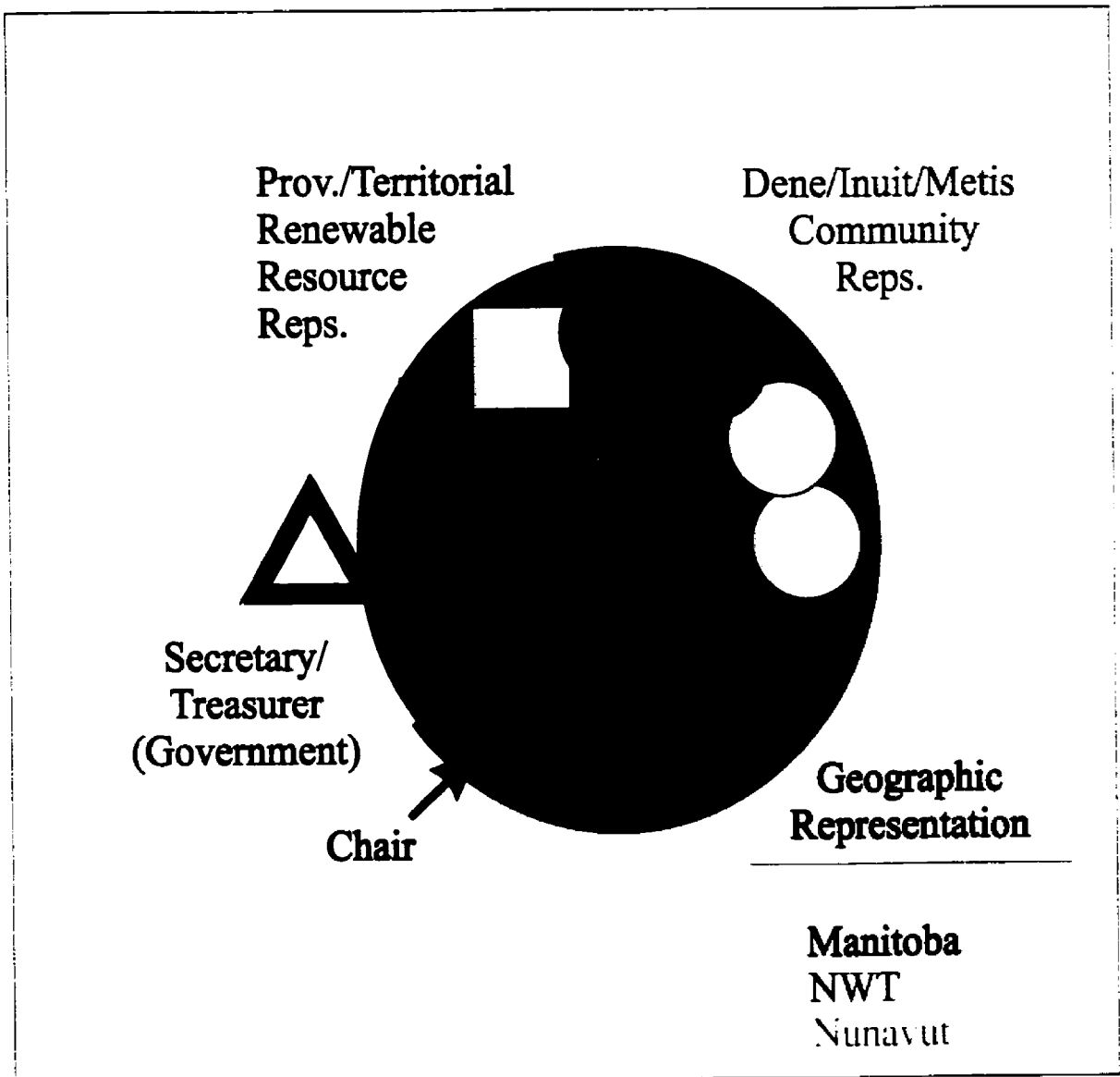
In the "Executive Summary" of the Board's "Long Term Management Plan it is further pointed out that the Board adopted the policy to "heavily rely on the traditional

knowledge of user constituents"(1986:5).

The territory within which the Beverly and Qamanirjuaq caribou herds are to be found ranges throughout the Central Arctic and Sub-Arctic, extending as far south as Northern Manitoba and Northern Saskatchewan. The Qamanirjuaq herd name comes from the Qamanirjuaq Lake area to which its females consistently return in calving season. The Beverly herd received its name from the lake near which their cows calved more than a decade ago. In more recent years the herd seems to have moved their calving area further north (Annual Report 1983-84; Cizek 1990:4).

The traditional users of the caribou are the Dene and Métis of the South Slave regions, the Dene in Northern Saskatchewan and the Dene of Northern Manitoba as well as the Inuit of the Southern Keewatin. These groups make up the eighteen small communities that are situated around the edge of the caribou range (See map).

The Structure of the BQCMB



The Structure of the Beverly and Qamanirjuaq Caribou Management Board:

The Board consists of 12 members, eight of whom are representatives from the caribou user communities and four represent the various government departments. The Board's membership is determined by an appointment structure. Government members are appointed by each of the following ministries: The Ministry of Natural Resources, Manitoba, the Ministry of Parks and Renewable Resources, Saskatchewan and the Ministry of Renewable Resources NWT and since 1999 the Minister of Nunavut's Sustainable Development Department.⁴ User representatives can in theory be chosen by their communities, which, with the help of their respective political representative body, can recommend their appointment. Government does not, however, seem to encourage the communities knowledge of this fact. With the exception of Lutsel K'e, all communities I visited were under the impression that government appoints user representation. Thus the Ministry of Renewable Resources, Saskatchewan, appoints two of the user members from the Dene communities of Northern Saskatchewan and the Ministry of Natural Resources, Manitoba, appoints two of the user members from the Dene communities of Northern Manitoba. The Ministry of Renewable Resources NWT appoints two of the user members upon the recommendation of the Dene Nation and Métis Association of the NWT from Dene and Métis communities of the South Slave Region and Nunavut appoints two user members upon the recommendation of the Keewatin Wildlife Federation from the Inuit communities of the Southern Keewatin. (Cizek 1990:4-5; Usher 1993:112;

⁴ Until recently the BQCMB had five government representatives, one from the NWT one from Manitoba one from Saskatchewan, one from Environment Canada and one from the Department of Indian Affairs and Northern Development. The latter two have recently been phased out and with the official creation of Nunavut on April 1st 1999 one government representative for Nunavut has been added (a non-Native regional biologist working out of Arviat).

<http://www.arctic-caribou.com/nov99news.html>).

The BQCMB is purely advisory in nature since the agreement leading to its establishment does not transfer any jurisdiction or management powers to the Board. The Board's advice is nevertheless (with the exception of specific habitat protection issues) generally acted upon by the natural resource ministers of Manitoba, Saskatchewan and the NWT. In reality this does, of course, mean that the recommendations of the Board are acted upon as long as they follow the beliefs and policies of the government departments.

Due to budget cuts the Board now meets only twice a year and alternates between meeting in caribou user communities and cities such as Thompson or Winnipeg. The decrease in meeting frequency has resulted in meetings crammed with the issues on the governments' agenda, which leaves little time for user concerns and thus essentially increases government control. The simple fact that government and community board members now see each other less frequently further decreases overall communication.

Up until 1992 (apart from actual board meetings) one of the major vehicles of communication employed by the Board was the Newsletter "Caribou News" which was sent free of charge to the user residents on the caribou range and contained articles translated in English, Dene and Inuktitut.⁵ Due to budget cuts "Caribou News" is currently published only twice a year in a condensed format (four pages). It is no longer sent to individual households but only to the Band Offices. It is also posted on the Board's web page. Unfortunately, most people who were interested readers of Caribou News do not have access to the Internet and, for various reasons, do not get to see the copy at the Band

⁵ Up until 1992 its publication was financially supported by the Department of Indian Affairs and Northern Development and came out approximately five times a year. DIAND terminated its support for

Office. As a result many assume that “Caribou News” is no longer published. This is very regrettable since, as many former readers pointed out to me, it was their only way of “finding out what the Board was up to”.

When the BQCMB was formed in 1982, its first task was to help biologists in creating a comprehensive management plan for the two caribou herds, based on Western scientific principles. This reveals that from its inception the BQCMB’s approach to caribou conservation followed Western scientific models and was based on Euro-Canadian principles and ideas, which do not constitute an Indigenous approach. To this end population estimates do, for example, still form the basic tool employed by biologists when creating their management plans. Some technical changes have been made upon the recommendation of the Board since past experience has shown that it is difficult to come up with correct census methods. Caribou counts are now, for example, made from the analysis of air photographs rather than the old method of aerial surveys (Usher 1991:43). It is hoped that this method provides a greater degree of accuracy, though it does, of course, still only provide estimates since it is not possible to cover the whole range. The establishment of the Board has also meant that the provincial and territorial agencies are finally working with the same census methods and the same estimates of the two herds (This was not always the case in the past).

Many Dene in the communities on the caribou range find it insupportable that the biologists continue to be “obsessed” with numbers. Hunters who have been employed to help with caribou census methods were especially critical since, as they pointed out, the practice of collecting data for part of the herd’s range and then extrapolating that data for

“Caribou News” in 1992 due to budget constraints.

the whole area used by the caribou is very unreliable. Thus, many do not give any credibility to the census data published by the Board. Hunters further point out that, as long as one hunts caribou with respect and does not take more than one needs and observes the health condition of the animals taken, one will have a better idea of the state of the herds than if one follows the fluctuation of the unreliable census data.

As the BQCMB operates solely in English, fluency in that language is a prerequisite for participation of potential community representatives. Since most Elders in the Dene communities represented on the Board speak little to no English, the Board's mono-linguistic policy effectively excludes them from participating. The Board points towards its minimal funding (Abrahamsen⁶ 1997) as the reason for its inability to operate bi, or trilingually (Dene, Inuktitut, English) It is nevertheless questionable how the Board hopes to achieve its adopted policy to: "heavily rely on the traditional knowledge of user constituents" (Long Term Management Plan 1986:5) by relying on English as its sole language of operation even though the main holders of this knowledge do not speak English. (I will return to this issue in chapter 5.3).

The BQCMB has generally received positive ratings from academics (see Usher 1991; Osherenko 1988)⁷. The question is how is the BQCMB viewed in the caribou user communities that are represented at the Board? In order to gain a better understanding of the caribou user communities experience with the BQCMB I conducted formal and informal interviews and "opinion polls" in four Dene communities.

⁶ Secretary Treasurer of the BQCMB (Retired Indian Affairs employee).

⁷ Osherenko only worked from documents. Usher evaluated the BQCMB after its first ten years. While he pointed to many of its faults he gave it a positive rating feeling that it was better to have it than nothing.

5.1. THE COMMUNITIES AND THEIR VIEW OF AND EXPERIENCE WITH THE BQCMB

Many of the community members in the Dene communities represented at the BQCMB either do not know much about the BQCMB or consider it to be just another government organization. This chapter will analyze how it is that community members hold this view. Why do most community members feel so disassociated? Why do they feel that they have such a lack of control over and participation in the BQCMB? In order to be able to better understand the views of the communities this chapter will begin by giving a brief overview of the recent history of the four communities including their treaty histories. Placing the communities in their wider historical and social context will help in understanding their relationships to Canadian resource management in general, and the BQCMB in particular. This will illuminate why many community members simply view the BQCMB as a further extension of government control over their resources. (It should be noted that some community members see the BQCMB in a more positive light).

Over the 1996-98 period I attended the BQCMB meetings and visited four of the eighteen communities represented at the Board. I thus spent a large part of the 1997/8 in the Dene communities of Tadoule Lake and Lac Brochet in northern Manitoba, Fond du Lac in northern Saskatchewan and Lutsel K'e in the NWT.¹ While the individual histories of the communities differ, their experience with the BQCMB is very similar. I will begin by giving an overview of the four communities and their history in regard to treaties and post-contact resource issues. Then I will focus on their combined experiences with the

¹ All four communities are "fly in" communities without road access (see map).

BQCMB, and finally I will examine the experiences of the communities' BQCMB representatives in regard to their positions as links between the BQCMB and their community.

THE COMMUNITIES:

Tadoule Lake: Recent History

Tadoule Lake (Tehs beh oo lee tuay – Floating Cinders Lake), the first community I visited, has a very sad history in which government attempts at caribou management play an unfortunate and prominent role. The Sayisi Dene² who now live in Tadoule Lake had been in contact with European settler society since the fur trade era. While the fur trade had an effect on the Sayisi Dene it did not really change their lifestyle since “people still continued the traditional ways of hunting and living off the land” (Code 1993:20). Even though the people began to trap for furs which they would exchange for guns, ammunition, knives, and axes, the Dene, much to the frustration of the Hudson's Bay Company, continued to remain independent, relying on caribou for their livelihood (Code 1993:20).

Adhesion to Treaty 5:

On August 1st of 1910 the Sayisi Dene signed an adhesion to Treaty Five at Fort Prince of Wales. Even though many Sayisi Dene could read and write Dene syllabics at the time, the treaty was signed with mere X s (Code:1993:9). Many have commented on this and question the extent to which the Dene had been informed of the true nature of the treaty and whether they had actually given their consent (Code 1993; Bussidor 1997).

² Sayisi means east. thus the Sayisi Dene are the people of the east.

After the purported “signing” of the treaty the Sayisi Dene continued their traditional way of life. The treaty they had signed allotted each family of five 160 acres and there was talk of creating a permanent settlement. The Sayisi Dene informed the government that they wanted to stay inland near their traditional hunting grounds. Indian Affairs attempted to set up a reserve for them but the process was never completed. In the mid 1920s Indian Affairs considered settling the Sayisi Dene at Reindeer Lake close to the community of Brochet, but the Anglican Bishop who occasionally ministered to the Sayisi Dene opposed this move since he feared he would lose them to the Catholic Mission at Brochet (Bussidor 1997:31).

While the Sayisi Dene continued to follow their traditional way of life the Hudson’s Bay Company in Churchill moved a post into their territory in an attempt to monopolize the Sayisi Dene’s trade. In 1941 the HBC established a post at Duck Lake since it was close to the caribou migration route and good fishing areas, which meant that the Sayisi Dene could often be found there. Soon, a small Anglican Church was built next to the post and some Sayisi Dene built log cabins in the area creating a seasonal settlement. While the Sayisi Dene continued to follow their traditional activities, Duck Lake became their focal point.

After World War II, fur prices began to decrease while the economic boom in Southern Canada increased the prices of many items the Sayisi Dene would buy at the post. This led to decreased trading and diminishing profits from small northern HBC posts such as Duck Lake. Trapping had never been as important as hunting and fishing to the Sayisi Dene, thus when the fur trade faltered there were no severe dislocations. As long as they had access to caribou and fish, their survival was not threatened (Bussidor

1997:40; Abel 1993:223). Their traditional way of life would nevertheless soon be threatened by renewable resource officers.

In 1948/9 federal and provincial wildlife agencies led by caribou biologist A.W.F. Banfield began to survey caribou populations due to a growing southern interest in resource conservation. In 1949 Banfield came up with a population estimate of 670,000 animals between Hudson Bay and the Mackenzie Valley. In 1955 a re-survey was undertaken which arrived at a population estimate of 277,000 animals. In an attempt to explain the 60% decrease shown by the new numbers, Banfield blamed human predation (Banfield 1956). In the fall of the same year a small group from Manitoba's Department of Natural Resources, including a young reporter for the Department of Industry and Commerce, experienced engine trouble during a flight in Northern Manitoba and made an unscheduled emergency landing on Nejanilini Lake not too far from Duck Lake. During that landing they saw about two dozen men and boys in canoes near rapids spearing caribou as they crossed the narrows. By the time the plane landed the group had disappeared³ but many dead caribou were left on the shore. Seeing this as a sign of wastage the reporter took photographs of the dead animals, and the photos, along with a report, were later used by Banfield to write an article entitled "The Caribou Crisis" published in "The Beaver" in the spring of 1956.

At a meeting of renewable resource agencies in Saskatoon in October of 1955, a Caribou Conservation Committee was established in order to deal with the presumed "caribou crisis". Banfield identified wasteful hunting as the main reason for the assumed decline in the caribou population describing "orgies of killing... thousands of caribou

³ They most likely wanted to avoid confrontation with the intruders and were leaving the meat to freeze thus creating a meat cache for the winter.

carcasses are abandoned etc” (Banfield 1956). Banfield and others never stopped to consider whether their actions and the presumptions on which they were based were actually correct. Nobody tried to talk to the Sayisi Dene in order to find out more about their way of life before framing them as “wasters”. What the “southern wildlife managers” did not know or understand was that the Sayisi Dene were following centuries-old practices of hunting large numbers of caribou just before freeze up in order to secure a naturally frozen meat supply for the long harsh winters. The caribou were central to the way of life of the Sayisi Dene and they had spent centuries observing and following their herds. Had the caribou been in a decline the Sayisi Dene would have suffered more than anyone else. The people at Duck Lake had nevertheless not observed a decrease in the caribou numbers and thus had no reason to change the manner of their annual fall hunt. All this was unknown to the natural resource departments which unilaterally assumed they should be the sole sources of knowledge regarding the caribou.

Further, the accuracy of the statistically derived caribou estimates was, as later counts have shown, extremely questionable. The crude method of flying over part of the caribou range taking aerial photographs in order to take sample aerial counts is very problematic. As Dene are quick to point out the caribou do not tend to be evenly distributed over their range leading to errors in such estimates. It was shown later that Banfield and his crew simply missed the bulk of the caribou population. (A Sayisi Dene who was later employed by Natural Resources Manitoba to help with caribou counts was shocked to find out how these “scientific” population estimates were derived.

The Relocation:

In August of 1956 the Sayisi Dene were moved from Duck Lake to Churchill. The assumed wastage, coupled with the assimilationist policies⁴ toward Indigenous peoples popular in Canada at the time, seem to have been at the root of their forced relocation. The collapse of the fur trade also played a role since it meant that the hunting and trapping activities of the Sayisi Dene were no longer useful to the Hudson's Bay Company. The Bay planned to close its post at Duck Lake in 1956 because it no longer generated enough revenue. The Bay was thus no longer committed to the Sayisi Dene. At the same time as the Bay "lost interest" in the Sayisi Dene, provincial game wardens imagined the existence of a "caribou crisis" and wanted the Sayisi Dene removed from the caribou herds. The closure of the store at Duck Lake was used as an excuse warranting the Sayisi Dene's removal from the caribou migration route. Indian Affairs claimed that the Sayisi Dene would suffer without easy access to a store, a preposterous argument since the people would have been fine as long as they had access to caribou and fish.

Thus on August 17 of 1956, under the pretence of moving them closer to a store and social and medical services, most Sayisi Dene⁵ and some of their belongings were picked up by a military plane and dumped on the shores of Hudson Bay in Churchill.

Records show that Indian Affairs had instructions to move the Sayisi Dene before September in order to prevent them from going out on their traditional fall caribou hunt (DIAND 138/29-20). Prior to the move on July 23rd and 24th the acting supervisor of

⁴ At the time Canada hoped to overcome their "Indian Problem" by assimilating Native peoples into mainstream Canadian culture. Indian residential schools were the main assimilation tool but centralization and discouragement or banning of traditional activities such as hunting were also employed.

⁵ Some had been in the bush at that time and slowly made their way to Churchill to meet up with their families.

Indian Affairs for the region, R.D. Ragan had met with the people at Duck Lake during the annual treaty payments and claimed that: "After a very full discussion it was unanimously and amicably agreed by the Duck Lake Band still at this post that they would move..."(DIAND 138/29-2). Since the Dene at Duck Lake did not speak any English at the time and since Ragan did not speak Dene one has to wonder how "a very full discussion" could have been possible. It further seems that the Dene did not, at the time, believe such a move would happen since they had pointed out that there was not enough wildlife around Churchill to sustain them (Bussidor 1997:45).

After seventeen terrible years in Churchill (see Bussidor 1997 for a detailed account) which economically and socially destroyed the people and cost close to one hundred lives and the emotional well-being of many others, the Sayisi Dene managed to move back to the land and established the community of Tadoule Lake (Code 1993; Bussidor 1997; Nu Ho Ni Yeh 1992). Today about 350 Sayisi Dene live in Tadoule Lake⁶. While they are working hard to reclaim their traditions and to try and heal, many aspects of their lives seem to have been changed irreversibly through the relocation. Foremost is the sad fact that the children and young people in Tadoule Lake no longer speak their language. In spite of the school's Dene language program, only a few people under 30 are fluent in Dene. This loss of language (and as some people would argue resulting loss of identity) is not only causing the older generation much grief, it also cuts the lines of communication between the generations since many of the youth need a translator in order to communicate with their Elders. Tadoule Lake also lacks a bilingual "middle aged" group since many Sayisi Dene who would have comprised this age group perished in Churchill. The survivors of this generation are left with the often difficult task

⁶ Almost none remained in Churchill

of providing a link between the generations. One aspect of the peoples' lives that remains unchanged is the economic, social and cultural importance of caribou.

Lac Brochet: Recent History

The Denesuline⁷ community of Lac Brochet (pop. 600) lies roughly 200 kilometers west of Tadoule Lake and is on the same circle flight as Tadoule Lake. I had not intended to do research in Lac Brochet but personal contacts and friendships led me to spend time in this community on my travels to or from Tadoule Lake. I spoke with community members regarding their experience with the BQCMB (on which they are also represented) but since I had not been given formal permission by the community to do research in that community I did not conduct any formal interviews with community members. I did, nevertheless, have a few very informative conversations with the community's BQCMB representative and with some community members. The community's BQCMB representative was Chief of the community at the time of my visits and was also a long time BQCMB member and BQCMB chairman. I have therefore included Lac Brochet in my discussion.

Lac Brochet is situated on the shores of the lake after which the community is named. Initially the Dene of Lac Brochet had been settled together with the Cree at the trading post and Catholic mission of Brochet (approximately 100 km south of Lac Brochet), but life in Brochet became fraught with alcohol abuse and the resultant discord. While living in Brochet, many Dene continued to go North in the summer establishing fishing camps in the Lac Brochet area. Realizing the need to get away from the socially

⁷ Denesuline is a term the southeastern Dene people preferred to the term Chippewyan (which comes from the Cree term pointed skins) when referring to themselves.

destructive environment in Brochet, some Dene eventually decided to remain in the Lac Brochet area where they began to build log cabins. Gradually, more and more Dene moved from Brochet to Lac Brochet. The first Dene to permanently settle in Lac Brochet formed a “back to the land committee” which (after long negotiations) managed to secure some funding from DIAND to help in the construction of the community. By 1972 Lac Brochet had become a year round settlement (Napoleon Denechezhe 1998).

Lac Brochet is often referred to as a very traditional Dene community. Given the gradual disappearance of the Dene language in some of the communities in Denendeh⁸, one of the foremost strengths of Lac Brochet is their continued use of Denesuline. While most people under 55 are fluent in English, everybody’s first language is still Denesuline. Children are raised in Denesuline and learn English once they begin to attend school. Many children in Lac Brochet switch back and forth between Denesuline and English with a natural ease. The continued strength of the Denesuline language in Lac Brochet is remarkable considering the fact that many “now middle aged” community members went through the traumas of being forced to attend the Birthle Residential school in Central Manitoba where they were forbidden to speak their language.

Caribou, “*ethen*” in Dene, are very important to Lac Brochet’s economy. While it is of course possible to purchase food in the community’s Northern Store, most people prefer caribou meat and trout to store-bought meat, which is inferior in quality and exorbitantly priced. The community’s reliance on their traditional food is thus very strong and the “bush skills” of many of the youth are good. It was, nevertheless, pointed out to me that an uneven level of traditional skills acquisition exists between boys and girls. While many boys are taught how to hunt, the decline of the peoples’ reliance on

⁸ Land of the Dene

traditional clothing and household items has meant that many girls no longer learn women's traditional skills (Samuel1998).

Adhesion to Treaty 10:

Similar to Tadoule Lake, the people of Lac Brochet were included in the treaty process through adhesion, in the case of Lac Brochet to Treaty 10. It is important to consider the communities' treaty histories since they provide the backdrop to the communities' reluctance to accept the state's assumed right to "manage" their resources. The Dene of Lac Brochet apparently signed an adhesion to Treaty 10 in 1907. Using Indian Affairs records Frank Tough reports in his book "As their Natural Resources Fail" that:

"At Lac du Brochet post, [treaty] Commissioner T.A. Borthwick used Reverend Father Turquetit as interpreter, who explained to them why I was sent to meet them, and after various thoughtful questions put by the Indians bearing upon the treaty and answered by me to their satisfaction, they asked for a short recess to discuss the terms of the treaty more fully among themselves. The Band then selected a chief and signed the treaty." (Tough 1996:100).

This is the official (Indian Affairs) version of the events surrounding August 19th 1907, the day the Lac Brochet Dene Band signed adhesion to Treaty 10.

The events surrounding the signing of adhesion to Treaty 10 are also remembered by the Elders of Lac Brochet and passed on as part of the community's oral history. The community's recollection of the events leading up to the signing of the treaty are quite different from the "official" records. At the time the treaty was signed Petite Cashmere was Chief of the Lac Brochet Dene Band, but he never signed the treaty. People in Lac Brochet remember that the first time government representatives arrived, Petite Cashmere

told them to come back with canoes and supplies in the following year if they wanted to sign treaty. The treaty party agreed to do so, but arrived in the following year without the promised canoes or supplies but still wanting to sign the treaty. Upon noting that, Petit Cashmere explained that he had asked them to return with the canoes and supplies in order to see whether they could be trusted to hold their promise and now he knew that they could not be trusted. He therefore refused to sign the treaty. After hearing that, the treaty party apparently somehow managed to make somebody else chief and then left after the new “chief” had signed the treaty (Napoleon Denechezhe 1998).

Fond du Lac: Recent History

The third community I visited was the Denesuline community of Fond du Lac. The community of Fond du Lac (pop. ca 700) lies on the eastern shores of Lake Athabasca in Northern Saskatchewan. While a number of community members divide their time between the community and employment in nearby uranium mines, country foods such as fish and caribou have remained of great importance to the community⁹. Some families still follow the traditional practice of leaving the community to spend extended periods of time (October-Christmas and from New Years – prior to spring break up) at their cabins in the bush in order to hunt and trap. Denesuline is still the main language spoken in Fond du Lac. Children generally do not speak English until they enter school and most Elders do not speak English. Younger adults are generally bilingual.

Fond du Lac began as a Northwest Company post and later included a Catholic mission both located in the vicinity of the community’s traditional summer gathering

⁹ People in all communities rarely buy meat in the store (with the exception of wieners which are occasionally bought as treats for the kids). Consumed meat protein thus comes from country foods.

place. Over time more and more people began to stay in the community year-round so that their children could attend the school. Many families did, nevertheless, continue (and some still do) to spend large parts of the year in bush camps, taking educational material for their children with them.

Most people in Fond du Lac are Catholic and the church is very well attended. The current priest has been in the community for fifteen years (though he is not very visible in the community throughout the week). The previous priest, the late father Charles Gamache, had been the community's priest for over 50 years and is still remembered with fondness by many of the Elders.

The subject of Fond du Lac's treaty signing was not brought up in my conversations with community members; Fond du Lac is part of Treaty 8, which they signed in 1899.

Contaminants:

Many community members in Fond du Lac expressed their concern regarding the possibility of contaminants in country foods such as caribou and fish. Community members in Tadoule Lake, Lac Brochet and Lutsel K'e had also mentioned this concern (and one band councilor in Tadoule Lake pointed out that neglect to inform northern residents about possible contaminants could be seen as a form of genocide) but Fond du Lac is particularly worried about contaminants due to the number of Uranium mines in their area. The community's Beverly and Qamanirjuaq Caribou Management Board representative pointed out that caribou, for example, often search for lichen on or near mine tailings in the spring since the tailings are the first to be free of snow. He wondered why mining companies could not (or would not) surround their tailings with a fence in

order to keep the animals away from these contaminated sites. This concern is very valid since lichens are highly susceptible to environmental contaminants (Nash 1996). Further, an unusually high number of community members in Fond du Lac suffer from intestinal (and other forms of) cancer. Many Elders attribute this high rate of cancer to the contaminants in country foods coupled with the higher consumption of store bought foods (such as pop, chips and canned goods) in recent years.

Lutsel K'e: Recent History

The fourth community I visited was Lutsel K'e. The community of Lutsel K'e lies on the Southeastern side of the Great Slave Lake 200 km east of Yellowknife (see map 1). Lutsel K'e is a relatively small community (pop. ca 250) located on the shores of the lake. Lutsel K'e has only been the site of a permanent village since around 1954. The Dene living on the eastern end of the Great Slave Lake had been trading at Fort Resolution until 1925 when the Hudson's Bay Company established a post in Lutsel K'e, presumably in response to free traders who had begun to "intercept" people who usually would have made the journey to trade in Fort Resolution. Over time many of the families who hunted and trapped in the region shifted their trading to the HBC post at Lutsel K'e. Most families continued to spend their time on the land, only occasionally traveling to the post in order to trade. By 1954 many families had built houses or moved their old houses (a catholic church and some houses already existed on a point about two miles southwest of the HBC post) to the site of the HBC post. Slowly people began to spend more time in the community (VanStone 1961:5-8). Many, however, continued to hunt and trap, leaving only families with small children in the community.

While most people today have to spend the majority of their time in Lutsel K'e in order to work and allow their children to attend school, the cultural and economic importance of country foods such as caribou and fish is still great. Most people have good bush skills and many maintain seasonal bush camps in order to follow their traditional hunting and fishing activities. Quite a few of these camps are located relatively close to the community since many community members now only have time on weekends and evenings. Every August/September the fall migration of the caribou gives the community a chance to organize a fall hunt, which provides meat for the winter and every April/May the spring migration allows for the spring hunt. Fish and caribou meat thus continue to make up a significant portion of the community's dietary needs. The following interview excerpts will illuminate this:

"He said it is no different than when he was young, compared to today, how important the caribou is. Since the creator put caribou on this land, from then on, the people, the people had been living on it since in those days. He says there are two things that people depend on yearly. It is caribou and fish... We have hardships, they have to look and hunt for caribou all over directions. Sometimes there is no caribou. And the people if they travel all over directions for caribou and sometimes the people they starve because they cannot find caribou. In those days, he says, people used to, any lake you go into he says if there are families like they go out for fishing, they don't have any nets, they have a hook made out of caribou bone. And they hook the fish, eh, they make water hole through the ice and they fish for fish and this is how they feed the families. And he says that during the middle of the winter, when it is really cold cold people travel all over places for caribou... if one person kills a caribou they pass the news right away from one family to another family and they all gather and they go out and get the caribou where the caribou are. And he says no matter how far the caribou, they know where the caribou roams. And then you share the meat with the people that are starving, that are out of meat. He says as soon as you kill the caribou you go away wherever those families are,

you go, you bring a load of caribou by dog team to them. Caribou meat. And he says that the most people respect the caribou because it is always food on the table for the families. He says right now, this winter he says we were rich with food, with caribou because they roam around our community here and now he says they have all gone back to the east for, how do you call it ... calving. And he says when the fall comes, he says, everybody is looking forward to see the caribou. He says once you kill a caribou you don't throw anything away. You use it all, even hides... Even the bones he says, even the marrow of the bones you don't throw that away... you crush them all up and then you put in a big pot and then you start boiling it. All the grease comes out, all the fat goes on top. He says that grease is the best nourishment for the people... And it is still today, like we are still depending on the caribou today, the people still live on the caribou.... You give the warning to the people that goes up for hunting for caribou, not to kill too much, just enough for the family. We always tell that to the people when they go hunting for caribou he says. Not to over kill the caribou.... He said whatever creature people kills, especially caribou, he says, he respects any kind of creature he kills in the past and he said that is how he brought up children." (Zepp Cassaway Lutsel K'e May 1998).

In the spring of 1998 Lutsel K'e hosted hunters from various communities situated Northwest of Lutsel K'e, such as Rae Lake, Fort Rae and Wati. Normally the caribou pass these communities during their spring migration, but in the spring of 1998 they failed to do so, thus forcing the hunters to travel to Lutsel K'e in order to access the caribou. Community members wondered about this change in the caribou migration pattern. Some thought that the change might be due to the exploration activities of BHP at Lac de Gras to the north of the communities. One concerned community member pointed out that caribou have very sensitive hoofs and that blasts from the mining operations disturbed them, thus causing them to change their migration route. One Elder suggested that the caribou knew that the people in Lutsel K'e respect them and that that

was the reason why the caribou still came to the community. She was concerned about the lack of respect some of the visiting hunters exhibited that spring and suggested that all communities in the NWT should come together for a meeting at which they could discuss how to treat the animals with proper respect.

Treaty Eight:

Lutsel K'e is in the treaty 8 area. Treaty 8 was signed in Fort Resolution on July 25th, 1900. As in other treaty areas, the Dominion of Canada claimed that the Indigenous residents of the Treaty 8 area had ceded their lands and become subject to the laws of the Dominion in return for annual treaty payments and rations when they signed the treaty. This assumption has nevertheless been consistently disputed by the Dene, particularly by the Dene in the Treaty 8 area. Since Elders who were present during the signing of Treaty 8 have repeatedly pointed out that the discussions leading to the signing of the treaty did not include any mention of land cession, the Dene maintain that land has not been ceded through the signing of Treaty 8 (Smith 1982:110).

In a 1973 hearing before the Supreme Court of the NWT the Honourable Mr. Justice W.G. Morrow stated as part of his opinion:

“To me, hearing the witnesses at first hand as I did, many of whom were there at the signing, some of them having been directly involved in the treaty making, it is almost unbelievable that the Government party could have ever returned from their efforts with any impression but that they had given an assurance in perpetuity to the Indians in the Territories that their traditional use of lands was not affected” (Morrow 1973:45)

Moreover:

“I am satisfied here that the caveators (the sixteen chiefs of the Indians covered by the Treaties) have an arguable

case... that the two treaties are not effective instruments to terminate their aboriginal rights” (Morrow 1973:46).

From an objective international perspective it is therefore questionable whether the signing of treaties such as Treaty 8, or for that matter the signing of all old treaties in Canada, actually encompasses the cession of land. Canada, of course, maintains that they do, but one could argue that this is a politically-based point of view rather than a legally-based fact. Addressing this issue, Isabelle Schulte-Tenckhoff writes:

It is my contention that the main problem is not the existence per se of conflicting interpretations of treaty provisions and conflicting accounts of treaty negotiations. Rather, the main problem lies in the failure of Indigenous parties to gain recognition for their own treaty discourse on an equal footing with that of state parties. In this manner, the supremacy of the state legal order is being affirmed without restraint; its corollary is the reduction of Indigenous Legal systems to isolated “customs” (Schulte – Tenckhoff 1998:244).

As a result of obvious domestic interests Canadian courts have great difficulties in remaining objective in the interpretation of treaties. Many people concerned with these issues therefore now feel that such matters should be decided by international rather than domestic courts.

Considering the various communities’ “treaty situation” is of essential importance in understanding their relationship to co-management boards such as the Beverly and Qamanirjuaq Caribou Management Board (BQCMB), since Canada’s assumed right to manage natural resources such as caribou is tied to issues of resource jurisdiction and ownership. When the BQCMB was first created, some of the Dene worried about how it would affect their treaty rights. Only after having been assured that it would not interfere with treaty issues, they agreed to sit on the Board.

The Communities and the Beverly and Qamanirjuaq Caribou Management Board:

When I began to ask people in the four communities about their experience with being represented at the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) many immediately pointed out that they could not see how an external board such as the BQCMB could “manage the caribou as if it was God”. One hunter thought that in the Elders’ opinion the BQCMB was probably irrelevant. The Dene and Inuit, he explained, had lived with the caribou for a long time without taking more than the herd could sustain while white people had managed to drive the buffalo to extinction over a short period of time. He therefore did not think that white people could manage or protect the caribou. The real threat to caribou, he thought, was greed expressed through mining and other disturbances of the land, not Native hunting. Also expressing his frustration with what he saw as southern intrusions on their way of life one hunter, referring to the BQCMB, explained: “I do not go down south to manage peoples’ cows or chickens, they should leave the caribou alone”.

While adults (and even some of the children and youth) in the four communities had generally heard about the existence of something referred to as the Beverly and Qamanirjuaq Caribou Management Board, the majority did not know or have much interest in the BQCMB and considered it to be just another government organization. Men were more likely to have heard about the BQCMB than women, but active hunters were not necessarily better informed than others. The main thing people, especially hunters, knew about the BQCMB was that it “always attempted to count the caribou”. Overall only about 5% of the community members actually knew more about the BQCMB, either because they had been to one of its community meetings or had acted as

a “stand in” for their community’s regular BQCMB representative. While the number of people with more extensive knowledge of, and experience with, the BQCMB was similar in the four communities, the overall “vague” BQCMB awareness level varied between the communities. Based on my communication with community members I would say that the “vague BQCMB awareness level” was highest in Tadoule Lake, followed by Lac Brochet, with Fond du Lac and Lutsel K’e tying for third place. Tadoule Lake’s relatively high “vague BQCMB awareness level” can, in part, be attributed to the small size of the community and to its history. Older community members in Tadoule Lake also claimed to have been better informed of the BQCMB’s activities when the late Peter Yassie was chief and BQCMB representative.

Due to Tadoule Lake’s history and the prominent role Renewable Resources’ caribou conservation strategies (as exemplified by Banfield’s caribou conservation campaign) played in their history, many community members expressed a certain level of distrust toward the BQCMB and its activities. Some people also voiced the concern that the BQCMB works for Nunavut rather than the Dene. At the time of my visits to Tadoule Lake and Lac Brochet (1997/98) Nunavut had not yet been implemented but Nunavut’s intended southwestern border along the provincial (Manitoba) territorial boundary (the 60th parallel) angered community members since this would mean that part of their traditional territories would soon lie in Nunavut. This important issue has not yet been resolved.

Satellite Collaring:

The most prominent issue people (especially Elders) raised in all four communities in connection to the BQCMB was their concern over the use of satellite

collars on caribou. Biologists place satellite collars on caribou in order to track their migration. “The information they [satellite collars] furnish gives scientists a better idea of population size and movements, the location of calving grounds for field surveys, and whether different herds mix” (What’s New With Caribou Vol.4 No.1. May 2000). Thus, caribou biologists place great value on the information they can gather through satellite-collared caribou.

In all four communities, residents pointed out that they did not like the use of satellite collars. A number of hunters pointed out that they thought that the weight and size of satellite collars affect caribou in such a way that collared animals display altered and disturbed behaviour.

“Caribou who carry them [satellite collars] will not act normal.” “One thing he did not like about it (the BQCMB) is they put tags on the caribou. That is one thing he did not like. He said about those things that they put on the caribou, it makes the caribou sick and it is not like a herd”

Some community members thus think, as these comments indicate, that collared animals do not follow regular herd movements. This would make the information provided by the collars inaccurate in regards to revealing overall herd movements.

The Elders discomfort with satellite collaring is nevertheless not simply due to the size and weight of satellite collars. The practice is on a more fundamental level, simply perceived as disrespectful behaviour toward the caribou. Many expressed that: “It is not right to tag [put a satellite collar on] caribou in any way, they are not meant or put into the world for that kind of thing.”(See “When Caribou Had No Fear” in Appendix 3 for a traditional story Elders referred to when discussing this subject).

As mentioned earlier, Denesuline and many other Indigenous peoples believe that animals play an active role in hunting in the sense that they cooperate with humans and offer themselves as food as long as they are being treated with the proper respect. Thus hunters can only harvest animals that offer themselves to the hunter. Simply placing a satellite collar on an animal that offers itself therefore constitutes a rejection of the animal's offer. As a result the animals may not be so cooperative in the future if they are being offended. Thus, as they explained: "If resource people would have asked the communities about it [collaring of caribou] they would not agree" (Catch and release fishing is therefore also often seen as disrespectful behaviour). A few Elders also alluded to worries that satellite collaring made it too easy for people to find caribou. Thus, they felt that: "controlling [tracking] their movement is wrong." While Elders did not elaborate on why it was wrong to track caribou in this way, some seemed to imply that it eliminated the element of choice for the animal.

In spite of all this it should, however, be mentioned that not all members of the four communities were opposed to satellite collaring. Some (mainly younger community members) liked the practice exactly because they could now make inquiries regarding the location of caribou prior to hunting trips.

Distribution of Satellite Collars:

Caribou from the Qamanirjuaq herd have been wearing satellite collars since 1993, before which radio collars were used. The Beverly herd has, so far, not been collared. There had been plans to start a two- year pilot satellite-collaring project on the Beverly herd. While Saskatchewan's board representatives had managed to get the Elders' restrained approval for such a project as long as it was only a two- year pilot

project, the Elders in Lutsel K'e continued to voice their strong disapproval to such endeavours. Funding for the \$154,000 project would have come from the BQCMB, the Nunavut Wildlife Management Board, the West Kitikmeot South Slave Society and NWT Resources, Wildlife and Economic Development (RWED). But at a meeting held in Lutsel K'e between RWED staff and the community on January 26th 2000, the Elders voiced their opposition to the project so firmly that it was, at least for the moment, abandoned (What's New With Caribou Vol.4 No1. May 2000). Thus the Elders have, in this instance, been listened too, albeit not by the BQCMB directly but by RWED.

The Communities' BQCMB Representatives and BQCMB/Community

Communication:

I will now focus on the issues and experiences the communities' BQCMB representatives related to me in regard to their positions as links between the BQCMB and their community. Since the different personalities of the BQCMB representatives, coupled with the different history and character of the four communities, make each representative's and community's experience unique, I will first discuss the (admittedly sometimes overlapping) issues by focusing on one community at a time.

Tadoule Lake:

Many of the active hunters in Tadoule Lake were quite uninformed about the BQCMB and its activities. A number of them attributed this lack of information to the fact that the community's BQCMB representative did not pass any of the information he received at BQCMB meetings on to them and made comments such as: "He is just a board member, he does not tell the community what is going on... The information is just

for him....He does not pass on any of the information ” When I mentioned this to the community’s BQCMB representative he replied that many of the “complainers” would not even go to the BQCMB’s meeting if it were to meet in the community. He further pointed out that everybody knew that he was their BQCMB representative and could therefore come to him and ask him about the BQCMB if they were interested in finding out about the Board and its current activities. If he were to hold an information meeting on the BQCMB, he surmised, nobody would show up. He (as well as one of the Elders) further pointed out that there were many pressing issues on the community’s agenda, such as the health care transfer. As a result of this overload the community was, they said, not interested in the BQCMB’s activities.

Some of the Elders I interviewed implied that the current community BQCMB representative was not the right person to represent their community. While he was friendly to everybody and easygoing he was not a communicator. A few suggested that his environmental outlook tended to align itself more with that expressed by government renewable resource officers than their own traditional epistemologies.

Many referred to a former community representative (and former chief who was part of the creation of the BQCMB in 1982) as somebody who kept the community better informed about the BQCMB. It seems that he was simply a better communicator who made sure the more active hunters were informed and asked them for their opinion on issues affecting caribou.

Many community members were also unaware of the process through which their community representative had come to represent them.¹⁰ Caribou issues, I was informed,

¹⁰ The Minister of Natural Resources (Manitoba) appoints members but the communities can make recommendations.

had however been higher on the people's agenda in the years immediately following the creation of the BQCMB. Elders and hunters further pointed out that the only thing the current community BQCMB representative ever asked them in regards to caribou was: "How many caribou did you get?"

Thus, in spite of the BQCMB's proclaimed policy to "heavily rely on the traditional knowledge of user constituents" (1986:5), Tadoule Lake's user representative does not seem to have been given the impression that he should talk to the people in his community about their traditional knowledge. One might presume that he might simply be uncomfortable to ask Elders about such knowledge since it is not always appropriate to ask and Elders might be reluctant to part with their knowledge. The Elders' willingness to freely share such knowledge with me, a white outsider, does, however point to the reality that the BQCMB had simply not given him the impression that he should seek out such knowledge.

My own attendance of the BQCMB's meetings over the 1996-98 period has revealed that the communities' BQCMB members are indeed not given the impression by the BQCMB that their community's traditional knowledge is of great interest to the Board. This problem was made very obvious during the BQCMB meeting in Thompson, Manitoba in November of 1997. During this meeting the discussion had finally turned to the communities' traditional knowledge which, as biologists hoped, would "fill many of the information gaps which now exist (in caribou biology)" (Wakelyn 1996:7) since the Board was, in a response to mining and other pressures, attempting to map the main caribou habitat areas (a detailed account of this can be found in chapter 4.2.). When the discussion turned to the communities' traditional knowledge, one of the community

representatives seemed surprised by the Board's sudden interest in their traditional knowledge, pointing out that if the BQCMB was actually interested in such knowledge they should have acted on this when the Board was created in 1982 since more of the Elders who possessed this knowledge were still alive then (44th BQCMB meeting). This clearly indicates that the Board's community members had until then not been given the impression that their community's traditional knowledge was of interest to the Board.

Apart from the lack of emphasis the BQCMB has so far placed on the traditional knowledge of the communities, the Board's community representatives have an important disadvantage relative to their government counterparts simply due to the nature of their positions. The Board's government members are career bureaucrats who work with renewable resource policies and legislation on a day-to-day basis. The BQCMB's meetings tend to revolve around these policies and legislations. Being a community representative to the BQCMB is, on the other hand, not a full time job, which means that community representatives simply take a few days each year out of their regular occupations to go to BQCMB meetings (they are compensated for their time). Thus, many of the issues discussed at BQCMB meetings are somewhat foreign to user members who do not live in the bureaucratic world. This puts them at a great disadvantage. It also contributes to the lack of reporting they do in their communities after board meetings.

Community - BQCMB - Community Communication:

When I questioned Tadoule Lake's community representative on his methods for disseminating information from the Board to the community and from the community to the Board he explained that he went through one Elder to whom he explained new things such as satellite collars and whom he asked about the caribou. Regarding the use of

satellite collars, he felt that: "Once people understood that satellite collars would help them in finding the caribou when they wanted to go hunting, they liked their use." He explained that the community had had three meetings regarding the use of satellite collars. While community members who attended the meetings were against their use during the first two meetings, they had had a chance to see and observe collars in action during the third meeting and as a result, he explained, finally agreed to their use.

While there were people in the community who approved of satellite collaring, many of the older and some of the younger people were still very uncomfortable with their use and expressed this discomfort to me when I questioned them on the issue.

When discussing the issue of communicating the Board's activities to the Elders, some community members also explained that while the community's Board representative had a very good knowledge of English, his knowledge of Denesuline was less extensive. As the communities Dene language teacher pointed out: "He does not speak Dene that well. Therefore it may be difficult for him to explain some of the issues the Board is dealing with in Dene to the Elders".

One of the central questions I posed to Elders was whether they felt that the BQCMB was interested in their knowledge of the caribou and the land. Many did not really know enough about the BQCMB in order to be able to answer that question. Those few that had actually attended a BQCMB meeting in the past and had spoken to the Board about issues that concerned them, felt that the Board had listened but that that was all it had done. While some felt that the Board had not done anything to follow up on their comments, others pointed out that since there was not much communication with the Board they did not know what the Board had done with their input. As one Elder

explained: "They did record what he had to say, whether they used it or not he cannot say, but he did have his input at one time". A few Elders were more negative in their answer to this question. One felt that:

"No they are not interested in what they [the Elders] have to say. They just go by what is there, you know. What's in the books. Q: So if he would say something that he knows about the caribou they would not listen to that? A: He said they would not listen to them [the Elders] talk because their, like, they would talk only and not give them a chance to talk and that they just go by what they think. Q: They would think they know better? A: Yes"

One hunter who had been at a BQCMB meeting in the past was very critical of the Board and stated that in his opinion the Board was "trying to pass their way (of doing things) into our life, that is how people look at it".

While not all community members were as pessimistic and critical of the BQCMB as the two cited above, it is important to understand their point of view. Essentially they fear that organizations such as the BQCMB are not genuinely interested in sharing information and creating a setting through which communities and government biologists can learn from each other. They fear that organizations such as the BQCMB only see their role as convincing communities to come to see caribou issues in the same way as government biologists who are perceived as clinging to "book knowledge" unwilling to learn about other ways of knowing. During a conversation Dr. M. R. Freeman (an expert in the field who had been involved in the creation of co-management agreements such as the BQCMB) addressed this issue. He pointed out that when he first became involved in the creation of co-management arrangements he had hoped that they would act as a tool to educate government biologists about the Indigenous resource users' expertise in looking after their resources. However, as the hunters comment suggests, co-

management can also be used by government biologists as a tool to achieve the reverse, e.g. “educate” Indigenous people to come to see resources and their management in the same way government biologists see them.

It would, of course, be wrong to accuse all government BQCMB members of consciously attempting to brainwash community members in such a manner. Some government board members are very understanding of the issues and essentially frustrated with the position into which their departments place them. As one government biologist explained: “My department is not really interested in the BQCMB but thinks that it makes them look good”. Thus, he felt his department only saw the BQCMB as a public relations exercise and nothing more. He further felt that government members would remain in control of how the board was to operate since their departments did not believe in the First Nations ability to manage their resources. Since the BQCMB is only a board advisory to governments the framework within which it currently operates simply does not relegate any authority to government BQCMB members to act contrary to their departments’ beliefs.

Fire Protection:

One issue that had been repeatedly brought to the BQCMB by the communities in Manitoba was their disappointment over Manitoba’s refusal to fight forest fires in its northern regions. As one hunter pointed out to me, fires are not fought in the northern part of the province since there is nothing in the North that would create revenue for the province. There have nevertheless been too many fires in the region. Based on his peoples past experience it would be normal to have a fire every 20-50 years or so, he pointed out, but it currently happens every five to ten years and this is having a very

negative effect on the caribou. (Fire destroys the soils organic material and lichen cover therefore destroying the caribou feed. As a result it changes their migration routes (Klein 1982)). He saw the fact that the BQCMB was unable, or unwilling, to lobby the province into protecting the caribou habitat from such destructive fires as evidence of the Board's lack of real clout.

Sport Hunters:

Many hunters in Tadoule Lake also expressed their indignation with non-resident sport hunting (the Board gives out quotas of commercial caribou tags to outfitters who request them for their customers). There are several reasons for their discomfort with this practice. To begin with, many of these "trophy hunters" are only interested in the animal's antlers and not the meat. The Dene believe that it is unethical to kill unless you plan to eat and fully use the animal, thus the very concept of hunting for sport, "just for the fun of it" rather than for food, is offensive. While outfitters are supposed to donate the meat that their guests do not use to the communities, this is not always done and wastage does occur. One Elder also mentioned that he had noticed a decline in caribou bulls. He expressed his concern that:

" White people come to hunt caribou just for their antlers. That is why there are less caribou bulls. The creator put the caribou on the land for the Cree, Dene and Inuit. White people have access to grow their food. The caribou is for us and should not be disturbed."

Tadoule Lakes' discomfort with sport hunting further has deep roots in the community's relocation history. Natural Resources' concern for caribou conservation had been behind their forced relocation to Churchill where many perished in despair, cut off from their traditional way of life (there was not enough wildlife around Churchill to

sustain them and the move placed the migrating caribou out of their reach). They thus feel that their lives were sacrificed in order to protect caribou (which did not need protection from them). Due to this experience of not being allowed to hunt caribou for food in the past it is difficult for them to see that white hunters are allowed to hunt for sport. As one hunter put it:

“It is very puzzling to our Elders when they allow sport hunting like that. It is not far from our traditional [hunting] grounds where they allow sports hunting [even though] all they are after is the antlers, and the meat, they just throw it away, we know they do. And when you think that when people were relocated from Little Duck Lake to Churchill, one of the reasons that we know is because they were saying that we were killing too many caribou and now they are permitting these sports hunters to do exactly that [to kill caribou and waste the meat as Renewable Resources had falsely presumed them to do when pictures of their fall hunt had been taken in 1955]. How come there is no [enforced] law against that whatsoever? There is no respect for us”.

As a result of this one Elder suggested that when natural resource people are talking about preserving the caribou and the land all they are really interested in is to preserve the resources for future white generations. Quite a few, as the Elder quoted above, felt that non-Natives had sufficient access to alternative sources of food and should therefore leave the caribou for to the Dene, Cree and Inuit.

Firearms Acquisition Certificate:

The coming into effect of the new gun control legislation in January of 2001 severely interfered with the Sayisi Dene’s ability to carry out the traditional hunting activities necessary to secure a meat supply for the summer. While caribou were plentiful in the area the vast majority of hunters in the community could suddenly no longer buy shells for their rifles since, as of January 2001, they required a Firearms Acquisition

Certificate in order to purchase shells. Only the communities BQCMB representative and five other hunters had managed to find their way through the bureaucracy now needed in order to be allowed to buy shells. While these six attempted to help out as much as they could, community members were unable to secure their customary supply of meat for the summer (Albert Thorassie 2001). This new and inappropriate government interference with their way of life understandably greatly angered community members. As Tadoule Lake's BQCMB representative explained: "We are just hunting to feed ourselves" (Albert Thorassie 2001).

BQCMB meeting in Tadoule Lake:

In June of 1998 the BQCMB held its bi-annual meeting in Tadoule Lake. This was the first time the Board as a whole ever met in the community. The Board's meetings took place in the school's computer room rather than in the band hall where public meetings usually take place. This choice of using a more private-seeming facility for their meeting was unfortunate since it sent the message that the meeting was not actually public. This impression was further enhanced by the Board's practice of setting one evening aside for a public meeting with the community. This "public meeting" took place in a larger hall and consisted of an open question and answer session during which Board members sat in front of assembled community members. The overall affect of these practices unfortunately seems to give the impression that the BQCMB meeting is not open to the public. As a result, not many community members attended the entire BQCMB meeting.

When the few community members who attended the BQCMB meetings in Tadoule Lake reflected on their experience to me they made two main observations. First, they felt that the Board had a “closed agenda” to which they could listen, but in which they were not invited to participate. Second, after the BQCMB meetings were over they reported that: “ It seemed to be all politics” and “Not much real stuff was actually discussed or resolved” They had the overall impression that the BQCMB meetings had been more about politics than tangible issues that could be discussed and resolved. This reflects the problem that many of the issues dominating the BQCMB’s agenda are of a bureaucratic and/or policy-related or political nature, and therefore lack real and observable relevance to community members. As a result some community members who had “stuck their heads into the meeting” had not felt compelled to stay for too long. One community member even went so far as to say that she did not really understand why the Board had spent the money to travel to and meet in their community since the format in which the meetings were held made it clear that they were not really interested in the community’s participation.

After having sat in on the meeting for a little while, one of the Elders who had previously been critical of the community representative’s lack of communication, related to me that he now knew why their representative did not report back to the community. He said that this was due to the fact that there simply was too much information given over a too short period of time. He wondered how much of this information was really necessary. He also noted that: “He [the communities BQCMB representative] does not take any notes, but I don’t blame him it is hard to remember all this bureaucratic information”.

Also reflecting on the Board's habit to create an overload of information, an Elder who had attended one of its previous meetings mentioned that he had listened to a biologist who went on and on about caribou at this meeting. A translator had apparently been present at that particular meeting but not all that was said made sense. The Elder said that he had found it somewhat disrespectful of this southern based biologist who most likely ate beef rather than caribou, to go on and on about caribou to the Elders as if he was an expert (and knew more about caribou than the Elders). He further felt that: "White people never ask (about issues such as whether people agree with the satellite collaring of caribou) but like children come in [to the community] and boss people around".

While co-management boards such as the BQCMB were initially set up by some in the hope of educating both sides (government biologists and First Nations) about each other's knowledge, the above discussion indicates the BQCMB currently operates in a manner in which BQCMBs' government biologists are only educators and administrators, not learners. While, as mentioned earlier, some of the BQCMB's government biologists are frustrated with the Boards inability to learn from the communities some of their colleagues do perceive themselves as the "learned ones" from whom community members should learn about caribou. This was made painfully obvious on the last day of the BQCMB's meeting in Tadoule Lake. On that day the community's school children assembled for the BQCMB members and each board member quickly introduced himself to the children. On this occasion one prominent caribou biologist informed the children that if they stayed in school and then went on to higher education maybe one day they too would know as much about caribou as he did. While his advice was, of course, intended

to be well meaning and encouraging it also sent a clear message that one would come to know about caribou through studying biology rather than through personal experience. He completely disregarded the fact that the children could and should learn about caribou, the animal that sustained their ancestors for countless generations, from their Elders.

Fond du Lac and the BQCMB:

Fond du Lac, Wollaston Lake and Black Lake each have an alternate BQCMB representative, thus Fond du Lac's BQCMB representative does not attend all BQCMB meetings. Fond du Lac's BQCMB representative is older than the BQCMB representative in Tadoule Lake. As a result of this age difference he communicated much better with the Elders in his community and could better understand their experience with and perspective on the Board. In an interview he expressed the following insights regarding the BQCMB and its style of operation:

"Well, like what they should do is they should take a couple of Elders to the Board meetings and explain to them...not too many Elders go to the Board meeting so they don't know what the meeting is all about. So I think in a different meeting, if there were different Elders who attend the meetings you know, to have all, to have a meeting right in the community then that would be easier instead of going down [to]the city and stuff like that in Winnipeg. ... They have a committee in the community then somebody could translate it, you know otherwise they don't, I know there are a lot of Elders, you know, who don't talk English so they don't understand the meetings at all. It is better to have a translator too... What they should do is, like the Board when they have meetings like that, its only about, they have meetings for only about three days eh. What they should do, they should talk about this agenda after they have finished everything. You know, they start on the next one, and go to the next and back again... when

they start the agenda, they give time on the agenda for about fifteen or twenty minutes only, it is not long enough. When they have a meeting like that in the community a lot of Elders, I know they want to say something, you know, they want to explain something to the Board, you know, and then when they are there they got nothing to say, eh.

Q: So when the Board was meeting here [in the community] did some of the Elders say to you afterwards that there was something that they wanted to say but they never had a chance to say it?

A: Yes, what they should do is ask the Elders, if you want to say anything it is open right now, you know. If nobody wants to say anything then you could start on the other point [in the agenda].

Q: So more time?

A: Yes

Q: So in that way you would say that the Board could make much better use of the knowledge that people have about the caribou and the land if it would change the way it does things ?

A: Yes, I think so. You see, like the way it does, you see like the Elders, if they would have a Board meeting like that and the Elders say something then the Board would learn from the Elders too eh. And then the Elders will learn from the Board members too, you see. That way you learn a lot more. Then they will know what the people are talking about. When they have a Board meeting, the Elders go there, but nobody explains what it is all about. They don't learn nothing now, eh. If they explain to them, if they translate it and then the Elders will learn more about the Board and the Board members will learn from the Elders too eh.

Q: So right now it is just a one way street ? It is the government members, the biologists telling everybody what they think but not much coming back ?

A: Yes.

As Fond du Lac's BQCMB representative indicates above, the BQCMB does not currently manage to communicate with the Elders. When it meets in a community, most Elders who attend its meeting do not get a chance to participate. As Fond du Lac's BQCMB representative indicates above, the style in which the BQCMB currently conducts its meetings makes it very difficult for the information the Board has to offer to

get to the community members, especially the Elders. A younger community member who had attended two BQCMB meetings in the past pointed out that while he and some of the younger board representatives were comfortable with the way in which the BQCMB's meetings were held, the older hunters were the ones who possessed the information the Board should be dealing with. They, he continued, were nevertheless very uncomfortable with the current (as he called it) white style of meeting.

Corroborating his opinion one Elder, when asked about this issue, replied that: "No, it [the BQCMB meetings] is not the way that Elders want it. It is the way the white people want it. It is how they put it up" (Section 5.3 will address this problem in greater detail). As Fond du Lac's BQCMB representative had done, he also wondered why every second BQCMB meeting was held in cities which made it impossible for Elders to attend. When I questioned other board members about their habit of having every second meeting in cities, they pointed to their limited budget and logistics as a main reason for this.

Not all the Elders I spoke to in Fond du Lac responded to questions about the BQCMB with the above noted criticism. One Elder and occasional alternate Board representative reflected that he had not been very comfortable at the first BQCMB meeting he attended, but that he got used to their way of meeting after having attended a few. He did, nevertheless, mention that many Elders will not say anything at BQCMB meetings because their knowledge of English is not good enough. While the BQCMB does sometimes hire a translator when it meets in the community, I was informed that not everything is translated into Denesuline for the attending Elders and that the provided translation is often very poor and does not always make sense. Much of the bureaucratic terminology used during BQCMB meetings is difficult to translate (see section on

Language in Chapter 5.3 and 5.0 for further details). In the BQCMB meetings I attended, a translator was only hired to translate during the Board's designated evening meetings with the community.

A southern-based Dene who had been working for Fond du Lac at the time of my visit and had attended one of the BQCMB's meetings in the past, related to me that:

“When I attended one of their meetings about 5 years ago I did not think that the Dene representatives who were at the Board really understood what the biologists and government representatives were talking about. They did not say much because they did not understand.”

He thus thought that community representatives were predominantly silent at the BQCMB meeting he attended because they did not understand “biologese” and “bureaucratese”.

Lutsel K'e and the BOCMB:

“The most important thing for the Dene people of Lutsel K'e is the caribou”
(Morris Lockhart, Lutsel K'e May 1998).

“Since the creator put the caribou on this land, from then on the people had been living on it...there are two things that people depend on yearly. It is caribou and fish”
(Zepp Cassoway, Lutsel K'e May 1998).

In spite of the continued importance caribou have for the community of Lutsel K'e, not too many community members were informed about the BQCMB and its activities. While Lutsel K'e did not necessarily differ from the other communities in this respect, this lack of information on the BQCMB and its activities was particularly

noteworthy since the BQCMB had met in Lutsel K'e only two years prior to my visit. Apparently, as one Elder related to me, community members had not been informed about the BQCMB and the agenda of its meeting prior to the Board's arrival in the community. Thus, when the Board was meeting in the community many refrained from attending the meetings since they were under the impression that the meeting was not open to the general public. Lutsel K'e has a resident renewable resource officer (a band member) who was present in the community when the BQCMB came for its meeting, but even he did not attend the meetings since he had not gotten the impression that the public was invited to attend. This impression was apparently compounded by the fact that the BQCMB (once again) did not use the band hall for its meeting but a small room in the community's co-op hotel, a room that was too small to accommodate community members.

As some community members and band councilors pointed out, Lutsel K'e's community representative at the time of that BQCMB meeting did not communicate very well with the community. Since then Lutsel K'e has replaced him, in part due to his lack of informing the community about Board meetings he attended, and in part due to his recent joint ownership of a nearby hunting lodge which Lutsel K'e believes to infringe on his impartiality. To be fair to the old community representative, it should be noted once again that the BQCMB's practice of designating one evening during its community meetings as a public question and answer session seems to lead the communities as well as the communities' BQCMB representatives to believe that the remainder of the Board's meetings are not open to the public. This is a misunderstanding the Board does not put much effort into clearing up.

While Elders thus did not have much experience with the BQCMB they freely shared their knowledge of the past. They were concerned about the safeguarding of their land. In this regard they were concerned with the difficulties of communicating their knowledge and concerns to non-Natives. As one Elder explained:

“The people, the White people, whatever they write down on a piece of paper there they just follow their rules and they don’t care what the people that live off the land have to say and so that is why it gets really complicated when they have meetings like this you know. They have to have the rules of the White people and the rules of the Dene people, it has to be communicated and a decision has to be made right there instead of, you know, only White people making the decision compared to the Dene people”

Thus, as others observed earlier, the Elder felt that non-Natives only follow “paper rules” and tended to ignore their oral knowledge. This, she felt, would have to be transcended in order to also follow “the rules of the Dene people”.

Lac Brochet and the BQCMB:

“When I see a lot of caribou I am happy” (Naomi Denechezhe, Lac Brochet 1998).

In spite of the great importance country foods, and in particular caribou, have for Lac Brochet, most community members did not know much about the BQCMB and its activities. Why is it that in communities in which an important aspect of the people’s lives revolves around caribou, communities in which people spent a lifetime acquiring knowledge about the caribou, there is so little involvement with the BQCMB? The community’s BQCMB representative offered a number of reasons for his community’s lack of interest in the BQCMB. He began by pointing out that he did not agree with the

common practice of referring to the BQCMB as a co-management board since the prefix “co” was misleading people to believe that there was equal control over the Board’s affairs by government and First Nations. This picture, he continued, is far from the actual reality of the BQCMB, which is a government controlled organization. The BQCMB, he went on to explain, does not facilitate a two-way exchange of information, it only functions as a forum through which the government can tell the people [in the communities] what to do. For any real co-management to occur, he pointed out, the caribou users would have to have actual control. As a further indicator of the lack of information sharing between the government and user [community] members of the Board he pointed to the fact that his phone never rang between Board meetings. No one ever phoned him between meetings to explain issues the BQCMB was dealing with. He also worried about the control Nunavut would have over caribou in the future, pointing out that Nunavut, which to him seemed to be run and controlled by Ottawa, pushed the concerns and interests of the Dene back to square one. He was particularly worried about mining and other industrial developments in Nunavut and the effects they would have on the migrating caribou.

This aspect is particularly worrisome for the Dene in Manitoba. Not only have their traditional territories “North of Sixty” been included within the current borders of Nunavut in spite of ample evidence of the Dene’s use of these territories (See Bussidor 1997; Smith 1971 etc.), but any disturbance of the caribou’s North/South migration through these contested territories could change their migration routes. Such a change in the caribou’s migration pattern could have disastrous effects for the people in Lac Brochet and Tadoule Lake since it could cut them off from the caribou.

Lac Brochet's BQCMB representative further worried that the Nunavut Wildlife Management Board would take over the control of the BQCMB in the future. Since the Nunavut government was so far not sharing any information with the Dene he found this prospect particularly worrisome. As far as he was concerned the BQCMB had not met any of its objectives, not in regard to fire control or anything else. The BQCMB, he said, was ten years behind its mandates and objectives. Overall, he felt that the Dene's interests had not been taken into account since they were still in a minority.

As can be seen Lac Brochet's BQCMB representative was very critical of and frustrated with the BQCMB.

Common sentiments held by quite a few people, and especially Elders in regard to the BQCMB became clear when I tried to explain the functioning and activities of the BQCMB to an Elder (who speaks English) in Lac Brochet. He simply could not understand how the BQCMB's government representatives could be looking out for the caribou's best interest since, as he put it: "They are working for a government that is more interested in developing mines to make money than the well-being of caribou." He also pointed out that: "The caribou will be fine as long as people leave them and the land they need alone." He therefore could not understand how the same government that encouraged the development and subsequent destruction of the land needed by the caribou, could also claim to be looking out for caribou and their protection. I tried to explain the role of the BQCMB and its objectives to him in many different ways, but as far as he was concerned the BQCMB simply did not make much sense. He saw it as putting the proverbial fox in charge of the chicken coop.

Conclusion:

No community seemed to be thoroughly satisfied with their BQCMB representative, but many also felt that being a BQCMB representative was not an easy job. While there certainly is the need for better communication, an important aspect leading to the under representation of community concerns results from the difficulties faced by one single part-time representative to speak on behalf of his whole community. Unlike European stratified societies which brought forth the hierachical bureaucratic Canadian administrative system, the cultural background of the Dene is non- stratified, non-hierachical and egalitarian. Decisions are traditionally based on consensus rather than being superimposed by one individual (Watkins:1977). As a result it is difficult and uncomfortable for one single representative to speak on behalf of the whole community. A section in the now famous Berger Inquiry of 1977 entitled "Native Leadership" addresses this point:

"The traditional Dene leader...is, on the basis of his superior abilities, consensually recognized by the group to serve as organizer, pacesetter and spokesman for the group. He is not the "boss" or independent decision-maker in group matters, as the Euro-Canadian might surmise" (1977:98).

As a result of this the Euro-Canadian top-down structure of government and decision-making, which organizations such as the BQCMB impose on their participants, is difficult for communities and their single user representatives to work with. Since the community representatives' concept of decision-making and government does not allow for their "absolute" representation of their peoples, they are often put in an awkward position. It is often difficult for them to arrive at a decision "here and now" without being

able to thoroughly consult with their communities first. While the BQCMB does at times make concessions for this, its overall lack of communication all too often forces community representatives to vote one way or the other “on the spot” without being able to discuss the issue with their communities first.

As the Elders pointed out, the overall approach of the BQCMB is currently based on the “White way”, heavily reliant on “paper and book knowledge” rather than their own knowledge and concerns.

5.2.THE BQCMB MEETINGS: STRUCTURAL DOMINATION?

As the items on the agenda of a typical BQCMB meeting reveal below, BQCMB meetings are dominated in structure and style by the cultural practices of the Board's government members. The BQCMB's agenda speaks of its one-sided reliance on the terminology structure and format of the Euro-Canadian bureaucratic/scientific culture. This section will thus examine the effects this has on the participation of the BQCMB's community members in the overall discussions and the inclusion of their concerns, interests and knowledges. The Board members' relationship to the communities' traditional knowledge, as exemplified during discussions regarding a proposed TK project, will further be given particular importance in this examination of the BQCMB meetings.

The 42nd BQCMB Meeting, Winnipeg November 29-Dec 1 1996:

I attended all four BQCMB meetings held over the fall 1996 to summer 1998 period. While the 44th BQCMB meeting dealt more directly with traditional environmental knowledge, that meeting's discussions on TEK (while explored later on) were an anomaly not representative of the content of typical BQCMB meetings. The BQCMB's 42nd meeting in Winnipeg contained no exceptional items or unusual guests and will therefore give a better impression of how the BQCMB normally operates. I will begin by exploring the structure and content of that meeting.

After the opening prayer (the only visible cultural concession to the participation of community members in BQCMB meetings), initial opening procedures such as the approval of the agenda, approval of the minutes of the previous meeting, overview

of correspondence and business arising from the previous meeting and the date and place for the next meeting were dealt with, the following main agenda items were covered (the following is a synthesis of the minutes of the 42nd BQCMB meeting, notes taken during the meeting and tapes of the meeting):

Agenda Items of the 42nd BQCMB Meeting: Overview:

ITEM:	CONCERNS:
Important Habitat Project – Progress Report – Phase 1:	Compiling of all recorded information available on the Beverly and Qamanirjuaq Caribou herds' seasonal distributions by Yellowknife based biologist.
Nunavut Planning Commission (NPC) Participation:	Explained commission's role in the development of land use plans that balance development with conservation. Since NPC was in the process of updating its land use maps, cooperation between the NPC and BQCMB for the "Important Habitats Projects" was seen as beneficial.
BQCMB Web Site:	Discussion regarding the financial and technical concerns of the creation of a BQCMB Web Site. [In operation as of this writing].
Protected Areas Strategy for the NWT:	Draft document provided to BQCMB by Minister of NWT outlining the development of a system of important areas whose bio-diversity should be protected. The GNWT hoped to have this system in place by 2000.
Saskatchewan Representative Areas:	Similar to the NWT, Saskatchewan also hoped to develop a system of protected areas for 12% of Saskatchewan with a special emphasis on northern regions.
Commitment to the Conservation and Sustainable Use of Caribou:	Concerned a paper previously titled "Acceptable Hunting Practices" written by a government board member. It checked the "fit" of provincial/territorial hunting regulations and practices on the land with the acceptable hunting practices found by an American "Man and the Biosphere" study which had surveyed some of the

	communities represented on the BQCMB.
Terms of Office for Chair and Vice-Chair:	An Inuit Board member noted that other organizations had term limits for their chairs and vice-chairs. He felt that if an Inuit were chair or vice chair a closer relationship with the various organizations in Nunavut could be achieved. (At the time the chair was Dene and the vice-chair a government representative).
Commercial Harvest Discussion Paper:	Concerned comments received from the Nunavut Wildlife Management Board and the then Environment Canada representative of the BQCMB on the draft " <i>Discussion Paper Toward the Apportioning of the Commercial Harvest of Caribou</i> " which Manitoba's MNR representative had been working on.
Request for Increase in Commercial Quotas- Qamanirjuaq Herd:	Concerned requests for increase in commercial caribou quotas by communities in Nunavut (for processing and sale by the Rankin Meat Plant) which had been approved by the Keewatin Wildlife Federation.
Request for Non-resident Sports Hunting Quota- Beverly Herd:	Concerned the request of non-resident commercial tags by L.A. Outfitting & Witherspoon.
Management Plan – Action Plans:	Reviewed and approved (subject to some revisions) the BQCMB's action plans for the 1996-2001 period.
Caribou News in Brief:	Review of Caribou News in Brief (the new shorter format of the newsletter previously known as Caribou News). The Board decided to continue to distribute the newsletter free of charge but since the Board was going on the Web it was decided that the newsletter will only come out twice a year and in decreased numbers.
Management of Caribou Calving Grounds in the NWT:	The NWT government representative introduced a GNWT discussion paper on the management of caribou calving grounds in the NWT. The paper was part of a consultation process and the Board was asked to comment by February 1997.

Operating Relationship with the Nunavut Wildlife Management Board (NWMB):	Discussion and approval of a paper the NWMB produced on the roles and responsibilities of the Board (BQCMB) and the NWMB. Since the BQCMB has a standing invitation from the NWMB to attend meetings of the NWMB it was decided that the BQCMB's secretary should accept this invitation and attend one of the NWMB's meetings.
Budget:	Concerned changes to be made for the previously approved 1996/97 budget.
Meeting Expenses for Delegates Attending Board Meetings:	Discussion concerning the amount of acceptable travel expenses the Board should cover for delegates from one user community who attend a Board meeting in another (generally close) user community.
Maps: Burn History on the Caribou Winter Range:	Discussion on the need to update the burn history maps to reflect the changes that have taken place since 1990.
Increase to Capital in Scholarship Fund:	Candidates who had been awarded grants had declined them due to lack of other funding. To make up for declining interest rates the secretary suggested using some of the available cash to increase the principal of the Scholarship fund to \$ 40,000. The motion was carried.
School Competition:	Students from Tadoule Lake's Peter Yassie Memorial School won small prizes for essays and posters they had comprised on topics related to caribou.
Other Business:	The Board watched raw footage of a school caribou hunting trip shot by Allan Code of Treeline Productions, Tadoule Lake.

Discussion:

The BQCMB generally meets for two to three days and therefore moves quickly through all the items on its agenda. Due to the essentially bureaucratic nature of much of the discussion on the agenda items, the government representatives were holding the floor for a majority of the time. This cannot be attributed to the disinterest of the community representatives in the overall issues (although some items have no relevance to them) but

rather to the fact that the bureaucratic nature and approach taken to the discussion of the issues often places them at a great disadvantage. They are not involved in (nor informed about) the various government departments' politics and policies and thus tend to lose interest. This manifested itself in lower attendance rates for many of the less relevant parts of the BQCMB's meetings. This simple inability of the BQCMB to achieve active participation from its community representatives indicates that its operational style is problematic.

The language used by most government representatives during the BQCMB meetings was further laden with jargonized "bureaucratese" and "biologese" which did not help in creating a more balanced participation in the discussions. Referring to this problem in resource management Hensel and Morrow write: "...the politically powerful participants in the dialogue - the legislators, resource managers, and enforcement agencies - supply the vocabulary in which the debate will be framed..."(1992:38). Low attendance of the complete BQCMB meetings coupled with the minimal amount of time user members hold the floor during meetings are strong indicators that the Board's functioning is currently one-sided. Decisions were further often made by a show of hands voting in favour or against, allowing the majority to decide. While such a typical Euro-Canadian decision making tool might seem very democratic it represents a further imposition of Western practices on the Indigenous representatives who often prefer consensus oriented decision-making.

In terms of content it is interesting to note that the BQCMB managed to find funds to commission the creation of a web site while citing its lack of financial resources in not being able to support TEK projects. This indicates that the BQCMB considers it more important to advertise its existence to the world than to fund projects that would help

them in learning from the communities' knowledge. Further, regarding the request for increased commercial quotas of the Qamaniruaq herd by the Inuit communities, it should be noted that most people in the Dene communities I visited were not aware that this form of commercial caribou harvest existed. Many further believed that caribou should not be commercialized in this way since caribou should be treated with more respect. Regarding the schools' competition, it was interesting to see that presentations dealing with practical matters such as how to properly butcher caribou won over essays on the spiritual and traditional relationship of the Dene with the caribou. While board members did not seem to consciously disregard the essays and their messages, this choice could be seen as an indication of the kinds of knowledge they prefer to see.

The format, and to a large degree also the content, of the BQCMB's meetings is currently supplied by the culture and style of its government members and is thus also controlled by them. While user representatives are not discouraged from voicing their opinions, concerns and insights, they are asked to contribute "their bits and pieces" to the government's idea of "co-management" rather than actually being given the opportunity to co-direct the meetings. Thus the cynical definition quite a few Indigenous people have of co-management e.g. "the government manages and we cooperate" falls, as far as the BQCMB is concerned, not far from the mark.

This cynical definition of co-management indicates the central problem of co-management boards such as the BQCMB. Indigenous membership on the BQCMB, which has more Indigenous than government members, creates the impression that all sides are equally and democratically represented. Viewed from the outside many thus automatically assume (e.g. see Osherenko 1989) that the BQCMB's operations reflect Indigenous interests concerns and

knowledge. While allowing community representatives to comprise the majority of the BQCMB, the Board meetings follow the style and deal with the subject matter its government representatives bring to the meetings. Essentially the Board is seen as an opportunity for Indigenous community members to participate in government resource management, not vice versa.

The events surrounding the creation of the BQCMB in the early 1980s already made this intention very clear. Dene communities had, due to government concern over the assumed caribou crisis, invited representatives from renewable resource organizations in the NWT, Manitoba and Saskatchewan to participate as advisors on a user Board. Their invitation was, however, rejected by provincial and territorial governments (neg.s 12/81:3). Rather than becoming advisors on an Indigenous Board, governments forced caribou user communities to send representatives as advisors to a Board they created. With this governments made it very clear that, while they invited Indigenous resource users to participate in resource management, the management board to be created should operate according to the government's approach to resource management. The BQCMBs overall operational style and structure clearly reflect this approach.

The Creation of the BQCMB as a Typical Response of Canadian Public Administration:

In order to better understand the causes for the one-sided operations of the BQCMB a brief look at the theoretical basis of public policy formation, particularly the conceptual issues underlying the political dynamics of representative administrative boards and the concept of power, will be insightful.

When discussing the concept of power, a central theme in political science, organizational theory and public administration, Kernaghan and Siegel write in "Public Administration in Canada" power is a relational concept and therefore extremely useful for describing and explaining organizations. In this regard they define power as "the capacity to secure the dominance of one's values or goals" or "the capacity of an individual, or group of individuals, to modify the conduct of other individuals or groups in the manner in which he desires, and to prevent his own being modified in a manner which he does not" (1995:308). These definitions of power and how it is applied in the organizational context, are very useful in helping us to understanding why the "values and goals" of government board members are so pervasive at co-management organizations, particularly advisory co-management boards such as the BQCMB. Administrative Boards such as the BQCMB are situated within a power structure that allows them to meet the governments needs and objectives rather than the needs of Indigenous societies. In "Public Policy Analysis" Leslie A. Pal essentially makes the same observation when she argues that "public policies are infused by a broad system of power relations, no matter what policy-makers may intend or think (1992:7). Thus, since the actual power in the end rests with the government, advisory boards are always structured to meet the governments' needs.

Kernaghan and Siegel further explain that in the organizational context there are two forms of power: control and influence. While the exercise of control requires authority in the sense of having access to the inducements, rewards and sanctions necessary to back up commands, influence they explain, can be more indirectly exercised through an individual's authority of position. Influence may thus be exercised through the "rule of anticipated reactions". That is, administrative officials or members of

administrative boards “anticipate the reactions” of those who have the power to reward or constrain them, and thus act in a fashion that would be applauded, or at least approved by those whose favour they seek (1995:309). This observation also has much bearing on and helps in explaining the functioning of co-management organizations. Government BQCMB members are, due to the nature of their employment, under the influence of their superiors who, while not being actively involved in the co-management process, exercise their influence over the government board members through the “rule of anticipated reactions”. Representation of the First Nations concerns and interests at the BQCMB is not connected to the same reward structure and thus tends to get ignored. At the Gwich’in Renewable Resource Board (see sections 6.0 and 7.0.) this application of the “rule of anticipated reactions” is, at least in some areas, reversed due to the employment nature of the GRRBs biologists.

Kernaghan and Siegel further make a very interesting observation when they explain that bureaucrats may disarm external critics by organizing them into advisory bodies (1995: 313). And Crowfoot and Wondolleck observe in “Citizens organizations and Environmental Conflict” that “historically citizens’ organizations involved with government or business have seen their interests co-opted through familiar techniques...such as a participation process in which citizens interests have been overwhelmed by the expertise of other interest groups” (1990:1). One can thus argue that the creation of the BQCMB did not involve any new management concepts but simply reflected the use of a classic government tool to disarm potentially powerful critics.

The BQCMB and the communities' Traditional Knowledge (TK):

A section of the "Executive summary of the Long Term Management Plan for the Beverly and Qamanirjuaq Caribou Herds" entitled "The Caribou Users" claims that: "The board relies heavily on the traditional knowledge of user constituents, most of whom have spent a lifetime observing the caribou in all places and all seasons." (1986:5). As the above given overview of the issues covered during a typical Board meeting shows, there is little room for TK during BQCMB meetings. Only since 1996 is the Board considering the use of a small section of geographical TK in their Important Habitat Project since the existing maps of the seasonal caribou distribution have too many holes. At the 44th BQCMB meeting in Thompson Manitoba (Nov. 1997) the discussion therefore finally turned to TK due to the need to identify important calving and migration areas. When the topic of TK was thus raised a community representative pointed out that if the BQCMB was interested in TK it should have acted on that interest when the Board was first established since more of the Elders knowledgeable in TK were still alive back then (44th BQCMB meeting). As his statement revealed, this board member and community representative had up until the 44th BQCMB meeting not been given the impression that the BQCMB was interested in TK. And yet the BQCMB already claimed in 1986 to: "heavily rely on the traditional knowledge of [its] user constituents". Thus one has to assume that this unsubstantiated claim was at the time made only for political and public relations purposes.

It is a sad reality that the death of an Elder often means that important knowledge has been lost forever. In spite of this, there are still people in each community who are very knowledgeable in regards to caribou. Their knowledge ranges from how to properly interact with and treat caribou, to observations made regarding the animals' health such as fat levels,

fur conditions, health of organs etc. Hunters also possess knowledge regarding the animals' migration routes and important water crossings. Many experienced hunters are also very knowledgeable regarding the animals' preferred habitat and food including the interdependence of all plants and animals affecting the caribou. Put in Western scientific terms one could say that they are experienced caribou ecologists. Their knowledge ranges from factual knowledge and observations easily apparent and comprehensible to Western trained scientist to knowledge of cause and effect based on traditional teachings and stories most Westerners tend to dismiss as belief or myth. While hunters and Elders have extensive knowledge in regard to caribou, most prefer to talk about their knowledge by "showing and doing" e.g. out on the land rather than talking about it abstractly. It is further often felt that it is best to learn through observation and experience rather than only words.

Only now, due to the increased pressures of the mining industry, is the Board attempting to include TK of areas important to the caribou in its projects (See Leslie Wakelyn, Mapping Project Phase I and II). The fact that the Nunavut Planning Commission was working on collecting TK of areas important to the caribou within Nunavut lent further reason to the BQCMB to come up with a similar study for the areas important to the caribou outside Nunavut. The idea that "gaps [in biological data] should be filled with TK"(Wakelyn 1997) did nevertheless seem to represent the BQCMB's approach toward and view of TK. Thus the Board decided to do a TK study in order to: "fill these gaps".

While it was positive that the board was finally at least partially recognizing the importance of TK, it was very clear in pointing out exactly what kind of information it wanted, thus making sure it did not lose control over the TK project. With this, the Board gave a clear message that its needs superceded all other needs.

The Board decided to hire an anthropologist specializing in TK related issues in order to help design a TK project that would fill the Boards information gaps. Dr Marc Stevenson, an Anthropologist and then consultant from "All Nations Services" in Edmonton was hired for this purpose. With Marc Stevenson the BQCMB did however, as soon became clear, get more than it had bargained for. Marc Stevenson was very aware of the power imbalance existing at boards such as the BQCMB and cautioned against the potential to mis-use and mis-represent traditional knowledge if it were seen as merely information to fill gaps in scientific studies. He suggested that:

"Obtaining TK about caribou from 17 different user communities in a manner that is not only coordinated, but compatible with GIS [geographic information systems] and NPC [Nunavut Planning Commission] TK research, presents a formidable challenge for the BQCMB. However, the Board faces no greater challenge than developing a sense of interest and ownership of the study among local user communities. In the experience of the author, TK studies driven largely by and for outside interests have little chance at succeeding."
(Stevenson 1997:4)

Stevenson further pointed out in his report to the BQCMB that:

"This report is based on the belief, often repeated by aboriginal people consulted during TK projects, that TK studies must be community-based and driven by the users, with the assistance of the managers and not vice versa. Indeed, the quality and quantity of TK gathered will depend on the extent to which users influence and participate in the design and implementation of the study.

This report is also based on the conviction that the best TK studies are those which acknowledge and accommodate the principle of reciprocity. It is often the case on co-management boards, that wildlife managers or biologists set the research agenda, identify the problems, and determine the questions to be asked. All too frequently, issues of interest and/or concern to the users are pushed aside. " (Stevenson 1997:5)

Stevenson further writes that:" The principle of reciprocity will

also govern the design of questions and semi-directed interviews. Often in TK research, questions are framed without explaining their context or relevance to those people who have TK and wisdom. Some aboriginal people are not only hesitant to answer such questions, but they view such questioning as a form of theft. What will they receive in return for their answers ? What will their knowledge be used for ? Thus, it is very important that every question have a context and a rationale that local TK holders can readily understand. The interviewer is also obliged to share his/her knowledge about the subject being addressed with the local Elder/expert (Stevenson: 1997:6).

Stevenson further points to the dangers of decontextualizing TK through its recording and (in the case of the BQCMB project) transmission to maps. This, as he points out, can be problematic since TK is a "high context communication system" which depends on the particular setting or context to give it meaning and value. Western scientific knowledge on the other hand, he points out, is a low context communication system more dependent on specific information to provide meaning rather than context. Thus taken out of context and interpreted through the "eyes" of Western scientific knowledge, TK does not only run the risk of being misinterpreted, but it becomes possible to use TK while excluding the actual holders and interpreters of this knowledge from taking part in the decision-making process in any meaningful way (Stevenson 1997:6). Stevenson further pointed out that some people may be hesitant to divulge their knowledge of the caribou due to negative past experiences with conservation officers. Under the heading "Goals of Study" Stevenson writes:

" In response to existing and potential mineral development, road construction, and other land use activities near and in the range of the Beverly and Quamanirjuaq caribou, the BQCMB has recognized the value and urgency to collect TK to inform management decisions. Subsequently, the Board has identified a need to identify TK about habitat important to caribou and caribou users, seasonal and long term movements of caribou, and recent historical distributions of caribou. While this requirement will remain the main goal of the study, the Board

must also consider the needs, interests and intellectual property rights of users. " (Stevenson 1997:7).

Stevenson then goes on to identify the major research concerns of the communities such as fire management and the effects of forest fires on caribou habitat and movements, the effects of industrial development, pollutants and contaminants on the health and behaviour of the caribou and finally the transfer of TK and GIS research skills to community residents (Stevenson 1997:7).

Stevenson identifies many issues that are important to the communities. Manitoba, for example, does not fight forest fires in its northern regions unless a village is threatened by fire. Many people in both Lac Brochet and Tadoule Lake were worried and angry about this lack of fire protection, which results from the fact that the natural resources of northern Manitoba are not important to the forest or other industries. The commonly made argument that fires are a natural occurrence with positive as well as negative effects on the environment and therefore should not be fought, was an argument many community members were very aware of. The problem was nevertheless, as many pointed out to me, that fires now occurred in much greater frequency than in the past. While it would be natural to have a big forest fire about every 20-50 years, community members pointed out, fires every 3 to 4 years are considered unnatural occurrences most likely created by the increased human presences in the north and are believed to have a negative effect on the caribou. Many hunters pointed out to me that past burns, if they are extensive, will change caribou migration patterns since it takes a few years before there is enough re-growth in a burnt area to provide food for the caribou. Community members in all communities I visited were also very concerned and interested in getting more information on the effects of industrial development and contaminants on the caribou. One hunter even went so far as to point out that a neglect to inform them about contaminants in important country

foods such as caribou could be seen as another form of genocide.

In his proposal, Stevenson further points to the necessity of remunerating everybody involved in the project (including the informants) for their time. He also points to the important role the Board's user members should play in the implementation of the study since they should be in charge of the hiring, coordinating and supervising of the local people who undertake and participate in the study. He recommends that the Board use maps of the 1:250,000 scale as well as audio and videotapes and that each Elder and caribou expert should be interviewed in two stages in order to first be familiarized with the project and be given a chance to establish their own personal history and time-line. For the second stage of the interview he recommended the use of semi-directed questions since they are: "not as rigid, inflexible and culturally inappropriate as direct questioning, nor so diffuse or unconstrained as to collect TK that may be of little use for management decisions". (Stevenson 1997:10-11). Stevenson also points to the importance of honouring the individuals' and communities' intellectual property right to their TK since the TK really belongs to the young people in the communities, as well as the fact that Elders generally prefer to "talk about the subject at hand (in this case, caribou) in the process of doing or experiencing rather than remembering" (1997:13).

Giving detailed accounts of the necessary expenses of conducting a well-rounded TK study Stevenson completed his report by estimating that such a project would cost \$29, 250.00 Can.

Marc Stevenson's proposed approach to TK research is very respectful of the knowledge and its holders aiming to ensure its ethical use. His research proposal intends to avoid the mis-use and mis-representation of TK through community involvement in the design of research questions, and the honouring of the individuals' and communities'

intellectual property right to their TK. Given the BQCMBs response to Stevenson's proposal I decided that it was important to provide extensive information on his recommended approach.

When the BQCMB received and reviewed his proposal at their Thompson, Manitoba meeting in 1997, their main response was that they did not have the funds for such a study. Stevenson's report was not what most of the Boards government representatives had wanted¹. They, as they repeatedly pointed out, just wanted a quick study that would allow the biologists to fill the gaps they had in their database with local information, or as one government representative pointed out: "we just want to collect information for our purpose"(BQCMB meeting Nov. 1997). Being essentially uncomfortable with Stevenson's approach most of the Board's government members were quick to cite a lack of funds for such a study.

During the ensuing discussion, it further became evident that most government board members and the Board's treasurer were worried that such, as they saw it, a "large scale" study, would provide them with all kinds of TK they did not need or want, rather than the specific data they had in mind. (Stevenson pointed out that most aboriginal groups' management systems are based on the relationship of human beings and the animals they depend upon. Thus, the knowledge they have may not necessarily be something that wildlife managers would be interested in.) Following Stevenson's proposal would have resulted in the creation of an in-depth knowledge base on caribou rather than simply providing bureaucrats with specific data. Such concerns are thus essentially valid. The question is, however, whether it is appropriate to approach resources that are almost exclusively depended upon and used by Indigenous peoples, solely through the government's approach to resource management?

¹ It should be noted that not all of the Boards government representatives were of the same opinion. One government member did like

Continuing with their argument, government representatives further pointed out that government and aboriginal caribou users should not be seen as occupying two sides in the issue of caribou management since they would all benefit from the caribou's proper management. Thus, in the view of most of the Board's government members, their wish to address the specific "gaps" biologists had in their information on caribou required only a simple study, ignoring Stevenson's recommendations. Consequently, they thought, the Board should simply go ahead without all these (Stevenson's) considerations.

While it is, of course, true that successful caribou protection will benefit caribou users, the underlying assumption of such a statement is again that only the government's overall approach will ensure the resources long-term survival. Any other approach or knowledge not easily fitted into the government's operations is consequently deemed superfluous.

An Indigenous Board member supportive of Stevenson's proposal noted that in his opinion it was about 20 years too late to suddenly show an interest in the knowledge to be found in the communities. He said that while suddenly a lot of government organizations recognize the importance of TK, this recognition comes a bit too late since his community for example had already lost about 95% of its traditional knowledge. What little TK they had was minimal compared to what people knew in the past, but even that little knowledge was very valuable. He further went on to make the previously-mentioned statement that if the BQCMB was interested in TK it should have acted on that interest when the Board was first established in 1982 since many of the Elders were still alive then. (44th BQCMB meeting Nov. 1997).

At this point the BQCMBs secretary/treasurer (who frequently redirects discussions back to issues he deems important) refocused the discussion on what he considered to be their

the approach outlined by Stevenson.

more immediate concerns. He reminded all Board members that in his opinion the original purpose of the project was being lost sight of since the Board just needs to collect information for the purpose of filling its gaps in data on areas important to the caribou. As this statement aimed at regaining control of the meeting reveals, government Board members frequently take control of and direct the Board's agenda.

Making an attempt of conveying the uselessness of the governments resource management approach to Dene Elders, a Dene board member pointed out that, while he could understand the rationale behind the Board's approach it was important to properly explain things to Elders since: "maps and numbers like this, what use are they to an Elder?" (ibid).

Trying to bring the discussion back to the need for community control over traditional knowledge research, Stevenson took this comment as an opportunity to explain again that it should ultimately be the communities who determine whether this kind of traditional knowledge research should be done or not. Decidedly uncomfortable with the idea of giving caribou user communities the power to control the proposed TK project, one of the government representatives interjected that in his opinion stop-gap measures were needed since they were dealing with development pressures on a day to day basis. In his opinion the Board's government representatives simply "need a little bit of information for decisions" (ibid). In an attempt to extract themselves from the controversy surrounding a TK study government representatives argued that the project should possibly not be called a TK study. Stevenson replied to this by again pointing out that, regardless of its name, one had to have community control over such a study in order to get good quality information. Showing his interest in and approval of Stevenson's proposal one of the Dene board members explained that: "If we are going to preserve caribou for future generations we should focus on that [kind

of research] and get the money from somewhere. The communities would want this kind of work done"(ibid). Government members continued to voice opposition to Stevenson's approach by remarking on the importance of separating information based on spiritual beliefs from other data.

As this discussion at the BQCMB meeting revealed, the Board's government members clearly did not wish to lose control over the Board's operations or any projects the Board was undertaking. While the BQCMB does have a limited budget it is much more comfortable in spending its budget on the creation and maintenance of a web-site, satellite collaring, or purely biological research. Funding a project under the direction and control of the communities is simply not considered a viable approach. Viewed from the government's perspective it is of course potentially dangerous to fund a project whose outcome cannot be controlled. A fundamental reality affecting the BQCMBs actions is the fact that the BQCMB only has advisory powers rather than being policy making. The BQCMB is, therefore, dependent on government approval of its operations in order to receive its funding. The continued overall employment and advancement of government BQCMB representatives, furthermore, depends on their respective departments' approval of their actions rather than that of the Indigenous caribou user communities. These fundamental points in the overall structure within which the BQCMB has to operate, therefore, simply do not provide its government representatives with the ability to support studies their employers would not support. As a result government BQCMB representatives are, as the above discussion indicates, bound to support their respective department's interests and concerns.

Due to other commitments, Stevenson could not attend the entire Board meeting.

Once Stevenson had left, a debate ensued over what should be done with his report. The Secretary/Treasurer was hoping that the Board could agree on instructions to give to Stevenson since, in his opinion, he should come back to the Board with a report that is do-able (ibid 1997). Saskatchewan's government representative pointed out that it would be useful for Stevenson to identify alternative sources of funding so that the TK project becomes an ongoing system of management. In his opinion the TK project should not be a "one shot deal" and the Board should be supportive and encouraging in any way it can so that something happens along these lines. Lutsel K'e's representative entered the discussion by pointing out that his community would most likely go ahead with a large scale TK study along the lines of the project proposed by Stevenson, regardless of what the Board was doing. (They are currently working on a TK study that they hope will be similar to a Cree and Inuit traditional knowledge study published by the Canadian Arctic Resources Committee in 1998 under the title "Voices of the Bay").

Continuing his disapproval of Stevenson's approach the secretary/treasurer claimed that in his opinion Stevenson did not try very hard to come up with a proposal for the Board and had preconceived notions of how a proper TK study should be done. While he clearly saw a problem in the fact that Stevenson had presented a proposal government renewable resource departments would not easily approve of, his comment is peculiar if one considers that the BQCMB had presumably contracted Stevenson exactly because of his "preconceived notions" or experience in the area. It therefore becomes apparent that the Board's government members "had not done their research" prior to contracting Stevenson, who had been recommended to the Board as a result of his work on TK use for environmental impact assessment in the NWT. As a result the Board got more than it had bargained for.

It was eventually suggested by Board members that it might be a possibility to separate the two divergent views on how to approach their TK study into a large-scale TK project (not necessarily done or funded by the Board) and a quick study for the Board's immediate TK need.

The above discussion reflects the divergent views of the role of TEK held by government resource managers and some social scientists and Indigenous peoples. The Board's government representatives frustration with Stevenson's suggested approach stems from their belief that TEK should only supply factual data to inform the government's overall management approach. The nature of their employment position further undercuts any views they might have on the role of TK and the BQCMB that are not in line with the government's approach. As a result they hope to extract data situated within the Indigenous cultural way of knowing and implant it into their own cultural way of knowing without having to consider the different epistemological approaches toward the environment and their implications.

Comments by the Dene board members such as "maps and numbers like this, what use is it to an Elder" speak of the Indigenous Board members reluctance to extract the Elders knowledge for a foreign interpretative system useless to them. Stevenson's suggested traditional knowledge study would keep the knowledge situated within the cultural framework that gives it meaning, placing it "beside" rather than into Western science.

Continuing in their discussion, the following question was posed by a government board member: "If we recognize that the collection of traditional knowledge is important, what is the role of this Board to allow that to happen ? " (ibid). Most government Board members thought that the Board should commend anyone undertaking research in this area but that it was not the Board's job to fund this kind of research. Saskatchewan's government

representative argued that the Board does have a responsibility to drive this kind of work forward. He further argued that if they were a true co-management board they had to strive toward the use of community-based as well as scientific knowledge (ibid). Considering the implications of his position as a government Board member his relatively harsh criticism of the Board's conduct was particularly noteworthy. He clearly supported the importance of Indigenous knowledge and was frustrated with the Board's negative response to Stevenson's report. Attempting to support him in focusing the Board's attention to its own conduct vis a vis the image conveyed by the term co-management a Dene Board member read the following section of Stevenson's report to the Board: "It is often the case on co-management boards, that wildlife managers or biologists set the research agenda, identify the problems, and determine the questions to be asked. All too frequently, issues of interest and/or concern to the users are pushed aside" (Stevenson 1997:5) pointing out that in his opinion this was indeed a problem and that it was important to get everyone's involvement and cooperation. If this was not done, he said, this one-sidedness was going to keep happening forever. He went on to say that: "We should start the process... Maybe it is outside the Board's mandate but it definitely has to be done" (ibid 1997). As this reveals, the seasoned Dene BQCMB representative seized Stevenson's report and the issues it tabled as a welcome opportunity to politely point to the problem of the Board's inability to allow all of its members to participate and shape its functioning equally. In response to his criticism government Board members simply noted his support for a large-scale TK project but again pointed out that the BQCMB lacked sufficient funding for such a study, sidestepping the wider issue of the Board's one-sided operations.

In the end the Board decided that: "There is a need for a large-scale, long term TK caribou study for the Beverly and Qamanirjuaq herds, but that such a study is beyond the

mandate and capability of the BQCMB" (Letter to Marc Stevenson 19 Dec. 1997).

This conclusion is somewhat puzzling when one considers that the "Executive Summary" of the Board's "Long Term Management Plan" already stated in 1986 that the Board adopted the policy to "heavily rely on the traditional knowledge of user constituents" (1986:5). This is especially puzzling when one considers that to "uninitiated" outsiders one of the main reasons for the BQCMB's existence is its supposed function of relying on both scientific knowledge and TK for its decision-making. Due to the Board's publications many assume that it is basing its operations on both TEK and Western science. This becomes apparent when one reads papers such as Gail Osherenkos "Sharing Power with Native Users" which claims that: "Native knowledge regarding caribou health, numbers, migration pattern and behaviour over the last several centuries is now integrated with techniques of biologists for gathering current data (1988:97)" when discussing the BQCMB. The discussion surrounding TEK I witnessed at the 44th BQCMB meeting and the content of the other meetings I attended did, unfortunately, make it apparent that this is not the case.

While most of the BQCMB's government representatives were reluctant to embrace a holistic approach to TEK the BQCMB's discussion of the subject did, however, reveal that the Board is not split along simple Indigenous/government lines in this regard. The repeated lobbying of Saskatchewan's government biologist for the importance of TEK shows that not all of the BQCMB's government biologists approach the issue in the same way.

The BQCMB's letter to Marc Stevenson further stated:

However, they [the Board members] believe that the Board has a "responsibility to act as a catalyst for this research...Consequently, your final report should outline a two-level approach. The first level of research should focus on the Board's initial priorities, as outlined in the introduction to your contract. The methodology should describe how TK could best

be collected to specifically address the goals of the important habitats project including transfer to a geographic information system. The second level² will be a larger-scale, longer term TK caribou study which addresses other caribou related issues such as the effects of development and forest fires. This second level of research may be similar to the one outlined in your draft proposed methodology.

And outlined that:

The first level of research should: produce information on caribou distribution and movements which is required for the important habitats project, at relatively low cost in a short time frame (e.g., within a year), and be compatible with work being conducted by the Nunavut Planning Commission (NPC), and produce results which are complementary to NPC's...Components of your proposed methodology which do not relate to these conditions (e.g., visiting the calving grounds and GIS training) will not be feasible in the first level of research. (19.12. 1997)

In the end, the BQCMB decided not to go with Dr. Marc Stevenson and his recommendations. After a short period of temporary abandonment of the project, Manitoba's Renewable Resource BQCMB member approached Geoff Bussidor of Tadoussac Lake asking him to do a pilot project to see if "the information in the caribou communities can be documented and whether it could be combined with government information" (Bussidor 1999:1). Bussidor was given \$5000 for the pilot project and interviewed six Elders with the help of two high school students. Elders received a small token for their participation but there were not enough funds to pay them for their time. The high school students involved in the project received a credit for their work and were flown to Thompson where they digitized the results at a Natural Resources GIS work-station. One of the Elders who participated in the project commented that a project of this kind should have been done years ago (ibid). Overall

²For which the Board has no funds but which it is agreeable to support if Stevenson could secure outside funding.

the Board rated the project a success (What's New with Caribou 1999).

The Dene students and Elders who had participated in the project also gave it a positive rating. It should, however, be noted that they were not familiar with Stevenson's proposal. Elders were simply glad that people finally showed an interest in their extensive knowledge and also saw it as an opportunity to pass their knowledge on to the Dene youth participating in the study. The BQCMB was further lucky to have managed to convince Geoff Bussidor to head the project. Bussidor is fluently bilingual in the oral as well as written versions of both Denesuline (syllabics) and English. He has experience as a Denesuline language teacher and is a communicator and translator for, and between, all generations, with the ability to translate complicated Denesuline concepts into English. He further has enough experience with natural resource issues (as a former BQCMB member and temporary natural resources employee) to understand and translate technical terminology. Thus he managed to make the "Tadoule Lake Traditional Caribou Knowledge Project" a success in spite of the meager funding he received for the project and the specific geographical TK questions he was expected to ask. (Appendix 5 holds a copy of his report).

Allowing the students to digitize the results in Thompson was further unquestionably a valuable experience for them. It does not, however, fulfill the need to develop real GIS resources in the community in order to enable Tadoule Lake to do its own important habitat and land-use mapping studies in the future.

While the BQCMB is, as can be seen, finally beginning to consider some aspects of the traditional caribou users' knowledge the Board remains clear in pointing out that it is only interested in a certain kind of factual knowledge that can easily be incorporated into its management approach. Geographical information based on the Elders' expertise and

knowledge is accepted but any knowledge that does not easily fit into the government's overall management approach continues to be excluded. As valuable as small projects such as the "Tadoule Lake Traditional Caribou Knowledge Project" are, they do not constitute an actual change in the BQCMB's operations.

5.3. THE LACK OF MEANINGFUL INTEGRATION OF KNOWLEDGE THROUGH BQCMB MEETINGS AND ITS CAUSES

Why is it so difficult for the BQCMB to rely on both Western Science and TK as a natural part of its operations? Why does any inclusion of TK, if it happens at all, have to appear in the form of a special directed project rather than simply being part of what the Board does? I have already pointed out some of the problems hindering the integration of knowledge at the BQCMB meetings in past sections. This section will review the causes of the Board's inability to draw from the caribou user communities' knowledge as a natural part of its operations.

Managing Co-management:

As the last section has exemplified, it is unrealistic to assume successful co-management to automatically result simply because Boards consist of government and Indigenous representatives. A research paper entitled: "Managing Co-management: Guidelines for Agreements that Work" published by the Saskatchewan Indian Federated College (SIFC), points to many of the issues causing the BQCMB's problems. The paper points out that:

"The design of a workable co-management system must begin with an understanding of the "capacities and constraints on traditional management, and the organizational requirements for establishing new management regimes that utilize both indigenous/traditional and scientific/technocratic knowledge" (Contract: #95-0184)

Therefore co-management boards cannot expect to get positive results solely through including a few representatives from Indigenous resource user communities. Co-management Boards have to consider and implement the organizational requirements that will allow them to draw from the differing types of knowledge in their operations. In regions in which the majority of the older population is not fluent in English, for example, the most important requirement is that the co-management board in question operates in the language spoken by the Elders as well as in English. If this most basic requirement is not in place, all Elders and much of their knowledge will automatically be excluded from the operations of the Board.

This is one of the most obvious causes of the lack of use of the Elders' knowledge and expertise at the BQCMB. Due to the BQCMB's unilingual approach, most Elders in the communities represented at the BQCMB are excluded from the operations of the Board. The Board's community representatives are generally younger individuals who, while fluent in English, do not possess the extensive knowledge of their Elders. Thus the BQCMB, as one community representative put it, is currently not communicating with or learning from the Elders. Without addressing this language issue the BQCMB cannot expect to make real advances in the realm of knowledge integration.

The SIFC paper on co-management further points out that it is important for all stakeholders to understand each others' positions but that:

" It must be understood, however, that this is sometimes hindered by the fact that each partner may have a stake at attempting to maintain a privileged position in the discussion by not making themselves fully understood. Each stakeholder may utilize some degree of lack of clarity and jargonized , specialized language which is intended to have a

certain kind of impact and secure as good an outcome for that stakeholder as possible."(ibid).

This is a very important problem plaguing co-management arrangements. Co-management arrangements can only work if there is an equal balance of power and trust by all parties signatory to the agreement. It is easy for one side to control the meetings, knowingly or not, through the heavy reliance on highly specialized and jargonized language.

Government representatives who live and work in a world of acronyms and "bureaucratise" often seem to be incapable or unwilling to refrain from their usage at board meetings even though they are aware that not all non-government members will be able to decipher this specialized language.

As my attendance of the BQCMB meetings has shown, this is also a relatively big problem for the BQCMB. Acronyms such as "DRWED (Department of Resources Wildlife and Economic Development) and GNWT (Government of the Northwest Territories) etc." and terminology such as "habitat, habitat replacement, minimal ranking priority, potential effects, mandate, compatibility, assessment framework, periphery, representative areas etc" are frequently used throughout meetings without explaining what they stand for. While politically active community representatives are of course generally familiar with such terms, older or less politically active community representatives are not. Community members rarely interrupted board meetings to ask for clarification of such terms. Some did, however, at times ask myself, or others, during breaks what such terms meant, thus drawing my attention to their incomprehensibility.

The BQCMB thus not only makes use of problematic terminology such as "caribou management" indicating its Western approach to caribou issues, it also has difficulties

refraining from the use of specialized and bureaucratic language not easily comprehensible to all. As a result community members simply remained silent during certain debates. Compounding the communication problem this silence seemed at times to be interpreted as agreement by government board members when it, in actual fact, was confusion that should have been cleared up, or polite disagreement. This inability to truly communicate with community board representatives and, more importantly, the communities they represent, are signs of an existing power imbalance and lack of trust between the BQCMB and the communities represented at the Board. While there are more user than government members at the BQCMB, the board meetings are held in the style, language and format to which its government members are accustomed, and follow an agenda largely directed and controlled by the government members. This has led the BQCMB to assume a format in which, as one community representative explained: "It only functions as a forum through which the government tells the people (the caribou users) what to do".

It is currently easy for the scientific/technocratic knowledge system to dominate other forms of knowing, such as Indigenous knowledge, since there exists a great imbalance of influence and power between the two. As a result, the scientific knowledge holders often seem to assume that it is their responsibility to determine what type of traditional knowledge should be included in their operations. The BQCMB exhibits classic symptoms of this approach, expressed in statements such as "addition of TK may help to fill in many of the information gaps which now exist" (Wakelyn 1996:7). While it is undoubtedly important for the BQCMB to learn from the knowledge of Elders it is not the responsibility of the Board's scientists to determine what kind of traditional knowledge

they wish to integrate into their overall knowledge system. The SIFCs co-management paper addresses this by stating that:

“It is not the responsibility of non-aboriginal stakeholders to determine what traditional knowledge is or how much to include in the co-management process and agreement. It is the responsibility of the aboriginal stakeholders to do this.”(ibid).

Rather than organizing and controlling limited TK studies, they need to create a setting in which a true knowledge exchange can be facilitated, allowing user communities to share what they feel to be important. The issue is thus one of creating more Indigenous participation and ownership over the whole process. One of the BQCMB’s Dene representatives pointed to important steps the Board would need to undertake if it was hoping to achieve actual knowledge exchange. The Board, he explained to me, had to give room and time for Elders to attend its meetings. Board members should explain the various issues the Board is dealing with to the Elders and allot enough time for the Elders to reflect, comment and share their knowledge so that the Board can “learn from the Elders too”.

Essentially he points out that the following issues should be addressed: **Scheduling:** Meeting schedules should allow enough time to allow Elders to understand and reflect on the issues discussed. **Attendance:** If Elders and community members, through the change in scheduling, were given the chance to actively participate in the issues discussed they would be interested in attending its meetings. **Agenda:** If room for active community participation were given, the BQCMB’s agenda would automatically begin to reflect more issues of concern to community members. The agenda would begin to reflect the

communities' knowledge. **Power:** If these steps were taken the BQCMB could begin to escape its power imbalance and achieve the two-way exchange of knowledge.

In order to change the BQCMB's operations in this manner, the Board would further need to meet in the caribou user communities rather than in cities, hold bi or trilingual meetings and actively ensure that community members feel welcome to attend its meetings. It should further hold culturally meaningful events, such as community feasts, in order to bring people together and ensure maximum community participation.

The issue of using TK is nevertheless complicated, and the kind of knowledge that is currently sought out under this heading depends on a co-management board's overall understanding and openness to different cultural and epistemological ideas. Often, and the BQCMB is a good example of this, government wildlife biologists who agree to involve TK in their resource management plans have fairly narrow views and definitions of the type of knowledge they are looking for. They are not interested in epistemological, spiritual understandings of the resource concerned (such as how to respectfully interact with a resource), which might at times challenge their own science-based epistemologies. They are only interested in specific facts such as where important caribou crossing and calving areas are. Information of this kind is of unquestionable importance and, due to its simple factual nature, does not challenge traditional science based views but simply adds to the bio-geographical database. It is important for resource biologists to increase this type of knowledge. (One should, nevertheless, keep in mind that Elders may withhold information if they do not trust that it will not be used to harm the resource e.g. white people might block important caribou crossings...). Information sharing, or as it is often

called, TK use, of this kind does not address the fundamental differences surrounding Western and non-Western understandings of the human/ resource, human/nature relationship. It simply includes aspects of Indigenous peoples' empirical knowledge into the science database. While useful, this kind of knowledge sharing does not overcome the domination of one worldview over the other. Spiritual issues such as the importance of respect are not addressed, and practices such as the satellite collaring of caribou, which go against the sustainable resource use ethics of many Elders, continue. Thus, this kind of TK use does not constitute equal knowledge exchange and integration.

Commenting on resource co-management boards, Milton Freeman related that he had hoped co-management Boards would serve as educational tools with the help of which government biologists would learn and come to understand the Indigenous resource users' expertise in looking after their resource. This, he hoped, would eventually result in their agreement to allow northerners to manage their own resources (Freeman personal communication July 1999). Thus, one could see co-management Boards as an educational tool through which either side is attempting to educate and convince the other side of the importance and validity of their knowledge and methods. In the best-case scenario both sides will come to understand and respect the approach taken by the other side. In the worst case scenario one side will succeed in convincing the other side that its way of doing things is the only rational way. So far, the BQCMB has been more successful in managing to convince user representatives of the importance of biological science rather than learning from the knowledge and understanding of the Elders. An example of this would be the user representatives' current support of satellite collaring even though many Elders

in their communities still oppose this practice. The comment of a user representative that if the Board was interested in TK it should have acted on this interest when it was first created, is a further indicator of this.

Board Representation:

Co-management Boards such as the BQCMB expect their community representatives to bridge the cultural and generational gaps that exist between the Board and their home communities. It is, nevertheless, naive to assume that a single community representative can bridge all these gaps and is actually authorized to negotiate on behalf of his community. In reality, this assumption of a "top down" structure, which gives the community representatives authority to act on behalf of their community and expects community compliance with decisions that have been endorsed by the communities' representative, is not congruent with the communities' cultural realities but is based on our own. This structure therefore attempts to impose non-Indigenous hierarchical relationships on the communities. A US Man and the Biosphere Study correctly questions this aspect of the BQCMB when it explains that "the depth of their (the community representatives) authority has not been tested" (Kruse1998).

Communication with members of the represented caribou user communities has shown that a single community representative is not an effective substitute for overall community involvement and consultation. Many community members expressed their dissatisfaction with this system, explaining that it would be better to at least have two representatives from each community, a younger representative as is currently the fashion,

and an Elder. This, they hoped, would ease some of the communicative problems currently experienced and bring a wider view of the community's perspective to the Board. Lutsel K'e and other communities have requested to have at least two representatives but have been informed that the Board does not currently have the money for travel expenses of more than one individual. While the BQCMB certainly operates on a very limited budget it is possible to solicit outside funding for important additional expenses. The Board's preferred budgeted allocation to scientific research rather than community involvement is also a telling sign of the Board's priorities.

Difficulties Created by the Limited Powers of the BQCMB:

Many of the BQCMB's difficulties have their origin in the Board's status as being solely advisory to governments. A section of the aforementioned research paper on co-management conducted by the Saskatchewan Indian Federated College addresses exactly this problem when it notes that:

" All orders of government- federal, provincial, and territorial must be willing to relinquish a reasonable amount of perceived and actual power held regarding land and resource management. This may include an examination of jurisdictional issues within the context of the Canadian Constitution."(Contract #95-0184)

Herein lies a further obstacle faced by the BQCMB. Since the BQCMB is only an advisory board it does not have any actual power over the resources it attempts to manage. While many of the Board's current recommendations are taken into account by the responsible ministries, the Board can only hope to implement recommendations that align themselves with the ministries' views. Thus the Board's ability to experiment with unconventional

approaches is extremely limited. Commenting on these issues one of the BQCMB's government representatives frustratedly informed me that his government office was not genuinely interested in the BQCMB and his activities within it, but only saw the Board as a good public relations tool.

It is important for the successful functioning of co-management boards that the board develops good relationships of familiarity, trust and communication with the board's user representatives, but this does not replace the importance of a good relationship with the user communities. In this regard, boards such as the BQCMB, covering vast areas and numerous jurisdictions, are automatically disadvantaged. Due to the geographical distances between the communities and the various Board members, unofficial communication and association rarely occurs. As a result Board and community members are often not familiar with each other and "shy" and uncomfortable when they meet. Observations during the BQCMB meetings in the Dene communities of Wallaston Lake and Tadoule Lake revealed little informal contact between government board representatives and community members. During the evenings government representatives stuck together and community members stayed away, thus limiting chances for informal contact. As a result, valuable communication possibilities were not taken advantage of. Some community members, especially Elders, may shy away from speaking formally and publicly to the Board but, if given a chance to speak on a one to one basis, might have valuable insights to offer. My attendance of the Gwich'in Renewable Resource Board meeting in Tsiigethchic NWT has provided me with the opportunity to observe a "closer knit" board in action and revealed the importance of this "familiarity" (a detailed

discussion of the GRRB will be provided in chapter 6).

Language:

“The ability to dominate derives in part from imposing one's construction of reality as the natural order of things” (Philibert 1990:266). This quote by Philibert summarizes the obstacles Indigenous peoples and their knowledge have to overcome when participating in boards such as the BQCMB. As pointed out above, Indigenous board members and their communities currently have to conform to the style and methods to which the government members of the BQCMB are accustomed. In their article on the use of language during Native/Government Salmon Management Workshops in Alaska, entitled “Hidden Dissent: Minority Majority Relationships and the Use of Contested Terminology” Phillis Morrow and Chase Hensel address this issue:

...English supplies the conceptual categories - the idiom and the jargon - which are at the crux of the decision making process... Ideological differences between the two systems rarely surface in such discussions, because the focus is on planning actions rather than understanding the varied justifications behind them, and because the politically powerful participants in the dialogue - the legislators, resource managers, and enforcement agencies - supply the vocabulary in which the debate will be framed... (1992:38).

English is the operational language of the BQCMB. This forces user members to frame and adapt their reasoning to fit into the conceptual categories supplied by that language. This has farther-reaching consequences than commonly assumed. Anyone with knowledge in a language other than their own has probably experienced the problem of wanting to express a certain idea or concept and not finding the right words. Even if one deepens

one's knowledge in a new language and acquires fluency in it one will often find that the words, the concepts needed to express what one wanted to express simply cannot be found. This, as I have often experienced, can already be the case if one attempts to translate between such closely related languages as English and German. Thus it is exceedingly more difficult if one has to express concepts that are at home in Dene or Inuktitut since these languages differ greatly from English in their structure, reflecting the diversity of viewing the world around us.

The Sapir-Whorf Hypothesis may aid us somewhat in understanding some of these difficulties. The hypothesis claims that different languages produce a different way of thinking, that the way we see the world, the way we see reality, is a construct or direct result of the language with which we learn to understand the world. Whorf argues that our perception of reality, our way of seeing and understanding the world, is based on the language within which we live (Whorf 1956). Thus, there are as many different conceptions of reality as there are languages. While Whorf's Hypothesis addresses a very important issue it has to be reversed. Following Whorf, one would assume that language in itself is a logical absolute determining world-view. By learning English, Dene would thus automatically adopt the English world-view. This is, however, not so. Rather than adopting the English worldview, English-speaking Dene commonly structure their use of English according to the Dene worldview. It is therefore not language that creates world-view, but rather world-view that creates language.

Further, in the same way in which areas of specific importance differ from culture to culture, we can find differences in the subtleties of language relating to that area. The

term "focal vocabulary" has been coined in order to explain the differences in language. In the same way in which areas of specific importance differ from culture to culture so does their "focal vocabulary" (Whorf 1956). One of the most commonly used examples of this natural phenomenon of language is the difference in specific terminology known for snow between English and Inuktitut (Eastman 1975). Another area of a culture's specific emphasis would be the importance of and thus knowledge of caribou for the Dene. While English only differentiates between male, female, calf and yearling (biologists can of course get more specific but they have to use descriptive terminology rather than being able to use different terms for all of the caribou's stages) Denesuline has many different terms for what they call *ethen* (=caribou). The following examples will be insightful. In the Fond du Lac, Black Lake area these terms are used to describe caribou: *Ts'udaichogh* = big female that has not bred, *Ts'udai* = young female, *Dambie* = female with young caribou, *Bedzi?aze* = young caribou, *Besdzichogh* = big bull caribou, *Besdzichoghase* = young bull and *Yagus* = jumper. In most cases, as we can see, the single Denesuline term has to be translated with the help of a descriptive phrase. English does not possess a particularly detailed vocabulary in regards to caribou since, as opposed to Denesuline speakers, this is generally not an area of importance to speakers of English. The English description of Denesuline terms for caribou, or other areas of their relationship with and knowledge of the land, is nevertheless often merely overlapping rather than congruent. Many concepts are simply hard to translate into a language and culture that does not experience them. Thus when attempting to explain aspects of TK it is often difficult for Denesuline speakers to get the exact meaning across to English speakers. This makes it

difficult for unilingual boards such as the BQCMB, whose members only meet a few times a year, to be informed by TK.

Apart from the linguistic and intercultural communication problems the following also makes it difficult for boards such as the BQCMB to be informed by TK. In my experience many Dene Elders believe that one can only really know something to be true and understand it if one has experienced it. Thus, they often prefer not to talk about certain aspects of their knowledge theoretically but would rather take people who are interested in learning out on the land so that they can come to know, experience and understand. This was my experience when trying to talk about the relationship of people and caribou. While Elders would generally refer to the need to respect the caribou it was only after I had accompanied an experienced hunter on his hunt and related some of my impressions and experiences¹ to an Elder, that he was willing to go into greater detail. When I mentioned this he explained that I would probably not have understood or believed him if I had tried to understand without experience.

The current format and operative style of the BQCMB is, as can be seen, not conducive to meaningful knowledge integration.

In order to gain further insights into the problems and possibilities of co-management, I will now turn to the land-claims based Gwich'in Renewable Resource Board (GRRB) in order to examine its structure and functioning and compare them to the BQCMB's.

¹ Such as my amazement that the caribou herd we happened upon was not disturbed by our presence before or after we had taken a few animals.

6.0. THE GWICH'IN RENEWABLE RESOURCE BOARD AS AN EXAMPLE OF CLAIMS-BASED RESOURCE CO-MANAGEMENT

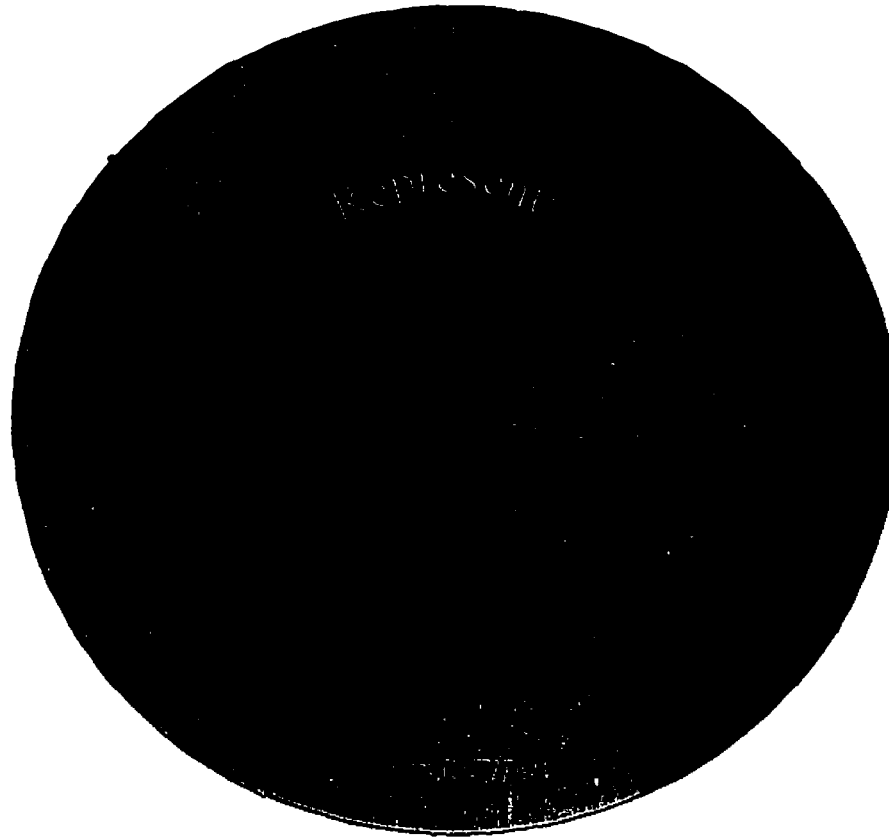
This chapter will explore the origin, structure and functioning of the land claims-based Gwich'in Renewable Resource Board (GRRB). Since the GRRB has a strong focus on Gwich'in knowledge, a comparison of its functioning with that of the BQCMB will provide important insights. Being "claims-based" rather than "crisis-based", the GRRB's most fundamental difference from the BQCMB is that it is policy making rather than merely advisory. As a result it has much greater freedom in how to approach the knowledge of the Indigenous communities it represents. The GRRB meeting in the Gwich'in community of Tsiigehtchic (NWT) as well as visits to the GRRB office in Inuvik (NWT) will be used to explore the Board's different approach to the communities concerns and knowledge.

Origin and Structure of the GRRB:

The Gwich'in Renewable Resource Board was established as part of the Gwich'in Comprehensive Land Claim Agreement signed in April of 1992 in Fort McPherson NWT. Originally the Gwich'in were part of the Denendeh Claim but they were frustrated with its slow progress, which was in part due to a debate over whether the proposed Agreement in Principle (AIP) would compromise aboriginal rights. The Gwich'in felt that these discussions were too philosophical and, hoping to achieve immediate improvements to the lives of their peoples, decided to break away and settle for the Gwich'in Regional Claim (Abel 1993:257). The Gwich'in were soon followed by the Sahtu Dene and DLAND, announcing that it was

willing to negotiate separate regional claims, terminated its funding of the Dene Nations land-claims secretariat in November of 1990 thus hastening the demise of the comprehensive claim (Abel 1993:257).

The Structure of the Gwich'in Renewable Resource Board



**Community link through
Renewable Resource Councils
(RRCs) in each community
(Board meetings include meetings
with RRCs).**

**Support Staff of 10-12: Forestry
Fisheries and Wildlife Biologists,
Environmental Knowledge
Coordinator, Administrative Staff
Executive Director, and Gwich'in
Trainees**

The GRRB is the main instrument of renewable resource management in the Gwich'in Settlement Area (GSA). The GRRB has been in operation since 1994 and consists of six regular members, three of whom are appointed by the Gwich'in Tribal Council, two by the Government of Canada (Department of Fisheries and Oceans, Canadian Wildlife Service) and one by the Government of the NWT (Department of Resources Wildlife and Economic Development). Each Board member has an alternate in case of inability to attend and all Board members recommend and appoint a Chairperson from the GSA. Counting both the regular and alternate members as well as the Chair, seven of the GRRBs members are Gwich'in while six represent government departments. The GRRB, further, has a staff support team of 10-12 employees¹. The Board and its support staff also work together with community Renewable Resource Councils (RRC's) which exist in each community and are comprised of up to seven concerned and interested community members. The RRC's role is to "encourage and promote local involvement in conservation, harvesting studies, research and wildlife management in the local community" (Article 12.9.1 of the Gwich'in Comprehensive Land Claim Agreement GCLCA). While this article still reflects Western resource management terminology the fact that communities are represented through a council of concerned community appointed Gwich'in rather than only being represented through one board representative is of importance. Since it is within the GRRB's mandate to frequently consult with the RRCs, the RRCs create an important link between the GRRB and the communities it represents. This aspect in the GRRBs structural setup allows the communities more active participation in shaping the Boards agenda.

¹ This includes administrative staff, an executive director, forestry, fisheries and wildlife biologists, a Gwich'in environmental knowledge coordinator, transcriber and researcher and Gwich'in trainee positions which provide on-the-job training.

As the main instrument for wildlife management in the Gwich'in Settlement Area, the GRRB has the power to establish policies and propose regulations. This is a critical aspect differentiating the GRRB from the BQCMB. While the BQCMB can only advise government departments on policy matters, the GRRB establishes policies for the Gwich'in Settlement Area. As a result the GRRB has actual powers in determining its approach to resource management for the area it covers while the BQCMB can only hope that its advise will be considered. The GRRBs decisions and a draft of proposed regulations do, nevertheless, have to be forwarded to the Minister who has 60 days to review the new regulations and, if he deems necessary, propose changes. If this occurs the Minister has to send the proposed changes back to the Board with a written explanation outlining why he made the changes. The Board then has 30 days to accept or reject the changes and send its final decision back to the Minister. Only at this point can the Minister, if there is still disagreement, overrule the Board's decision if a good reason can be provided (Articles 12.8.24-28 of the GCLCA). It should, nevertheless, be noted that the Minister has, up until now, not interfered with the GRRB's decisions (Robinson 1999). (See appendix 4 for a copy of the section of the GCLCA pertaining to the GRRB).

While other claims-based resource boards (such as the Nunavut Wildlife Management Board) have similar legislative backgrounds, the GRRB is unique in its attempt to rely heavily on the Traditional Environmental Knowledge of the Gwich'in. The Board not only supports a full time traditional knowledge coordinator but also spent over \$ 400, 000 on Gwich'in Environmental Knowledge Projects during its first two years of operation alone. While the GRRB, essentially being a government organization, does have a much larger annual budget than an advisory Board such as the BQCMB it (unlike the BQCMB), is active in securing

outside funding for many of its projects. For the 1998 fiscal year the Board was, for example, able to secure \$300, 000 in outside funding with \$117, 000 from the "Millennium Partnership Program" going towards the Gwich'in Environmental Knowledge Project (GEK) alone.

While talking to the GRRB's biologists about their experiences and opinions, especially in regard to Traditional Knowledge, one of them remarked that it was more common sense than anything else to include and ask people about their experience, knowledge and understanding of wildlife as much as possible since they had lived in and used the area's resources for centuries. Only for funding purposes did they have to formalize it and call it TK, he explained. This revealed that biologists working for the GRRB had a fundamentally different attitude to the communities' knowledge than that displayed by most of the BQCMB's biologists. Some of the GRRB's biologists had spent extended periods of time living in one of the Gwich'in communities in the GSA, and all personally knew and had worked with quite a number of people in the GSA.

The GRRB Meeting in Tsiigehtchic (Nov. 1998):

In the fall of 1998 I had the opportunity to visit the Office of the GRRB in Inuvik and sat in on the GRRB's meeting in the small (pop. around 170) Gwich'in community of Tsiigehtchic. This section will review the items covered and focus on their relevance to Gwich'in. It will also examine the level of community-board communication and interaction.

While the meeting had some of the usual trappings of a bureaucratic meeting such as the approval of the minutes of the previous meeting and the approval of an agenda for the current meeting, differences from the way the BQCMB held its meeting were apparent from

the beginning. First of all, while the majority of the people at the Board meeting were male there were also a number of female faces. The RRCs especially seemed to be comprised of quite a few female members. (The BQCMB is a "male only" affair). The approval of the agenda for the meeting also included conflict of interest statements any board members might have concerning specific agenda items. A large part of the agenda was comprised of so called "Info Items" which in some cases would, after a discussion, be complemented by "Action Items". These "items" updated the RRCs and community members on the activities of the GRRB office in Inuvik including upcoming and past workshops, courses, conferences, the 1998-99 GRRB financial statement, a review of outside funding that had been received for some of the various projects and the specific research projects GRRB members and its various support staff were working on.

An overview of the following "Items" discussed at the GRRB meeting in Tsiigehtchic will provide insight into the issues the GRRB was working on:

The GRRB's TEK coordinator gave an update on the **Gwich'in Environmental Knowledge Project** and the progress made toward the completion of the second Gwich'in TEK book. The TEK coordinator, as a result of input from the RRCs, considered ways in which the collected TEK could be returned to the communities in a more usable form. She also pointed out that all new GRRB research proposals are reviewed in order to ensure that they consider and include TEK.² One of the GRRB's wildlife biologists reported on the **Grizzly Bear Management Plan**, which consists of an RRC Management Agreement pointing to the voluntary rules the communities have agreed on in regard to the hunting of grizzly bears. The

² As explained by the Gwich'in Chair of the GRRB, the Board further ensures that all research and management projects funded by the Board have the support of the community RRCs and involve community members in the fieldwork (Charlie 1999:2).

trainee Gwich'in TEK coordinator commented that she learned from her grandparents that people had traditionally only hunted grizzlies in times of starvation or if they were being attacked. While she understood that communities such as Akklavik were interested in using the grizzly bear tags (the GRRB holds four) for economic benefits through outfitting and guiding operations, she disagreed with this proposed practice and worried that permission of such "untraditional" activities could lead to similar economically driven changes in other areas. It was decided to discuss this issue further at future RRC meetings, which the wildlife biologist would attend (GRRB meeting October 1998).

The wildlife biologist further reported on the GRRB's 1998 **Moose Survey** and discussed the results of the survey. The survey had been carried out in March by Gwich'in observers (in an area recommended by the RRCs) who collected information on the distribution, abundance and productivity (e.g. number of calves) of the moose in the area. (The project had been initiated in 1996 due to concerns raised by Tsiigethchic's and Inuvik's RRCs regarding the moose population which seemed to be decreasing. The goal was to determine moose density, distribution and population changes using the communities' TEK and biology (Marshal 1998:7). Initially the GRRB had considered using the "traditional" approach of aerial overflights for their survey, but soon abandoned that method in favour of basing the survey on the input of local Gwich'in hunters and their communities. (This decision was in part due to the fact that aerial surveys from 1980, 1986 and 1996 had proven to be expensive and relatively unsuccessful in getting actual population data (Marshal 1998:9).) In addition to this, a **Moose Habitat Study** had been conducted in order to monitor environmental elements that might affect the moose population. Gwich'in had pointed out that they were used to seeing moose

signs in dry lakes and thick willows. Based on the compilation of an inventory of moose browsing signs, moose browsing intensity was determined to be less than one percent. Thus it was concluded to be unlikely that the moose population had been limited by the availability of food. An ongoing **Moose Harvest Study** in which hunters report on the location and sex of the harvested animals was further hoped to help in monitoring the moose population (GRRB meeting 1998).

The GRRB's fisheries biologist explained the **Peel River Fish Monitoring Study** in which inconnu, cisco, whitefish and crooked-back are being monitored. One aspect of the study has focused on locating the spawning areas in order to map them and ensure their protection. Workshops that focused on traditional knowledge about the Peel River helped to determine when and where to conduct the study. Three fish monitors from one of the communities were (together with others) working on the study. A discussion ensued between the fish biologist and an Elder (and board representative) concerning the specific locations and methods used in the study. The detailed and specific nature of the discussion (in which Gwich'in place names were used by both sides) revealed that both knew the area well though the Elder had of course a deeper and more long-term knowledge of the area. It was very "refreshing" to finally see this kind of "argument" over each other's knowledge take place at a co-management meeting.

Later, a general discussion ensued in regard to the Peel River Fish study considering the possibility of fish contamination on the Peel. The "Caribou River" oil exploration site was seen as a potential contamination source by residents of the area. It was suggested to use selected fish flesh samples to test for contamination.

The management of the **Rat River Char** was a further item of discussion. It had been suggested that the total harvest of Rat River Char was up for a third year in a row, estimations indicated that about 40% of the total Rat River Char population was currently being harvested. The Rat River Char population had been a concern for the last years. In 1995 the GRRB had sponsored a workshop on Rat River Char which was attended by about 30 people representing the Fort McPherson RRC, the Aklavik RRC, the Aklavik HTC, the GRRB, the Fisheries Joint Management Committee and the Department of Fisheries and Oceans (Rat River Char, Community Concerns, Status of the Stock and Studies Planned for 1995; GRRB publication). Some of the concerns raised at that workshop included the fact that there had been poor fishing in recent years, that past harvest levels may have been too high with too many nets which are too long and with too small a mesh size. Other concerns were that taking 300 - 500 char per year may be too much for one person's or one family's subsistence use and that there should be no commercial sale of Rat River Char. It was further suggested that restricting the char fishery may be necessary in the future (ibid 1995). While much of the research on the Rat River Char has been conducted in a "traditional" biological manner, community members from Fort McPherson and Aklavik participated in the workshop and are part of the established Rat River Char Fishing Plan Working Group "which meets at least once a year and should be consulted and involved in the decision process prior to any developments being approved for the Rat River watershed" (Rat River Fishing Plan 1999). The plan further points out that "local knowledge about Rat River Char and their habitats should be obtained through a community knowledge study, and thus be available for present management studies and activities and for future generations" (ibid).

At the Tsiigehtchic GRRB meeting, concern was raised that the communities were not following the voluntary agreement to reduce their Rat River Char harvest. After some discussion it was resolved to have more community meetings since it was felt that gaining compliance was much better overall than imposing regulations (GRRB meeting, Tsiigehtchic 1998).

One board member presented information on the satellite tracking of the Bluenose caribou herd with the help of which RWED (Resources Wildlife and Economic Development GNWT) hopes to gain a better understanding of the areas used by the caribou in order to know which areas to protect from mining activities. One Elder and community member strongly voiced her opposition to satellite collaring. The government board member explained to her why it was, in his departments' view, important to get data through this kind of research. While she understood his argument she pointed out that she and many Elders are against tagging or satellite collaring of animals since it was simply not right to do such things. In spite of its content this discussion was quite amicable rather than oppositional and alienating. Both the Elder and board member knew each other. While no solution to the issue was arrived at the Elder, as she said, simply wanted to make sure that everybody knew their opinion. Thus, in a sense, one could say that both agreed to disagree.

Community members also raised their concern over an increase they observed in the muskox population which was migrating into the GSA from the Yukon. People feared that the muskox would have a negative impact on the Porcupine caribou while they are in the GSA. Muskox, they said, were never in their area in the past and they feared that they would damage the range for the caribou. In 1972 the GNWT decided to consider muskox an endangered

species and therefore it is at the moment still illegal to hunt them. The RRCs from Fort McPherson had asked for permission to hunt muskox in the GSA since this: a) would protect the range for the caribou and b) muskox are good to eat. It was decided that the GRRB would look into this issue and see whether the muskox could be taken off the endangered species list for the GSA so that it could change the legislation to legalize muskox subsistence hunting (GRRB meeting).

An important topic discussed at the board meeting was the question of what constitutes consultation, since many of the issues brought to the Board have to do with the consultation process. In regard to this issue the Gwich'in Chair of the GRRB pointed out that: "It is difficult to define what it [consultation] is. If you just come and talk to the co-management board that alone is not consultation. We have to go out and talk to the people [in the communities] too" (GRRB meeting 1998). As this comment indicates the GRRB is very aware of the need to discuss issues affecting the GSA with all community members. They take an active role in engaging communities rather than assuming that community members should come to them.

A somewhat more unusual issue brought to the GRRB's meeting concerned the request of permission to bring a wolf pup to Inuvik. The Department of Resources, Wildlife and Economic Development had received the request from a woman planning to move to Inuvik from Ontario. The pup had been raised legally in captivity in Ontario. Since DRWED currently has no regulations on this the Minister felt that it was up to the co-management boards and the RRCs to decide on the issue. After some discussion that was driven by the Elders who pointed out that it was not right to keep wild animals locked up as they should be roaming free, it was decided not to allow people to keep wild animals as pets in captivity in the GSA.

While there were quite a few more issues and information items that were addressed at the GRRB meeting in Tsüigehtchic, this overview gives an idea of the issues discussed. As can be seen, the communities' knowledge, interests and concerns have a much greater influence on the GRRB's activities than they have on the BQCMB. Apart from the obvious legislative difference of the Indigenous/government relationship at the GRRB and the BQCMB there are other factors that account for the differences in the two boards operations.

While it is possible for the GRRB to conduct its meetings in English since even Gwich'in Elders speak that language, the GRRB purposefully refrained from the usage of "biologese" and "bureaucratese". Board members, it was pointed out to me, are given specific training in how to make presentations intelligible to all. This, coupled with the fact that Board members, support staff and community members are familiar with each other, lead to a much higher level of overall interactions of Gwich'in and non - Gwich'in at the GRRB meeting than I had been able to observe at any of the BQCMB meetings I attended. Gwich'in Board members, RRCs and interested community members also freely asked questions and agreed or disagreed with the issues discussed. It was also at the GRRB meeting in Tsüigehtchic that I was finally able to observe a direct and real TEK/scientific knowledge exchange. I was not able to observe any interactions of this kind at any of the BQCMB meetings I attended.

Further, during the two days that the GRRB met in Tsüigehtchic, ample opportunity for culturally appropriate settings within which informal communication could take place, was provided. While some conversations between board and community members occurred during the coffee breaks of the meeting, a "community feast", or communal supper, was held during the first evening in order to bring everybody together in a culturally meaningful forum. The

feast drew a large crowd from the community and board members of all ethnic backgrounds could be observed sitting with and talking to community members as well as each other. While this observation may not sound important, it is an indicator of the board members' relationship with the community. People seemed relatively comfortable with each other and the "white government representatives all sitting together" syndrome, which I was able to observe at all BQCMB community meetings, did not occur. Further room for contact and communication between board members and the community was provided through the fact that all "out of town" board members spent the night as paying guests with various families in the community rather than staying in a teacherage, a motel, or the school.

It would be naive to assume that all biologists working for the GRRB really value the traditional knowledge of the Gwich'in, since biologists all too often learn that only their way of accumulating knowledge and data is "real science". Communication did, nevertheless, reveal that some of the biologists who work for the GRRB, and have spent time with Gwich'in in the communities and traveled with Elders on the land, really do have this understanding. While other GRRB biologists may lack this understanding, they know for whom they work and thus essentially do not have a choice but to make TK a part of the various projects.

7.0. THE DIFFERING POWER STRUCTURES OF THE BQCMB AND GRRB AND THEIR IMPACT ON THE BOARDS

This chapter will provide a comparative analysis of the structural, legislative and geographic differences of the GRRB and BQCMB and their effect on the Boards' relationships to the communities' concerns and knowledge. Board-community communication will be examined focusing on the relationship of the political incentive structure to the level of communication achieved. In this regard the employment nature of the GRRB's and BQCMB's biologists and its effect on the use of the communities' knowledge will be explored.

Structural Comparison of the BQCMB and GRRB:

Consideration of the operative structures within which the two co-management boards operate helps in understanding their ability (or lack of ability) to be directed or influenced by the knowledge and concerns of the communities. As explained above, the BQCMB's membership is comprised solely of the Board's government and community representatives and a secretary/treasurer. The communities are represented by one person each, who is expected to bring all the knowledge, interests and concerns of his community to the table. Since the Board operates in English and the older generation in the communities generally only speaks Dene or Inuktitut, the Board's community representatives are younger community members. The Board's government representatives are biologists who are employees of the provincial and territorial

renewable resource organizations (and formerly Environment Canada and DIAND). The BQCMB's administrative support staff is comprised of one person who performs the above-noted secretary/treasurer functions. For other services and expertise the Board (if deemed necessary) relies on outside contractors.

The GRRB is comprised of six regular and six alternate members and a chair. These board members do not make up the overall structure of the GRRB since they are supported and complemented in their efforts by the GRRB's support staff, some of whom are biologists. The main responsibility of the GRRB's support staff is to work for the GRRB and the communities it serves. An important result of this is that the GRRB's biologists are free to focus on the GRRB's needs. Instead of having to be responsive to the agenda of government renewable resource agencies, they have to be responsive to perceived Gwich'in priorities.

The GRRB's link to the communities is further not left up to the various board members alone. Rather, the GRRB works together with Renewable Resource Councils (RRCs) which exist in each community and whose operations it supports financially. The GRRB thus has a strong link to the communities. While the GRRB does not officially meet more than twice a year (though it is flexible in this regard and meetings are scheduled if there seems to be a need) the RRCs generally meet once a month and board members or support staff attend these meetings if necessary. Rather than leaving community representation to a single board representative the communities are thus represented by a group of concerned community members. Determining RRC membership is further in the hands of the community.

This, coupled with the relative proximity of all communities to each other, allows for much better formal as well as informal communication between the GRRB and the communities. As a result the research projects of the GRRB are often initiated by community concerns that are brought to the attention of the GRRB through the RRCs. This alone speaks for the existence of real communication but is, of course, also due to the fact that the GRRB essentially works for and is accountable to the communities in the GSA, not only federal and territorial governments.

In contrast to that, the BQCMB's research projects are (as one Indigenous board member pointed out at the BQCMB's meeting in Thompson Manitoba in 1997) generally set out and designed by the wildlife managers and biologists rather than the communities. Community concerns about issues such as Manitoba's refusal to fight fires in uninhabited areas, are often ignored by the BQCMB or claimed to be outside of the Board's jurisdiction. This is due to the fact that the BQCMB is, in a very real sense, more responsible to the various government offices it is supposed to advise and from whom it receives its funding than the communities on the caribou range. The BQCMB's structural setup is further not conducive to the reliance on, and reaction to, the community's knowledge and concerns. Single user representatives are expected to represent the knowledge and concerns of their whole community by themselves, an undertaking that would be difficult to achieve for one individual alone even if it constituted his full-time job. On top of that, the BQCMB's biological advisors are also its government representatives. Thus, they are not necessarily free to give unbiased advice and to be open to issues of interest to the communities, since their employee status requires that they have their

department's interests and concerns in mind at all times. A structural difference of fundamental importance is therefore the fact that that the GRRB's biological experts work for and are answerable to the GRRB and the communities in the GSA, while the BQCMB's biological experts work for their respective government departments and are therefore not answerable to the caribou user communities in any real sense. This difference in whom the GRRB and BQCMBs biologists actually work for clearly affects their relationships to the communities' knowledges.

Geography:

While the GRRB's ability to work with the communities results from its different structure, the geographic realities of operating within a land claim agreement have further positive affects.

To begin with, the GRRB operates in a relatively small region (see map2) in which there are only four communities: Inuvik, Aklavik, Fort McPherson and Tsiigetchic. Inuvik (population 3,296), is the biggest of the four communities and is a mixed community comprised of Gwich'in, Inuvialuit and non-aboriginals. Fort McPherson (population 878) and Tsiigetchic (population 162) are Gwich'in communities while Aklavik (population 727) is comprised of Gwich'in and Inuvialuit. There are approximately 2,400 claimants to the Gwich'in Land Claim, 60% of whom live permanently in the Gwich'in Settlement Area (GSA) (Statistics Canada 1995). The Gwich'in Settlement Area is comprised of 56,935 km², with Inuvik, Aklavik, Fort McPherson and Tsiigetchic all roughly within 100km of each other in the northern

section of the GSA.

Thus the GRRB (whose office is in Inuvik) operates in a relatively small region and works together with communities that are within easy reach of each other. Except for the GRRB representatives from the Department of Fisheries and Oceans Canada and the Canadian Wildlife Service, all GRRB members and support staff live in the GSA. This, coupled with the relatively close proximity of the communities to each other, has meant that the people in the communities and the GRRB members and staff know each other. This makes informal communication between concerned community members and the GRRB relatively easy.

In contrast to the GRRB, the BQCMB covers a vast region (see map 1) and has representation from Dene, Inuit and Métis communities who are almost 1000km from each other, as well as government representatives and administrative staff from Edmonton, La Ronge, Thompson, Yellowknife and Ottawa. Thus, communication outside of board meetings is difficult. Informal communication through unplanned "meetings" between the various board representatives (let alone between community members and board representatives) is almost non-existent.

The areas covered by the Beverly and Qamanirjuaq Caribou and thus the BQCMB further lie within two provinces (Manitoba and Saskatchewan) and two territories (NWT and Nunavut) and include four different ethnic groups (Dene, Inuit, Métis and Euro-Canadian). This makes the coordination of the Boards' activities somewhat more difficult.

It is further important to note that the GRRB operates in a geographical as well as political region in which the Gwich'in are the majority. Only the BQCMB's areas within

Nunavut and to a lesser extent in the NWT benefit from an external political system in which the aboriginal voices (and votes) have a real impact.

Apart from these more external differences, the most fundamental difference between the GRRB and the BQCMB is, of course, the fact that the GRRB (being a co-management board within the Gwich'in Land Claim Agreement) is the organization in charge of renewable resource management in the Gwich'in Settlement Area, while the BQCMB is simply an advisory board to governments, with no real management powers. This fundamental difference is of central importance in order to understand the two boards' relationships to TK. While the BQCMB may attempt to, as they say, "fill gaps [in biological data] with TK" in projects such as the "Important Habitat Project", TK clearly plays an unimportant role in their functioning and research. The BQCMB is dependent upon provincial, territorial and federal funding and has government representatives who work for provincial, territorial and federal renewable resource agencies, agencies that do not generally put too much stock in TK. As a result, the Board operates upon the premise that the knowledge of government renewable resource biologists and their various departments' policies are the framework upon which it has to base its operations. The concerns, interests and knowledge of the Board's user members and the communities they represent are relegated to the "back seat". They are only considered if the Board's government members decide on their importance and can see ways in which they can be made to fit the Board's overall framework. Thus, the BQCMB exhibits a very compartmentalising attitude towards TK in particular and the communities' concerns in general.

In contrast to that, the GRRB does not really have a choice in regards to the use of TK since its role as the renewable resource management board for the Gwich'in land-claim area requires that it includes TK, and makes funds available for that purpose. As a result, the members of the GRRB and the board's support staff biologists are required to value and use the TK of the Gwich'in for the various projects the GRRB is working on, whether they like it or not. Thus, while not all biologists who work for the GRRB necessarily really believe in or understand the importance of TK, they know what is entailed in their successful employment. Some are therefore cooperative and open to TK as a result of their real understanding of the issues, while others cooperate due to the legal and political situation of their employment.

The vast geographic nature of the region covered by the BQCMB coupled with the communities' representation by one sole representative, the infrequent meetings (twice a year and 50% of the time in cities rather than caribou-using communities), the question of accountability, and the practical non-existence of venues for informal communication between board and community members, are therefore taking their toll on the BQCMB's actual co-management abilities.

The different structural, political, legislative and geographical realities within which the two boards operate greatly affect their relationship to TK and the TK holders.

8.0. CONCLUSION

In the introduction of this thesis, I pointed to the parallels between issues surrounding the reliance on Indigenous knowledge for natural resource management and the issues surrounding the legal recognition of Indigenous title to land. Cases such as *Delgamukw* take the enlightened view that Canadian courts must accept valid Native oral history as a key ingredient in proving title to land, while at the same time continuing to uphold the right of a legal system based on British colonial law (a culturally based evaluative system) to analyze and pass judgment on such questions. Thus, we have a situation in which one culturally based legal system is allowed to pass judgments on another culturally based legal system. This situation does not have much to do with justice or the implied superiority of one system over the other, but simply reflects the power relationship within which the debate takes place.

Canada's approach to natural resource management is essentially plagued by the same power relationship. The importance of including Indigenous resource knowledge (generally referred to as TEK) in natural resource management is recognized, but this recognition does not lead to questioning the right of the culturally based knowledge system and organizational approach upon which Canada's resource management rationales are based, to provide the overall framework within which Indigenous resource knowledge has to find subordinate "accommodation". Thus, we again have a situation in which one culture decides which aspects of another culture's knowledge system and epistemology are valid and warrant inclusion in their overall approach, and which do not.

Again, this relationship does not reflect any inherent superiority, but simply gives testimony to existing power relationships.

I began this thesis by asking whether Canadian resource managers were only willing to acknowledge the validity of aboriginal knowledge and resource management practices which came close to their own understandings. My subsequent exploration of the relationship the crisis-based Beverly and Qamanirjuag Caribou Management Board and the land-claims based Gwich'in Renewable Resource Board have to TEK revealed that the two Boards differ greatly in their relationship to TEK. The Beverly and Qamanirjuag Caribou Management Board clearly operates according to Euro-Canadian scientific/ bureaucratic models of resource management, forcing its Indigenous community's representatives to conform to its mode of thinking and operating. As two of the BQCMB's community representatives pointed out, the Board does not facilitate a two-way exchange of information, it only functions as a forum through which the government tells the people [in the communities] what to do.

While the Board claims to "heavily rely on the traditional knowledge of its user constituents" (Long Term Management Plan 1986:5) attendance of its meetings and communication with traditional resource users in the represented communities provides scant evidence of this. The BQCMB's meetings are structured entirely according to Canadian bureaucratic practices and rationales. Little reflection of traditional Dene values and practices are found in its style, structure and content. Agenda items are habitually shaped by the Board's government representatives, and neither the use of language nor the speed at which the meetings are conducted allow for the meaningful

participation of Elders. As the statement "...if the BQCMB was interested in TK it should have acted on that interest when it was first established since more of the Elders knowledgeable in TK were alive back then" made by one of the BQCMB's community representatives reveals, the BQCMB had not seriously considered TK before its realization that TK could help in filling some of the information gaps biologists had in their attempt to map the caribou habitat.

As the biologists' request that "gaps [in biological data] should be filled with TK" further clearly indicates, the BQCMB was only willing to accept knowledge and views that aligned themselves with the views and approaches of the provincial and territorial renewable resource organizations the Board advises. Since the BQCMB's biologists are employed by the respective provincial and territorial natural resource departments rather than the communities or the Board this is not surprising. It is their mandate to represent the interests of their departments, not the interests of the communities or the Board. As a result, the BQCMB lacks input from independent biologists. Each community is further represented through only one single community representative, a practice reflecting hierarchical Euro-Canadian governing structures, which effectively minimizes overall community participation. This overall structure of the BQCMB, coupled with its monolingual bureaucratic operational style, undercuts any possibilities of allowing its meetings to be informed by the communities' traditional knowledge.

The land claims-based Gwich'in Renewable Resource Board (GRRB) exhibits a somewhat different relationship to the traditional knowledge of the Gwich'in. While the ultimate control over its policies, and thus the extent to which they can be informed by TK, still lies in the hands of the Canadian administrative system, the GRRB does, in

practice, administer the resources within the GSA. It establishes rules and regulations for the GSA and drafts its own policies (but has to be able to defend these if the Minister of the GNWT finds them problematic). The GRRB further has a substantial support staff, including biologists, who are answerable to the GRRB and the Gwich'in communities it represents, not provincial or territorial renewable resource agencies. The nature of their employment thus forces them to value the communities' knowledge and concerns. Biologists further live in the GSA and have frequent contact with community members. This enables them to accompany Elders for trips on the land, a culturally meaningful and appropriate method of exchanging knowledge.

The GRRB thus operates in a geographical as well as political region in which the Gwich'in not only constitute the majority but in which their interests play an important role. Not surprisingly, this different power relationship has a direct effect on the GRRB's operational structure (no "bureaucratic" and "biological", time for Elders, realistic method of community representation through RRCs) and relationship to the traditional knowledge of the Gwich'in. As section 6 indicates, Gwich'in knowledge plays a prominent role in the operations of the GRRB. While it would be somewhat naïve to assume that all non-Gwich'in working for the GRRB truly understand and respect the knowledge of the Gwich'in, the nature of their employment does not give them a choice but to be supportive of Gwich'in knowledge.

However, since the overall structure within which the GRRB operates is, in the end, still bound by the Euro-Canadian bureaucratic approach, the GRRB's relationship to Gwich'in knowledge is not entirely free of the often-encountered compartmentalizing attitudes toward TK. The political realities of the GRRB do, however, mean that

government resource managers will at times have to respect and work with knowledge not congruent with their personal beliefs or scientific models. This study clearly indicates that the power relationships within which resource co-management agreements between First Nations and Canada operate directly affect their ability to be informed by knowledge that is different from the usual approach taken by mainstream Canadian natural resource managers.

Regardless of practical issues such as the imbalance of power, the difficulties of integrating Indigenous and governmental approaches to resource management ultimately lie in their fundamentally different view of human/ nature relationships. The recognition that local knowledge exists within a wider cultural and institutional framework is therefore significant for co-management boards. The cross-cultural conceptual challenges of integrating Western science and TK are often not recognized by practitioners of Western science nor government policy makers. Western science is embedded within the social institutions of Western society and TK is embedded within the social institutions of Native society. Since both Western science and traditional knowledge operate within, and are informed by, social institutions, an integration of the two requires a recognition and examination of the wider socio-cultural frameworks within which these knowledge systems exist.

Even power-sharing culturally sensitive co-management boards, such as the GRRB, are in the end based on the rationales of Western government institutions which result from the social structures of Western society. While the GRRB does have a strong focus on Gwich'in knowledge and is structured to be receptive to Gwich'in concerns, its operations are ultimately tied to the governmental approach to resource management

outside, and to a lesser degree inside the Gwich'in Settlement Area.

Knowledge integration through any resource co-management agreement thus remains a formidable task. It demands co-operative work between people whose basic assumptions and understandings of important key concepts may differ fundamentally. A majority of the concepts relied upon in resource co-management do, for example, reflect Euro-Canadian attitudes and approaches toward nature not congruent with traditional Dene or Gwich'in epistemologies. As a result the whole co-management dialogue is ultimately rooted in the cultural understandings of its Euro-Canadian participants.

The concept "resource co-management" in itself exemplifies this problem. It stems from the view of Western industrialized societies who see resources as "raw materials" to be used and controlled by humans. In the government's Euro-Canadian view, effective resource management therefore ensures a resource's optimal economic exploitation without depleting or destroying its reproductive capacity. In this view, humans are seen as being in charge of and essentially above nature.

Indigenous people do not see themselves as being separate from or above nature. In their worldview humans are very much a part of nature, and/or resources. It is therefore non-sensical to pretend to be in control of or manage that of which one is a part. One can and should, however, regulate one's behaviour in order to ensure the continuation of the balanced reciprocity between all elements in creation.

Evidence of this fundamental difference in viewing the nature of human/ resource relationships can be found at both the BQCMB and GRRB in the disagreement over issues such as the satellite-collaring of caribou. Disagreement over this practice is a sore point continually being raised at both BQCMB and GRRB meetings. Viewed from the

Euro-Canadian perspective this practice ensures prudent resource management. It aims to enable maximum sustainable resource extraction by finding ways of enabling migratory caribou herds and industrial resource extraction activities, such as mining, to coexist. Considered through the Western perspective satellite-collaring therefore provides the data necessary to ensure the protection and long-term sustainability of northern animal resource such as caribou.

Viewed from the Indigenous perspective this practice does, however, have very different connotations. The fundamental value underlying Indigenous “resource” interactions is respect. Clear indications of this can be found in statements such as: “We respect the caribou whenever it comes to our community...the caribou know that we respect them, so that is why they come all the way down to the people here every year” (Eliza Enzoe 1998). To Dene and Gwich’in Elders the practice of satellite-collaring constitutes disrespectful behaviour endangering the human/caribou relationship. Since Dene and Gwich’in believe that animals offer themselves to the hunter, caribou play a conscious role in their own harvesting. Caribou are seen as observing human behaviour towards them and thus may not offer themselves in the future if humans fail to behave respectfully. This respect towards the land goes further than not killing more than one needs and not wasting. While wasting caribou meat is an obvious expression of disrespect, so is the rejection of the animals’ gift of life in favour of tracking its future movements through satellite-collaring. Such behaviour not only denies the animals right of choice but also exhibits disrespectful notions of control and ownership. Many Elders in the Dene and Gwich’in communities are, therefore, very disturbed by this practice, frequently pointing out that biologists should not “bother caribou” or that “caribou are

not meant or put into the world for that kind of thing”.

The idea of seeing nature as a “resource” for humans to manage and control is therefore a decidedly Western concept that does not find congruency in Indigenous epistemologies. The usage of the term “management” in regards to resource activities further conveys the impression that humans actively manage resources as if they could assign each component a specific task. When I began to speak with Dene hunters about their experiences with the Beverly Qamanirjuaq Caribou Management Board, many thus immediately pointed out that they did not see how one could manage caribou as if one were God, explaining that one could only control one’s own behaviour in order to ensure the continued availability of caribou.

The overall setting within which the BQCMB has to operate thus forces the Board to function according to the ideas and practices of the governments’ approach to resource management. Dene practices and values governing appropriate and respectful resource interactions are largely ignored and the knowledge of Dene Elders (save for select geographic TK data) does not influence the BQCMB’s operations in a meaningful way.

In conclusion I do not wish to argue that a co-management agreement simply has to be land claims-based in order to be able to include Indigenous knowledge. Rather, my observation is that currently only land claims-based co-management agreements such as the GRRB seem to be able to provide the conditions necessary for the reliance on the represented community’s knowledge. Land claims agreements signed in the 1990s, such as the Gwich’in and Sahtu Dene agreements, automatically create many of the pre-conditions necessary for the reliance on Indigenous knowledge. Not only do they create the necessary political incentive structure at their co-management boards that make it

imperative for their biologists to value Indigenous knowledge, but they also establish a resource administration with decision-making powers for a particular region within that particular region. Thus they automatically bring all involved in the active administration of the land claims region to the region. The fact that most of those involved in land claims-based resource co-management live in the land claims area is an important geographic reality greatly affecting a co-management board's overall communicative abilities.

Since Indigenous resource users naturally comprise the majority of the population within land claims areas, the administrative activities of the land claims region further simply have to reflect the interests of the people in the region if the administrators wish to retain their positions. Thus, rather than focusing on and anticipating the reactions of provincial or territorial bureaucratic superiors, bureaucrats working within land claims regions also have to focus on and anticipate the reactions of the Indigenous population they work for.

Due to the real need to be representative of and responsive to community concerns and knowledge, community representation at land claims based co-management boards is further structured in culturally appropriate and effective forms such as through Community Renewable Resource Councils.

Land claims based co-management agreements such as the GRRB are relatively new, while the more established crisis-based advisory co-management agreements such as the BQCMB are relatively old. As a result most of the biologists working for these new land claims based co-management boards stem from a different generation. Not only are biologists working for older crisis-based advisory co-management agreements such

as the BQCMB restricted through the nature of their employment, most also represent an older generation of biologists who, educated in a different era, are less open to other ways' of knowing. Biologists working for the more recently established land claims based co-management agreements such as the GRRB tend to be younger and were educated during an era of greater awareness and openness to other ways of understanding and knowing the environment.

Apart from the differing external power structures and the fact that biologists working for land claims based co-management boards tend to live in the claims region, this shift in co-management personnel also explains why it is easier for land claims based agreements such as the GRRB to work with Indigenous knowledge.

As a result of all this, co-management agreements resulting from the new land-claims agreements automatically have many of the necessary preconditions to rely on the represented communities Indigenous knowledge.

Since most crisis- based co-management agreements are only advisory to provincial or territorial resource agencies they lack the necessary power, not to mention funding, to create co-management structures equally responsive to the concerns and knowledge of the represented Indigenous communities.

However, unlike the new land-claims based co-management agreements, not all crisis-based co-management agreements are alike. While most are only advisory and thus suffer from the power imbalances of the BQCMB, some of the agreements falling into the crisis-based category, such as the Archipelago Management Board on Haida Gwaii, are policy-making. While the Archipelago Management Board is an unusual exception it is important to note that only crisis-based co-management boards of a solely advisory

nature lack the ability to be serious about Indigenous knowledge since their operations depend on the provincial and territorial renewable resource agencies they advise. It is thus only when a co-management board has real decision making powers over the region it covers that it actively relies on Indigenous knowledge.

The Gwich'in Renewable Resource Board therefore relies on Gwich'in knowledge and attempts to base the policies and regulations governing the Gwich'in Settlement Area on Gwich'in concerns. The concessions to Gwich'in ways of interacting with the land do, however, only go so far. Ultimately, the GRRB has to function within the wider Canadian governmental structures and therefore cannot structure all aspects of "resource management" according to Gwich'in practices.

As this study reveals, the power relationships within which resource co-management agreements operate greatly affect their ability to be based on Indigenous knowledge. Ultimately, however, all Canadian co-management agreements are subject to Canada's ability to "impose its construction of reality as the natural order of things".

BIBLIOGRAPHY

- Abel, Kerry
1993 **Drum Songs: Glimpses of Dene History**. Montreal & Kingston: McGill-Queen's University Press.
- Alfred, Taiaiake
1999 **Peace Power Righteousness: and Indigenous Manifesto**. Don Mills: Oxford University Press.
- Anderson, Eugene N.
1996 **Ecologies of the Heart: Emotion, Belief, and the Environment**. Oxford: Oxford University Press.
- Asch, Michael
1997 **Aboriginal and Treaty Rights in Canada: Essays on Law, Equity, and Respect for Difference**. Vancouver: University of British Columbia Press.
- Banfield, A.W.F.
1956 The Caribou Crisis. **The Beaver**. (1).
- Banuri T., and Apffel Marglin eds
1993 **Who Will Save the Forrest?** London: Zed Books.
- Basso, Keth H.
1996 **Wisdom Sits in Places: Landscapes and Language Among the Western Apache**. Albuquerque: University of New Mexico Press.
- Bates, M
1953 Human Ecology. **Anthropology Today**. A. Kroeber ed. Chicago: University of Chicago Press.
- Berger, Thomas R.
1977 Northern Frontier Northern Homeland. **The Report of the Mackenzie Valley Pipeline Inquiry**. (2) Terms and Conditions. Ottawa: Supply and Services Canada.

Berkes, Fikret

- 1988 Environmental Philosophy of the Chisasibi Cree People of James Bay.
Traditional Knowledge and Renewable Resource Management in Northern Regions. M.M.R. Freeman and L.N. Carbyn eds. Edmonton: Boreal Institute for Northern Studies.

Berkes, Fikret, Peter George and Richard Preston

- 1991 **Co-management: The Evolution of the Theory and Practice of Joint Administration of Living Resources**. Hamilton: Research Program for Technology Assessment in Subarctic.

Berkes, Fikret

- 1994 **Indigenous Knowledge and Resource Management: Learning from the James Bay Cree**. Canadian Anthropology Society Annual Conference XXI, Vancouver, B.C.

Berkes, Fikret

- 1999 **Sacred Ecology: Traditional Ecological Knowledge and Resource Management**. Philadelphia: Taylor & Francis.

Berlin, Brent

- 1974 **Principles of Tzeltal Plant Classification**. New York: Academic University Press.

Brightman, Robert A.

- 1993 **Grateful Prey**. Berkeley: University of California Press.

Brody, Hugh

- 1981 **Maps and Dreams**. Vancouver: Douglas & McIntyre Ltd.

Brokensha, David W., D.M. Warren and Oswald Werner

- 1980 **Indigenous Knowledge Systems and Development**. Lanham: University Press of America.

Brooke L.F.

- 1993 **The Participation of Indigenous Peoples and the Application of their Environmental and Ecological Knowledge in the Arctic Environmental Protection Strategy.** (1) Ottawa: Inuit Circumpolar Conference.

Bussidor, Geoff

- 1999 **Tadoule Lake Traditional Caribou Knowledge Project.** Submitted to the BQCMB in May 1999.

Bussidor, Ila and Ustun Bilgen-Reinart

- 1997 **Night Spirits: The Story of the Relocation of the Savisi Dene.** Winnipeg: University of Manitoba Press.

Capra, Fritjof

- 1982 **The Turning Point: Science, Society and the Rising Culture.** London: Fontana, Collins.

Chambers, Fiona

- 1998 **An Overview of Provincial Forestry Co-management Agreements with First Nations in Canada.** Unpublished MA Thesis, University of Calgary.

Charlie, Robert and Peter Clarkson

- 1999 **Co-management and Traditional Environmental Knowledge – Working Together for Renewable Resource Management in the Gwich'in Settlement Area.** Inuvik: Gwich'in Renewable resource Board.

Cizek, Peter

- 1990 **The Beverly – Kaminuriak Caribou Management Board.** Ottawa: Canadian Arctic Research Committee.

Clark, Ronald W.

- 1971 **Einstein: The Life and Times.** New York: Avon Books.

Clarkson, L. Morrissette, V., and Regallet, G.

- 1992 **Our Responsibility to the Seventh Generation: Indigenous Peoples and Sustainable Development.** A Report of the International Institute for Sustainable Development. Winnipeg.

Code, Mary Ila

- 1993 **A Brief History and Geography of the Savisi Dene and their Land.** Tadoule Lake: Keewatin Tribal Council.

Conklin, Harold C.

- 1954 **The Relation of Hanunoo Culture to the Plant World.** PhD Dissertation, Yale University.

Cox, Bruce A.

- 1995 **Whitemen Servants of Greed: "Foreign" Trappers and Traders and the Northwest Game Act of 1917.** Paper given at the 7th North American History of the Fur Trade Conference, St. Mary's University, Halifax, May 24-29.

Crowfoot, James E. and Julia M. Wondolleck

- 1990 Citizen Organizations and Environmental Conflict. **Environmental Disputes: Community Involvement and Conflict Resolution.** Crowfoot, James E. and Julia M. Wondolleck eds. Washington D.C. Island Press.

Cruikshank, Julie

- 1998 **The Social Life of Stories: Narrative and Knowledge in the Yukon Territory.** Vancouver: UBC Press

Culhane, Dara

- 1998 **The Pleasure of the Crown: Anthropology, Law and First Nations.** Burnaby: Talon Books.

Doubleday, Nancy

- 1989 Co-management provisions of the Inuvialuit Final Agreement. **Cooperative Management of Local Fisheries: New Directions for Improved Management and Community Development.** Pinkerton (ed). Vancouver: University of British Columbia Press.

Doubleday, Nancy

- 1993 Finding Common Ground. **Concepts and Cases** Julian T. Inglis ed. Ottawa: IDRC.

Eastman, C.M.

- 1975 **Aspects of Language and Culture.** San Francisco: Chandler and Sharp.

Elias, Peter Douglas

1993 Anthropology and Aboriginal Claims Research. **Anthropology, Public Policy and Native Peoples in Canada**. N. Dyck and J.B. Waldram eds. Montreal & Kingston: McGill-Queens University Press.

Ellen, Roy

1993 Rhetoric, Practice and Incentive in the Face of the Changing Times. **Environmentalism: The View from Anthropology**. Kay Milton ed. London: Routledge.

Evans, G.

1956 Ecosystems as the Basic Unit in Ecology. **Science**. 123: 1127 – 1128.

Feit, Harvey A.

1988 Self-management and State-management: Forms of Knowing and Managing Northern Wildlife. **Traditional Knowledge and Renewable Resource Management in Northern Regions**. M.M.R. Freeman and L. N. Carbyn eds. Edmonton: Boreal Institute for Northern Studies.

Feit, Harvey A.

1973 The Ethno-Ecology of the Waswanipi Cree; or How Hunters Can Manage Their Resources. **Cultural Ecology**. Bruce Cox ed. Ottawa:McClelland and Stewart.

Freeman, Milton and Ludwig Carbyn eds.

1988 **Traditional Knowledge and Renewable Resource Management in Northern Regions**. Edmonton: Boreal Institute for Northern Studies.

Freeman, Milton R.

1989 Graphs and Gaffs: A Cautionary Tale in the Common Property Resources Debate. **Common Property Resources: Ecology and Community Based Sustainable Development**. F. Berkes ed. London: Belhaven.

Freeman, Milton R.

1992 The Nature and Utility of Traditional Ecological Knowledge. **Northern Perspectives** (20) 1.

Geertz, Clifford

- 1963 **Agricultural Involution; the Process of Ecological Change in Indonesia.** Berkeley: University of California Press.

Golley F.

- 1984 Historical Origins of the Ecosystem Concept in Biology. **The Ecosystem Concept in Anthropology.** Emilio F. Moran ed. Boulder (Colorado): Westview Press.

Gould, S. J.

- 1980 **The Panda's Thumb.** New York and London: Norton.

Hardesty, D. L.

- 1977 **Ecological Anthropology.** New York: John Wiley and Sons.

Hardin, Garrett

- 1968 Tragedy of the Commons. **Science** 162: 1243-48.

Heinz, H.J.

- 1978 The Bushmen's Store of Scientific Knowledge. **The Bushmen.** Phillip V. Tobias ed. Cape Town: Human & Rousseau Publishers.

Hensel, Chase and Morrow Phyllis

- 1992 **Hidden Dissention: Minority Majority Relationships and the Use of Contested Terminology.** Arctic Anthropology (29) 1 pp.38-51.

Hensel, Chase and Morrow, Phyllis

- 1998 **Co-management and Co-optation: Alaska Native Participation in Regulatory Processes.** Cultural Survival Quarterly, (3) pp. 69-71.

Hirschberg, Walter

- 1988 **Neues Worterbuch der Volkerkunde.** Berlin: Dietrich Reimer Verlag.

Howell, Singe

- 1984 **Society and Cosmos.** Oxford: Oxford University Press.

Hrenchuk, Carl

- 1993 Native Land Use and Common Property: Whose Common? **Concepts and Cases**
Julian T. Inglis ed. Ottawa: IDRC.

Huntington, Henry P.

- 1998 Traditional Ecological Knowledge and Beluga Whales. **Cultural Survival Quarterly** (3) pp. 66-68.

Hviding, Edvard

- 1996 Nature, Culture, Magic, Science. **Nature and Society**. Philippe Descola and Gisli Palsson eds. London: Routledge.

Ingold, Tim

- 1993 Globes and spheres: the topology of environmentalism. **Environmentalism: the View from Anthropology**. Milton K. ed. ASA Monographs 32. New York: Routledge pp. 31-42.

Ingold, Tim

- 1996 **Hunting and Gathering Ways of Perceiving the Environment**. R. Ellen and F. Katsuyotshi. Washington: Berg Publishers.

Johannes, R. E., P. Lasserre, S.W. Nixon, J. Pliya, and K. Ruddle

- 1983 Traditional Knowledge and Management of Marine Coastal Systems. **Biology International**. Special Issue (4).

Johnson, Martha ed.

- 1992 **Lore: Capturing Traditional Environmental Knowledge**. Ottawa: IDRC.

Johnson, Martha and Robert A. Ruttan eds.

- 1993 **Traditional Dene Environmental Knowledge: A Pilot Project Conducted in Ft. Good Hope and Collville Lake N.W.T. 1989-93**. Hay River: Dene Cultural Institute.

Kalland, A.

- 1994 Indigenous Knowledge-Local Knowledge: Prospects and Limitations. **Arctic Environment: A Report on the Seminar on the Integration of Indigenous Peoples' Knowledge**. Copenhagen: Ministry of the Environment/The Home Rule of Greenland.

Keith, R.F. and M. Simon

1987 Sustainable Development in the Northern Circumpolar World. **Conservation with Equity**. P. Jacobs and D.A. Munroe eds. Cambridge: International Union for the Conservation of Nature and Natural Resources.

Kernaughan, Kenneth and David Siegel

1995 **Public Administration in Canada**. Scarborough: Nelson Canada Limited.

Klein, David R.

1982 Fire, Lichens, and Caribou. **Journal of Range Management**. 35 (3) pp. 390-395

Knudtson, Peter and David Suzuki

1992 **Wisdom of the Elders**. Toronto: Stoddart Publishing.

Krech, Shepard ed.

1981 **Indians Animals and the Fur Trade**. Athens: University of Georgia Press.

Kruse, Jack; Dave Klein, Steve Braund, Lisa Moorehead, Bill Simeone

1998 Co-management of Natural Resources: A Comparison of two Caribou Management Systems. **Human Organization**. (57) 4 pp. 447-458.

Kulchyski, Peter

1994 **Unjust Relations: Aboriginal Rights in Canadian Courts**. Toronto: Oxford University Press.

LaDuke, W.

1994 Traditional Ecological Knowledge and Environmental Futures. **Special Issue of the Colorado Journal of International Environmental Law and Politics**. Niwot: University of Colorado Press.

Levi – Strauss, Claude

1966 **La Pensee Sauvage**. Chicago: University of Chicago Press.

Lee, Richard B.

- 1978 Ecology of a Contemporary San People. **The Bushmen**. Phillip V. Tobias ed. Cape Town: Human & Rousseau Publishers.

Lewis, H.T.

- 1993 Traditional Ecological Knowledge: Some Definitions. **Traditional Ecological Knowledge: Wisdom for Sustainable Development**. N.M. Williams and G. Baines eds. Canberra: Center for Resource and Environmental Studies, Australian National University.

Macuch, P.

- 1976 Statement of the WHO. **Proceedings of the International Meeting on Human Ecology**. H. Knoting ed. Saphporin (Switzerland): Georgi Publishing Company.

Marten, Gerald G. J. Peter Brosius and George W. Lovelance

- 1986 Ethnology: An Approach to Understanding Traditional Agricultural Knowledge. **Traditional Agriculture in Southeast Asia**. Gerald G. Marten, ed. London: Westview Press.

Martin, Calvin

- 1978 **Keepers of the Game**. Berkley: University of California Press.

Marshal, Jason P.

- 1998 **Co-management of Moose in the Gwich'in Settlement Area, Northwest Territories**. Inuvik: Gwich'in Renewable Resource Board.

McGregor, Deborah

- 1995 **Aboriginal Knowledge and Western Science: A Clash of Worldview, Paradigms and Methods**. Unpublished Paper.

Moon, T., B.P. Mann and J. H. Otto

- 1956 **Modern Biology**. New York: Henry Holt and Company.

Monaghan, H.J.

- 1984 The Caribou Management Board and its early Growth. **National and Regional Interests in the North.** Ottawa: CARC.

Moran, Emilio F.

- 1990 Ecosystem Ecology in Biology and Anthropology: A Critical Assessment. **Ecosystem Approach in Anthropology.** Emilio F. Moran ed. Ann Arbor: University of Michigan Press.

Morrow, William G.

- 1973 **Reasons for Judgment in the Matter of an Application by Chief Francois Paulette et. al. to Lodge a Certain Caveat with the Registrar of Titles of the Land Titles Officer for the NWT (No.2).** Yellowknife: Supreme Court of the NWT.

Nabhan G.P.

- 1985 **Gathering the Desert.** Tucson: University of Arizona Press.

Nader, Laura

- 1996 Anthropological Inquiry into the Boundaries, Power, and Knowledge. **Naked Science.** Laura Nader ed. New York: Routledge.

Nakashima, Douglas

- 1990 **Application of Native Knowledge in E.I.A.: Inuit Eiders and Hudson Bay Oil.** Hull: Canadian Environmental Assessment and Research Council.

Nelson, Richard

- 1983 **Make Prayers to the Raven.** Chicago: University of Chicago Press.

Notzke, Claudia

- 1994 **Aboriginal Peoples and Natural Resources in Canada.** North York: Captus University Publications.

Odum, E.

1953 **Fundamentals of Ecology**. Philadelphia: Saunders.

Ofori- Mensah, Akoss

1992 Ode to the West African Giant Snail (*Achatina achatina*). **TEK Talk A Newsletter on Traditional Ecological Knowledge** (1) 2 UNESCO.

Osherenko, Gail

1988 **Sharing power with Native Users: Co-management Regimes for Arctic Wildlife**. CARC: Ottawa.

Ostrom, Elinor

1990 **Governing the Commons**. New York: Cambridge University Press.

Pal, Leslie A.

1992 **Public Policy Analysis: An Introduction**. Scarborough: Nelson Canada Limited.

Philibert, Jean-Marc

1990 The Politics of Tradition: Toward a Generic Culture in Vanuatu. **Customs in Conflict: The Anthropology of a Changing World**. Jean Philibert and Frank Manning ed. Lewiston, N.Y.: Broadview Press.

Pinkerton, Evelyn (ed.)

1989 **Co-operative Management of Local Fisheries: New Directions for Improved Management and Community Development**. Vancouver: University of British Columbia Press.

Pinxten, Rik, Ingrid van Dooren and Frank Harvey

1983 **The Anthropology of Space**. Philadelphia: University of Pennsylvania Press.

Povinelli, Elizabeth

1993 'Might Be Something': The Language of Indeterminacy in Australian Aboriginal Land Use. **Man**. 28 (4) pp. 679-704.

Rappaport R. and Vayda, A. P.

- 1968 Ecology Culture and Non-Cultural. **Introduction to Cultural Anthropology: Essays in the Scope and Methods of the Science of Man.** J. Clifton ed. Boston: Houghton and Mifflin.

Richards, Paul

- 1993 Natural Symbols and Natural History. **Environmentalism: The View from Anthropology.** Kay Milton ed. London: Routledge.

Ridington, Robin

- 1982 Technology, World View, and Adaptive Strategy in a Northern Hunting Society. **Canadian Review of Sociology and Anthropology** 19 (4) pp. 460-467.

Rival, Laura

- 1993 The Growth of Family Trees: Understanding Huaorani Perceptions of the Forest. **Man.** 28 (4) pp.635-652.

Romney A. K. and Andrade R.G. D.

- 1964 Cognitive Aspects of English Kin Terms. **American Anthropologist.** Special Publication 66.

Rotman, Leonard I.

- 1996 **Parallel Paths: Fiduciary Doctrine and the Crown-Native Relationship in Canada.** Toronto: University of Toronto Press.

Schoener, T. W.

- 1971 Theory of Feeding Strategies. **Annual Review of Ecology and Systematics** (2) pp. 369-404.

Schulte-Tenckhoff, Isabelle

- 1998 Reassessing the Paradigm of Domestication: The Problematic of Indigenous Treaties. **Review of Constitutional Studies.** (4) 2. pp. 239-289.

Scott, Colin

- 1989 Knowledge Construction Among Cree Hunters: Metaphors and Literal Understanding. **Journal de la Societe des Americanistes** (75) pp. 193-208.

Scott, Colin

- 1996 Science for the West, Myth for the Rest? **Naked Science**. Laura Nader ed. New York: Routledge.

Smith, J.G. E.

- 1971 The Ecological Basis of Chipewyan Socio-Territorial Organization. **Proceedings: Northern Athapascan Conference**. (2).

Smith, Peggy

- 1991 **A Survey and Evaluation of Natural Resource Agreements Signed with Aboriginal People in Canada: Do they Result in Autonomy or Dependence?**. Unpublished Thesis, Lakehead University.

Snowden D. Kusagak L. and MacIod P.

- 1982 **The Kaminuriak Herd Film/Videotape Project: A Case Study**. Methods and Media in Community Participation. Uppsala, Sweden: Dag Hammarskjold Centre.

Stegmann, Theodore A. ed.

- 1983 **Boreal Forest Adaptations**. New York: Plenum Press.

Stevenson, Marc

- 1996 Indigenous Knowledge in Environmental Assessment. **Arctic** (49) pp.278-91.

Stevenson, Marc

- 1997 **A Methodology to Undertake the Beverly and Oamanirjuag Caribou Management Board Traditional Knowledge Study**. Submitted to the BQCMB on September 10th 1997.

Stevenson, Marc

- 1999 **What are we Managing ? Traditional Systems of Management and Knowledge in Cooperative and Joint Management**. T.S. Veeman, D.W. Smith, B.G. Purdy, F.J. Salkie and G.A. Larkin (eds.) Proceedings, Sustainable Forest Management Network Conference, February 14-17, 1999. Edmonton: Sustainable Forest Management Network, pp. 161-169.

Steward, Julian

- 1936 The Economic and Social Basis of Primitive Bands. **Essays in Anthropology Presented to A.L. Kroeber.** Berkley: University of California Press pp. 331-50.

Steward, Julian

- 1955 The Concept and Method of Cultural Ecology. **Theory of Culture Change: the Methodology of Multilinear Evolution.** Urbana: University of Illinois Press.

Treeline Productions

- 1992 **Nu Ho Ni Yeh** (Our Story). Tadoule Lake, Manitoba: Sayisi- Dene First Nation. (film/video).

Tanner, Adrian

- 1979 **Bringing Home Animals.** London: C. Hurst & Company.

Thomas, Don

- 1981 **At the Crossroads of Caribou Management in Northern Canada.** Ottawa: Canadian Nature Federation.

Tough, Frank

- 1996 **As their Natural Resources Fail: Native Peoples and the Economic History of Northern Manitoba.** Vancouver: UBC Press

Usher, Peter J.

- 1986 **The Devolution of Wildlife Management and the Prospects for Wildlife Conservation in the Northwest Territories.** Ottawa: Canadian Arctic Resources Committee.

Usher, Peter J.

- 1987 Indigenous Management Systems and the Conservation of Wildlife in the Canadian North. **Alternatives** 14 (1) pp. 3-9.

Usher, Peter J.

- 1991 **The Beverly – Kaminuriak Caribou Management Board: An Evaluation of the First Ten Years and Recommendations for the Future.** A Report Prepared for the Beverly and Kaminuriak Caribou Management Board. Ottawa: Usher Consulting Services.

Usher, Peter J.

- 1993 Beverly - Kamimuriak Caribou Management Board: An experience in Co-management. Concepts and Cases Julian T. Inglis ed. Ottawa: IDRC.

Van der Ploeg

- 1993 Potatoes and Knowledge. An Anthropological Critique of Development. Mark Hobart ed. London: Routledge.

VanStone

- 1965 The Changing Culture of the Snowdrift Chipewyan. Ottawa: Queens Printer.

Vecsey, Christopher

- 1980 American Indian Environmental Religions. American Indian Environments. Vecsey ed. Syracuse: Syracuse University Press.

Wakelyn, Leslie A.

- 1996 Habitats of the Beverly and Oamaniruaq Caribou Herds Mapping Project. Phase I. Yellowknife: Progress Report.

Watkins, Mel ed.

- 1977 Dene Nation: The Colony Within. Toronto: University of Toronto Press.

Wavey, Robert

- 1993 International Workshop on Indigenous Knowledge and Community-based Resource Management: Keynote Address. Concepts and Cases Julian T. Inglis ed. Ottawa: IDRC.

Weaver, Sally M.

- 1981 Making Canadian Indian Policy: The Hidden Agenda 1968-70. Toronto: University of Toronto Press.

Weeratunge, Nireka

- 2000 Nature, Harmony, and the Kaliyugaya. Current Anthropology. 41 (2) pp.249-268.

Wheeler, Polly

1988 State and Indigenous Fisheries Management: The Alaskan Context. **Traditional Knowledge and Renewable Resource Management**. Freeman M.R. and Carbyn L.N. (eds.) A Joint Publication of the IUCN Commission on Ecology and the Boreal Institute for Northern Studies. University of Alberta, Edmonton: Boreal Institute for Northern Studies.

White, Lynn Jr.

1967 Historical Roots of Our Ecological Crisis. **Science** 155 (3767): 1203 – 1207.

Winterhalder, Bruce

1983 Boreal Foraging Strategies. **Boreal Forest Adaptations**. Theodore Steegmann ed. New York: Plenum Press.

Williams, Raymond

1985 **Keywords: A Vocabulary of Culture and Society**. New York: Oxford University Press.

Whorf, Benjamin, Lee

1956 **Language, Thought and Reality**. Cambridge, MA: MIT Press.

Young, Robert

1972 The Anthropology of Science. **New Humanist** 88 (3) 102-105.

REPORTS AND AGREEMENTS:

Annual Report of the Beverly-Kaminuriak Caribou Management Board 1983-84.

Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada. Ottawa: DIAND 1993.

Abrahamson, Gunter. Transcript of a presentation given on the 15th of November 1994 to the **“Standing Committee on Aboriginal Affairs and Northern Development”** Issue 23. Unedited Copy.

Beverly and Kaminuriak Barren Ground Caribou Management Agreement 1982

Caribou News in Brief. Nov. 1999. Ottawa: BQCMB.

Executive Summary of the Long-term Management Plan for the Beverly and Kaminuriak Caribou Herds. Beverly and Kaminuriak Caribou Management Board, April 1986.

Gwaii Haanas Agreement between the Government of Canada and the Council of the Haida Nation 1993.

Gwich'in Comprehensive Land Claim Agreement. Ottawa: DIAND 1992.

Inuvialuit Final Agreement. Ottawa: DIAND 1984.

Letter to Dr. Marc Stevenson from the BOCMB 19th December 1997.

Little Salmon Carmacks First Nation Final Agreement. Ottawa: DIAND 1997.

Managing Co-management: Guidelines for Agreements that Work. Saskatchewan Indian Federated College 1996. Contract # 95-0184.

Mitchikanibikok Inik. **United Nations Environment Program; Convention on Biological Diversity: Case Study on Traditional Knowledge of the Algonquins of Barrier Lake Within the Context of the Trilateral Agreement Signed with Canada and Quebec on August 22, 1991**. Unpublished paper submitted to the UN 1997.

National Conference on Game and Wildlife Conservation. Ottawa: Commission of Conservation Canada 1919.

National Aboriginal Forestry Association Discussion Paper on Co-management and Other Forms of Agreements in the Forest Sector. Ottawa: National Aboriginal Forestry Association 1995.

Nisga'a Final Agreement. Ottawa: DIAND 1999.

Rat River Char: Community Concerns. Status of the Stock and Studies Planned for 1995. Gwich'in Renewable Resource Board Publication 1995.

Rat River Fishing Plan. Gwich'in Renewable Resource Board 1999.

Report of the Annual Meeting Ottawa: Commission of Conservation 1919

Royal Commission on Aboriginal Peoples (Canada) Report (2) Ottawa: Canada Communication Group 1996.

Sahtu Dene and Metis Comprehensive Land Claim Agreement. Ottawa: DIAND 1993.

Selkirk First Nation Final Agreement. Ottawa: DIAND 1997.

Voices of the Bay. Northern Perspectives. Ottawa: Canadian Arctic Resources Committee 1998.

Whats New With Caribou (4) 1 2000. Ottawa: BQCMB.

www.for.gov.bc.ca/het/clavo/c4.htm

Yukon Umbrella Final Agreement. Ottawa: DIAND 1993.

<http://www.arctic-caribou.com/nov99news.html>

APPENDIX 1

Beverly-Kaminuriak Barren Ground Caribou Management Agreement

THIS AGREEMENT made on the 3rd day of June A.D. 1982

BETWEEN:

THE GOVERNMENT OF CANADA, as represented by the Minister of Indian Affairs and Northern Development and the Minister of the Environment. (hereinafter referred to as "Canada");

- and -

THE GOVERNMENT OF MANITOBA, as represented by the Minister of Natural Resources. (hereinafter referred to as "Manitoba");

- and -

THE GOVERNMENT OF SASKATCHEWAN, as represented by the Minister of Northern Saskatchewan. (hereinafter referred to as "Saskatchewan");

- and -

THE COMMISSIONER OF THE NORTHWEST TERRITORIES. (hereinafter referred to as the "Commissioner").

WHEREAS the Kaminuriak herd and Beverly herd of barren ground caribou historically migrate across provincial and territorial boundaries;

AND WHEREAS the continued well-being and restoration of these herds and their habitat requires co-ordinated management, goodwill and co-operation amongst the above governments and the traditional users of these caribou;

AND WHEREAS the parties hereto recognize that, as well as the value of the caribou to all Canadians generally, a special relationship exists between traditional users and the caribou;

NOW THEREFORE THIS AGREEMENT WITNESSETH that the parties hereto under the authority of:

- (a) The Canada Wildlife Act - sections 3, 6 and 9;
 - (b) The Northwest Territories Wildlife Ordinance - section 27;
 - (c) The Manitoba Wildlife Act - section 84;
 - (d) The Saskatchewan Wildlife Act - sections 10, 63(b) and 63(f), and The Saskatchewan Federal-Provincial Agreements Act - sections 3, 4 and 5
- agree that:

A. Definitions

In this Agreement:

1. "Kaminuriak herd" means that herd of barren ground caribou which regularly bears its young near Kaminuriak Lake in Keewatin, Northwest Territories and

historically moves southward into Manitoba and Saskatchewan for the winter;

2. "Beverly herd" means that herd of barren ground caribou which regularly bears its young near Beverly Lake in Keewatin, Northwest Territories and historically moves southward into Saskatchewan and Manitoba for the winter;
3. "Traditional Users" means those persons recognized by the local population on the caribou range as being persons who have traditionally and/or currently hunted caribou for subsistence.

B. The Beverly and Kaminuriak Caribou Management Board

1. A joint management board shall be established to be known as the Beverly and Kaminuriak Caribou Management Board, hereinafter referred to as the "Board", having the following objectives:
 - (a) to co-ordinate management of the Beverly and Kaminuriak herds in the interest of traditional users and their descendants, who are or may be residents on the range of the caribou, while recognizing the interest of all Canadians in the survival of this resource.
 - (b) to establish a process of shared responsibility for the development of management programs between the parties hereto and the traditional users of the Beverly and Kaminuriak herds.
 - (c) to establish communications amongst traditional users, between traditional users and the parties hereto, and amongst the parties hereto in order to ensure co-ordinated caribou conservation and caribou habitat protection for the Beverly and Kaminuriak herds.
 - (d) to discharge the collective responsibilities for the conservation and management of caribou and caribou habitat within the spirit of this Agreement.
2. Support shall be provided by the parties hereto to the Board in its efforts to achieve co-ordinated management of the Beverly and Kaminuriak herds by responding promptly to recommended measures.

C. Board Responsibilities

Without restricting the generality of clause B of this Agreement, the parties agree that the Board shall have the following duties and responsibilities:

1. To develop and make recommendations to the appropriate governments and to the groups of traditional caribou users for the conservation and management of the Beverly and Kaminuriak herds of barren ground caribou and their habitat in order to restore the herds, as far as reasonably possible, to a size and quality which will sustain the requirements of traditional users. Such recommendations may include, but are not necessarily limited to:

- (a) limitations on the annual harvest of the Beverly and Kaminuriak herds and the allocation of that harvest amongst the Northwest Territories and the provinces of Saskatchewan and Manitoba;
 - (b) criteria for regulating the methods of harvest;
 - (c) methods of traditional user participation to assist in the management of the Beverly and Kaminuriak caribou herds;
 - (d) caribou research proposals;
 - (e) recommended standardized data collection and presentation;
 - (f) a herd management plan for each of the Beverly and Kaminuriak herds which may include consideration of predator management.
2. To monitor the caribou habitat over the entire ranges of the Beverly and Kaminuriak herds so as to facilitate the maintenance of productive caribou habitat.
 3. To conduct an information program and hold such public meetings as are necessary to report on and discuss with users its responsibilities, findings and progress.
 4. To assess and report on the operation of its herd management plan to appropriate governments and traditional user groups.
 5. To submit to the parties hereto annual reports which shall include:
 - (a) a summary of Board activities, recommendations and responses by governments and traditional users;
 - (b) a review of the state of the Beverly and Kaminuriak caribou herds and their habitat;
 - (c) a summary of harvests by jurisdiction and community;
 - (d) a financial statement for the operation of the Board;
 such reports to be arranged by the parties hereto to be translated into the languages of the traditional users.
 6. To consider any other matters respecting the management of barren ground caribou that are referred to the Board by the parties hereto.

D. Membership of the Board

1. Thirteen members shall be appointed to the Board as follows:
 - (a) the Minister of Indian Affairs and Northern Development, Government of Canada; the Minister of the Environment, Government of Canada; the Minister of Northern Saskatchewan, Government of Saskatchewan; the Minister of Natural Resources, Government of Manitoba; and the Minister of Renewable Resources, Government of the Northwest Territories shall each appoint one senior official from their respective ministries for a total of five members.
 - (b) the Minister of Renewable Resources, Government of the Northwest Territories shall:

- (i) where recommended by the Keewatin Wildlife Federation, appoint two residents from the communities in the southern Keewatin region of the Northwest Territories;
- (ii) where recommended by the Dene Nation, appoint one resident from the communities in the South Slave Region of the Northwest Territories;
- (iii) where recommended by the Métis Association of the Northwest Territories, appoint one resident from the communities in the South Slave Region of the Northwest Territories;

for a total of four members.

- (c) the Minister of Northern Saskatchewan, Government of Saskatchewan, shall appoint two residents from the communities of Northern Saskatchewan for a total of two members;
 - (d) the Minister of Natural Resources, Government of Manitoba, shall appoint two residents from the communities of Northern Manitoba for a total of two members.
2. The members of the Board shall be appointed for a term of three years, subject to the right of the parties to terminate the appointment of their respective appointees at any time and reappoint Board members in accordance with the above.

E. Board Rules and Procedure

1. The Board shall establish in writing from time to time rules and procedures for its functioning, provided however that:
 - (a) the Chairman and Vice-Chairman shall be elected from amongst the members of the Board by secret ballot;
 - (b) the election and replacement of the Chairman and the Vice-Chairman shall be by simple majority;
 - (c) thirty days notice of meeting shall be given by mail, telephone or telegram, as appropriate;
 - (d) seven members shall constitute a quorum;
 - (e) decisions of the Board shall be by consensus wherever possible, and shall always require a majority voting in favour, with each member having one vote;
 - (f) no voting by a proxy shall be allowed;
 - (g) the Board shall hold formal meetings twice yearly or more often as necessary at the call of the Chairman;
 - (h) the Board shall keep summary minutes and records of all its meetings and circulate them amongst its members;
 - (i) the Board may establish or dissolve standing committees as it deems necessary to carry out its functions, and set the terms of reference for such standing committees, and

- (i) the Board members unable to be present at Board meetings shall receive notice of Board recommendations thirty (30) days in advance of submission to any minister for action, except where there is consent of all Board members in which case recommendations to the Minister(s) can be made forthwith.

F. Finances

1. Subject to the terms and conditions of this Agreement and to funds being appropriated by the legislative authority in respect of each party on an annual basis, the parties hereto shall annually provide funds necessary to ensure the Board functioning in a manner hereinbefore stated provided, however, that all costs for the Board shall not exceed \$75,000.00 annually and that all such annual costs shall be shared amongst the parties to this Agreement in such proportion as hereinafter provided in section 2.
2. Prior to the administrative costs for the Board being eligible to be shared by the parties hereto, the Board shall be required to submit to each party an annual estimate of the financial administrative costs, not exceeding \$75,000.00 in each year, and each party shall in writing within thirty days of receipt thereof, indicate its approval or disapproval for such budget and provide reasons therefore. In the event that a majority of the parties hereto approve the annual budget for the administrative costs, the budget shall be shared by all parties hereto in the following proportions accordance with the following:
 - (a) two-fifths by Canada; and
 - (b) one-fifth by each of the remaining parties.
3. Administrative costs to be shared amongst the parties hereto shall include expenditures related to:
 - (a) a secretariat to provide for and follow up on meetings, record and distribute minutes, provide members with informational support, and undertake such other organizational arrangements as the Board may require;
 - (b) the production of an annual report and its distribution;

(c) a modest independent research review capability;

(d) the production of a newsletter; and

(e) such other costs as the parties may agree upon.

4. Each party shall be responsible for funding the expenses for salaries or honoraria and other incidental travel expenses, including transportation, meals, accommodation related to Board members appointed or confirmed by that party. The provisions for said expenses shall be in addition to the annual administrative costs provided in section 1 hereinabove.
5. On the anniversary date of this Agreement, the Board shall annually account for all monies received and disbursed and said records shall be available to any of the parties for inspection upon thirty days written notice to the Chairman.

G. General

1. The parties hereto shall jointly and severally indemnify and save harmless the Board and the individual members thereof, against any and all liability, loss, damage, cost, or expenses, which the Board, or its individual members jointly or severally incur, suffer, or are required to pay as a consequence of any contractual obligation undertaken in accordance with the terms of this Agreement.
2. All reports, summaries or other documentation prepared or otherwise completed under the terms of this Agreement shall become the joint property of all parties hereto and any and all income derived therefrom shall be jointly shared amongst the parties in proportion to expenditures incurred by each party in generating such income.
3. This Agreement shall take effect on the 3rd day of June, A.D. 1982, and shall terminate on the 3rd day of June, A.D. 1992, unless sooner terminated by any party upon six months' notice in writing to the other parties.
4. This Agreement may be amended at any time by an exchange of letters following unanimous approval by the parties hereto.

APPENDIX 2

Beverly-Qamanirjuaq Barren Ground Caribou Management Agreement

THIS AGREEMENT made on the 1st day of April A.D. 1999

BETWEEN:

THE GOVERNMENT OF MANITOBA, as represented by the Minister of Natural Resources (hereinafter referred to as "Manitoba");

and

THE GOVERNMENT OF SASKATCHEWAN, as represented by the Minister of Environment and Resource Management (hereinafter referred to as "Saskatchewan");

and

THE GOVERNMENT OF THE NORTHWEST TERRITORIES, as represented by the Minister of Resources, Wildlife and Economic Development (hereinafter referred to as the "Northwest Territories");

and

The Interim Commissioner of Nunavut (hereinafter referred to as the "Interim Commissioner")

WHEREAS the Qamanirjuaq herd and Beverly herd of barren ground caribou historically migrate across provincial and territorial boundaries;

AND WHEREAS the continued well-being and restoration of these herds and their habitat requires coordinated management, goodwill and co-operation amongst the above governments and the traditional users of these caribou;

AND WHEREAS the parties hereto recognise that, as well as the value of the caribou to all Canadians generally, a special relationship exists between traditional users and the caribou;

NOW THEREFORE THIS AGREEMENT WITNESSETH that the parties hereto under the authority of:

- (a) The Manitoba Wildlife Act - section 84;
- (b) The Saskatchewan Wildlife Act, 1997 - section 9;
- (c) The Northwest Territories Wildlife Act - section 27;
- (d) The Nunavut Act - section 73.

after that

A. Definitions

In this Agreement

1. "Qamanirjuaq herd" means that herd of barren ground caribou which regularly bears its young near Qamanirjuaq Lake in Kuvvut, Nunavut and historically moves southward into Manitoba and Saskatchewan for the winter;
2. "Beverly herd" means that herd of barren ground caribou which regularly bears its young near Beverly Lake in Kuvvut, Nunavut and historically moves southward into Saskatchewan and Manitoba for the winter;
3. "Traditional Users" means those persons recognized by the local population on the caribou range as being persons who have traditionally and/or currently hunted caribou for subsistence.

B. The Beverly and Qamanirjuaq Caribou Management Board

1. A joint management board shall be established to be known as the Beverly and Qamanirjuaq Caribou Management Board, hereinafter referred to as the "Board", having the following objectives:
 - (a) to co-ordinate management of the Beverly and Qamanirjuaq herds in the interest of traditional users and their descendants, who are or may be residents on the range of the caribou, while recognizing the interest of all Canadians in the survival of this resource;
 - (b) to establish a process of shared responsibility for the development of management programs between the parties hereto and the traditional users of the Beverly and Qamanirjuaq herds;
 - (c) to establish communications amongst traditional users, between traditional users and the parties hereto, and amongst the parties hereto in order to ensure coordinated caribou conservation and caribou habitat protection for the Beverly and Qamanirjuaq herds;

(d) to discharge the collective responsibilities for the conservation and management of caribou and caribou habitat within the spirit of this Agreement.

2. Support shall be provided by the parties hereto to the Board in its efforts to achieve coordinated management of the Beverly and Qamanirjuaq herds by responding promptly to recommendations.

C. Board Responsibilities

Without restricting the generality of clause of this Agreement, the parties agree that the Board shall have the following duties and responsibilities:

1. To develop and make recommendations to the appropriate governments and to the groups of traditional caribou users for the conservation and management of the Beverly and Qamanirjuaq herds of barren ground caribou and their habitat in order to restore the herds, as far as reasonably possible, to a size and quality which will sustain the requirements of traditional users. Such recommendations may include, but are not necessarily limited to:
 - (a) limitations on the annual harvest of the Beverly and Qamanirjuaq herds and the allocation of that harvest amongst the Northwest Territories, Nunavut and the provinces of Saskatchewan and Manitoba;
 - (b) criteria for regulating the methods of harvest;
 - (c) methods of traditional user participation to assist in the management of the Beverly and Qamanirjuaq caribou herds;
 - (d) caribou research programs;
 - (e) recommended standardized data collection and presentation;
 - (f) a herd management plan for each of the Beverly and Qamanirjuaq herds which may include consideration of predator management.

2. To monitor the caribou habitat over the entire range of the Beverly and Qamanirjuaq herds so as to facilitate the maintenance of productive caribou habitat.
3. To conduct an information program and hold such public meetings as are necessary to report on and discuss with users its responsibilities, findings and program.
4. To assess and report on the feasibility of its herd management plans to appropriate governments and traditional user groups.
5. To submit to the parties hereto annual reports which shall include:
 - (a) a summary of Board activities, recommendations and responses by governments and traditional users;
 - (b) a review of the state of the Beverly and Qamanirjuaq caribou herds and their habitat;
 - (c) a summary of harvest by government and community;
 - (d) a financial statement for the activities of the Board; such reports to be arranged by the parties hereto to be translated into the languages of the traditional users.
6. To consider any other matters concerning the management of herds ground caribou that are referred to the Board by the parties hereto.

D. Membership of the Board

1. Twelve members shall be appointed to the Board as follows:
 - (a) The Minister of Natural Resources, Government of Manitoba; the Minister of Environment and Resource Management, Government of Saskatchewan; the Minister of Resources, Wildlife and Economic Development, Government of the Northwest Territories and the Minister of Sustainable Development, Government of Nunavut shall each appoint one senior official from their respective ministries for a total of four members.
 - (b) The Minister of Natural Resources, Government of Manitoba, shall appoint two residents from the communities in Northern Manitoba for a total of two members;
 - (c) The Minister of Environment and Resource Management, Government of Saskatchewan, shall appoint two residents from the communities in Northern Saskatchewan for a total of two members;
 - (d) The Minister of Resources, Wildlife and Economic Development, Government of the Northwest Territories shall:
 - (i) where recommended by the Inuit Nation, appoint one resident from the communities in the South Slave Region of the Northwest Territories;
 - (ii) where recommended by the Métis Nation of the Northwest Territories, appoint one resident from the communities in the South Slave Region of the Northwest Territories;
 for a total of two members;
 - (e) the Minister of Sustainable Development, Government of Nunavut shall, where recommended by the Kuvavut Wildlife Federation, appoint two residents from the communities in the southern Kuvavut region of Nunavut.
2. The members of the Board shall be appointed for a term of three years, subject to the right of the parties to terminate the appointment of their respective appointees at any time and reappoint Board members in accordance with the above.

E. Board Rules and Procedures

1. The Board shall establish in writing from time to time rules and procedures for its functioning, provided however that:
 - (a) the Chairman and Vice-Chairman shall be elected from amongst the members of the Board by secret ballot;
 - (b) the election and replacement of the Chairman and the Vice-Chairman shall be by simple majority;
 - (c) thirty days notice of meeting shall be given by mail, telephone or telegram, as appropriate;
 - (d) absent members shall constitute a quorum;
 - (e) decisions of the Board shall be by consensus wherever possible, and shall always require a majority voting in favour, with each member having one vote;
 - (f) no voting by proxy shall be allowed;
 - (g) the Board shall hold formal meetings twice yearly or more often as necessary at the call of the Chairman;

- (b) the Board shall keep summary minutes and records of all its meetings and circulate them amongst its members;
- (c) the Board may establish or discontinue standing committees as it deems necessary to carry out its functions, and set the terms of reference for such standing committees; and
- (d) the Board members unable to be present at Board meetings shall receive notice of Board recommendations thirty (30) days in advance of submission to any minister for action, except where there is consent of all Board members in which case recommendations to the Minister(s) can be made forthwith.

F. Finance

1. Subject to the terms and conditions of this Agreement and to funds being appropriated by the legislative authority in respect of each party on an annual basis, the parties hereto shall annually provide funds necessary to ensure the Board functioning in a manner heretofore stated provided, however, that all costs for the Board shall not exceed \$54,000.00 annually and that all such annual costs shall be shared equally amongst the parties to this Agreement in accordance with section F-2 below.
2. Prior to the administrative costs for the Board being eligible to be shared by the parties hereto, the Board shall be required to submit to each party an annual estimate of the financial administrative costs, not exceeding \$54,000.00 in each year, and each party shall in writing within thirty days of receipt thereof, indicate its approval or disapproval for such budget and provide reasons therefor. In the event that a majority of the parties hereto approve the annual budget for the administrative costs, the budget shall be shared equally by all parties hereto.
3. Administrative costs to be shared amongst the parties hereto shall include expenditures related to:
 - (a) a secretariat to provide for and follow up on meetings, record and distribute minutes, provide members with informational support, and undertake such other organizational arrangements as the Board may require;
 - (b) the production of an annual report and its distribution;
 - (c) a modest independent research review capability;
 - (d) the production of a newsletter; and
 - (e) such other costs as the parties may agree upon.
4. Each party shall be responsible for funding the expenses for salaries or honoraria and other incidental travel expenses, including transportation, meals, accommodations related to Board members appointed or confirmed by that party. The provisions for said expenses shall be in addition to the annual administrative costs provided in section F.1 above.
5. The Board shall annually account for all monies received and disbursed and such records shall be available to any of the parties for inspection upon thirty days written notice to the Chairman.
6. General
 1. All reports, summaries or other documentation prepared or otherwise compiled under the terms of this Agreement shall become the joint property of all parties hereto and any and all income derived therefrom shall be jointly shared amongst the parties in proportion to expenditures incurred by each party in generating such income.
 2. This Agreement shall take effect on the 1st day of April, A.D. 1999, and shall terminate on the 3rd day of June, A.D. 2002, unless sooner terminated by any party upon six months' notice in writing to the other parties.
 3. This Agreement may be amended at any time by an exchange of letters following unanimous approval by the parties hereto.
 4. For greater certainty, the Inuit Commissioner acknowledges that in signing this Agreement and pursuant to section 73 of the Nunavut Act, the Government of Nunavut is bound by the terms of this Agreement unless the Government of Nunavut terminates this Agreement under section G-3 above or through the provisions of the Nunavut Act.

IN WITNESS WHEREOF the persons herein have executed and delivered this Agreement as of the day and year first above written.

WITNESSES TO THIS AGREEMENT

Signed on behalf of the Government of Manitoba represented herein by the Honourable
Minister of Natural Resources:

Witness

Signed on behalf of the Government of Saskatchewan represented herein by the
Honourable Minister of Environment and Resource Management:

Witness

Signed on behalf of the Government of the Northwest Territories represented herein by
the Honourable Minister of Resources, Wildlife and Economic Development:

Witness

Signed on behalf of the Government of Nunavut represented herein by the Interim
Commissioner of Nunavut:

Witness

WHEN CARIBOU HAD NO FEAR

Narrated by the late John Clipping,

Tadoule Lake, Manitoba

Translated by Mary Code

Illustration by Robert Code

A long time ago the caribou had no fear of man. It was very easy to get close to them and kill them. Each year, they would go through the villages of the Dene. Some young girls, who were just fooling around, decided they would mark the caribou. They wanted to see which one came back the next year. They tied pieces of clothing and leaves to the caribou and marked their ears, noses and legs with knives.

What the girls did was very bad, but they did not find that out until much later. The next year, when it came time for caribou to return to the land of the Dene, the people waited for them for a long time but no caribou came.

One day a man who had been hunting up north, brought back this news, "The caribou herds are still far to the north. They stopped at a lake because of the caribou that were marked by the girls of the village last year. The marked caribou won't go any farther into this country because of what was done to them. The other caribou have become alarmed and won't move south either." Nobody in the village knew what to do and were afraid they might starve. One man, called Edegue (eh-day-goo-ay) knew what to do. He told the people he would bring back the caribou. He started walking north.

On the way, he picked up caribou antlers, looking for ones with worms. Finally he found an old set with a worm half-in, half-out. He asked the worm if he had any friends. The worm did not want anyone to think that he was a lonely worm and said, "You think I've got no friends? Take a look over that hill—that's where all my buddies are!" Edegue climbed the hill and sure enough, down in the lake below were caribou. The marked animals were nearest shore, but they didn't want to get out of the water.

The animals that were not marked were trying to get past them, but could not. Unless something was done, the caribou were not going to get anywhere.

As Edegue came close to the herd, he noticed a thunderbird on a nest near the lake. Edegue went on toward the caribou. He watched them for a while

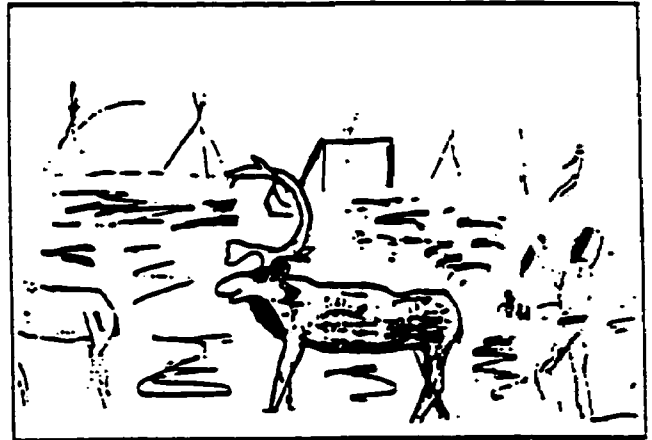
but could not think of what to do. Finally he had an idea, even if the thunderbird said no, he would ask, anyway. He went to the Thunderbird and said, "Thunderbird you see our problem, could you give me one of your children?"

After thinking about it for a while, the thunderbird agreed and gave him one of the eggs. Edegue threw it behind the caribou and the tremendous thunderclap that followed drove the caribou out of the water. Edegue caught the caribou that the girls had marked with knives and tied things to. He took the markers from each one. After that, he rubbed the knife marks on their noses, ears and legs. By doing this he made sure that the caribou would be afraid of man

and at first the men could not get close enough to kill any. It was only with great difficulty that people got enough caribou to eat and of course there were few chances for people to bother them as they did before, when the caribou were not afraid.

Edegue heard the insult and hoped that something might happen to her husband that would keep him from getting caribou.

When the people learned that the caribou were near, they all ran out after them. They thought the caribou were still easy to kill, as they were before. Now, the animals were afraid



forever and they would never be bothered by people the same way again.

Edegue also did something to the bottom of the caribou's feet that would protect them from man—a caribou would know whenever it touched a human trail. The caribou were now out of the water, but still confused. They were walking around in circles. Edegue caught a young calf and carried it, its mother followed, at a distance, and the rest of the herd began to follow their trail—the way caribou always do.

Edegue began leading the herd back to the people. On the long trip back, the

and at first the men could not get close enough to kill any. It was only with great difficulty that people got enough caribou to eat and of course there were few chances for people to bother them as they did before, when the caribou were not afraid.

A strange thing happened to the husband of the woman with the big mouth. His legs suddenly became crippled just as the hunt began. His crippling sickness disappeared just as suddenly as it began, only a few days after the caribou had left.

From that day to this, when the sound of thunder is heard, that is a sign that the caribou are still around.

APPENDIX 4

COMPREHENSIVE LAND CLAIM AGREEMENT
BETWEEN
HER MAJESTY THE QUEEN IN RIGHT OF CANADA
AND
THE GWICH'IN
AS REPRESENTED BY
THE GWICH'IN TRIBAL COUNCIL

VOLUME I



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12.8 RENEWABLE RESOURCES BOARD

- 12.8.1**
- (a) A Renewable Resources Board shall be established to be the main instrument of wildlife management in the settlement area. The Board shall act in the public interest.
 - (b) The Board shall be established by virtue of settlement legislation at the date thereof.
 - (c) Wildlife shall be managed in the settlement area in accordance with this agreement including its objectives.
- 12.8.2**
- (a) Where, by legislation, any other renewable resources board ("the new board") is established having jurisdiction in an area within the Mackenzie Valley which includes the settlement area:
 - (i) the new board shall assume the powers and responsibilities of the Board;
 - (ii) the Board shall merge with and become a regional panel of the new board. The regional panel shall be reduced to five members of which two shall be nominees of the Gwich'in Tribal Council;
 - (iii) the regional panel shall exercise the powers of the Board except that where, in the opinion of the new board, any decision or recommendation may affect renewable resources in an area within the jurisdiction of the new board outside the settlement area, the decision or recommendation shall be made by the new board. At least one member of the new board making such a decision or recommendation shall be a nominee of the Gwich'in Tribal Council; and
 - (iv) decisions of the regional panel shall be decisions of the new board and subject to review by the Minister in the same manner as decisions of the Board.
 - (b) The Gwich'in Tribal Council shall be consulted with respect to any such legislation.

Establishment and Structures

12.8.3 The Board shall consist of seven members appointed as follows:

- (a) six members and six alternate members to be appointed jointly by the Governor in Council and Executive Council of the Government of the Northwest Territories ("Executive Council"), of whom three members and three alternate members shall be appointed from nominees put forward by each of the Gwich'in and government, provided that the Board shall include at least one resident of the Northwest Territories who is not a participant; and
- (b) a chairperson, resident in the settlement area, to be nominated by the members of the Board appointed under (a) and appointed jointly by the Governor in Council and Executive Council.

- 12.8.4 (a) Board members shall not be considered to have a conflict of interest by reason only of being public servants or employees of Gwich'in organizations.
- (b) Each member shall, before entering upon his or her duties as such, take and subscribe before an officer authorized by law to administer oaths, an oath in the form set out in schedule III to this chapter.
- 12.8.5 In the event that the Board does not recommend a chairperson within 90 days after the other members of the Board are appointed, the Minister of Indian Affairs and Northern Development jointly with the Minister of Renewable Resources of the Government of the Northwest Territories shall, after consultation with the Board, recommend a chairperson to the Governor in Council and Executive Council.
- 12.8.6 Should any party fail to nominate members to the Board within 90 days of the date of settlement legislation, the Governor in Council and Executive Council may jointly appoint any persons to complete the Board.
- 12.8.7 Should a member resign or otherwise leave the Board, the body which nominated that member shall nominate a replacement within 90 days.
- 12.8.8 A vacancy in the membership of the Board does not impair the right of the remainder to act.
- 12.8.9 Each member shall be appointed to hold office for a specific term not to exceed five years. A member may be reappointed.
- 12.8.10 A member may be removed from office at any time for cause by the Governor in Council and Executive Council after consultation with or at the request of the body which nominated the member.
- Administration and Procedure
- 12.8.11 The Board may make by-laws:
- (a) respecting the calling of meetings of the Board; and
- (b) respecting the conduct of business at meetings of the Board, including in-camera meetings, and the establishment of special and standing committees of the Board, the delegation of duties to such committees and the fixing of quorums for meetings of such committees.
- 12.8.12 A majority of the members from time to time in office constitutes a quorum of the Board.
- 12.8.13 The Board shall have, subject to its approved budget, an Executive Director and such staff, professional and technical advisors and consultants as are necessary for the proper conduct of its affairs.
- 12.8.14 The Board shall be accountable to government for its expenditures.
- 12.8.15 It is intended that there be no duplication in the functions required for the public management of wildlife.

- 12.8.16 The Board shall prepare an annual budget, subject to review and approval by government. The approved expenses of the Board shall be a charge on government. Such budget shall be in accordance with the Government of Canada's Treasury Board guidelines and may include:
- (a) remuneration and travel expenses for attendance of Board members at board and committee meetings;
 - (b) the expenses of public hearings and meetings;
 - (c) a budget for research, public education and other programs as may be approved by government from time to time; and
 - (d) the expenses of staff, advisors and consultants and of the operation and maintenance of the office.
- 12.8.17 The annual budget of the Board in its first year of operation shall be set out in the implementation plan.
- 12.8.18 The Board may make rules respecting the procedure for making applications, representations and complaints to it, including the conduct of hearings before it, and generally respecting the conduct of any business before it.
- 12.8.19 The Board shall have the powers of a commissioner under part I of the *Inquiries Act*, R.S. 1985, c. I-11. The Board may not, however, subpoena Ministers.
- 12.8.20 The Board may consult with government, communities, the public and with Renewable Resources Councils and may do so by means of informal meetings or public hearings.
- 12.8.21
- (a) A public hearing may be held by the Board where the Board is satisfied that such a hearing is desirable.
 - (b) A public hearing shall be held when the Board intends to consider establishing a total allowable harvest and a Gwich'in Needs Level in respect of a species or population of wildlife which has not been subject to a total allowable harvest level within the previous two years.
- 12.8.22 A public hearing may be held at such place or places within the settlement area as the Board may designate.

Powers of the Renewable Resources Board

12.8.23

In furtherance of its purpose as the main instrument of wildlife management in the settlement area, the Board shall have the power to:

- (a) establish policies and propose regulations in respect of:
 - (i) the harvesting of wildlife by any person, including any class of persons;
 - (ii) the commercial harvesting of wildlife; and
 - (iii) commercial activities relating to wildlife including:
 - (A) commercial establishments and facilities for commercial harvesting; propagation, cultivation and husbandry of fur bearers and other species; and commercial processing, marketing and sale of wildlife and wildlife products, which may include trade with persons not included in 12.4.16;
 - (B) guiding and outfitting services; and
 - (C) hunting, fishing and naturalist camps and lodges;
- (b) exercise the powers and duties given to it elsewhere in the agreement;
- (c) approve plans for the management and protection of particular wildlife populations, including transplanted wildlife populations and endangered species, and particular wildlife habitats including conservation areas, territorial parks and national parks in the settlement area;
- (d) approve the designation of conservation areas and endangered species;
- (e) approve provisions of interim management guidelines, park management plans and policies that impact on wildlife and harvesting by the Gwich'in in a national park;
- (f) approve regulations which may be proposed by government pursuant to 12.8.29, except for those in respect of which the Board has already made a final decision under 12.8.27;
- (g) establish rules and procedures for the carrying out of any consultation required by these provisions; and
- (h) review any matter in respect of wildlife management referred to it by government.

12.8.24

- (a) Unless the Minister directs otherwise, the Board shall forward all its decisions, except those made pursuant to 12.4.7, to the Minister, accompanied by draft regulations, where the Board proposes regulations.

- (b) Unless the Minister directs otherwise, all decisions of the Board, except those made pursuant to 12.4.7, shall be confidential until the process in 12.8.25 has been completed, or the time provided for the process has expired.

12.8.25 The Minister may, within 60 days of the receipt of a decision under 12.8.24, accept, vary or set aside and replace the decision. The Minister must consider the same factors as were considered by the Board and in addition may consider information not before the Board, and matters of public interest not considered by the Board. Any proposed variation or replacement shall be sent back to the Board by the Minister with written reasons.

12.8.26 The Minister may extend the time provided in 12.8.25 by 30 days.

12.8.27 (a) The Board shall, within 30 days of the receipt of a variation or replacement from the Minister pursuant to 12.8.25, make a final decision and forward it to the Minister with written reasons.

- (b) The Minister may extend the time provided under (a).

12.8.28 The Minister may, within 30 days of receipt of a final decision of the Board accept or vary it, or set it aside and replace it, with written reasons. The Minister may consider information not before the Board and matters of public interest not considered by the Board.

12.8.29 Government shall, as soon as practicable, implement:

- (a) all decisions of the Board which are accepted by the Minister under 12.8.25;
- (b) all decisions of the Minister under 12.8.28; and
- (c) subject to (a) and (b), all decisions of the Board after the expiry of the time provided in 12.8.25 and 12.8.28.

12.8.30 Government may make changes of a technical nature only, not going to substance, to any decision or final decision of the Board, without varying or setting aside and replacing the decision or final decision, provided the Board is advised of any such change.

Licensing and Enforcement

12.8.31 The Board shall not issue licences, or hear and decide applications for individual commercial undertakings, or enforce legislation, unless otherwise agreed by government and the Gwich'in.

Advisory Powers

12.8.32 Government may consult the Board on any matter which will likely impact on wildlife or wildlife habitat in the settlement area and shall seek the timely advice of the Board on the following matters:

- (a) draft legislation respecting wildlife or wildlife habitat;
- (b) land use policies or draft legislation which will likely impact on wildlife or wildlife habitat;

- (c) proposed inter-provincial or international agreements which will likely impact on wildlife, wildlife harvesting or wildlife habitat;
- (d) the establishment of new national parks and territorial parks;
- (e) plans for public education on wildlife, wildlife harvesting and wildlife habitat;
- (f) policies respecting wildlife research and the evaluation of wildlife research in the settlement area;
- (g) plans for cooperative management and research relating to species and populations not wholly within the settlement area, such as the Porcupine caribou herd; and
- (h) plans for training Gwich'in in management of wildlife and related economic opportunities.

12.8.33 The Board shall provide any advice to government under 12.8.32 within such reasonable time as government requires, failing which, government may proceed without any such advice.

12.8.34 The Minister may request the Board to exercise a power described in 12.8.23 and the Board shall comply with the request within such reasonable time as the Minister requires.

12.8.35 If urgent circumstances require an immediate decision respecting matters referred to in 12.8.23 or 12.8.32, the Minister or his designated agent may make an interim decision and take such action as required to implement the interim decision without receiving a decision or advice from the Board. The Minister shall advise the Board forthwith of the interim decision made or action taken and the reasons therefor and direct the Board to review the decision made or action taken and render its decision or advice in accordance with this agreement.

12.8.36 The Board may:

- (a) advise the Minister or government of any matter relating to wildlife or wildlife habitat at any time whether or not the Minister or government has requested such advice; and
- (b) request the parties to this agreement to review any of its provisions.

Research and Harvesting Studies

12.8.37 It is intended that the Board and government departments and agencies work in close collaboration, and exchange full information on their policies, programs and research.

12.8.38 The Board may participate in harvesting studies, in data collection and in the evaluation of wildlife research. It is intended that the Board have an independent research capability, to the extent agreed by government and which does not duplicate research which is otherwise available to it.

12.8.39 The Board shall establish and maintain a public file for reports, research papers and data received by the Board. Any material furnished on a confidential basis shall not be made public without the consent of the originator.

- 12.8.40 Wildlife research or harvesting studies conducted in the settlement area by government, or by the Board, or with government assistance shall directly involve Renewable Resources Councils and Gwich'in harvesters to the greatest extent possible.
- 12.8.41 Notwithstanding 12.5.2 and until the Board exercises its powers or carries out its duties under 12.8.23, legislation and government policies in effect from time to time shall continue to apply.

12.9 RENEWABLE RESOURCES COUNCILS

- 12.9.1 There shall be a Renewable Resources Council in each Gwich'in community to encourage and promote local involvement in conservation, harvesting studies, research and wildlife management in the local community.
- 12.9.2 A Renewable Resources Council shall be composed of not more than seven persons who are residents of the local community.
- 12.9.3 A Renewable Resources Council shall be established by the designated Gwich'in organization in the community.
- 12.9.4 A Renewable Resources Council shall have the following powers:
- (a) to allocate any Gwich'in Needs Level for that community among local participants;
 - (b) to manage, in a manner consistent with legislation and the policies of the Board, the local exercise of Gwich'in harvesting rights including the methods, seasons and location of harvest;
 - (c) to establish group trapping areas, as defined in legislation, subject to the approval of the Board;
 - (d) to exercise powers given to Renewable Resources Councils under this agreement; and
 - (e) to advise the Board with respect to harvesting by the Gwich'in and other matters of local concern within the jurisdiction of the Board.
- 12.9.5 The Board shall consult regularly with Renewable Resources Councils with respect to matters within the Board's jurisdiction. Government and the Board may jointly delegate authority to Renewable Resources Councils, upon terms and conditions established by government and the Board.
- 12.9.6 Renewable Resources Councils shall participate in the collection and provision, to government and the Board, of local harvesting data and other locally available data respecting wildlife and wildlife habitat.

12.10 OTHER PROVISIONS

- 12.10.1 Government shall consult with the Gwich'in Tribal Council with respect to the formulation of government positions in relation to international agreements which may affect wildlife or wildlife habitat in the settlement area, including negotiations with respect to methods of harvesting and amendments to the *Migratory Birds Convention*(1916), prior to adopting positions.

- 12.10.2
- (a) **Persons who reside in the Mackenzie Valley or the Western Arctic Region and who held General Hunting Licences as at the date of settlement legislation may continue to harvest in the settlement area in accordance with legislation pertaining to such licences.**
 - (b) **Any participant who held a General Hunting Licence as at the date of settlement legislation may continue to hold such licence and shall be permitted to harvest outside the settlement area in accordance with legislation pertaining to such licences.**

APPENDIX 5

TADOULE LAKE TRADITIONAL CARIBOU KNOWLEGE PROJECT

submitted to
Beverly and Qamanirjuaq Caribou Management Board

by

**Geoff Bussidor
Stephanie Thorassie
Stephen Thorassie
Cynthia Clipping
Cedar Cheekie**

May 1999

Tadoule Lake Traditional Knowledge Project

The Beverly and Qamanirjuaq Caribou Management Board is compiling the information on the use and occupation of caribou habitats. The Board has completed the compilation of government information about caribou habitat in a report titled *Protecting Beverly and Qamanirjuaq Caribou and Caribou Range*. To document the traditional knowledge of caribou habitats required a pilot project to find out if the information in the caribou communities can be documented and whether it could be combined with the government information. This report gives the results of the pilot project and recommendations to the Board for documenting traditional caribou knowledge across the range.

STUDY AREA

A relatively small area surrounding Tadoule Lake, Manitoba was chosen as the study area (Fig. 1). This small area was chosen to limit the amount of information that people could provide as the study was not set up to record all the information residents had.

METHODS

Older hunters who had traveled the land and resided in Tadoule Lake were chosen as people who would have knowledge of caribou and their habitats. A total of 9 people were chosen for this study. A list of interview questions was developed to structure the interview. The elders' knowledge was obtained by interviewing them in Tadoule Lake. An interview was set up at a time and location convenient to the person interviewed. Effort was made to put the person at ease and be comfortable in being interviewed. The interview consisted of the study coordinator and 2 high school students from the local school. The interview was conducted in the Dene language. The project coordinator explained the project to the interviewee and asked the questions. The students took notes during the interview. The interview was recorded on audio tape. Periodically the project coordinator stopped the interview to translate some of the highly technical terms and language used by the elders to describe caribou habitat. A 1:500,000 scale topographic map was used for referencing the location of information. The project coordinator marked information on the map with the help of the person being interviewed. The locations were either described or were pointed out on the map by the interviewee. The information about caribou was documented according to the format in the Board's report. The habitats were separated by caribou life cycle period, whether the caribou used the area in the past and whether they currently used the areas. These periods and habitats are outlined in Appendix 1. The elders received a small token for their time and participation in the project.

RESULTS

A total of 6 people were interviewed. They were all elderly men. The people were willing to participate in the study when the background had been explained to them. One person did not want to give up information at this time because he had not been on the land for many years. Two people were not available to be interviewed as they were out of town. The amount of information varied between people. 2 people had very detailed information about caribou and their habitats in the study area and 4 people had more general information. These 4 people had a great deal of caribou knowledge but it was for areas outside the study area. The interviewees

provided both general information about caribou and their habitats and specific information according to the various life cycle periods. The amount of detailed information on specific life cycle periods varied among interviewees. All the caribou knowledge could be separated into the various caribou life cycle periods. Among the interviewees there was knowledge of all caribou habitats even though not every habitat had been seen by every interviewee. For example, people had knowledge of the calving habitat and caribou during the calving period but they had not actually been to the calving areas. The knowledge people had of caribou habitat could be mapped. The people were either able to locate the place on the map or could tell the interviewer where the place was.

The people interviewed wanted to participate in the project and one said that this project should have been done years ago. The amount of information that was provided was at first overwhelming. After the first interview the questions had to be structured to limit the information provided to just the study area.

The study design was appropriate for documenting traditional caribou knowledge. People were able to provide the information in an interview in the community. They were able to provide information along the same lines as the Board's report format. The project established that there is a great deal of knowledge about caribou and their habitat but that most of the knowledge falls outside the study area. This is because people lived longer and hunted caribou in places outside the study area.

The kind of information obtained is summarized below and in Figures 2 and 3.

Elder Charlie Kithithee described how migration routes from the north had shifted to the east, rutting areas, and changes in winter distribution resulting from fires. He was able to relate changes in distribution of caribou over the early and late winter periods and the composition of the caribou herds at various seasons of the year. He told of changes in the abundance of caribou due to distribution changes over a 40 year period.

Elder Alex Kithithee had similar information for different areas within the study area. He also related detailed information about water crossings in general and how caribou behave at water crossings. He described in detail 2 major water crossings.

Elder Sam Yassie told the interviewers about the segregation of the caribou into groups of bulls and cow - calf pairs and how the distribution of these groups differed. He was also able to provide information on specific water crossings. He had information on the importance of eskers in caribou migrations, the effect of weather on caribou movements, and insect harassment.

Elder David Duck, Sr. related distribution changes in response to fires on the winter range. He informed the interviewer of migration routes, winter distributions, changes in abundance of caribou, group behaviour and water crossings. Mr. Duck had a wealth of information on the traditional use of caribou by Dene.

Elder Ronnie John Bussidor had a great wealth of detailed knowledge of caribou distribution, migration routes and behaviour, but it was for areas outside the study area.

Elder Fred Duck provided information on a rutting area and migration routes to the area. He told how some migrations routes were no longer used and where new routes have been established. He also provided information on areas used by caribou in late winter and early spring.

All the knowledge of caribou distribution, migration routes, water crossings and seasonal habitat use could be mapped. Some of the important water crossings had their own names. The general physical characteristics of a water crossing could be described as well as the risks that caribou faced at various water crossings. The presence of ice at water crossings was noted to be

a significant hazard as it made it very difficult for caribou to get out of the river. Examples of caribou drowning at water crossings where they had to get out on to ice were given.

RECOMMENDATIONS

Based on the pilot project the following recommendations are offered for a project that would document an entire community's traditional knowledge of caribou and their habitats.

1. A project to document the knowledge would require 6 to 8 months of at least half time employment for 1 person.
2. The project would require a person whose time was dedicated to the project. This project was interrupted frequently by prior obligations the project coordinator and people to be interviewed had from time to time.
3. The person being interviewed should be in his own environment and at ease.
4. The project should be done at a time when there are caribou in the area. People tend to think and recall more about caribou when they see them.
5. People should be interviewed more than once as there is a lot of knowledge and part might be recalled after the interview has been concluded.
6. Women should be interviewed as they have different knowledge about caribou than the men.
7. A similar project should be done to get community ideas on management. The hunters discuss caribou problems and have ideas on solving the problems. For example, one issue is the effect of hunting during migrations on the distribution of caribou after the migration.
8. Interviewees should be given some compensation for their participation.

ACKNOWLEDGEMENTS

We would like to thank the Board for the opportunity to participate in the project. There were many things that the interviewers learned from the elders. There were many lake names that we did not know. We would like to thank Elders Charlie Kithithee, Fred Duck, Ronnie John Bussidor, David Duck, Sr., Alex Kithithee, and Sam Yassie who were interviewed and told us their knowledge of caribou. We would also like to thank Jason Stevenson of Peter Yassie Memorial School, and Albert Thorassie and Cam Elliott of the Beverly and Qamanirjuaq Caribou Management Board for their assistance and encouragement during the project. Special thanks goes to Nelson Morberg of Calm Air for providing transportation from Tadoule to Thompson for 2 students.

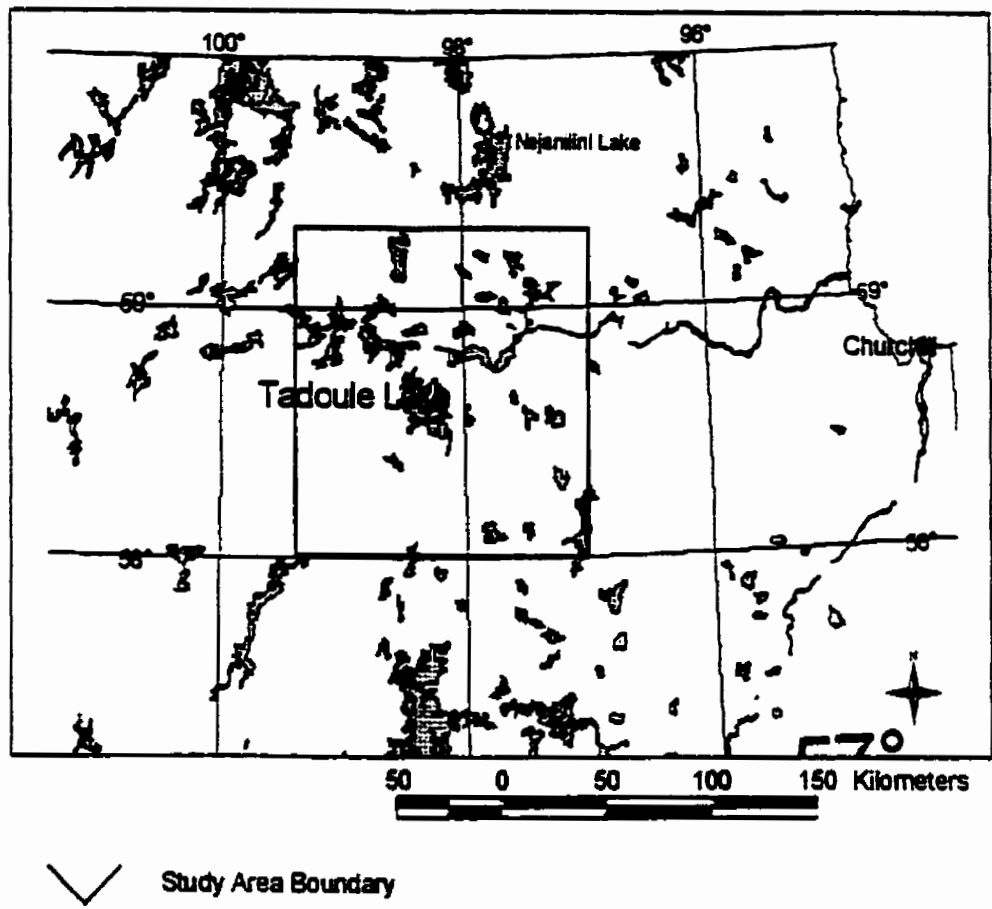
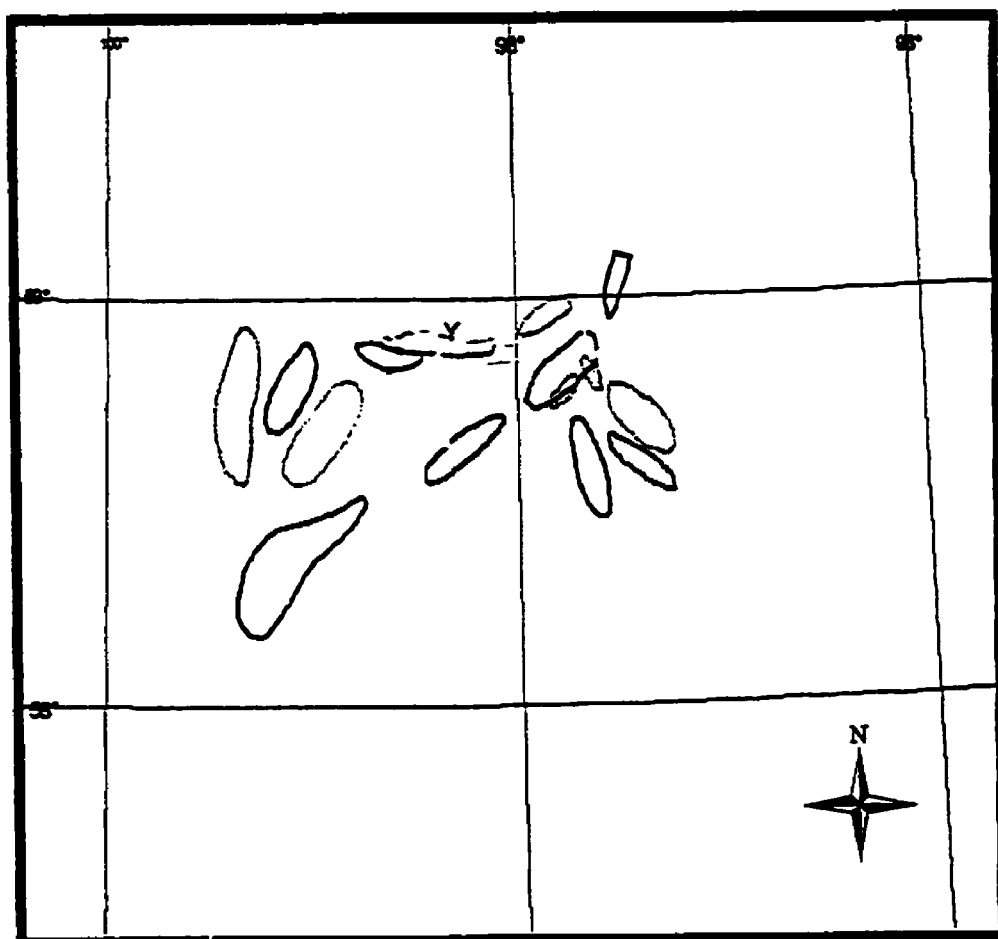


Figure 1. Tadoule Lake traditional caribou knowledge pilot project study area.

CARIBOU HABITAT AREAS DESCRIBED BY TADOULE LAKE ELDERS



Y Webcountry

- Habitat areas described by Fred Duck
- Habitat areas described by David Duck
- Habitat areas described by Charlie Kithitsee
- Habitat areas described by Alex Kithitsee
- Latitude/Longitude Grid

25 0 25 50 Kilometers

Figure 2. Caribou habitat areas describes by Tadoule Lake elders for Tadoule Lake Important Caribou Habitat Traditional Knowledge pilot project.

**CARIBOU MIGRATION ROUTES DESCRIBED
BY TADOULE LAKE ELDERS**

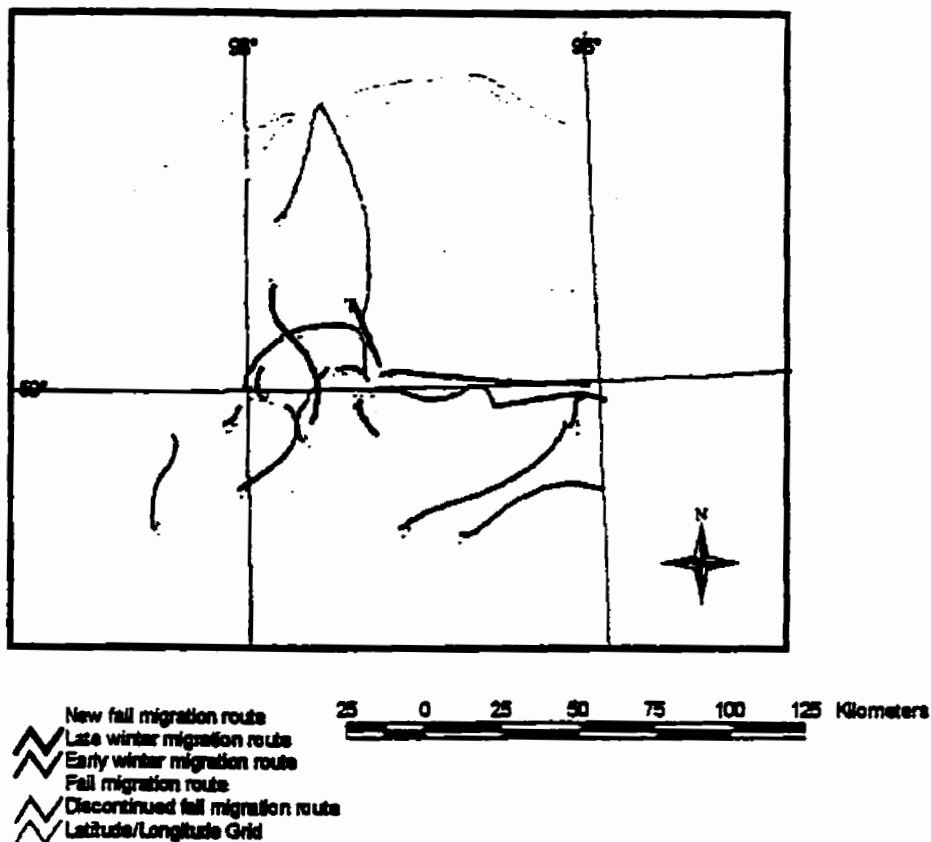


Figure 3. Caribou migration routes described by Tadoule Lake elders in Tadoule Lake Important Caribou Habitat Traditional Knowledge pilot project.

APPENDIX 1

Life cycle period	Dates	Remarks on timing and location
Spring migration ¹	16 Mar - 25 May	May be delayed if snow is deep. Timing depends on distance travelled. Route taken depends on winter distribution.
Calving	26 May - 25 Jun	Condition of cows affects timing. Most calves are born between 5 & 15 June. The same general area is used for calving each year, but the specific place where calves are born varies from year-to-year.
Post-calving	26 Jun - 31 Jul	Animals gather in large groups to reduce harassment by mosquitoes on calm days. Habitat used for escaping predators (sand, gravel, hills, lake shore) is important.
Late summer	1 Aug - 15 Sep	Groups break up when harassed by warble flies, then regroup. Little is known about movement patterns.
Fall migration and rut	16 Sep - 31 Oct	Migration timing is influenced by weather, particularly early snowfall and ice formation. Rut occurs in late October.
Early winter	1 Nov - 31 Dec	Rapid movements occur in some years. Animals generally move away from areas with deep snow.
Late winter	1 Jan - 15 Mar	Animals generally stay in areas where snow is 40 - 60 cm deep. Movements decrease as snow deepens.

¹ Migration of bulls occurs from April to June, about 1 month after other caribou in the herd migrate.

RATING FORMAT FOR WATER CROSSINGS

Factor	A Importance (weight)	B Crossing rating (0-5)	A x B
Alternative crossings	5		
Regularity of use	4		
Intensity of use	4		
Caribou sensitivity	4		
Crossing width	1		
Caribou condition	1		
Stressors (insects, heat)	1		
Grand total:			

CLASSIFICATION OF WATER CROSSINGS

Designation	Degree of importance	Point rating
1	Critical	>80 points
2	High importance	60 to 80
3	modest importance	40 to 60
4	Low importance	20 to 40
5	No importance	< 20

Alternative crossings:

Regularity of use:

Intensity of use:

Caribou sensitivity:

Caribou condition:

Stressors:

Crossing width:

Rating totals:

Management implications