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## **Wildlife Conservation in the North: Historic Approaches and their Consequences; Seeking Insights for Contemporary Resource Management**

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### **Abstract:**

Recent studies in the field of Canadian environmental history have suggested that early state wildlife conservation programs in northern Canada were closely tied to broader efforts to colonize the social and economic lives of the region's Aboriginal people. Although it is tempting to draw a sharp distinction between the "bad old days" of autocratic conservation and the more inclusive approaches of the enlightened present such as co-management and the incorporation of traditional ecological knowledge (TEK) into wildlife management decision-making, this paper will argue that many conflicts associated with the older colonial conservation regime have survived to the present day. Recent anthropological literature has suggested that traditional environmental knowledge is often marginalized in wildlife decision making bodies when juxtaposed with scientific expertise or bureaucratic priorities. Aboriginal people may now be recognized as formal participants in the management of wildlife and protected areas, but this tentative shift in political power represents an incomplete attempt to decolonize wildlife management practices in the North. The paper concludes with policy recommendations that might further apportion power over northern wildlife and protected areas to Aboriginal people.

There is a widespread consensus among wildlife conservationists that parks and protected areas offer the last best hope for preserving biodiversity on a regional scale. Borrowing insights from new scientific sub-disciplines such as landscape ecology and conservation biology, environmental advocacy groups have promoted increasingly sophisticated plans for preserving indigenous flora and fauna in networks of protected areas representative of a full range of habitat types within selected regions. In relatively uninhabited areas with an abundance of public lands such as the Canadian North, efforts to establish protected areas have taken on added urgency as the conservation constituency appeals to governments to “get it right” before the encroachment of industrial development despoils the relatively untouched wilderness character of the region (Canadian Council on Ecological Area [CCEA] 2003; Conservation of Arctic Flora and Fauna (CAFF) 1994; Nowlan 2001; Peepre and Jickling 1994; Wiersma et al. 2005). The jubilation among conservation groups over recent victories in northern Canada such as the protection of a broader expanse of the Nahanni River watershed from mining development in August 2007 (No Author 2007a, 1; De Souza 2007, 1; Jackson 1998; Langford 2003; Parks Canada 2007) and the announcement in November 2007 of a new national park surrounding the East Arm of Great Slave Lake (an area that had been subject to intense mineral exploration), suggests that environmentalists still regard the establishment of protected areas as an unmitigated good, the pinnacle of what they can hope to reasonably achieve through their efforts to protect remaining pockets of natural habitat in Canada’s hinterland regions (No Author 2007b; Struzik 2008).

A broader historical view of parks and protected areas suggests they have not always been the product of the most noble or beneficent motivations of their human creators. Throughout the late nineteenth and early twentieth centuries, the establishment of national parks and other types of protected areas had major social and economic impacts on indigenous people,

many of whom were displaced from the environs of the new forest and wildlife preserves in colonized territories within South Asia and Africa (Anderson and Grove 1987; Guha 1989; West and Brechin 1991). In North America, Native and non-Native inhabitants of hinterland regions were routinely removed from national parks and other nature preserves, particularly during the late nineteenth century period of westward expansion in Canada and the United States. The motivations for creating these national parks differed according to national and regional priorities, with protected spaces devoted to disparate goals such as wilderness preservation, tourism development, sport hunting, the conservation of endangered species, and resource extraction. But regardless of the specific purpose behind each park, human communities were often expelled, sometimes violently, from within the boundaries of the new protected areas (Binnema and Niemi 2006; Burnham 2000; Catton 1997; Cronon 1986; Keller, Robert and Turek, Michael F. 1998; Manore 2007; Sandlos 2005; Spence 1999). On a broader scale, recent historical scholarship has suggested that the retinue of government fish and wildlife conservation initiatives (i.e., parks, hunting regulations, gear restrictions, etc.) introduced beginning in the late nineteenth century were one of the primary means by which the state was able to assert control over subsistence-oriented communities inhabiting the hinterland regions of colonized societies (Loo 2006; Parenteau 1998; Parenteau 2004; Tober 1981; Warren 1997).

The conflict between the state and local systems of wildlife management has been central to the politics of the territorial north since the inception of the Canadian government's attempts to regulate the hunting and trapping in the region beginning in the 1890s. The prevailing cultural, demographic and ecological context for conflicts over access to game was, however, fundamentally different in northern Canada than other parts of North America. A harsh climate, limited agricultural opportunities, the survival of a majority Aboriginal population in many areas,

the geographically scattered nature of settlement and development, and the overwhelming economic importance of subsistence hunting and trapping to many indigenous communities all suggest that northern Canada was not subject to the same processes of wholesale ecological transformation that historians have associated with ecological imperialism further to the south (Crosby 1972; Crosby 2004; Piper and Sandlos 2007). Instead, the history of colonization in northern Canada has more in common with other regions that maintained a majority indigenous population such as Africa and South Asia, where the assertion of state bureaucratic control over wildlife, forests and grazing lands (and not the migration of a white settler population) provided one of the most important administrative vehicles through which the imperial powers attempted to assert authority over subsistence hunters and small-scale agriculturalists in hinterland regions (MacKenzie 1988; Sivaramakrishnan 1999). The historical and contemporary literature on these regions has generally fallen under the rubric of political ecology, a field of inquiry that has devoted a great deal of attention to the environmental, social and economic injustices associated with wildlife conservation and the establishment of protected areas in the Third World (Neumann 1998; Neumann 2005; Peluso 1993).

The history of wildlife conservation in northern Canada provides one salient opportunity to apply the interpretive framework of political ecology within a First World context. Indeed, many of the same themes from the Third World literature, such as Aboriginal exclusion from protected areas, state regulation of resource harvesting activities, the appropriation of wildlife and other resources for the purposes of commercial production, and the dispossession of a majority Aboriginal population from the local resource base, were similarly tied to the Canadian government's attempts to establish control over the subsistence economies of the region's Aboriginal people (Calverley 2000; Campbell 2004; Gottesman 1983; Kulchyski and Tester

2007; Sandlos 2001; Usher 2004). The explicit links between the Canadian government's wildlife policies and its sporadic dreams of northward expansion (particularly the long-standing idea that northern big game such as caribou and muskoxen should be saved and propagated as part of a domestic ranching economy that would in turn underpin growth of industry) indicates that conservation initiatives were tied to a broader colonial agenda in the region. Indeed, early northern conservation initiatives sought not just to preserve endangered animals, but appropriate wildlife to serve expanding commercial interests rather than those of the Dene, Inuit and Métis who depended on animals for food, clothing, and at times a modest income (Loo 2001; Loo 2006; Sandlos 2002; Sandlos 2007).

It is tempting to conclude that recent attempts to incorporate northern indigenous people and their traditional environmental knowledge (TEK) into co-management agreements for specific national parks and wildlife populations have relegated older approaches to wildlife management to the dustbin of historical anachronism, the dimly remembered “bad old days” when conservation and paternalism went hand in hand. Nonetheless, there is increasing evidence that the newer approaches to wildlife management in the region do not represent a clean break from the colonial mentality that dominated conservation initiatives in the past. Recent literature on wildlife and protected area co-management agreements suggests, for example, that Aboriginal knowledge and political imperatives are still often regarded as marginal and supplementary in importance when contrasted with scientific expertise and bureaucratic priorities emanating from the federal and territorial governments. Sharing power over wildlife does not, according to many commentators, mean that power is distributed equally between government agencies and Aboriginal people. In many respects, the emphasis on apportioning a limited degree of power over wildlife policy rather than simply devolving control to Aboriginal people suggests that

federal and territorial wildlife bureaucracies have not faced up to the colonial legacy that has infused the dialogue between the state and Aboriginal people over wildlife issues in the Canadian North. The extent to which contemporary power sharing agreements tend to marginalize, co-opt or ignore Aboriginal perspectives on wildlife management—imposing, in essence, managerial solutions on problems that are political in nature—suggests that further policy innovations will be required to fully address the colonial history of state wildlife conservation initiatives in northern Canada.

### **Colonial Encounters: Wildlife Conservation in the Canada North**

It seems strange at first glance to link early government conservation efforts in northern Canada to broader colonial initiatives in the region. After all, the bureaucratic resources devoted to wildlife conservation in early twentieth century Canada were extremely limited, occupying hidden corners of the Department of the Interior within administrative bodies such as the Parks Branch, the Department of Agriculture, and the Northwest Territories and Yukon Branch. The few pioneering wildlife bureaucrats who staffed these administrative bodies—men such as Rocky Mountains National Park Superintendent Howard Douglas, Parks Commissioner James Harkin, Dominion Entomologist Gordon Hewitt, Canadian National Museum zoologist Rudolph M. Anderson, and Chief of the Parks Branch's Animal Division Maxwell Graham—were able to achieve much through their dedication, their enthusiasm, and their deft employment of political capital derived from strong public support for wildlife conservation in the late nineteenth and early twentieth century. Their successes were many: the creation of fifteen new national parks between 1885 and 1929, the negotiation of the Migratory Birds Treaty with the United States in

1916, hunting prohibitions on endangered species such as bison and muskoxen, and the positioning of Canada as a world leader in bison conservation (with protected herds in Elk Island and Wood Buffalo National Parks, and the now defunct Buffalo National Park). As with contemporary environmentalists, a primary objective of the early wildlife conservationists was the protection of endangered species and endangered spaces in the Canadian hinterland (Burnett 2003; Foster 1998).

If this policy agenda seems benevolent and public spirited, there is a less savory side to early Canadian wildlife conservation programs. On the most basic level, conservation policies and institutions in northern Canada were imposed with little regard for the material needs and political priorities of Native hunters in the region. In many cases, the government had little scientific evidence to support their claims of wildlife emergencies, but relied instead on highly suspect reports of wasteful and improvident slaughters that filtered down through the popular writing and media reports produced by outside trappers, natural historians, or explorers who briefly passed through the Northwest Territories or harvested wildlife in the region on a seasonal basis (Sandlos 2001; Sandlos 2007). Perhaps the best historical illustration of the federal government's tendency to impose regulations on northern with Native hunters with little regard for local conditions comes from Migratory Birds Convention Act of 1917, a piece of legislation that established nation-wide open seasons on waterfowl that commenced in the autumn, well after most ducks and geese had migrated from their summer nesting grounds in the Far North (Gottesman 1983). In that same year, the federal government's Northwest Game Act imposed a broad array of unprecedented closed seasons on fur-bearing animals and critical game species such as caribou. Although the statute contained a starvation clause that allowed Native hunters to take big game species when they were suffering from hunger, the government had, to some

degree, asserted control over the ability of Aboriginal communities to choose the time of year they could hunt animals on which they depended for their food needs (Government of Canada 1917).

Native hunters in the Northwest Territories also faced restrictions on where they could hunt. When the government created Wood Buffalo National Park in 1922, federal wildlife officials agreed to allow Treaty Indians who had traditionally hunted and trapped in the park to continue their activities (subject to a comprehensive list of wildlife regulations that included an absolute ban on bison hunting). Park officials did, however, summarily expel hunters from the park who were Métis, who were not on the Treaty list, or who could not prove that they had maintained a longstanding occupation of the area. In 1927 the federal government took this approach one step further, expelling all Native and non-Native hunters from the Thelon Game Sanctuary when it was established to protect the dwindling muskoxen herds of the Arctic interior. Those banished from the sanctuary were primarily Chipewyan trappers who worked their lines in southwest corner of the preserve, well away from the major concentrations of muskoxen at the junction of the Thelon and Hanbury Rivers further to the north. As with the Migratory Birds Convention, both of these new parks were imposed without consulting Native communities, perhaps the most visible sign of the paternalistic attitude that the government had adopted towards local hunters in the region (Sandlos 2007).

The unilateral imposition of game regulations and the expulsion of human hunters from protected areas were only one manifestation of the colonial approach to wildlife conservation in the Northwest Territories. In the early twentieth century, northern dreamers both inside and outside government promoted the “Arctic Prairies” as a last frontier for the development of industry and settlement. In order to provide an agriculture base for northward expansion, many

boosters recommended the development of a northern ranching industry that could bypass the problem of extreme climate through the domestication of local wildlife such as muskoxen and caribou, or the importation of hardy northern herd animals such as European reindeer or Asian yak. Reports from northern explorers, most notably those of the explorer Vilhjalmur Stefansson, convinced many federal politicians and wildlife bureaucrats that Canada could extend the reaches of the empire to the farthest corners of the Canadian North if only a stable food base could be provided through the ranching of native wildlife or Old World semi-domesticates (Diubaldo 1998; Stefansson 1921; Stefansson 1924; Stefansson and Anderson 1913). If Native hunters could be convinced to take up the settled life of the Christian farmer rather than the pagan hunter and trapper, as so many had reportedly done after the introduction of reindeer to Alaska, so much the better it was for the advance of civilization in the region (Porsild 1936; Treude 1968).

The federal government's initial enthusiasm for harnessing the resource potential of northern wildlife is obvious from even the most casual observations of relevant documents from the period. In 1917 the Parks Branch sent its Chief of the Animal Division, Maxwell Graham, to investigate the possibility of a mass caribou slaughter near Churchill as a means to ease wartime food shortages (Graham 24 April 1918). Two years later the federal government established a Royal Commission, with Harkin as one of three presiding members, to investigate the economic potential for reindeer and muskox industries (including herds of domesticated caribou) throughout northern territories. It was not until 1935, however, that the federal government established a small reindeer herd in the Mackenzie Delta region after the animals were shepherded on a six year journey from Kotzebue Sound on the west coast of Alaska (Rutherford, et al. 1922). The federal government's enthusiasm for such ventures was dampened with the

onset of the Depression and the logistical difficulties with pilot reindeer and muskox projects (not to mention the fraudulent activities of several private reindeer ranching companies). There can be no doubt, however, that the conservation programs implemented during the same period were intended not only to protect species thought to be endangered, but also to appropriate wildlife and grazing ranges from local Aboriginal hunters in order to establish a commercial empire in the North (Hewitt 1972).

In the post-World War II era, the big game of the northern territories was once again incorporated into the rhetoric of northern economic development as plans for marketing northern wildlife provided partial justification for a commercial bison slaughter in Wood Buffalo National Park from 1950 to 1967 (Loo 2006; Sandlos 2002). Although commercial considerations faded somewhat in importance due to the perceived scarcities associated with the so-called caribou crisis of the mid-1950s to the late 1960s, the federal government attempted to establish further control over Natives subsistence practices by instructing field staff (i.e., Northern Service Officers, RCMP officers, Indian Agents, etc.) to do whatever they could to encourage Native people to shift their harvesting efforts from caribou to alternative food resources. Several fishing projects such as those at Nuelin Lake in 1950 and Contwoyto Lake in 1959 failed due to poor equipment and a lack of enthusiasm on behalf of the residents (Sandlos 2007; Tester and Kulchyski 1994). Nonetheless, the federal government's efforts to assert control over both the subsistence economy of Native northerners and the wildlife that sustained them suggests that the colonial mentality among federal officials with respect to the northern wildlife conservation programs had survived from its earliest manifestation in the late nineteenth century until the gradual devolution of authority over wildlife to the territorial government in the early 1970s.

## **Where Past and Present Meet**

Over the last four decades, a major paradigm shift in the federal and territorial policy regime governing wildlife management and the creation of protected areas in northern Canada has altered dramatically the relationship between Native hunters and the state in the region. Beginning in the 1970s, increasing political activism among Dene and Inuit groups in response to issues such as the proposed Mackenzie Valley Pipeline and unresolved land claims created a climate whereby Native people were able to assume a more prominent role in the management of wildlife and nature preserves in northern Canada (Berger 1988; Sabin 1995; Watkins 1977). Legal developments, such as the entrenchment of Aboriginal rights in Section 35 of the Canadian Constitution in 1982 and the landmark Supreme Court of Canada's *R v Sparrow* (1990) decision confirming Aboriginal rights to fish and hunt subject to state regulation only if such conservation measures could be justified, further entrenched the idea that the federal and territorial governments can no longer manage wildlife unilaterally. In addition, the emergence of a vast body of anthropological research on the traditional ecological knowledge (TEK) of northern Aboriginal people beginning in the 1980s has provided a further impetus for the devolution of a degree of decision making power over wildlife to Dene and Inuit hunters (Berkes 1994; Berkes 1999; Fast, Berkes, and Hudson Bay Programme 1994; Feit 1988; Freeman and Carbyn 1988, 124; Johnson 1992; Usher 1987).

The result has been a plethora of co-management agreements forged among Aboriginal groups and the state to formalize Aboriginal participation in the wildlife policy process. These co-management boards are often focused on particular species ranging from the barren-ground caribou to marine species such as arctic char or narwhal. In addition, several co-management

boards have been established through the comprehensive land claims agreement process (i.e., the Wildlife Advisory Committee created through the Inuvialuit Final Agreement in 1984 and the Nunavut Wildlife Management board that was established as part of the Nunavut Land Claims Agreement in 1993), and these have a broader mandate to advise on the conservation of a range of wildlife species in the over the broad settlement area. Aboriginal hunters in northern Canada also participate in a myriad of local forums, from community-based Hunters and Trappers Associations to informal conversations with local game officers, where they can have some influence over wildlife policy and harvesting strategies in their local area (Berkes et al. 2005; Peepre and Dearden 2002). Aboriginal harvesters have clearly become major players in the wildlife policy process in the territorial north, exercising a degree of influence over wildlife management that is often far greater than that of Native hunters and trappers living on reserves in southern Canada.

Perhaps nowhere is the shifting politics of wildlife conservation in the Canadian North more apparent than in changing approaches to the establishment and management of protected areas. Events in southern Canada, particularly protests by families who were expelled from Kouchibouguac or who faced expulsion from the proposed Gros Morne National Parks in the 1970s (MacEachern 2001), certainly did have a major influence on Parks Canada's decision to abandon expropriation as the preferred tool for securing park lands. Nonetheless, Aboriginal political activism around the issue of parks has also resulted produced a sea-change in attitudes towards local stakeholders within Parks Canada. In the early 1970s, northern Aboriginal groups argued successfully before House of Commons and Senate Committees that the establishment of national parks outside the umbrella of unresolved land claims would amount to an expropriation of Aboriginal title. The three parks established in the North during the 1970s—Kluane,

Auyuittuq, and Nahanni—were all created as national park reserves, a new legal designation that did not formally extinguish Aboriginal title to the land base, thus making the parks subject to unresolved comprehensive land claims negotiations processes (Fenge 1993). The *Parks Canada Policy* of 1979 formalized this new approach by recognizing the existence and importance of Aboriginal rights on potential and existing park locations (Parks Canada 1979), while the 1994 Guiding Principles Operational Policies further emphasized co-operation with local First Nations through dialogue and formal agreements, as well as respect for rights to land and wildlife resources guaranteed through land claims, court decisions, and the Canadian Constitution (Parks Canada 1994, 125). Legislative changes to the National Parks Act in 1988 and 2000 permitted Aboriginal hunters to harvest wildlife in select national parks, the vast majority of which are located in northern Canada (Government of Canada 1988; Government of Canada 2000).<sup>1</sup> All of these changes have produced a new model for managing national parks that is specific to northern Canada: no longer is the presence of Aboriginal people—whether in the form of resource harvesting or political activism—regarded as anathema to the preservation mandate of national parks in the region.

As a result, parks and protected areas have become less an object of displacement for Aboriginal hunters and more a valuable tool employed to preserve wildlife habitat and valuable hunting grounds from the encroachment of industrial development. Indeed, Dene and Inuit political organizations have in the past three decades taken the lead on the creation of national

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<sup>1</sup> The National Parks Act allows hunting in Wood Buffalo, Wapusk, Gros Morne and Mingan Archipelago National Parks, and traditional renewable resource harvesting in any park established through a land claim agreement or on the any national park established in an area where a Native group has a Treaty right to hunt and trap. Traditional resource harvesting occurs under these provisions in Aulavik, Auyuittuq, Gwaii Haanas, Ivvivik, Kluane, Nahanni, Pacific Rim, Pukaskwa, Quttinirpaaq, Sirmilik, Tuktut Nogait, Ukkusiksalik, and Vuntut National Parks. All hunting activities in the national parks are subject to the regulation of the federal cabinet (Government of Canada 2000; Peepre and Dearden 2002).

parks in the North through the comprehensive land claims process. The completion of the Inuvialuit Final Agreement in 1984, for example, resulted in the creation of Ivvavik National Park on the Yukon North Slope, while the Vuntut Gwitchin Final Agreement established the adjacent Vuntut National Park in 1993, in both cases to protect traditional hunting grounds and the winter range of the Porcupine Caribou Herd. During negotiations for the Nunavut Land Claims Agreement, Inuit representatives advocated the completion of the parks system in the region (or the setting aside of a national park in each federally designated natural region in Nunavut), but objections from development oriented federal government departments, particularly the Department of Indian Affairs and Northern Development and Natural Resources Canada, watered down this proposal to a promise for three national parks in Nunavut. Since that time, the federal government has designated Auyuittuq and Quttinirpaaq (formerly Ellesmere Island) National Park Reserves as full national parks, and created two new national parks in Nunavut: Sirmilik on north Baffin Island in 1999 and Ukkusiksalik on Wager Bay in 2003. In all of these cases, the land claims process has included impact and benefit agreements with the local communities surrounding the parks and provisions for the joint planning and management through boards and committees with Aboriginal representation (Indian and Northern Affairs Canada et al. 1999-2000; Fenge 1993; Gertsch et al. 2003). Similar advisory committees have been established in older parks such as Wood Buffalo, Kluane, and Auyuittuq through the land claims process or on an ad hoc basis. Aboriginal communities in the NWT have also taken the lead in designing protected areas strategies in their local region under the umbrella of broader territorial parks planning strategy (Northwest Territories. Dept. of Economic Development and Tourism and Canadian Parks Service 1992-2007).

Obviously such policy innovations represent some degree of progress when compared to the indifferent and at times hostile attitude that Canadian parks and wildlife officials displayed toward northern Aboriginal people in the early twentieth century. But then again, it is not difficult to demonstrate a positive evolution in northern parks and wildlife policy if one chooses as a historical reference a point in time representing the absolute nadir of the relationship between the state and Aboriginal communities in northern Canada. Choose a different moment in time—say, for example, the fur trade period from the 1670s to the 1880s when Aboriginal hunters harvested wildlife to fulfill subsistence and market needs with no interference from state managers—and you change the terms of the debate about progressive nature of contemporary wildlife and parks policies in the Canadian North. The key question becomes not how much has improved since the ‘bad old days’ (an approach that will inevitably celebrate almost any form of incremental change), but instead how much the governance of wildlife policy has been effectively de-colonized to grant Aboriginal hunters something resembling the degree of autonomy and sovereignty they exercised over northern wildlife before the advent of the state management era in the 1890s.

By this measure, the participatory revolution in northern parks and wildlife management remains incomplete. Despite three decades of policies designed to ameliorate the relationship between Parks Canada and northern natives, the federal government has not surrendered any substantive regulatory powers over wildlife in the parks to Aboriginal groups or co-management boards in northern areas. On a broad scale, the principles of co-management and power sharing were not enshrined in the National Parks Act of 2000 as a governing principle for northern protected areas. In parks where native people enjoy harvesting privileges, the NPA grants park superintendents and/or the federal cabinet a broad range of regulatory powers ranging from

harvest limits to permit requirements (Government of Canada 2000). As a result, the powers of the co-management boards remain largely advisory in nature and subordinate to the final management decisions of park officials or the relevant ministerial authority (Manseau, et al. 2005). Even if Aboriginal people are accorded a weak voice at the management table, recent research has suggested that, with the exception of Gwaii Haanas National Park, the traditional environmental knowledge of Native people has not been incorporated significantly into the discussions of any other national park co-management boards in Canada (Doberstein and Devin 2004; Weitzner and Manseau 2001). Despite the much celebrated co-operative approaches to managing parks in northern Canada, it is clear that protected areas and the planning processes that spawn them remain, in part, colonial institutions, symbols of a lack of political will to fully devolve power over landscapes and wildlife populations with the Aboriginal people who have lived in the region for centuries.

The failure to fully incorporate Aboriginal people into the decision making structure surrounding the national parks mirrors many of the problems with species-specific co-management agreements in the North. While some case studies of co-management bodies have suggested that Native groups can feel politically empowered through their direct involvement at the management table (Feit and Spaeder 2005; Gertsch et al. 2003; Goetze 2005; Huntington et al. 2002; Parlee and Manseau 2005; Spaeder 2005), there is a large body of literature on co-management boards (i.e., the Nunavut Wildlife Management Board, the Beverly and Qamanirjuaq Caribou Management Board, the Ruby Range Sheep Steering Committee) in northern Canada suggesting that Aboriginal hunters still occupy a marginal position in relation to government scientists and bureaucratic managers. As with the national parks, many species-specific co-management boards are empowered only to provide advice to the relevant cabinet minister

(Rodon 1998). Often wildlife co-management meetings and public forums are dominated by technical, scientific and bureaucratic language and bureaucratic environments (boardrooms, power point, etc.) that are alien to Aboriginal participants (Berkes et al. 2005; Nadasdy 1999; Nadasdy 2003a). In addition, non-Native participants on co-management boards are often so steeped in western ideas of what has been termed imperial ecology (Worster 1994), a worldview that reduces the non-human world to resources subject to control and management in order to produce a maximum sustained yield, that they fail to incorporate meaningfully Aboriginal knowledge of the natural world unless it can be used as data to support existing scientific premises and conclusions. In cases where the traditional knowledge of Aboriginal people conflicts with scientific studies, or when Aboriginal hunters speak outside the boundaries of rational science and articulate spiritual values or a view of animals as social beings (a worldview that informs the belief of many hunters, for example, that radio collaring shows a lack of respect for animals), their ideas are often ignored or marginalized (Cruikshank 1998, 211; Nadasdy 1999; Nadasdy 2003b; Spak 2005). Hence for Aboriginal people to participate in co-management bodies they must present their knowledge in a manner that is deemed useful to the scientists and managers with whom they share the boardroom table.

Many critics of co-management have argued that this tendency to regard Aboriginal TEK as a supplementary form of scientific data, rather than as a more expansive worldview that presents an alternative to western imperial ecology, has served to co-opt Aboriginal knowledge within a bureaucratic structure of wildlife management, expanding and solidifying state approaches to wildlife management in northern Aboriginal communities ((Ellis 2005; Kofinas 2005; Mulrennan and Scott 2005; Nadasdy 2003a; Nadasdy 2003b; Rodon 1998). Nadasdy has further argued (2005) that many co-management agreements have failed to incorporate Native

participants in a meaningful way because government bureaucrats often do not recognize that wildlife conservation is more than a managerial issue involving only instrumental questions, but also a contested political terrain that inevitably encompasses issues of power, control, and legitimacy.

The adoption of such an apolitical stance toward co-management suggests that bureaucratic approaches to wildlife conservation in the Canadian North are still firmly rooted in their colonial past. While recent attempts to include rather than simply ignore the voices of Aboriginal harvesters are certainly an improvement on past practices, the advent of the new co-management era in the North has clearly not in many cases resulted in a substantive sharing of political power between Native hunters and the state. To be fair, co-management can be interpreted as an attempt to build on the respective strengths of local and state perspectives on wildlife while minimizing the parochial weaknesses inherent to both, but it can also be seen as a means of confirming and legitimizing the presence of the state in a region where local management has historically been the norm. Recall, for a moment, that the co-management philosophy asks us to accept as a radical innovation the mere inclusion of Aboriginal communities who maintained absolute sovereign control over northern wildlife populations only a generation or two ago. The weak powers accorded to Aboriginal people on many of the wildlife advisory boards offers the state the best of both worlds: maintenance of political authority over wildlife 'resources' and the appearance of a consultative and consensus-building approach with Aboriginal hunters. To take just one example, the federal government's creation of a Wildlife Advisory Board at Wood Buffalo National Park in response to a land claims settlement with the Mikisew Cree in 1986 has failed to alter dramatically the political relationship between the state and local hunters in the region. As its title suggests, the powers of

the WBNP co-management board are only of an advisory nature; the absolute authority to create game regulations in the park rests with the federal cabinet. Many of the most reviled provisions that accompanied the creation of the park in 1922 remain in place: the absolute ban on hunting bison, the authority granted to the Park Superintendent to revoke the hunting and trapping permits of those who commit any violation of the game laws, and the implicit exclusion of many local hunters through the restriction of park hunting and trapping permits to three hundred and seventy (East 1991; Government of Canada 2008). Hence, the existence of the advisory board allows the federal government to claim that it has adopted a participatory approach to managing Wood Buffalo National Park without requiring the surrender of any of its political authority in the region. Moreover, implicit within the advisory nature of the management board is one of the most important principles of past colonial approaches to wildlife conservation: the assumption, inherent by definition to the co-management philosophy, that local management of natural resources is by itself deficient and that the role of the state is both necessary and at times primary to the formation of wildlife policy in the region.

A more radical approach to wildlife conservation in the Canadian North would include attempts to restore the local management regimes that existed prior to the advent of state management. Such an approach will provoke strong objections from the public and within the state wildlife bureaucracy. Some might adopt the utilitarian argument (used to justify state management since the pioneering efforts of Gifford Pinchot to assert public control over U.S. forests a century ago) that northern wildlife populations and national parks are a public trust that cannot be left subject to the whims and prejudices of local people. Others might object that rapidly changing ecological circumstances (i.e., climate change and toxic build-up in the North) and the decline of Aboriginal traditional ecological knowledge due to acculturation render the

non-scientific local management of wildlife populations a risky proposition. Still others might argue that the idealization of local Aboriginal wildlife management regimes relies on an overly romantic view of pre-contact Aboriginal harmony with wildlife populations that cannot be sustained in light of historical evidence (Denevan 1992; Krech 1999). There may be some truth to all of these criticisms, though all rest on the paternalistic idea that Aboriginal communities are less capable than non-Native outsiders of managing local wildlife populations, and that western scientific approaches to wildlife conservation represent are comparatively infallible despite a wealth of historical evidence to the contrary (Bocking 2004; Bocking 1997; Grove 1997; Sivaramakrishnan 2008; Sivaramakrishnan 1999; Stanley 1995; Worster 1994).

If a complete return to the local management regimes of a previous era seems unlikely, there are some practical steps that could be taken to further de-colonize state approaches to wildlife management in the region. Although it is not the intent of this essay to provide a comprehensive list of proposals, some possibilities for further empowering Aboriginal people within a local management framework have been implicit in the discussion thus far:

- further devolution of power over local wildlife and protected areas in the North through the removal ministerial overrides from wildlife co-management and advisory boards
- integration of wildlife advisory boards into the management structure of national and territorial parks (i.e., through a management position meant to represent the views of the board)
- majority representation of Aboriginal harvesters on wildlife co-management boards
- adoption of cutting edge scientific approaches, particularly the “learning by doing” approach associated with adaptive management, that accord well with the practical application of traditional ecological knowledge (Berkes, et al. 2000)
- recognition that traditional ecological knowledge is not simply a source of raw data but a worldview that encompasses a wide range of ideas governing the appropriate relationships between humans and non-humans
- inclusion of scientists on co-management boards who are not employed by the federal or territorial bureaucracy

- creation of several protected areas at the national and/or territorial level that are under the complete managerial control of surrounding Aboriginal communities

Too often, co-management has been presented as a catch-all solution—in most cases the only solution—to the strained historical relationship between state and local systems of wildlife management in the Canadian North. A further consideration of local management, or the full devolution of managerial power over specific wildlife populations or protected areas to Aboriginal communities in northern Canada, provides an opportunity to address and reconcile the historical and contemporary imbalances in the distribution of political power between Aboriginal wildlife harvesters and bureaucratic wildlife managers in the region. The politics of mere participation might then give way to a more restorative approach whereby Aboriginal communities are once again able to shape and control their relationships to wildlife populations on which they have depended for generations.

## References

- Anderson, David, and Richard Grove. 1987. *Conservation in Africa: People, policies, and practice*. New York: Cambridge University Press.
- Berger, Thomas R. 1988. *Northern frontier, northern homeland: The report of the Mackenzie Valley Pipeline Inquiry*. Vancouver: Douglas & McIntyre.
- Berkes, Fikret, Nigel Bankes, Melissa Marschke, Derek Armitage, and Douglas Clark. 2005. Cross-scale institutions and building resistance in the Canadian North. In *Breaking ice: Renewable resource and ocean management in the Canadian North*, eds. Fikret Berkes, Rob Huebert, Helen Fast, Micheline Manseau and Alan Diduick. Calgary: University of Calgary Press, 225-248.
- Berkes, F. 1994. Wildlife harvesting and sustainable regional native economy in the Hudson and James Bay Lowland, Ontario. *Arctic* 47, (4): 350-60.
- Berkes, Fikret. 1999. *Sacred Ecology: Traditional ecological knowledge and resource management*. Philadelphia: Taylor & Francis.
- Berkes, Fikret, Johan Colding, and Carl Folke. 2000. Rediscovery of traditional ecological knowledge as adaptive management. *Ecological Applications* 10, (5) (Oct.): 1251-62.
- Binnema, Theodore, and Melanie Niemi. 2006. 'Let the line be drawn now': Wilderness, conservation, and the exclusion of aboriginal people from Banff National Park in Canada. *Environmental History* 11, (4): 724-50.
- Bocking, Stephen. 2004. *Nature's experts: Science, politics and the environment*. New Brunswick, N.J.: Rutgers University Press,
- . 1997. *Ecologists and environmental politics: A history of contemporary ecology*. New Haven: Yale University Press.
- Burnett, J. A. 2003. *A passion for wildlife: The history of the Canadian Wildlife Service*. Vancouver: UBC Press.
- Burnham, Philip. 2000. *Indian country, god's country: Native Americans and the national parks*. Washington: Island Press.
- Calverley, David. 2000. *Who controls the hunt? Ontario's 'Game Act,' the Canadian government and the Ojibwa*, PhD Dissertation, University of Ottawa.
- Campbell, Craig. 2004. A genealogy of the concept of 'wanton slaughter' in Canadian wildlife biology. In *Cultivating arctic landscapes: Knowing and managing animals in the*

- Circumpolar North*, eds. David G. Anderson and Mark Nutall. New York: Berghahn Books, 154-171.
- Canadian Council on Ecological Area (CCEA). 2003. *Designing protected areas: Wild places for wild life. Proceedings summary of the 2003 Canadian Council on Ecological Areas (CCEA) and Circumpolar Areas Network (CPAN) workshop, September 9-10, 2003, Yellowknife, Northwest Territories*. Ottawa: Canadian Council on Ecological Areas, .
- Catton, Theodore. 1997. *Inhabited wilderness: Indians, Eskimos, and national parks in Alaska*. Albuquerque: University of New Mexico Press.
- Conservation of Arctic Flora and Fauna (CAFF). 1994. *The state of protected areas in the Circumpolar Arctic 1994*. Trondheim, Norway: Directorate for Nature Management, CAFF Habitat Conservation Report No. 1.
- Cronon, William. 1986. The trouble with wilderness; or, getting back to the wrong nature. In *Uncommon ground: Re-thinking the human place in nature*, 69-90. New York: W. W. Norton.
- Crosby, Alfred W. 2004. *Ecological imperialism: The biological expansion of Europe, 900-1900*. Cambridge: Cambridge University Press.
- . 1972. *The Columbian exchange; biological and cultural consequences of 1492*. Westport, Conn.: Greenwood Pub. Co.
- Cruikshank, Julie. 1998. *The social life of stories: Narrative and knowledge in the Yukon Territory*. Lincoln: University of Nebraska Press.
- De Souza, Mike. 2007. Harper starts northern trek by enlarging Nahanni National Park. *CanWest News* (Aug 9):  
<http://proquest.umi.com/pqdweb?did=1318635671&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed March 7<sup>th</sup>, 2008).
- Denevan, William M. 1992. The pristine myth: The landscape of the Americas in 1492. *Annals of the Association of American Geographers* 82, (3): 369-85.
- Diubaldo, Richard. 1998. *Stefansson and the Canadian Arctic*. Montreal: McGill-Queen's University Press.
- Doberstein, Brent, and Sarah Devin. 2004. Traditional ecological knowledge in parks management: A Canadian perspective. *Environments* 32, (1): 47-61.
- East, Ken M. 1991. Joint management of Canada's northern parks. In *Resident people and national parks: Social dilemmas and strategies in international conservation*, eds. Patrick C. West, Stephen R. Brechin. Tuscon: University of Arizona Press, 333-345.
- Ellis, Stephen C. 2005. Meaningful consideration? A review of traditional knowledge in environmental decision making. *Arctic* 58, (1) (Mar): 66-77.

- Fast, Helen B., Fikret Berkes, and Hudson Bay Programme. 1994. *Native land use, traditional knowledge and the subsistence economy in the Hudson Bay Bioregion*. Ottawa: Hudson Bay Programme.
- Feit, Harvey A., 1988. *Self-management and state management, forms of knowing and managing northern wildlife*. In Traditional knowledge and renewable resource management in northern regions, eds. Milton M.R. Freeman and Ludwig N. Carbyn. International Union for the Conservation of Nature and Canadian Circumpolar Institute Occasional Publication No. 23. Edmonton: Canadian Circumpolar Institute, 72-91.
- Feit, Harvey A., and Joseph J. Spaeder. 2005. Co-management and indigenous communities: Barriers and bridges to decentralized resource management - introduction. *Anthropologica* 47, (2): 147-54
- Fenge, Terry. 1993. National parks in the Canadian Arctic: The case of the Nunavut Land Claims Agreement. *Environments* 22, (1): 20-63
- Foster, Janet. 1998. *Working for wildlife: The beginning of preservation in Canada*. 2nd ed. Toronto: University of Toronto Press.
- Freeman, Milton M. R., Ludwig N. Carbyn, eds. 1988. Traditional knowledge and renewable resource management in northern regions, International Union for the Conservation of Nature and Canadian Circumpolar Institute Occasional Publication No. 23. Edmonton: Canadian Circumpolar Institute.
- Gertsch, Frances, Graham Dodds, Micheline Manseau, and Joadamee Amagoalik. 2003. Recent experiences in cooperative management and planning for Canada's northernmost national park: Quttinirpaaq National Park on Ellesmere Island. Paper presented at Making ecosystem-based management work. Proceedings of the Fifth International Conference on Science and Management of Protected Areas, May 2003, Victoria, B.C.
- Goetze, Tara C. 2005. Empowered co-management: Towards power-sharing and indigenous rights in Clayoquot Sound, BC. *Anthropologica* 47, (2): 247-65
- Gottesman, Dan. 1983. Native hunting and the Migratory Birds Convention Act: Historical, political, and ideological perspectives. *Journal of Canadian Studies* 18, (3): 67-89.
- Government of Canada. 2008. *Wood Buffalo National Park Game Regulations*. Vol. SOR/78-830. <http://laws.justice.gc.ca/en/N-14.01/SOR-78-830/text.html?noCookie> (accessed March 3<sup>rd</sup>, 2008).
- . 2000. Canada national parks act, 2000. *Statutes of Canada*, c. 32.
- . 1988. Canada national parks act, 1988. *Statutes of Canada*, c. 48.
- . 1917. An act respecting game in the Northwest Territories of Canada. *Statutes of Canada*, vol. 1, c. 36.

- Graham, Maxwell. 24 April 1918. *Letter to James Harkin*. Vol. RG 85, vol. 665, file 3914, pt. 1, Library and Archives Canada.
- Grove, Richard. 1997. *Ecology, climate and empire: Colonialism and global environmental history, 1400-1940*. Cambridge, UK: White Horse Press.
- Guha, Ramachandra. 1989. *The unquiet woods: Ecological change and peasant resistance in the Himalaya*. Delhi: Oxford University Press.
- Hewitt, C. Gordon. 1972. *The conservation of the wild life of Canada*. Toronto: Coles Pub. Co.
- Huntington, Henry P., Patricia K. Brown-Schwalenberg, Kathryn J. Frost, Maria E. Fernandez-Gimenez, David W. Norton, and Daniel H. Rosenberg. 2002. Observations on the workshop as a means of improving communication between holders of traditional and scientific knowledge. *Environmental Management* 30, (6): 778-92.
- Indian and Northern Affairs Canada, Government of the Northwest Territories, and Nunavut Tunngavik Incorporated. 1999-2000. Annual report, the implementation of the Nunavut Land Claims Agreement. Ottawa: Minister of Indian Affairs and Northern Development.
- Jackson, Matthew. 1998. The river of returns? A new mine may soon strike it rich at the expense of the South Nahanni. *Outdoor Canada* 26, (4) (May): 18.
- Johnson, Martha, ed. *LORE : Capturing traditional environmental knowledge*. Ottawa: Dene Cultural Institute and International Development Research Centre.
- Keller, Robert and Turek, Michael F. 1998. *American Indians and the national parks*. Tuscon: University of Arizona Press.
- Kofinas, Gary P. 2005. Caribou hunters and researchers at the co-management interface: Emergent dilemmas and the dynamics of legitimacy in power sharing. *Anthropologica* 47, (2): 179-96.
- Krech, Shepard. 1999. *The ecological Indian: Myth and history*. New York: W.W. Norton & Company.
- Kulchyski, Peter Keith, and Frank J. Tester. 2007. *Kiumajut (talking back): Game management and Inuit rights, 1900-70*. Vancouver: UBC Press.
- Langford, Cooper. 2003. Draw the line. *Up here* 19, (4) (May/Jun): 52-58; 69
- Loo, Tina. 2006. *States of nature: Conserving Canada's wildlife in the twentieth century*. Vancouver: UBC Press.
- . 2001. Making a modern wilderness: Conserving wildlife in twentieth-century Canada. *Canadian Historical Review* 82, (1): 92-121.

- MacEachern, Alan. 2001. *Natural selections: National parks in Atlantic Canada, 1935-1970*. Montreal: McGill-Queen's University Press.
- MacKenzie, John M. 1988. *The empire of nature: Hunting, conservation, and British imperialism*. Manchester: Manchester University Press.
- Manore, Jean. 2007. Contested terrains of space and place: Hunting and the landscape known as Algonquin Park, 1890-1950. In *The culture of hunting in Canada*., ed. Jean Manore. Vancouver: University of British Columbia Press, 121-147.
- Manseau, Micheline, Brenda Parlee, and G. Burton Ayles. 2005. A place for traditional ecological knowledge in resource management. In *Breaking ice: Renewable resource and ocean management in the canadian north*., eds. Fikret Berkes, Rob Huebert, Helen Fast, Micheline Manseau and Alan Diduick. Calgary: University of Calgary Press, 141-164
- Mulrennan, ME, and CH Scott. 2005. Co-management - an attainable partnership? two cases from james bay, northern quebec and torres strait, northern queensland. *Anthropologica* 47, (2): 197-213.
- Nadasdy, Paul. 2005. The anti-politics of TEK: The institutionalization of co-management discourse and practice. *Anthropologica* 47 (2): 215-32.
- . 2003a. *Hunters and bureaucrats: Power, knowledge, and aboriginal-state relations in the Southwest Yukon*. Vancouver: UBC Press.
- . 2003b. Reevaluating the co-management success story. *Arctic* 56, (4) (Dec): 367-80
- . 1999. The politics of TEK: Power and the 'integration' of knowledge. *Arctic Anthropology* 36, (1): 1-18.
- Neumann, Roderick P. 2005. *Making political ecology*. New York: Hodder Arnold
- . 1998. *Imposing wilderness: Struggles over livelihood and nature preservation in Africa*. Berkeley: University of California Press.
- No Author. 2007a. Canadian boreal initiative applauds federal government for advancing expansion of Nahanni National Park Reserve. *Canada News Wire* (Aug 8): <http://proquest.umi.com/pqdweb?did=1316762571&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed March 7, 2008).
- No Author. 2007b. One step closer to East Arm National Park. *Up here* 23, (1) (Jan/Feb): 16.
- Northwest Territories, Dept. of Economic Development and Tourism, and Canadian Parks Service. 1992-2007. *New Parks North: An annual report on natural and cultural heritage initiatives in northern Canada*

- Nowlan, Linda. 2001. *Arctic legal regimes for environmental protection*. Gland, Switzerland and Cambridge, UK and ICEL, Bonn, Germany: International Union for the Conservation of Nature (IUCN), IUCN Environmental Policy and Law Paper No. 44.
- Parenteau, Bill. 2004. A 'very determined opposition to the law': Conservation, angling leases, and social conflict in the Canadian atlantic salmon fishery, 1867-1914. *Environmental History* 9, (3): 436-63.
- . 1998. 'Care, control and supervision': Native people in the Canadian atlantic salmon fishery, 1867-1900. *Canadian Historical Review* 79, (1): 1-35.
- Parks Canada. 2007. *Taking care of nah?a dehé*. Gatineau, Quebec: Parks Canada, [http://dsp-psd.pwgsc.gc.ca/collection\\_2007/pc/R63-342-9-1-2006E.pdf](http://dsp-psd.pwgsc.gc.ca/collection_2007/pc/R63-342-9-1-2006E.pdf) (accessed March 7<sup>th</sup>, 2008).
- . 1994. *Parks Canada guiding principles and operational policies*. Ottawa: Parks Canada.
- . 1979. *Parks Canada policy*. Hull, Quebec: Parks Canada.
- Parlee, Brenda, and Micheline Manseau. 2005. Using traditional knowledge to adapt to ecological change: Denésoliné monitoring of caribou movements. *Arctic* 58, (1) (Mar): 26-37.
- Peepre, Juri, and Bob Jickling, eds. 1994. *Northern protected areas and wilderness*. Proceedings from a forum on northern protected areas and wilderness Whitehorse, Yukon November, 1993. Whitehorse, YK: Canadian Parks and Wilderness Society and Yukon College.
- Peepre, Juri, and Philip Dearden. 2002. The role of aboriginal peoples. In *Parks and protected areas in Canada: Planning and management*, eds. Philip Dearden, Rick Rollins. Second Edition. Toronto: Oxford University Press.
- Peluso, N. L. 1993. Coercing conservation? the politics of state resource control. *Global Environmental Change* 3, (2): 199-217
- Piper, Liza, and John Sandlos. 2007. A broken frontier: Ecological imperialism in the Canadian North. *Environmental History* 12, (4): 759-95.
- Porsild, Alf Erling. 1936. The reindeer industry and the Canadian Eskimo. *The Geographical Journal* 88, (1): 1-17.
- Rodon, Thierry. 1998. Co-management and self-determination in Nunavut. *Polar Geography* 22, (2): 119-35.
- Rutherford, John, James McLean, and James Harkin. 1922. *Report of the Royal Commission appointed by order in council of date may 20, 1919 to investigate the possibilities of the reindeer and musk-ox industries in the arctic and sub-arctic regions of Canada*. Ottawa: King's Printer.

- Sabin, Paul. 1995. Voices from the hydrocarbon frontier: Canada's Mackenzie Valley Pipeline Inquiry (1974-1977). *Environmental History Review* 19, (1): 17-48.
- Sandlos, John. 2007. *Hunters at the margin: Native people and wildlife conservation in the Northwest Territories*. Vancouver: UBC Press.
- . 2005. Federal spaces, local conflicts: National parks and the exclusionary politics of the conservation movement in Ontario, 1900-1935. *Canadian Historical Association Journal* 16: 293-318.
- . 2002. Where the scientists roam: Ecology, management and bison in northern Canada. *Journal of Canadian Studies* 37, (2) (Summer): 93-129
- . 2001. From the outside looking in: Aesthetics, politics, and wildlife conservation in the Canadian North. *Environmental History* 6, (1): 6-31.
- Sivaramakrishnan, K. 2008. Science, environment and empire history: Comparative perspectives from forests in colonial India. *Environment and History* 14, (1): 45-61.
- . 1999. *Modern forests: Statemaking and environmental change in colonial Eastern India*. Stanford: Stanford University Press.
- Spaeder, Joseph J. 2005. Co-management in a landscape of resistance: The political ecology of wildlife management in Western Alaska. *Anthropologica* 47, (2): 165-78.
- Spak, Stella. 2005. The position of indigenous knowledge in canadian co-management organizations. *Anthropologica* 47, (2): 233-46
- Spence, Mark David. 1999. *Dispossessing the wilderness: Indian removal and the making of the national parks*. New York: Oxford University Press.
- Stanley, Thomas R. 1995. Ecosystem management and the arrogance of humanism. *Conservation Biology* 9, (2): 255-62.
- Stefansson, Vihjálmur. 1924. *The northward course of empire*. New York: Macmillan.
- Stefansson, Vilhjalmur. 1921. *The friendly Arctic; the story of five years in polar regions*. New York: Macmillan.
- Stefansson, Vilhjalmur, and Rudolph Martin Anderson. 1913. *My life with the Eskimo*. New York: Macmillan.
- Struzik, Ed. 2008. East arm national park a long time in coming. *Edmonton journal* (20 January), E6
- Tester, Frank J., and Peter Keith Kulchyski. 1994. *Tammarniit (mistakes): Inuit relocation in the Eastern Arctic, 1939-63*. Vancouver: UBC Press.

- Tober, James A. 1981. *Who owns the wildlife?: The political economy of conservation in nineteenth-century America*. Westport, Conn.: Greenwood Press.
- Treude, Erhard. 1968. The development of reindeer husbandry in Canada. *Polar Record* 14, (88): 15-19.
- Usher, Peter. 2004. Caribou crisis or administrative crisis? Wildlife and Aboriginal policies on the barren grounds of Canada, 1947-60. In *Cultivating arctic landscapes: Knowing and managing animals in the Circumpolar North*, eds. David G. Anderson, Mark Nutall, 172-199. New York: Berghahn Books.
- Usher, Peter J. 1987. Indigenous management systems and the conservation of wildlife in the Canadian North. *Alternatives* 14, (1): 3.
- Warren, Louis S. 1997. *The hunter's game: Poachers and conservationists in twentieth-century America*. New Haven, CT: Yale University Press.
- Watkins, Mel. 1977. *Dene nation, the colony within*. Toronto: University of Toronto Press.
- Weitzner, Viviane, and Micheline Manseau. 2001. Taking the Pulse of collaborative management in Canada's national parks and national park reserves: Voices from the field. In *Proceedings of the 11th conference on research and resource management in parks and on public lands*, ed. David Harmon. Hancock, Michigan: The George Wright Society.
- West, Patrick C., and Stephen R. Brechin, eds. 1991. *Resident people and national parks: Social dilemmas and strategies in international conservation*. Tuscon: University of Arizona Press.
- Wiersma, Yolanda F., Thomas J. Beechy, Bas M. Oosenbrug, and John C. Meikle. 2005. *Protected areas in Northern Canada: Designing for ecological integrity, phase 1 report*. CCEA occasional paper. Vol. 16. Ottawa: Canadian Council on Ecological Areas.
- Worster, Donald. 1994. *Nature's economy: A history of ecological ideas*. 2nd ed. Cambridge; New York: Cambridge University Press.