

# The "Jarvis Proof": Management of Bison, Management of Bison Hunters, and the Development of a Literary Tradition

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## Introduction

The research in which I am involved as a recipient of an Alberta Culture/Boreal Institute Fort Chipewyan/Fort Vermilion Bicentennial Research Grant is directed at examining aspects of the current controversy between wildlife managers and Native subsistence users in the Canadian North over the rights to manage wildlife resources. The basic question in this particular controversy is: in wildlife management, what is the most effective structuring of input from, on the one hand, the local users and, on the other hand, the manager from the central office? The current research project uses data on wildlife management from Wood Buffalo National Park to examine certain aspects of this topic.

This paper specifically focuses on the development of a literary tradition which establishes and perpetuates the image of Native wildlife users as "non-conservers," an image which serves to justify to Euro-Canadian wildlife managers the role of these wildlife users in the management system. I call this a literary tradition in that the main sources are published ones and in that these sources have been cited over the years in other reports dealing with wildlife management in the Wood Buffalo area. These sources and the image which they present of the Native hunter/trapper have, in a very real sense, become part of the heritage of managerial knowledge.

## The Role of the Wildlife-User in the Euro-Canadian Management System

It is perhaps a truism that Euro-Canadian wildlife management involves exerting control not so much over the actual animal species as over the people who use that species. In part, this is a matter of which strategy is effective. Managing the species itself can involve techniques to manage the habitat or to control disease, but of all the environmental factors influencing an animal population, the one humans feel most knowledgeable about manipulating is the human harvest of wildlife. In addition, there may be an ambivalence about juxtaposing concepts of "wildlife" and "management." As one biologist remarked in reference to bison management in the

park, exerting control over the bison is incongruent with the concept of wildlife (Fuller 1966: 44). How "wild" is the "wildlife" if it is constantly being handled? The corollary to this perspective is that exclusion of the user, as occurs in the case of bison in the park, is management enough. Native Canadian hunters/trappers would have quite a different perspective, of course, on the "wildness" of indigenous fauna and how both this perspective and the exclusion of users relate to "management."

In the Euro-Canadian management system, the user is controlled by limits placed on membership in the user class, on the material technology involved and on the labour invested in the harvesting activity. For instance, restrictions on license availability constrain membership in the groups of users; prohibitions on hunting with skidoos, planes, flashlights constrain the technology; and restrictions on the bag or the season constrain the labour invested.

These constraints, in general, flow from a manager group down to a user group. The hierarchical structuring of manager (superordinate) and user (subordinate) in this system is in striking contrast to traditional Native Canadian wildlife management systems in which the users were the managers and provided their own restrictions on membership in the user group and on technology and labour input. The claim to superordinate status on the part of the Euro-Canadian manager is validated, in Euro-Canadian opinion, by a claim to superior knowledge based on either extensive training in the biological sciences or access to the advice of biologists. Game regulations presumably reflect this knowledge, as well as reflecting accommodations made for other competing uses of the game species. Control over knowledge was a source of prestige in traditional Native society, of course, but in this context, it contributes not to authoritarianism but to the education and development of all involved. In one well-worded description, Craik (1975: 461) depicts the role of the boss of the goose hunt among the James Bay Cree as one whose "suggestions heighten the group's awareness of rationales for one or

another particular plan. In this way, the rationales are better formulated for evaluations by all.”

The claim to superior knowledge by Euro-Canadian managers is supported by an assumption of scientific objectivity. In contrast, users are seen as being all too subjective. Individuals in a community are perceived as maximizing their own gain without regard for the common good (e.g. Hardin 1968). The user as “non-conservator” is a familiar theme in the management literature (Macpherson 1981), particularly recently as the management community attempts to rebut anthropological stereotypes of the Native hunter as the ideal conservationist. Part of the underpinning of the argument for Native hunters as non-conservationists derives from relatively anecdotal sources. Published and subsequently cited in the literature to which the literate manager has extensive access, these anecdotes assume substance and validity over the years. They can contribute to the background that a manager brings to a problem situation, a background at which the user involved usually cannot even begin to guess.

#### The “Jarvis Proof”

In 1894 an amendment to the Territorial Game Ordinance of 1888 prohibited the hunting of the northern bison (*Bison bison athabascae*). In 1897 the North West Mounted Police made the first patrol into the Fort Smith area to make sure the laws concerning bison and other matters were being obeyed. Subsequent patrols were made, but by 1907, the conclusion had been reached that the growth of the bison herds was disappointingly slow. Some opinion had been garnered that this lack of increase was due to wolf predation.

Major A.M. Jarvis was sent to investigate this matter in the summer of 1907. The purpose of his patrol was to report on the conditions of the bison and to make recommendations concerning the need to establish police posts in the area in addition to the one already established at Fort Chipewyan. Jarvis’ conclusion was that the local people of Fort Fitzgerald, the major settlement, were responsible for the slow increase of the bison population. These conclusions are found in the “Report of Inspector A.M. Jarvis, C.M.G., on Wood Buffalo in the Mackenzie River District,” published in the report of the Royal Northwest Mounted Police (RNWMP) included in the Sessional Papers of 1908 (Jarvis 1908). Jarvis’ opinions were supported and reiterated by his travelling companion, the noted naturalist E.T. Seton, and included in Seton’s travel book, *The Arctic Prairies* (1911). So, both Jarvis’ report and Seton’s book act as sources of this literary tradition.

In considering the different facets of Jarvis’

arguments in support of his conclusion, it is necessary to stress at the onset that none of his arguments was based on statistics. No numerical data were presented to support his contentions that a) bison were not increasing, b) wolves were not killing the bison, or c) local people were killing the bison.

In 1897, there was no precise idea of the number of bison in the area. Report varied from 100 to 500. In 1907, there was equally little information about the number of bison in the area. Jarvis’ patrols did nothing to improve this state of knowledge. The patrols performed by Jarvis with Seton and the naturalist, Preble, included one trip in which they travelled three days west from Fort Fitzgerald into the bison summer habitat on the uplands of the Alberta Plateau, and two patrols aimed at the Nyarling River area, but which ended before they reached their goal. Neither of these latter two trips penetrated the “buffalo country,” as Jarvis termed it. On the first patrol, 33 bison were seen, one possible wolf and some old wolf sign. On the last two patrols, neither bison nor wolves were observed.

In reference to the assertion that the Fort Fitzgerald people must be responsible for the so-called slow increase in the bison herds, there was equally little statistical backing. Several convictions for bison poaching had occurred since 1897, but this small number did not indicate much one way or another, particularly since the nearest constable was in Fort Chipewyan.

In the absence of direct evidence, Jarvis’ arguments turned on a number of indirect sources. It is obvious that his suspicions were aroused before he ever reached the “Fitz-Smith” area and the “buffalo country.” In his report, at the point where he is describing the departure from Fort Chipewyan, Jarvis stated that:

rumours that the wolves were destroying the buffalo were current everywhere. Some went so far as to say that these wolves were a new and larger race come in from the Barren Grounds, to prey on them. Such rumors were repeated at every point in much the same words, without any details. This aroused my suspicions [Jarvis 1908: 122].

Seton’s account (1911: 38-39) also made reference to this rumour but portrayed an increasing exaggeration of wolf size and daring in the stories heard as he, Jarvis and Preble, travelled closer to the buffalo country.

There were two aspects to this rumour that seemed to alert Jarvis. First, he found it unbelievable that a larger sub-species of wolf had entered the area

from the country to the east of the Slave River and was preying on the bison. This particular phenomenon was not noted or considered for validation within the Euro-Canadian scientific tradition until the 1940s (Soper 1945: 22). Secondly, the repetition of the same story without any corroborating details obviously raised the idea of conspiracy in Jarvis' mind.

Jarvis' initial suspicions were reinforced by the reluctance of Fort Fitzgerald people to act as guides. According to Seton (1911: 39), even before the three men set out on their first patrol with their well-paid guide, Jarvis had concluded that the local leading men who had refused the work were indeed the wolves "playing havoc with the Buffalo."

Jarvis offered additional indirect evidence in his report: the local people were in possession of pemmican which was neither moose nor caribou. Therefore, it must be buffalo. Moose was abundant, but little trade was being done in mooseskins. Thus, moose were not being fully utilized, because hunters were taking bison. Wolf skins were being presented for bounty, but it was possible that some of the skins were being brought in from outside the bounty area. Therefore, wolves were not necessarily all that abundant.

In his Appendix B on the bison, Seton (1911: 319) made reference to a trader in Fort Resolution who hinted that people were taking bison, and he cited a number of instances of bison hunting in the previous seven years. His conclusions in the Appendix were a little less colourfully phrased than in the main text, and he showed some sympathy for the Native people in having this law thrust upon them. He concluded, though, that the bison were not increasing "partly because the Wolves kill a few calves every winter, and chiefly because the Indian pursue them regularly for food" (Seton 1911: 320).

Seton recommended that the local people be given some compensation for the loss of bison as a resource (*ibid*). Jarvis recommended more patrols to ascertain the exact number of bison, resident guardians to protect the bison from the local poachers, and imprisonment without the option of a fine as the penalty for a conviction for poaching. He also suggested that a national park was a possible option.

In sharp contrast with Seton's and Jarvis' analysis are the remarks offered by Superintendent Routledge in the following year of 1908 and by RNWMP officers in 1908 and 1909. Although Routledge did not overtly criticize Jarvis' analysis, his report addressed directly a number of the points which Jarvis raised.

Routledge's patrol took him into the Nyarling

River area. On the basis of tracks and sightings, he concluded that wolves were numerous in the general area. He also noted that, given the sightings of animals, the tracks were not as numerous as he expected. He suggested (1909: 131) that "the absence of tracks ... is explained by the fact that they [the wolves] travel on the hard, well beaten trail made by the buffalo, and consequently, leave no impression." Routledge surmised that this abundance of wolves undoubtedly constituted a danger to the small bison herd. His conclusions concerning the number and the impact of the wolves were supported by the reports of subsequent patrols in 1908 and 1909, which made reference to wolves stampeding bison (Mellors 1910) and to piles of wolf dung full of buffalo hair and bone chips (Mellors 1910: 188; Johnson 1910: 189).

One factor which influenced the contrast between these analyses and the conclusions of Jarvis and Seton was seasonality. Jarvis' patrols were made in the summer when the bison herds were dispersed and most distant from the settlements of the Slave River. The patrols of Routledge, Mellor and Johnson were made in winter, when not only were the bison and the wolves more easily tracked, but also the bison were concentrated in the wintering grounds closer to the river. In addition, local guides were more readily available in the winter once the usual summer employment of freighting on the portage was no longer a constraint.

A second point that Routledge addressed was the question of whether the local people were hunting the bison. He (1909: 132) noted that he was unable to "obtain evidence of the Indians at Fort Fitzgerald and Smith having killed buffalo during the past two years and that they had done so during the years immediately preceding that period was a matter of suspicion only."

Routledge recommended that a Dominion reserve for buffalo be established with an indefinite closed season for bison, and hunting and trapping of other animals to be allowed by permit only.

In summary, two analyses by two different sets of authors in consecutive years arrived at very different conclusions concerning the abundance of wolves and the impact of wolf predation and human predation respectively on bison herds.

### The Evolution of a Literary Tradition

It is not the point of this paper to argue that wolf predation rather than human predation was adversely affecting bison population in the early 1900s. It is certainly not the point to argue that Native peoples never hunted bison after the passing of the law, nor is its purpose to examine any part of

that wolf versus human hunter debate which continues so unproductively to the present time. The point is simply to indicate some of the implications of the fact that, despite the lack of evidence to support Jarvis' "proof" and despite Routledge's speedy refutation of parts of Jarvis' argument, it is Jarvis' image of the local hunter as the "non-conservator" which has been acknowledged and passed down in the literary tradition.

Let us look now at a number of instances in which Jarvis' and Seton's analysis have been cited in the literature and the intent of the citation. The first reference to be discussed is the 1926 "Statement as to the Need for Eliminating Indians as well as other Hunters and Trappers from the Wood Buffalo Park" (Public Archives of Canada RG85). The author of the memo was not identified, but there are certain indications that it was O.D. Finnie, Director of the North West Territories and Yukon Branch, the section of the Department of the Interior which had responsibility for the park. This memorandum states that the permission given to the local Treaty Indian peoples to hunt and trap in the park was a temporary matter only and that in large part, it was a test of whether people would hunt and trap according to park regulations. It was the author's contention that the people were breaking the regulations. Most of the evidence actually discussed in the memorandum was indirect; for example, Indian people had been uncooperative with the warden, and families had moved into the Peace Point area to live permanently. Among the indirect evidence cited was the opinion of Jarvis and Seton: "in the past authorities such as Ernest T. Seton and officials, such as Major Jarvis of the Royal Canadian Mounted Police, have reported that there is little doubt but that the Indians do kill the buffalo" (*ibid.*).

As a consequence of the "proof" that local Treaty Indian people were consistently breaking the law, the memorandum recommended that they should be relocated north of Great Slave Lake. In this particular case, then, the Jarvis "proof" is used by a senior official in the government to bolster a radical policy suggestion. Subsequent uses of this citation were less drastic.

A second citation occurred in Raup's (1933) comprehensive review of the early historical reports on the bison in the Fort Smith area, which prefaced his work in the range conditions of the wood buffalo. Raup (1933: 14) noted that "Seton and Jarvis showed that the main causes for slow increases in the herds were not wolves, but Indian poachers." Although Raup reviewed Superintendent Routledge's report and those of the subsequent mounted police patrols, he did not refer to their evidence, which

refuted Seton's and Jarvis' "proof."

In fact, Raup extrapolated from this "proof" to argue for a general guideline regarding the use of information from local users. Since local users did not see the game laws as in their interests, all information on wildlife that they provided was suspect because it was directed towards circumventing the law, or so Raup (1933: 8) argued. Such information was prone to "flagrant misrepresentation," as in the case of local references to the impact of wolves on the buffalo.

Citing Raup (1933) as its source, a review in 1976 of bison management in Wood Buffalo National Park by a Park Superintendent (Mitchell 1976: B4) noted once again that "Jarvis and Seton also showed that the main causes for slow increases in the bison population following protection in 1897 were not wolves as had been believed but were poachers."

In marked contrast, a major review of wood bison history and management in the intervening period (Soper 1941) does not refer to the "proof" at all. In the 1940s, the park area was experiencing a rise in the wolf population and new data were being developed about the cyclicity of wolf numbers. Indeed, Soper (1945) discussed the possibility of a pan-subarctic rise in wolf populations in 1880 and again in 1900-1908. This latter period, of course, included the year of Jarvis' work.

Similarly, the citations of the Jarvis "proof" in the 1980s are made in the context of research explicitly aimed at evaluating wolf predation on bison. One study on the impact of wolves on bison in the Slave River Lowlands (Van Camp 1987: 25) cites, as one possible opinion, Seton's contention that "overhunting rather than wolf predation was the cause for the virtual absence of bison from suitable habitat" in the area. A second study on the interaction of wolves and bison in the Darough-Murdock Creeks area of Wood Buffalo National Park (Oosenbrug and Carbyn 1985: 9) refers to Seton's observations as documenting for the first time the association of wolves and bison in the park. Oosenbrug and Carbyn (1985: 99) also comment on the apparent acceptance by a number of biologists of the idea that wolves in large groups will migrate long distances with caribou herds. This phenomenon is one possible basis of the original explanations by "Fitz-Smith" people of the rise in wolf numbers on the west side of the Slave River. Barren ground wolves were believed to have crossed the Slave River, as mentioned above. They may have done so by following barren ground caribou.

These citations of Jarvis' and Seton's "proof," then, fall into two streams: those which accept the "proof" and thus promote the concept of local users

as non-conservers and, in the case of Raup (1933), as strongly biased sources of information on wildlife; and those which, primarily concerned with wolf-bison interaction, handle the citation more objectively as one possible opinion but do not evaluate it in detail.

### Conclusions

In conclusion, Jarvis' findings that local hunting activities were depressing the growth of bison populations appear to have been greatly biased by a lack of statistical data and by the frustrations of working within a cross-cultural situation. The seasonality of his patrols contributed to these factors. Particularly daunting is the possibility that Jarvis was actually investigating a false problem: the "Fitz-Smith" bison populations may have been increasing as quickly as could be expected in the early 1900s. We simply do not know. While the current citations of Jarvis and Seton happily tend to be more objective, these works are not involved with a detailed evaluation of Jarvis' "proof." Rooting out certain misconceptions yet remains.

Earlier I suggested that the subordinate position of the user in the Euro-Canadian management system is argued to be validated by the related claims that users are non-conservers and that managers have access to superior, that is, scientific, knowledge. In this specific case, a claim that users are non-conservers is basic to the "proof," albeit undemonstrable. In addition, it is stated that since local people are non-conservers and have no sympathy with conservation programs, the knowledge which they offered as information to conservation experts is suspect. It is ironic that information offered as to the migration of barren ground wolves would be considered "flagrant misrepresentation" in the literature for 1900-1933, become a possibility by the 1940s, and be generally accepted, although still largely unanalyzed, in the 1970s-1980s. Obviously, all explanations need to be evaluated, not just simply rejected or accepted. This guideline applies equally to explanations offered by scientists and resource users alike. Any claim to superior knowledge is one which must be constantly tested.

To return, finally, to the concept of a literary tradition, one cannot underestimate the role of "the literature" as a source of knowledge in the Euro-Canadian education system. People use the information transmitted through literature to fill gaps in their professional experience. "The literature," of course, does not simply represent "potted experience." It represents viewpoints and biases and must be assessed in light of these. While it may be a rather obvious point that scholarly work

must evaluate its sources, we can identify from this particular example of the Jarvis "proof" at least two factors which may inhibit this evaluation: the passage of time and the interdisciplinarian setting. (Wildlife management may be considered an interdisciplinarian study since it involves both social policy and animal ecology work.) These two factors have one common consequence: they increase the likelihood that the researcher is unfamiliar with some aspect of the situation. Thus, it becomes more difficult to assess statements about the situation. It is much easier for wildlife managers to refer to an established literary tradition about users to justify certain actions than to have to analyze what is going on in a particular management system, especially if the system has multicultural aspects. Such literary traditions can become very powerful models, indeed. It requires explicit examination and analysis to defuse the impact which such models have on the contemporary balancing of user and manager roles in wildlife management.

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