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RISE AND FALL OF WOOD BUFFALO NATIONAL PARK NATIONAL PARK DREAMS BARKLEY SOUND 1991 CPAWS ANNUAL REPORT





# The Rise and Fall of Wood Buffalo National Park

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**F**or more than a half hour, we've been crawling on our bellies through the tall grass until a deep creek makes us think twice about going any further. In the near distance are three large wolves — two white, the other charcoal black — circling slowly but anxiously, like dogs having trouble finding a comfortable spot to lie down and sleep. On both sides of the wolves, no more than a hundred metres away, are three bison bulls and a herd of bison cows and calves. The cows are keeping a wary eye on the wolves. The bulls are lying down, chewing their cuds, and acting as though the wolves aren't even there.

"I thought maybe they were feeding on a kill," whispers Lu Carbyn, a Canadian Wildlife Service (CWS) scientist who is studying the interaction between wolves and bison in Wood Buffalo, Canada's largest national park. "But that's obviously not the case here. If they were, there would be ravens about. These guys have probably been chasing the bison for some time without success. Now, both the wolves and the bison are tired and they're taking a time out. Before nightfall, they'll begin the chase again."

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*Whooping cranes that once teetered on the edge of extinction now number between 136 and 140 birds. These magnificent birds depend on Wood Buffalo National Park for their breeding habitat.*

The wolves of the Wood Buffalo area are the largest canids in the world; the park bison the continent's largest prey. Depending on the time of year, there can be between 80 and 220 wolves preying on the 3,500 bison. That roughly translates into one wolf for every 2.6 square kilometres of territory in the Peace-Athabasca delta, where the highest concentrations of wolves are found. Put another way, every six or seven days in winter, one adult bison is killed by an average-sized pack of 10 wolves. In summer, it is three calves that are taken. Nowhere else in nature is there anything quite like it.

and caribou. In that event, one of two things will happen; either the federal government will be forced to launch a predator control program or the wolves will find themselves in a life-and-death struggle with other packs already occupying outlying territory where woodland caribou and moose are found.

Although no other country in the world has ever successfully eradicated an unwanted wildlife population, the so-called "Armageddon" option for Wood Buffalo came within an inch of coming into force in August 1990, when a federal environmental review panel gave it the green light. How-

when it comes to the less expensive chores of stopping the logging in the park; mitigating the damage that is being done by dam builders and polluters; or supporting badly needed scientific studies on the park's ecosystem and the half-million migrating birds and the large variety of land mammals that depend on it.

Now, there is strong evidence to suggest that many of the scientific arguments used to justify the slaughter were either unfounded, untrue or wildly speculative, and that the primary cause for the apparent decline of the bison of Wood Buffalo is not disease at all. Nor does it appear that there is such a thing as a pure wood bison that is more suitably designed for Wood Buffalo as proponents of the slaughter have stated. In fact, there is no convincing evidence to suggest that the area around the national park was ever home to more than a few hundred bison, not the thousands that are being envisioned. "There is no doubt in my mind that this was a conspiracy of very narrow-minded interests right from the very beginning," says Valerius Geist, a University of Calgary biologist. "What we have here is a small group of badly informed scientists and manipulative politicians who decided to play God by proposing the ridiculous idea of killing 3,500 bison and replacing them with what they wrongly assume is a superior animal. Their motives have nothing to do with conservation values or the interests of Wood Buffalo National Park. Rather, they have more to do with protecting cattle and game ranches and seeing to it that national park interests do not continue to dominate regional economic interests in the future."

Geist is no stranger to controversy, but neither is he the typical critic of govern-

ment. Among the most prolific wildlife scientists in the world today, he has applied his expertise to a wide variety of interests, including the biology of mountain sheep, diet and health, architecture, game ranching, and most

importantly, the origins of American wood bison. Neither is he alone in thinking that there is a conspiracy. Among those who share his views are most of the wardens of Wood Buffalo, senior park officials in Winnipeg and a growing number of scientists and conservationists both inside and outside government.

To appreciate the debate that is currently taking place, it is essential to understand a little of the park's history and to see how the political machinations and mismanagement of the past have influenced the events of the day. Before the turn of the century, federal officials enacted legislation to protect a remnant herd of about 500 wood



*The wolves of Wood Buffalo are the largest canids in the world and they have developed a unique dependence on the bison.*

Both the wolves and the bison of Wood Buffalo, however, are facing a very uncertain future, as is the entire national park. In addition to the hydroelectric dam in British Columbia that is drying up the Peace-Athabasca delta, the loggers that are clearcutting the park's forest and the upstream pollution that is slowly poisoning the park's ecosystem, Agriculture Canada is proposing to spend \$20 million to slaughter Wood Buffalo's 3,500 bison. The idea is to eliminate bovine brucellosis and tuberculosis that have infected many of the bison and to replace them with a healthy herd of wood bison from outside the park.

But destruction of park bison will certainly lead to the demise of the wolves, for the bison constitute about 85 per cent of their diet. Without the bison to feed on during the many years it would take to reintroduce healthy animals, the wolves would have to resort to other prey, such as moose

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**Valerius Geist**

ever, a revolt from within the Canadian Parks Service and pressure from scientists, native groups and conservationists from across Canada and around the world has at least temporarily put the proposal on hold while another review is conducted. Naive and informed, passionate and pugnacious, the voices of opposition have at least one thing in common — no one can believe that in this day and age, there is not a less violent solution to the disease problem or some other way of preserving the world's largest free-roaming bison herd. They might also ask how the federal government can come up with so much money to kill bison when it claims that the bank is broke

bison on the Alberta/Northwest Territories border that had, it was believed, succumbed to a series of natural disasters and over-hunting. More protective measures, including the appointment of a special enforcement team of Buffalo Rangers, eventually led to formal establishment of Wood Buffalo National Park in 1922. Around the same time, similar efforts were made to preserve what was left of the smaller, darker and generally more aggressive plains bison, which had been reduced from a North American prairie population of an estimated 30 million before 1800 to a few thousand captive animals by 1880. The government of Canada bought some of these captive animals from Montana rancher Michel Pablo and had them shipped north to Wainwright, Alberta.

The establishment of Buffalo National Park at Wainwright was a widely praised move, but one that was ultimately too successful for its own good. The bison outgrew their habitat by 1923, forcing federal officials to cull more than 2,000 older males over the next two years. The slaughter, however, did not go over well with the public who saw no room for this kind of management in a national park. So, acting on a plan that was first suggested by Liberal MLA Jim Cornwall, the government quickly dispatched 6,673 animals to Wood Buffalo National Park on the Alberta/Northwest Territories border. Coincidentally or not, the Northern Transportation Company, owned and operated by Cornwall and his family, got the lucrative government contract to ship the bison north.

When the government turned the animals loose on the west side of the Slave River, it did so despite being warned that the bovine tuberculosis that the bison had got from cattle in southern Alberta might be spread to animals in Wood Buffalo and that an interbreeding of plains and wood bison would inevitably occur, compromising the genetic integrity of the last remaining wild wood bison herd in the world.

To be fair, Maxwell Graham, the director of the Dominion Parks Branch, decided in favor of transplanting the animals because he never believed that the two populations — the plains bison of the Prairies and the wood bison of Wood Buffalo — constituted distinct subspecies. He also believed that the disease was an affliction of older animals and that if the younger ones at Wainwright were segregated and tested before being sent north, there was no cause for alarm. While testing was done in the beginning, someone apparently got tired of doing the chore. Not surprisingly, tuberculosis was identified in the park in 1937 and

then confirmed by biologists in 1948. By 1956, they also detected bovine brucellosis, a disease that was almost certainly brought north by the Wainwright animals.

It was Agriculture Canada that offered up the Armageddon option as a way of rectifying this past wrong and to ensure that the original inhabitants of the park — the pure wood bison — will be there in perpetuity. But this was not the first time eradication was proposed. Back in 1953, federal officials actually worked out a scheme in which the Royal Canadian Air Force was to be dispatched to conduct a search-and-destroy mission of the park's bison, which

industry, to at least consider ways of controlling or eradicating the afflictions. So in 1986, an inter jurisdictional steering committee was set up to explore the possibilities. A variety of federal and provincial agencies, including agriculture, environment and health were represented on that committee. Conspicuously absent, however, were those whose culture had been built around Wood Buffalo and the hunting of its animals — the native people. It was an oversight that would come back to haunt the government.

The task force representing the committee considered nine alternatives for deal-



***Back in 1953, federal officials actually worked out a scheme in which the Royal Canadian Air Force was to be dispatched to conduct a search-and-destroy mission of the park's bison, which numbered around 10,000 at the time.***

*The bison population of Wood Buffalo has fallen from 11,000 in 1971 to 3,300 in 1991.*

numbered around 10,000 at the time. Ottawa rejected the plan as too extreme. The next year, however, approval was given to a test and slaughter program that would last until 1962. But according to the government's own reports, the experiment did more to supply meat for northern communities than it did to deal with diseased animals.

By 1986, when the park's bison population had dropped to 6,000 from a high of more than 11,000 two decades earlier, nearly everyone assumed that it was disease that was responsible. It was agreed that it was in the best interests of the national park, the native people and outside economic interests, including the agricultural

ing with the disease problem, including the possibility of vaccinating and treating the animals. But only five were deemed plausible, the most realistic being the establishment of fences and buffer zones around the park, the slaughter of all of the animals or maintaining the status quo. Most of the committee members favored the slaughter option as the quickest and cheapest way of eliminating the disease.

Again, the federal cabinet was reluctant to make a decision. So the Federal Environmental Assessment Review Office (FEARO) was called on in the hopes that it would decide for it. However, the strategy backfired. Proclaiming that it could not consider the impact of something that didn't have a proponent, FEARO officials notified Ottawa that one government department was going to have to take on the job. Otherwise, there was no point assessing something that wasn't being formally backed by anyone.



It was at a subsequent high-level meeting of senior bureaucrats from the departments of Agriculture, Health and Environment (which oversees the Canadian Parks Service and the Canadian Wildlife Service) and representatives from the governments of Alberta and Northwest Territories that the nature of the so-called conspiracy started to take form. At that meeting, individuals from the Canadian Parks Service voiced serious objections to any plan that would compromise national park values the way the Armageddon proposal evidently would. Most vocal was Ken East, the superintendent of Wood Buffalo. Unconvinced that disease was the critical factor, he told his government colleagues what he had been saying publicly all along — that the combination of three major floods that killed 5,000 bison in the late 1960s and early 1970s and the drying up of the Peace-Athabasca delta may be the real reason for the decline of the herd.

The Canadian Wildlife Service (CWS) had a problem of a similar kind. With few exceptions, most of the department's senior scientists were convinced that no amount of time and money could be reasonably granted by the government that could successfully kill off 3,500 bison over such a large area. And as much as Hal Reynolds, CWS's bison specialist, was in favor of eradication, its wolf biologist, Lu Carbyn, had some serious reservations. A 25-year veteran of the service, Carbyn saw evidence in his study of wolves and bison that suggested that heavy predation in the park was something that should be looked at more closely. He also saw, in many of the Wood Buffalo animals, the kind of wood bison features that proponents of the slaughter said they were trying to preserve.

The untenable positions of both the Canadian Parks Service and the Canadian Wildlife Service left Len Good, the deputy minister of the Environment Department, in a dilemma. How could his minister back such a potentially unpopular proposal when there was so much doubt and opposition within departmental ranks? Good's problem turned into Jean-Jacques Noreau's fortune. It gave the deputy minister of Agriculture the opportunity to accomplish something that he had been ordered to do by cabinet and by his minister, Don Mazankowski, who also happened to be the deputy prime minister — eradicate bovine brucellosis and tuberculosis from all animals in Canada and maintain animal resources free from disease.

Up until that point, Noreau's staff had done a pretty good job of doing just that, but at a high cost — \$260 million since 1957 and the lives of 400,000 cattle. Maintaining the status quo in Wood Buffalo, according to department documents, posed serious problems. It would mean implementing a series of actions to prevent, detect and eradicate any transmission of the diseases to domestic livestock or game

ranch animals in the area. The cost, according to those same documents, would be exorbitantly high; \$2.6 million annually for surveillance testing north of Manning, Alberta and \$795,000 for depopulating bison herds outside the park if the disease spread. None of this was good news for a department facing tens of thousands of financially troubled farmers and a Treasury Board that was calling for restraint and cutbacks. So not surprisingly, Noreau offered to take on the grisly chore of killing the park's bison.

It is important to note that had Agriculture Canada gone it alone in this endeavor, it's doubtful that it would have stood a chance against the interests of the national parks service in the public review process. In a battle between cattle and bison, the bison would surely win. But politics, in this case, favored the underdog by bringing together a variety of diverse, and up until then, contrary interests — including the World Wildlife Fund and the Alberta and Northwest Territories governments.

On the assumption that the wood bison is genetically distinct from its plains cousin, the World Wildlife Fund had for years devoted a great deal of time and money to restoring their numbers in the Canadian North. Success in doing that, however, depended on something being done to eradicate the disease in Wood Buffalo. The Alberta government, a key player in the wood bison recovery effort, was resolute in its promise not to participate unless the northern part of the province was disease-free. The province, in this case, was not so much interested in the future health of bison as it was in the welfare of cattlemen and game ranchers, who were gradually pushing northward, away from the drought-stricken countryside of the south. Coincidentally, the same held true for the government of the Northwest Territories, which saw in the Mackenzie Bison Sanctuary near Wood Buffalo an opportunity to get into the game-ranching industry.

Despite the apparent show of solidarity, Agriculture Minister Don Mazankowski could not avoid the outpouring of cynicism when he formally called for an environmental review of a slaughter on his department's behalf. Two Ontario university scientists, Thomas Nudds and Vernon Thomas, suggested that the situation in Wood Buffalo was more of a cattle problem than a bison problem. They said that if the federal government was so concerned about the spread of the disease, it should stop encouraging farmers to move into the Wood Buffalo region. They also suggested, as East had already done, that disease may not be the principle cause for the decline of the Wood Buffalo herd and that the impact of previous massive drownings of bison in Wood Buffalo, water diversions schemes and severe winters should be studied more carefully.

The charges evidently struck a raw nerve. In an extraordinary move, Bill Bul-

mer, Agriculture Canada's director of Animal Health, shot back with a letter to the *Globe and Mail* insisting that Nudds and Thomas were wrong. "In fact, the risk of the diseased animals infecting cattle is small in comparison to the chance of them infecting healthy bison," he wrote. "If we don't act now to eradicate bovine brucellosis and tuberculosis in the herd at the park, all free-roaming bison in northwestern Canada will probably die in 10 years." As for the principal cause of the decline of wood bison in Wood Buffalo, Agriculture's Bulmer pointed to a University of Saskatchewan study that he insisted proved them wrong. "It found that mass drowning, water diversion schemes and severe winters cannot be blamed for the decline of the



Above: Willow ptarmigan.  
Opposite: Moose.

herd."

Bulmer was evidently misinformed or clumsy with his facts, for the University of Saskatchewan study makes no mention of the herd dying off in 10 years. There was a suggestion that it might be 25 or 30 years. But this estimate was based on a theoretical model and no one involved in the study ever believed that the disease would ever completely kill off the herd. Quite simply, there was no precedent for it in nature. Yet neither Bulmer nor his associates in the Agriculture Department did much to clarify the matter. In fact, the tone of their language



## Biography of a World Heritage Site

Canada's largest national park covers 44,900 square kilometres, an area larger than Switzerland. Only the national park that encompasses the Greenland ice-cap is larger. The United Nations declared Wood Buffalo a World Heritage Site in 1983.

Some of the park's most notable features include:

**The Peace-Athabasca Delta**, one of the largest freshwater deltas in the world, has been evolving for more than 10,000 years as sand, silt and clay are deposited from the waters of the Peace and Athabasca rivers. The delta ecosystem, 80 per cent of which is located in the park, is incredibly diverse. About 215 species of birds, 44 species of mammals and 18 species of fish can be found in the delta. When the delta water levels were at their peak 25 years ago, more than 600,000 waterfowl hatched on the delta each year. Construction of a dam upstream on the Peace River has obstructed the annual flooding cycles that maintain the delta. As a consequence, the size of the delta is shrinking annually and with it, the population of birds and animals that depend on it.

**The Salt Plains** of Wood Buffalo are located at the north end of the park near the Alberta/Northwest Territories border, southwest of Fort Smith. Groundwater rises from the subsurface reservoirs over a 250-square-kilometre area. Unique salt-resistant flora and microfauna have evolved in the white salt-encrusted mud flats of the area.

**The Four Rapids of the Slave River** located on the northwest border of the park cascade 35 metres over a 24-kilometre stretch of waterway. The flow of water here is so powerful that it has the capacity to drive at least 12 turbines, enough to double the electric output of the province of Alberta. In the early 1980s, the government of Alberta proposed building a \$2.3-billion hydroelectric dam on the Slave River, but backed off when economics and public opposition combined to thwart the effort. The islands in the Slave River rapids are the nesting grounds for the continent's most northerly colony of pelicans. The nesting ground and part of the national park would be flooded if a dam were ever built. Although the dam proposal has been shelved, it could be revived in the future.

**The Karst Terrain** of the park is the best example of gypsum karst topography on the continent. Gypsum and salt rock are embedded between several layers of limestone. As groundwater dissolves the rock, huge sinkholes, caves and underground rivers are formed. Several species of bats and the most northerly colony of red-sided garter snakes make their home here.

**The Bison of Wood Buffalo** are primarily hybrids or a cross between the plains and wood bison. The park was officially established in 1922 to protect a remnant herd of some 500 wood bison. Between 1925 and 1928, 6,673 plains bison from Wainwright, Alberta, were shipped north to the park. A number of them had contracted tuberculosis and brucellosis from cattle that were allowed to graze on the same land in Alberta.

**The Wolves of Wood Buffalo** are the largest canids in the world, and have formed a unique dependency on the park's bison, particularly in the Peace/Athabasca delta.

**Whooping Cranes** in the park are among earth's endangered animals and the subject of one of the longest and most intense conservation efforts in history. In 1941, there were only 15 birds remaining in the wild. Today, there are between 136 and 140. Growing to a height of 1.5 metres, the whooping crane is the largest bird found in the wilds of North America.

**Boreal Forest** – On the outskirts of the delta, some of the largest and most magnificent stands of white spruce trees in Alberta can be found. In spite of national park policy that forbids logging, a huge section of this old-growth forest has been logged and continues to be logged to this day. The current lease expires in the year 2002. By then, most of the harvestable timber will be gone.

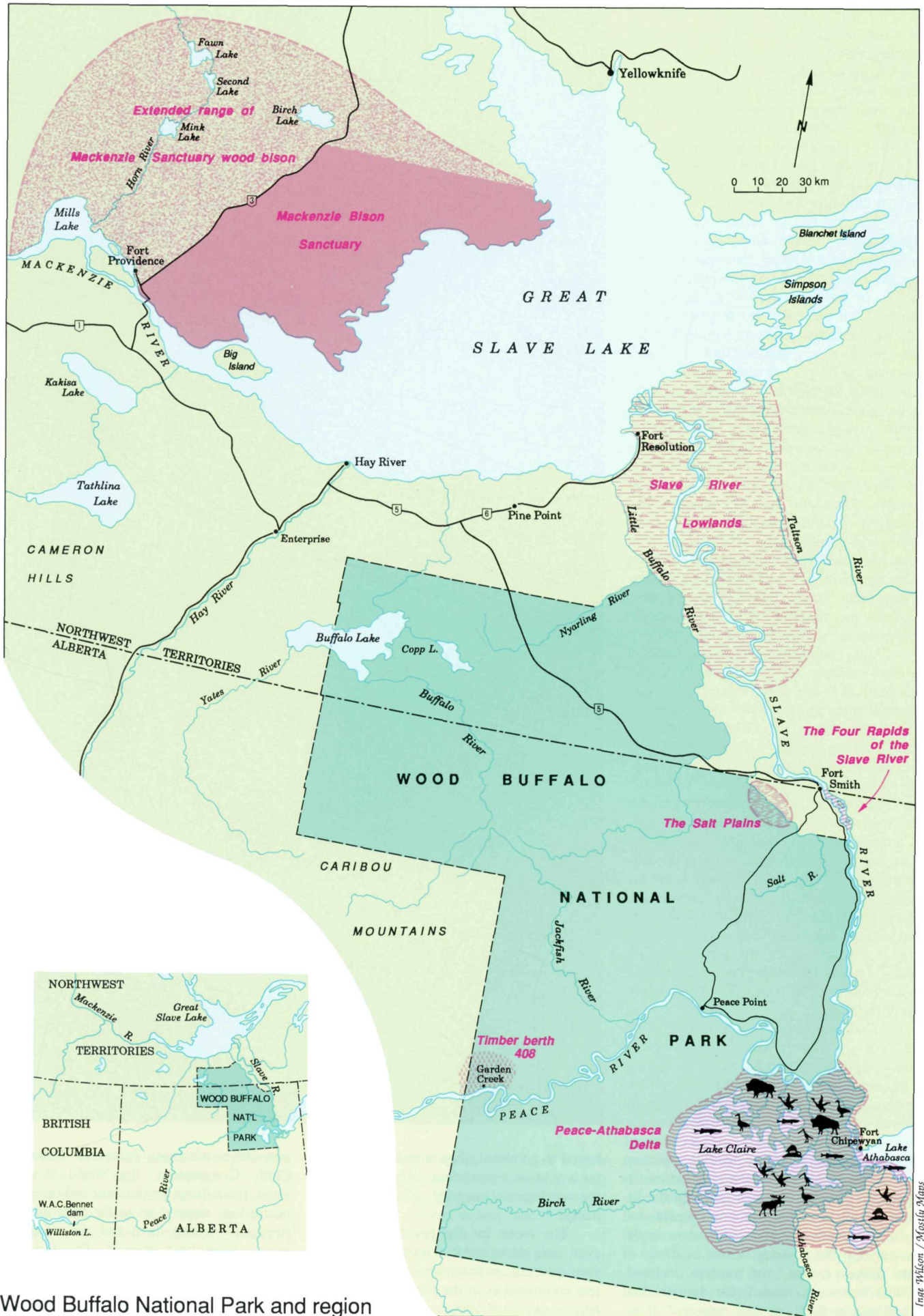
**People** – The Cree, Chipewyan and Metis have developed a unique lifestyle in the park region. Trapping, hunting and commercial fishing have been the mainstay of their economy. The aim of many of them is to rehabilitate the bison population so that they may be hunted for food once again. □

during and after the review hearings continued to be nothing short of alarmist. "Animals that succumb to the disease are basically rotting from the inside out," was the kind of line that Stacy Tessaro, a former wildlife biologist-turned-veterinarian for the department, used over and over again. "In all my years, I've seen some pretty gory things, but nothing is worse than the sight

of a fulminating case of tuberculosis in an animal. And when both diseases strike, they're literally paralysed. Some of these animals end up starving to death because they can't move."

No one in the media had any reason to seriously doubt what Agriculture Canada was saying and for good reason. Agriculture Canada's 75-page written report to the

review committee made reference to 314 scientific studies. And during the hearings, the department paraded out a platoon of bureaucrats and scientists to deal with the media so long as they were in favor of eradication. By contrast, Environment Canada's was a muted presentation, with little in the way of science offered and certainly nothing as forceful as that presented by the pro-



Wood Buffalo National Park and region



ponents of the slaughter. More importantly, at least for those who believe in a conspiracy theory, some of the department's key figures, including Carbyn and Reynolds, were ordered not to talk to the media, even though everyone in Agriculture Canada was allowed to speak freely.

Even the review panel seemed troubled by the role Environment Canada played during the hearings. Calling its position a "thinly veiled version of the status quo," they berated the department in their final report. "Environment Canada provided the panel with no proposals for management action to ensure the long-term viability of the bison herd in its care," they wrote. "But the status quo is a steadily declining population in the region. The status quo provides no assurance that bison will continue to be the dominant wild ungulate species in the region. The status quo provides no assurance that there will be sufficient pressure from large ungulates to maintain the natural ecosystem. The status quo means fewer and fewer huntable bison to satisfy the cultural needs of aboriginal people. The status quo provides ever-decreasing opportunities for visitors to observe free-roaming bison in the park." With that, the review panel accepted that disease was destroying the park's bison and threatening other bison, cattle and even humans outside the park. A full-scale slaughter, they concluded, was the only answer.

At this point, it was merely a matter of rubber-stamping the review panel's recommendations once they were finally presented to the federal cabinet. But then the sparks started to fly. First, a number of conservation groups, many of them conservative in orientation, stepped in to give the review panel a failing grade. In a letter to Environment Minister Robert de Cotret in September 1990, Jacques Prescott of the Canadian Nature Federation, pointed out that his organization had, on occasion, supported the cull of wildlife where there are compelling scientific reasons for such action. But in the case of the diseased bison, he said the panel had failed to provide sufficient justification for the slaughter or to fully consider the implications of its recommendations. CNF could not allow this to happen, he said.

Then the wardens and staff of Wood Buffalo got into the act. Outraged by the images that were allowed to go largely unopposed at the review hearings, they put together a four-page document that eventually found its way to the media. The document was a manifesto of sorts, a denunciation of the government's role in painting a picture of diseased animals whose condition is so pathetic that they threaten not only the future of all bison in northern Canada, but also the health of cattle and humans in the area. "On the contrary, visual evidence of the disease is rare," the wardens declared. "The bison are magnificent animals that continue to thrill all park visitors." If al-



lowed to go ahead, they added, the slaughter would set a precedent "which threatens the ecological integrity of all national parks."

The worst for the government, however, was yet to come. Throughout the review process, representatives from the native communities in the Wood Buffalo area had sat mostly in silence as a succession of

non-native witnesses from the Canadian Cattle Commission, the World Wildlife Fund, the Alberta government and other organizations stepped up to the microphone, essentially telling them that the slaughter was in their best interests. Those native leaders who did say their piece spoke bitterly of a long history in Wood Buffalo in which their interests were constantly being

cast aside to accommodate other priorities. They told of Cree, Chipewyan and Metis hunters who were fined and jailed for daring to hunt bison that they had always hunted to feed their families; of muskrats, geese and ducks that had largely disappeared because of a dam upstream that was drying up the delta; of fish in the park tainted by the pollution from oil sands

plants and pulp mills in Alberta; of a Japanese forest company that was cutting down trees in Wood Buffalo while a native-owned lumber mill located nearby was forced to close down for lack of work, and, of course, the plan to destroy the park bison without consulting them first. "The cattle ranchers may have their interests to protect, but we also have our own interests to be

concerned about managing our buffaloes," Chief Bernadette Unka of the Fort Resolution band told the review panel "(We have) a whole natural ecosystem to protect and preserve for our future generations."

Agriculture Canada had expected a hostile response from native people, but nothing quite like what occurred. "We are going to declare the land an aboriginal buf-



falo preserve," said Jim Webb, representing the Little Red River band of northern Alberta. "Any act against the buffalo will be regarded as an act of hostility against the tribe." Coming as the threats did after the violent Oka crisis in Quebec, de Cotret and Mazankowski flew into Edmonton on the Friday evening of October 26, 1990 to meet with chiefs from the Treaty Eight tribes of Alberta, British Columbia, Saskatchewan and the Northwest Territories. The native people's "hands-off" approach was over, Grand Chief Frank Halcrow told them. Now, it was time to do what the native people wanted. Halcrow and the chiefs then delivered a 16-point ultimatum to the minis-

ters, which included a moratorium on any slaughter until March 1992 and a promise to support and establish a committee with majority aboriginal representation to decide the final fate of the bison.

Both de Cotret and Mazankowski emerged from the meeting suggesting that they were on the same wavelength with the chiefs. However, they refused to make any specific commitments, that is until events started to overtake them. Not long afterward, for example, two more confidential reports, obtained through the Access to Information Act, added to the government's public relations nightmare. The first, which appeared on the front page of the *Edmonton*

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*A red fox pauses as the sun sets over Lake Claire in Wood Buffalo National Park.*

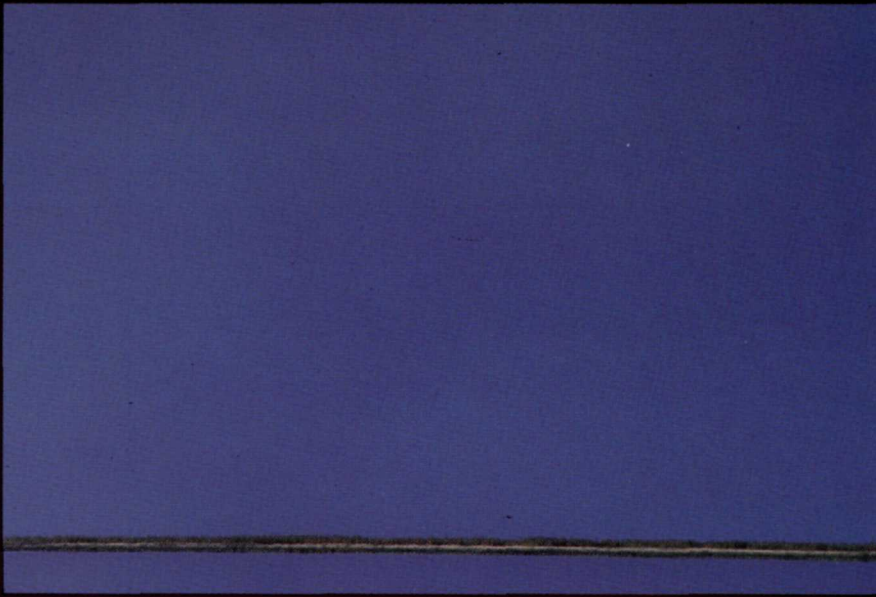
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*The sedge meadows of the region are among the diversity of habitats contained within Wood Buffalo. A small flock of least sandpipers skirts over the meadows.*

*Journal* on the day de Cotret and the government unveiled its Green Plan, described, in words and graphic photographs, how some of the largest trees in Alberta were being cut down by the thousands in Wood Buffalo by Canadian Forest Products Ltd. (Canfor), whose interests in the park were controlled by Japanese-owned Daishowa Canada Ltd. The report went on to describe how Canfor had left its name on the logging lease when it sold its park rights to Daishowa to avoid a ministerial review. It also described how the logging company was using clearcut techniques that had been outlawed 40 years earlier by the province and how the national park could do nothing

about it, even though logging violates national parks policy. The other report, commissioned by the Canadian Parks Service itself, confirmed the suspicion that East had voiced at the hearings. Contrary to what was previously believed, the Peace-Athabasca delta was drying up at a rate that would see it almost disappear within 30 years. The culprit, in this case, was the W.A.C. Bennett dam that had been built upstream on the Peace River.

By this time, East had been promoted out of his job and moved to the Canadian Parks Service regional office in Winnipeg. That meant that he could no longer speak on behalf of Wood Buffalo. But if Environ-



## Wood Buffalo: A 99-Year Chronology

- 1883** ▶ ordinance enacted to protect a remnant population of wood bison on the Alberta/Northwest Territories border.
- 1911** ▶ Government of Canada establishes a force of buffalo rangers to protect bison from native hunters and poachers.
- 1922** ▶ Wood Buffalo National Park is formally established to protect wood bison.
- 1925 - 1928** ▶ 6,673 plains bison, many of them infected with tuberculosis and brucellosis, are transported to Wood Buffalo National Park from Buffalo National Park in Wainwright, Alberta.
- 1929** ▶ bison are slaughtered for commercial use.
- 1934** ▶ Scientist Dewey Soper estimates there are 11,000 bison in Wood Buffalo, but believes that the pure wood bison have disappeared.
- 1935** ▶ government begins a massive poisoning effort to reduce the number of wolves in the park. The idea is to maintain high bison numbers so that a commercial slaughter can be maintained for the long term.
- 1937** ▶ tuberculosis is suspected in the national park.
- 1953** ▶ a plan to use the Royal Canadian Air Force to annihilate diseased bison proposed.
- 1954 - 1962** ▶ A test and slaughter program is enacted to control the disease. But the effort is a haphazard one and turns into a program to supply meat for northern communities.
- 1956** ▶ brucellosis is confirmed in the national park.
- 1957** ▶ An isolated herd of so-called wood bison is discovered in the northwest section of Wood Buffalo.
- 1963** ▶ 18 of these wood bison are shipped to the Mackenzie Bison Sanctuary near Fort Providence in the Northwest Territories.
- 1964** ▶ anthrax strikes bison in park; a vaccination program is launched. The same year, Arthur Laing, the federal minister responsible for parks, tours Wood Buffalo and says he is not impressed. Laing doubts it will ever develop into a tourist attraction.
- 1965** ▶ another round-up of wood bison sends a second group of 24 animals to Elk Island National Park in Alberta.
- 1968** ▶ British Columbia completes construction of the W.A.C. Bennett Dam on the Peace River upstream of Wood Buffalo.
- 1972** ▶ A government committee is set up to assess the impact of the Bennett Dam on the Peace-Athabasca delta. Over the following years, some weirs are built to restore water flows downstream.
- 1974** ▶ A third freak flood since construction of the Bennett Dam drowns 3,000 bison in Wood Buffalo.
- 1979** ▶ The province of Alberta announces that it wants to build a dam on the Slave River on the park boundary. The dam will flood a large area of the park. Federal environment minister privately raises objections. Pressure from environmentalists and bad economics result in the plan being shelved.
- 1981** ▶ Ottawa renews timber lease in Wood Buffalo National Park even though the activity violates national parks policy.
- 1983** ▶ United Nations declares Wood Buffalo a World Heritage Site.
- 1985** ▶ Canadian cattle declared free of bovine brucellosis.
- 1986** ▶ Task force on disease control is established.
- 1988** ▶ Agriculture Canada proposes slaughter of park bison and replacement with so-called wood bison from Elk Island park.
- 1990** ▶ Canfor sells its Alberta operations, including the timber lease in Wood Buffalo, to Japanese-owned Daishowa Canada Ltd. Canfor agrees to keep its name on the lease to avoid the ministerial review required when the lease is transferred.
- 1990** ▶ In August, a federal environmental review panel gives the slaughter proposal the green light. Scientists, native groups and conservationists object.
- 1990** ▶ In December, Environment Minister Robert de Cotret announces that he will try to buy back timber lease in Wood Buffalo.
- 1991** ▶ In January, both Canfor and Daishowa say they are willing to sell their lease to the government.
- 1991** ▶ In February, government agrees to a second review of the slaughter plan, this time with native groups and environmentalists represented.
- 1991** ▶ In October, review panel starts hearings in private.
- 1991** ▶ In December, Environment Minister Jean Charest meets with Daishowa and Canfor, but no deal is struck. B.C. Hydro has yet to respond to a Canadian Parks Service request for a meeting on the delta issue.
- 1992** ▶ In February the Canadian Parks and Wilderenss Society with help from the Sierra Legal Defence Fund take legal action against the environment minister to stop logging in Wood Buffalo National Park. □

ment officials were counting on his successor Doug Stewart to reign in his wardens and make things more comfortable for the government, they were wrong. In the first month on the job, Stewart appeared on CBC's "The Journal" and was asked by Barbara Frum what he thought about the slaughter proposal and about the revolt within the park ranks. A by-the-book man who was clearly on the fast track for promotion, Stewart might easily have avoided giving a specific answer. Instead, he reiterated the concerns that East had been expressing all along and backed the right of his wardens to say what was on their mind.

It is unclear what transpired between de Cotret's office and senior Environment Department officials in the many meetings that followed. But evidently a fall out had been anticipated. When NDP environment critic Jim Fulton raised the issue of logging in the park during question period in December 1990, de Cotret rose in the House of Commons to announce that he would try to right this wrong by offering to buy out the logging lease. Then early in 1991, de Cotret and Mazankowski quietly notified native leaders that their 16-point plan would be accepted and that another review, one which would have significant native representation, would be established to help determine the fate of the bison.

As the new review committee once again covers much of the same ground the first review panel went over, a sobering new version of the issue is unfolding. Most startling is the contention by Valerius Geist that Agriculture Canada is wrong in proposing the extermination of Wood Buffalo bison because they are "worthless hybrids," and therefore less desirable than the so-called wood bison that they want to replace them with. According to Geist, there is no scientific justification to classify the wood bison as a subspecies because genetically, they are no different from the more common plains bison. What physical differences there are, he says, can be attributed to environmental factors.

Geist actually presented the environmental review panel with this theory when the hearings were held in Edmonton. But his point was dismissed by the review panel, even scoffed at by one member of the panel. However, all that changed in the spring of 1991, when University of Alberta zoologist Curtis Strobeck revealed the results of a DNA study that he and his colleagues had done to determine the genetic differences between North American bison. While cautioning that he, too, has some difficulty with certain aspects of Geist's argu-

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*Today, land is being cleared adjacent to Wood Buffalo to graze cows. The fear of the agricultural lobby is that cows will contract disease from the bison who got it from cows in the first place. Above is Lake Claire and John Whitehead, a Cree hunter.*

ment, Strobeck said one thing was clear from the testing of both plains and wood bison from Wood Buffalo National Park, the Mackenzie Bison Sanctuary, Elk Island National Park, Wichita Mountain Wildlife Refuge in Oklahoma and Custer State Park of *Dances With Wolves* fame – there is no genetic difference between the plains bison and the wood bison.

tic idea of first testing for the disease and then slaughtering, is made. In part, that's because he believes the wolves have as much right to consideration as the bison. More importantly, he also believes that disease may not be the primary cause for the decline of the herd.

Carbyn's theory rests, in part, on a careful reading of history. From the scanty

changing conservation values, the wolf population quite naturally rebounded. Not surprisingly, there was a corresponding decline in bison numbers. Carbyn notes that this decline may have been influenced by three major floods in the park in 1958, 1961 and 1974 that killed more than 5,000 animals. But even if flooding didn't directly cause the continuing decline of bison, as Agriculture Canada scientists insist, it certainly left a rising population of wolves with fewer animals to prey on.

Situations like this, in which an abundant predator species has a proportionately greater impact on a less abundant animal like the bison, is technically referred to as a "predator pit." According to Carbyn, it is necessary to determine what impact the disease has had on this situation, but he believes that the principle victims of the predator pit are the bison calves. And he has 114 days of observations in the field to attest to that. As few as four of every 31 calves for every 100 cows have been surviving their first year in the wild, according to Carbyn's data. Combine that rate of killing with other mortality factors that one might expect in the adult bison population and the herd is almost assured of a decline, regardless of the presence of disease.

Carbyn was sure that he was on to something here when he compared what was happening with wolves and bison in the Peace-Athabasca with what was happening between the same species north of the Peace River. "If disease was indeed the chief cause for the decline, then bison should be declining in both places. But the decline is only occurring in the delta, where the wolves are abundant. The bison population is stable on the north side of the river."

Carbyn's theory, once dismissed by his colleagues in the Canadian Wildlife Service, is beginning to be taken seriously. But his theory is not as unlikely as Agriculture Canada insists that it is. In Yellowstone National Park, for example, scientists have been struggling with the issue of brucellosis and bison since 1917. And according to park biologist Mary Meagher, an internationally recognized expert in the field, "We have long known that the organism was not negative for the bison as a population; this information was published in a monograph in 1973. And subsequent experience has confirmed that information. Any population consequences of brucellosis, if any existed, were so small as to be masked by other factors. This perspective never denied possible individual effects: we simply said we could not see that effects occurred," said Meagher.

Meagher has taken a special interest in the disease issue in Wood Buffalo because Yellowstone National Park is being sued by a Wyoming cattle ranching company that claims that an outbreak of brucellosis in 1988-89 was caused by wildlife. So far, the cattle company has been unsuccessful in the



*Despite that parks policy specifically prohibits resource extraction, Daishowa, a Japanese multinational company, on behalf of a lease held by Canadian Forest Products Ltd., continues to hold the right to log in the park 70 years after the region was designated a national park.*

Amid the emotional scientific debate that developed over Geist and his theory, Strobeck is trying to stay clear of taking sides despite pressure from proponents of the slaughter. However, he believes that there probably was a recent mixing of wood and plains bison and that the Nyarling animals are a product of that mixing at some point. "So, if we're going to call the Mackenzie Bison Sanctuary animals "wood bison" because they are descendants of the Nyarling herd then we should call all of the animals "wood bison," including those from Wood Buffalo. That's why I think that if the goal in Wood Buffalo is to eliminate the disease and then establish a healthy population of wood bison down the road, then we should be trying to salvage as many animals as we can from the park. If it's genetic diversity that's important, then we have to remember that both the Mackenzie Bison animals and those from Elk Island descended from a relatively small group. That's not a lot of animals on which to build a healthy population for the long term."

Lu Carbyn is intrigued by Geist's theory, but he thinks that other scientific questions must be answered before any kind of management decision, even the less dras-

evidence that is available, it appears there were 500 and 1,500 bison and a relatively small number of wolves in the park before the Wainwright animals were shipped north. Yet in the presence of these low wolf numbers, the bison population was able to increase from approximately 8,000 in 1928 to as many as 12,000 by the late 1930s. So even though the disease existed in the bison, evidently it was not a significant factor.

It gets tricky trying to discern what happened afterward, because of various interventions that took place in the park's ecosystem. The federal government, for example, approved the slaughter of bison in Wood Buffalo for commercial use. Some of these slaughters were substantial, with as many as 1,000 animals being killed a year. Recognizing the potential long-term impacts of these kills, the government also initiated a wolf control program for Wood Buffalo. To encourage the wardens to do a good job, they allowed them to sell the pelts to fur markets for cash.

No one knows exactly how many wolves were killed between 1935 and the 1960s when the poisonings were eventually ordered stopped. But available figures indicate that it could have been as few as 12 in a year or as many as 92. "We know that in a single winter, one warden was responsible for killing 80 wolves and it wouldn't surprise me if he got them at one location," says Carbyn. "Wolves are very vulnerable to poisoning."

When the killings were eventually stopped in the 1960s, due in large part to

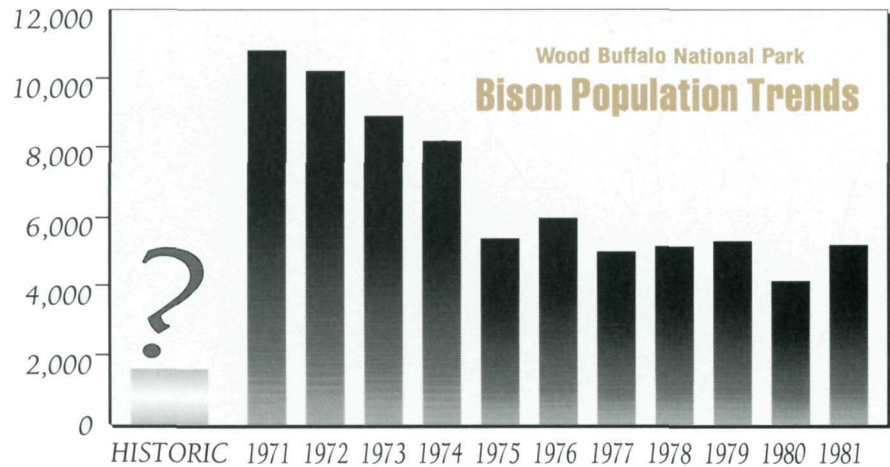
lower courts, largely because there is no evidence whatsoever that brucellosis is transferred from wildlife to cattle. If anything, it's the other way around, says Meagher.

In the process of formulating a defence, Meagher has consulted the world's experts on brucellosis and dug into unpublished files. "It's been fascinating," she says. "It's curious — none of the brucellosis professionals over the years that I've known have had a similar interest, but I think that is because the focus has become one of eradication, so the biology was more or less irrelevant."

Meagher says that it is necessary to look at the values at stake when assessing the issue of disease and wildlife both in Yellowstone and Wood Buffalo. "I think it's fair to say we certainly favor protection of livestock. But does this require eradication? Only a draconian program would do this. Even if a suitable vaccine and suitable means of delivery were to be developed, we don't know what we would be doing, except continuing to view bison as cattle." The amount of misinformation being disseminated by proponents of eradication, she adds, amounts to scare tactics. "You'd have to equate brucellosis and undulant fever with the Black Death. The zealots who favor eradication seem to think that they can sanitize the world. But it just can't be done. And I've told the Ministry of Environment in Canada all of this."

As the Wood Buffalo issue heads into 1992, 16 months after the first review panel made its recommendations, the fate of the park's bison is far from clear. What is clear is that the cost of the second review, which was allotted \$1.4 million by cabinet and is asking for about \$4 million more, is going to be far more expensive than the first one. Meanwhile, Environment Minister Jean Charest, who only met with officials from Daishowa and Canfor on December 4, 1991, a year after his predecessor promised to try to buy back the logging lease, has failed to prevent another year of clearcutting in the park. According to his aide Louis Landry, the cost of the buy-out, estimated to be between \$3 million and \$10 million, remains a stumbling block. Neither is there any real indication that something will be done about the drying up of the delta. According to Doug Stewart, the parks service asked to meet with B.C. Hydro last spring to see if anything could be done to restore the flood cycles in the delta that have been affected by the Bennett Dam. Since then, another study has verified that the Bennett Dam is causing problems. But the meeting with B.C. Hydro and the Canadian Parks Service has yet to take place. Still, that hasn't deterred the British Columbia cabinet from announcing that it wants to go ahead with another dam on the Peace River some time in the near future.

And so the cycle of disease, logging and the drying up of the delta is destined to



go on indefinitely in the country's largest national park. If the history of Wood Buffalo tells us anything, it's that the politics, in this case, precludes that final decisions, whatever they may entail, will be expensive and not necessarily based on biological realities or ecological imperatives. The outcome will almost certainly set a precedent for the way we deal with future issues where the interests of nature conflict with those of man and money. □

*Wood Buffalo bison numbers have fallen dramatically in recent years, but there is no way of knowing what the historical population might have been. According to some scientists, the historical numbers could be low, which would mean there is less reason to worry now.*

*Ed Struzik is a journalist and an award winning magazine writer living in Edmonton, Alberta.*

#### Borealis Wood Buffalo Action Guide

### CPAWS Sues to Stop Logging

With the Slave River Delta drying up, the bison infected with brucellosis and tuberculosis and logging going on in the park, Wood Buffalo may be Canada's most threatened national park. At more than 44,000 square kilometres, the park should be one of those few places where an ecosystem can be protected and continue to function in a naturally evolving way. But since the first protection action taken in the previous century and since the park was established in 1922, Wood Buffalo has experienced serious problems.

In 1974, CPAWS helped fend off what is arguably the worst threat of all to the unique ecosystems of Wood Buffalo. The society dedicated an entire issue of its magazine *Park News* to exposing the effects of the proposed Slave River Dam. It threatened to irrevocably damage the world's largest inland delta. It was defeated.

After a Wood Buffalo panel recommended the slaughter of the park's 3,500 bison last year, CPAWS opposed the slaughter and led a national coalition of groups and met with the environment minister to forestall such drastic action. A bison recovery team was established to look into the bison issue. But once again the terms of reference fundamentally ignored the importance of national park values. National parks are established to protect natural ecosystems above all else. CPAWS national president, Harvey Locke eventually sat down with Environment Minister Jean Charest and helped rewrite the terms of reference.

CPAWS commissioned Bruce Downie of P.R.P. Parks and Planning to study the issue

and last fall, we sent a representative up to the region to meet with native groups. And in the fall, the society spread the message about threats to Wood Buffalo to almost 100,000 Canadians.

CPAWS has also pressed the B.C. government to mitigate the damaging effects of the W.A.C. Bennett dam on the Peace/Athabasca Delta.

On the issue of logging, former Environment Minister Robert De Cotret offered to buy out logging rights in the park before the end of his term, but nothing happened and logging continued. Finally, in January 1992, CPAWS and the Sierra Legal Defence Fund initiated legal action to halt logging in the park. Calling it a violation of a public trust, the society named the federal government in a suit that seeks to permanently stop logging in Wood Buffalo.

There is much to be done to return Wood Buffalo to its status as a nature sanctuary. Members are encouraged to write letters expressing their concern to:

The Hon. Jean Charest  
Minister of the Environment  
House of Commons  
Ottawa, Ontario K1A 0A6

The Hon. Anne Edwards  
Minister of Energy, Mines and Petroleum Resources  
Room 133, Legislative Buildings  
Victoria, B.C. V8V 1X4

George Smith,  
CPAWS Conservation Director  
Gibsons, B.C. (see page 3 for address)