

THE PARK BUFFALO



Sheilagh C. Ogilvie

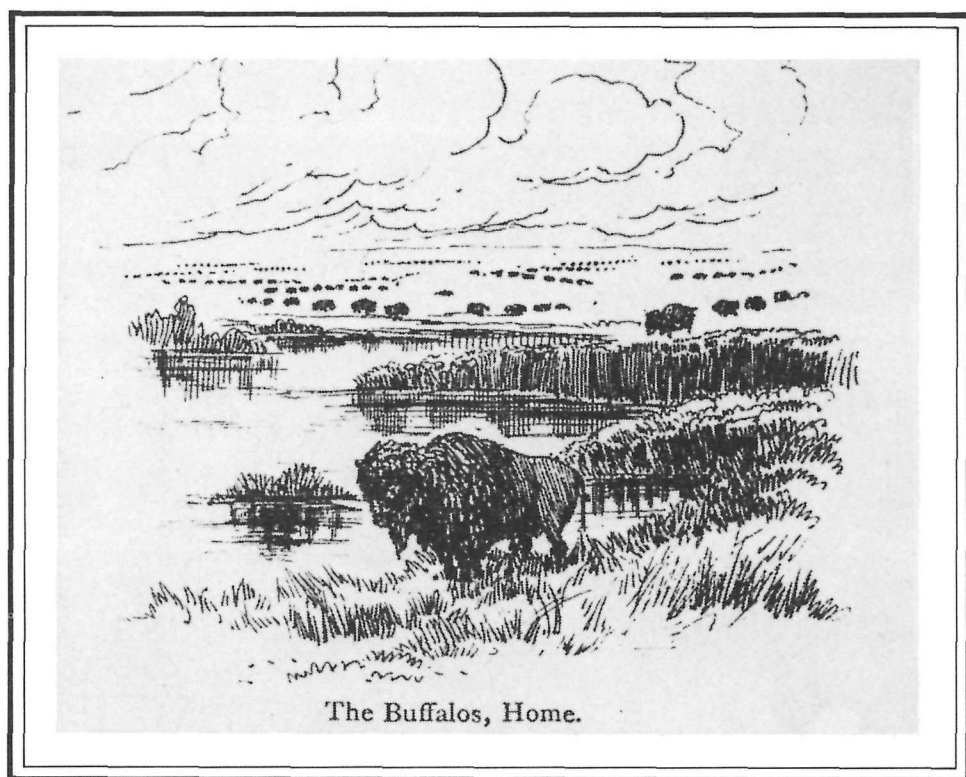


Pablo-Allard Buffalo Drive. Charles M. Russell, 1909. Watercolour.
Courtesy Mr. and Mrs. Frederic G. Renner.

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Pablo-Allard Buffalo Drive. Charles M. Russell, 1909. Watercolour.
Courtesy Mr. and Mrs. Frederic G. Renner.



The Buffalos, Home.

Glenbow - Alberta Institute

THE PARK BUFFALO

Being an Account of the Role of
Canada's National Parks
in the Preservation of the North American Bison

by Sheilagh C. Ogilvie

Edited by Robert C. Scace

Published by
Calgary - Banff Chapter
National and Provincial Parks Association of Canada
1979

Published with support from
Reid, Crowther & Partners Limited

Research for this volume was initiated as a Parks Awareness Project funded by Parks Canada, Department of Indian and Northern Affairs in 1976 and 1977.

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Publisher's address: Calgary-Banff Chapter, National and Provincial Parks Association of Canada, Sub. P.O. 91, The University of Calgary, Calgary, Alberta T2N 1N4.

The opinions expressed herein are those of the author and editor and not necessarily of the National and Provincial Parks Association of Canada, Parks Canada or Reid, Crowther & Partners Limited.

ISBN 0-920570-06-2
First published: 1979

ACKNOWLEDGEMENTS

The Park Buffalo originated as a project funded during the summers of 1976 and 1977 by Parks Canada as part of its Parks Awareness Program. I take this opportunity to express my appreciation to those persons working for Parks Canada (particularly those in the national parks in which the bison find themselves in 1979), the Canadian Wildlife Service, and various fish and game agencies who gave so readily of their time and their knowledge; to Dr. Alex Johnston of the Lethbridge Agricultural Experimental Station, for the information about the cattalo; to Mr. Vern French of Edmonton. Finally, my particular thanks go to Dr. Robert Scafe of the Calgary-Banff Chapter of the National and Provincial Parks Association of Canada, without whom this project would neither have been completed nor begun.

Sheilagh C. Ogilvie

PREFACE

One hundred years have passed since legislation was first introduced in Canada to protect the nation's bison (or buffalo) herds. In 1877 the first council in the Northwest Territories passed *An Ordinance for the Protection of Buffalo*. Now after a century in which both the plains bison (*Bison bison bison*) and the wood buffalo (*Bison bison athabasca*) came perilously close to extinction the future survival of this noble mammal seems reasonably assured. That such should be the case is due to a series of remarkable (one might say nigh unbelievable) events which brought the animal from a most tenuous hold on life to the plentiful herds which today are distributed across the continent.

In no small measure the buffalo's tale of survival is inextricably bound with the coming of age of Canada's conservation movement, a fascinating combination of institutional arrangements and personal initiative which drew upon earlier American experience with natural resource depletion, and which produced many of the conservation reserves which are with us to this day. Without a doubt the most important of these refuges have been the national parks, particularly the parks of western Canada, which have grown from hesitant, doubtful beginnings to become the true cornerstones of landscape and habitat protection in Canada.

The Canadian national parks figure prominently in the story of the survival of the bison and it may not be too much to state that had not the Canadian government expressed a considerable interest in bison preservation over an extended period of years the plains bison would be much fewer in numbers; and the wood buffalo might not even be with us. It is an easy matter in retrospect to condemn some of the less fortunate decisions made during the preservation process (such as the shipment of plains bison to the country of the wood buffalo), but possibly a more important task before us is to ensure that significant contributions to species conservation and to the protection of landscape and habitat *remain* part of our heritage as well as being our commitment to the future.

The many human intrigues, the lucky breaks and the considerable journeyings through Canada and the United States of the buffalo themselves make for a complex tale. In *The Park Buffalo* an attempt is made to distill the many complexities and subtleties into a story which may be enjoyed by the general reader (particularly younger readers) and which will instill in him or her a fuller appreciation of the worth of a system of national parks. To this end we have decided to dispense with the referencing procedures usually associated with more formal texts; but we have included some of the more readily available books on buffalo matters in the Bibliography. The chapter headings, the italicized quotations and the in-text quotations are drawn from the several dozen books, papers, articles and other literature sources which were examined in the preparation of this manuscript.

As principal instigator and editor of *The Park Buffalo* it is my pleasant duty to acknowledge the many individuals whose contributions have made pos-

sible the appearance of this small book. First, to Sheilagh Ogilvie for her diligent research and patient unravelling of many (often conflicting) accounts, facts and figures. Secondly, to Terri Kelly, a young Calgary artist, who graciously prepared three original sketches for *The Park Buffalo*. Thirdly, to Frederic G. Renner who provided colour transparencies of Charles M. Russell's "Pablo-Allard Buffalo Drive" and who gave permission to reproduce these dynamic examples of Russell's work. Fourthly, to Marilyn Croot who prepared the maps, and to Katy Winterbottom who assisted in their completion. To Sheilagh Ogilvie, Senior and to Margaret Scace appreciation is expressed for their diligence at the typewriter. Most of the photographs emanate from the Glenbow-Alberta Institute in Calgary and permission to reproduce the illustrations in question is gratefully acknowledged.



Two final expressions of appreciation are in order. The Parks Awareness Program initiated by Parks Canada and administered in terms of this project by the Western Regional Office, Calgary, is an exciting concept which holds much potential. The Parks Buffalo manuscript would not have been possible without the existence of the Program. And finally publication of the volume would have been rendered nigh impossible without the financial assistance of Reid, Crowther & Partners Limited.

Robert C. Scace, Editor
Vice-President,
National and Provincial Parks
Association of Canada

CONTENTS

Acknowledgements

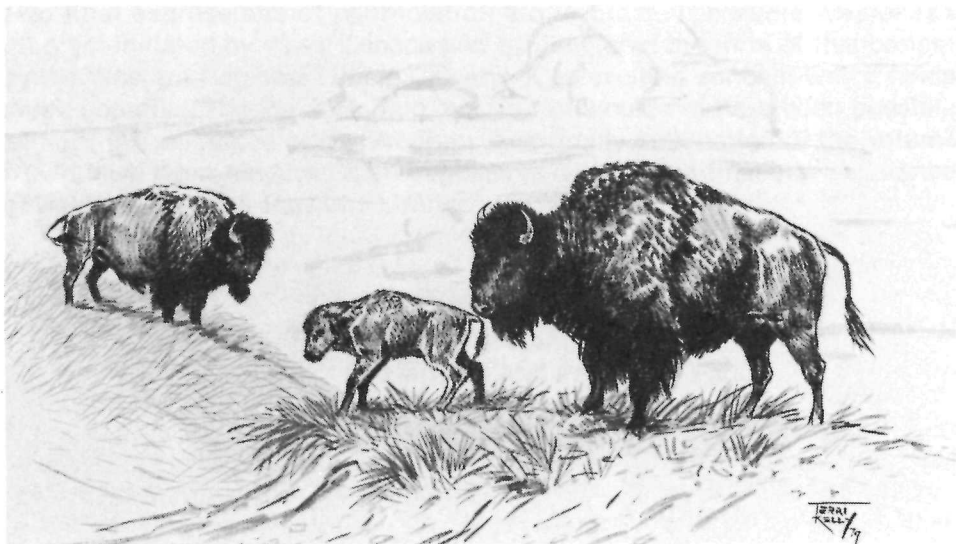
Preface	1
Introduction	4
ONE : “The Flower-Fed Buffaloes of the Spring”	7
TWO : “A Few Simple Regulations”	15
THREE : “There Aint Maney Thinks Lik Us”	25
FOUR : “The Power of Man”	37
FIVE : “And They Will Wonder How It Was Done”	43
SIX : “The Land of Little Sticks”	49
SEVEN : “The Enjoyment of Future Generations”	56
EIGHT : “The Proper Study of Wildlife is Man”	62
Bibliography	67

INTRODUCTION

We have been protecting bison in Canada for many decades. Many are the gripping tales of bison and men that link the early preservationists whose one idea was to get land, any land, fence it, and put the animals in there somehow, and their counterparts of today, be they conservationists, wildlife biologists, or national parks administrators faced with often ambiguous and conflicting claims on modern bison range.

This is a story about the foresight and fortitude of individuals, people colourful and commonplace, so diverse that perhaps their only common interest lay in the preservation of a species which for a time hovered on the brink of extinction. Who were these players, seeming so minute upon the stage that was the North American continent? They were officials of the Canadian Territories, promulgating belated and nigh unenforcible Ordinances to conserve the buffalo of the northern plains. They were Mounted Policemen and civil servants in the Department of the Interior who sought to cope with a vanishing native life style as bewildered Canadian Indians in the 1880's waited for the herds that would not come again, waited for the mythical beasts that had gone to the seat of Creation in the northland. In the United States fourteen Americans convened in the Lion House of the New York Zoo in 1905 and established the American Bison Society, an organization which would publicize buffalo preservation throughout North America during the next three decades.

The marital difficulties of a less-than-virtuous Montana Indian precipitated the formation of the nucleus of the famous Pablo-Allard herd which was brought to Canada in 1907. Michel Pablo, a mixed-blood rancher, with his friend Charles Allard ranged this herd on his ranch on the Flathead Indian Reservation and eventually rounded it up to be delivered to Canada by boxcar. Canadian civil servants, Ayotte of Immigration, Oliver of the Interior, and Prime Minister Wilfred Laurier, names and faces in our history, negotiated the biggest deal in buffalo ever made. All these and more men — forgotten



people: those who dealt in living buffalo for reasons of gain or from personal sympathy; those nostalgic for a vanishing "wild west"; those dedicated to conservation; men who had the courage and persistence not only to save the buffalo, but to create a living place for them in a rapidly changing world.

This tale has never been told in its entirety. Individual enterprise began it and institutional arrangements would perpetuate those humble beginnings. For as the bison were being fortuitously saved by a series of unusual and unlikely events, the vision and vigour of a few other men, though ultimately there would be many more, ensured the creation of the first public reserves in what would become the Canadian national park system. Thus the beginning years of this century witnessed not only individual commitment to the preservation of a magnificent wild animal, but also a sound institutional arrangement for its future conservation as a Park Buffalo.

How did these beasts, once the undisputed masters of the plains ecosystem, come to be numbered in single buffaloes? Had not bison once been the most numerous big game animal in the world? Across that narrow bridge of land which linked Asia and the Americas some 400,000 years before man made his appearance, the massive Asian ancestors of the modern bison had made their way. They took possession of an unlimited feeding ground, one which extended thousands of miles from Mexico to the Arctic, from the Rocky Mountains to the Atlantic seaboard.



This was the prehistoric overture to the bison-human drama. Millenia passed. Then perhaps 35,000 years ago man too crossed the Bering land bridge from Asia to step timidly upon the land which the bison ruled. As he made his way into the interior he found *Bison bison bison*, an animal significantly larger than himself and in numbers that would have been incalculable. Here was a beast which truly dominated the ecosystem. Herds of thousands ate the ground bare of grass. They netted the plains with deeply-worn trails and wore moat-like ditches about the great rubbing boulders while polishing the rock surfaces. Everywhere they left their unique signature, the buffalo wallow, which in multiples might remind the human observer of some shell-pocked

and devastated battleground, bereft of vegetation and occasioned by dust devils blown by a flighty wind. Imagine the immense interaction that went on among wildlife species on the pre-European plains. Here was one immense bison range with roaming wolf, plains grizzly and pronghorn antelope aplenty, here a dusty colony of prairie dogs, there an alkaline slough. And not a fence in sight!

The Indian moved through this dynamic landscape in numbers that made no lasting impression upon buffalo numbers or the land itself. But to the Indian the buffalo was everything; a source of food, clothing and shelter and a focus of his religious beliefs. So dependent was man upon beast that in 1889 it was said "never were twins bound closer together".

Perhaps it was inevitable that a beast so spectacular and so numerous, ranging on untamed land awaiting European settlement, would run afoul of that settlement when it came, and would have to be dragged back from the brink of an extinction precipitated by its own past dominance. After all these shaggy monsters of the plains were huge, they were everywhere, and they were in the way. Is it surprising that they were hunted down?

These were the monsters of the plains, but what of the dark, mysterious animals inhabiting the forests of the north? For in what is now northern Alberta and the southwest region of the Northwest Territories there roamed another subspecies, the wood buffalo (*Bison bison athabasca*), an elusive creature which led a cloistered existence in the Boreal forest. Here was an animal about which little would be known for decades, but which ultimately would become entwined in the preservation story and which also would become a Park Buffalo.

Because the wood buffalo were seldom discussed during the first years of preservation efforts they do not appear very often in the first four parts of this book. "The Flower-Fed Buffaloes of the Spring" tells the gory tale of the bison's extermination. "A Few Simple Regulations" deals with early bison preservation; and the saga of one notable herd that was saved is told in "There Aint Maney Thinks Lik Us". "The Power of Man" tells of how this herd was brought to the Canadian national parks. We are reminded from time to time that the wood bison exist, but separate from the adventures of their relatives on the plains. It is only in Part Five, with the story of how thousands of plains bison came to be released onto the wood bison's range, that we read the latter's tale, "And They Will Wonder How It Was Done". From then on the tales of wood and plains bison are inextricably entwined. "The Land of Little Sticks" tells of the two subspecies' impact on each other in Canada's far north. "The Enjoyment of Future Generations" gathers together the diverse strands of the buffalo story in modern Canada. "The Proper Study of Wildlife is Man" examines the future role of both subspecies within and outside the system of sanctuaries which so triumphantly has preserved these noble animals.

ONE

“The Flower-Fed Buffaloes of the Spring”

Vachel Lindsay (1879 - 1931)

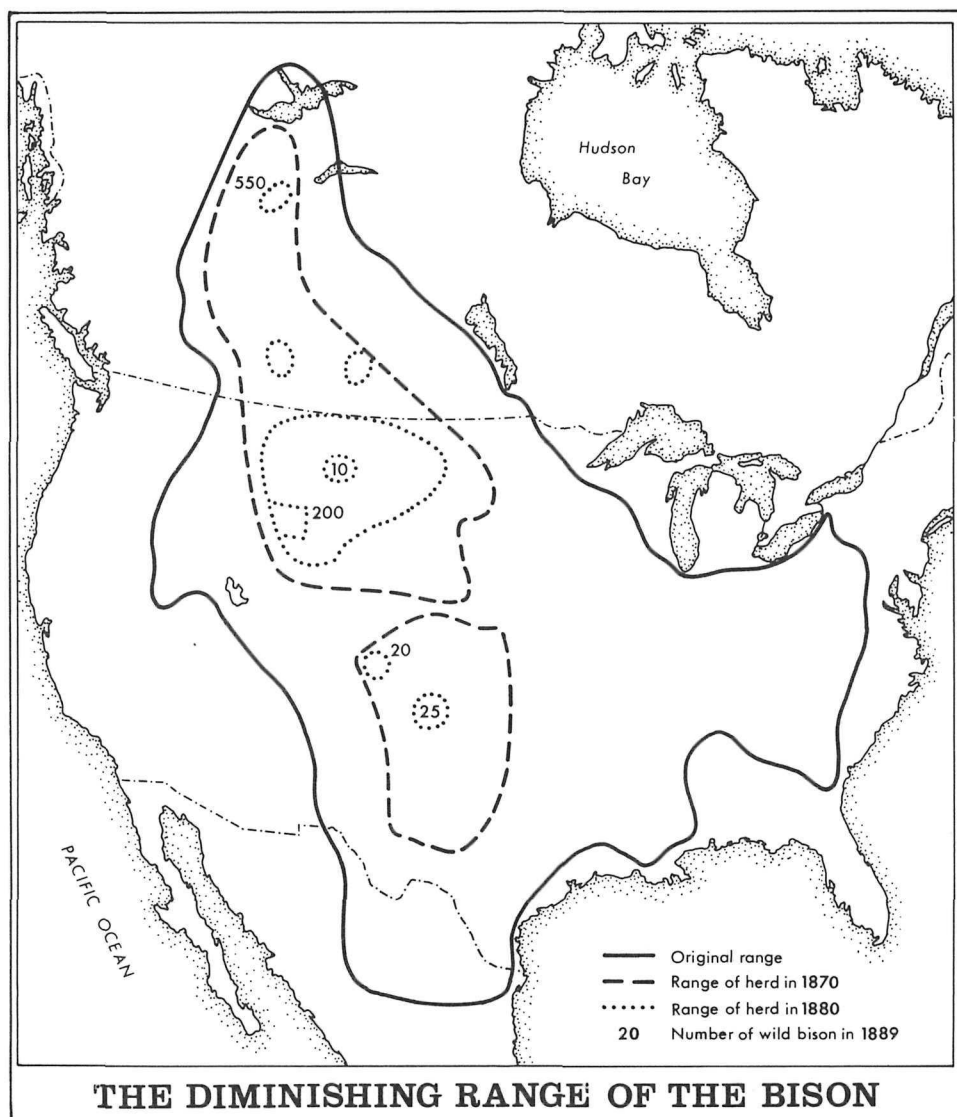
The wild, free-roaming herds of buffalo which moved about the interior plains of Canada and the United States during the nineteenth century were destined to a common slaughter. But the manner of their going exemplifies the very different approaches taken by the governments of the two countries in making the Great Plains “fit for settlement”. In the United States confrontation between the European in his many roles as adventurer, entrepreneur, sportsman, rancher and settler, and the buffalo and Indian was but an extension of the conflict that had marked the former’s expansion from his Atlantic foothold westwards through the hardwood forests and over the Appalachian Highlands. Americans fought their way onto and across the plains and sought to rid themselves of the indigenous encumbrances, human and animal, which stood in their way.

In Canada the buffalo would be almost extinct before the railway initiated a parallel influx of Europeans. Not that the animal had been immune to reduction in support of European and Metis communities and the horse and rifle equipped Indian prior to 1885, but rather demands upon the bison were essentially of a subsistence rather than an entrepreneurial nature. The settlement of Canada’s western interior would assume a more orderly progression with the Dominion government at the helm in all matters (though not without the considerable involvement of the Canadian Pacific Railway and the Hudson’s Bay Company). The Indian tribes of the plains would be treated in a way then thought by the central government to be humane and reasonable. The land would be surveyed and laid out before the masses of settlers poured in after 1885 from Europe, from central and eastern Canada and from the United States. And there were official attempts, though belated and futile, to preserve what buffalo remained after 1877. We might pose a question to which perhaps there is no answer: how would the government of Canada have dealt with the great herds which roamed north of the forty-ninth parallel in the mid-nineteenth century had they still been present in the 1880’s and 1890’s?

In the United States the systematic slaughter of bison herds began about 1830. Touring European gentlemen, white Americans and Indians all took on the guise of the buffalo’s last and most deadly predator. For meat and hides, for sport, prestige and convenience; deliberately, for reasons political and military; for profit and for fun — only rarely for survival — individually and in large herds the shaggy beasts were hunted down. They littered the prairie with their bones as never before. And before long even these bones would be removed from their resting places!

Indians would kill the bison for the parts a white man bought. Five or six hundred Indians would spend a few days collecting perhaps 1500 buffalo tongues: their pay was a few gallons of liquor. A heap of hides rifle-high

would buy the rifle with which to shoot more buffalo. Carcasses were left to rot: there was no-one out there yet who could eat all that meat.



Technology was then put to work in another way. The great American railroads, it is said, hastened the buffalo's destruction by twenty years. There were picturesque wild-west delays while herds of buffalo strayed on the tracks in front of steaming locomotives and rubbed down telegraph poles with their itching hides. But direct impact between beast and machine was not what killed the bison. Rather it was the meeting of beast and man and the facility with which those shining lines of steel brought the two together. The meaning of a railway: the hunters, the soldiers and settlers who could now travel to the American West, the robes, hides, tongues and eventually the bones which could be shipped eastwards. Canada did not even have a transcontinental railroad then!

As the century wore on America went buffalo-mad. The piercing arrow of the Union Pacific Railroad separated the moving life-blood of the plains, possibly forty million bison, into two great streams. One flowed south and the other north, and as the trains poured in, flooding the western grasslands with soldiers and hunters, settlers and sportsmen, wheelers and dealers, the implacable hand of commerce closed down over the buffalo.



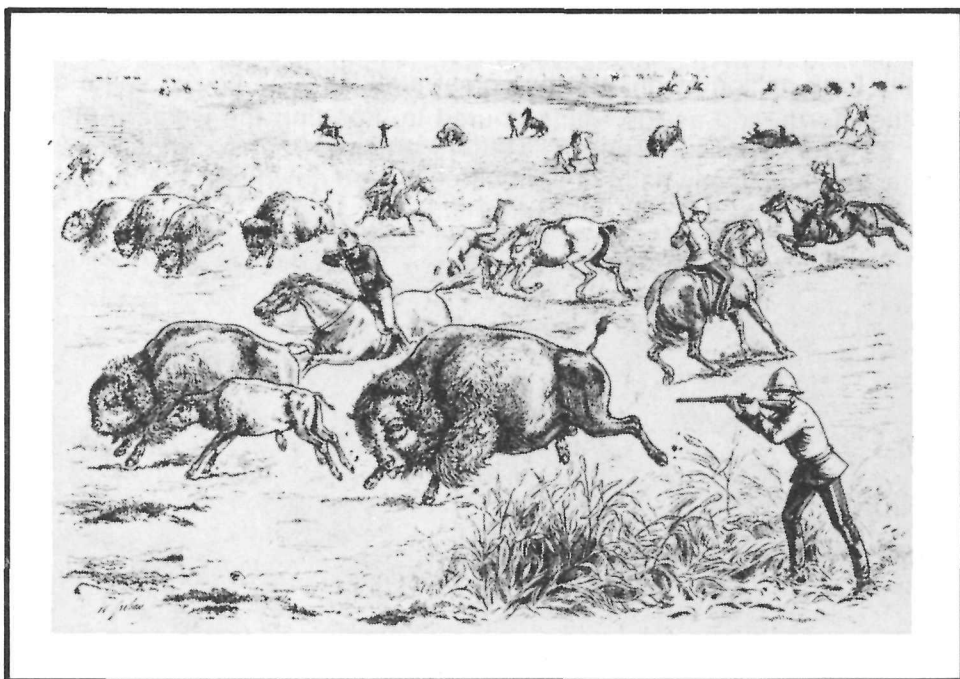
J.G. Nelson

*Too soon will the last
of them have vanished from the great central prairie land*

*Buffalo Bill, Buffalo Bill
Never missed and never will;
Always aims and shoots to kill
And the company pays his buffalo bill.*

Whole cities grew up on the buffalo hide trade. One hunter could kill 250 animals a day, faster than a skinner could rip the hides away, in itself a five-minute operation. For every hide that reached the market, four of five buffalo had been killed wantonly and left for the coyotes and crows. An American hide-hunter paid no heed to the meat. A whiskey-trader could get a robe for a shot of liquor.

Travellers on the plains would fire repeating shots from their new magazine rifles after a herd of buffalo, just for amusement. Engineers would slow their trains so that passengers could pepper the bewildered herds from the window, and leave them lie. Inestimable tons of flesh were left to rot on the prairie. The hideless, tongueless carcasses, the forgotten whim of cowboy or cattleman, trainman or traveller, rotted, bleached and were covered, layer upon layer, every day of every year. Lightly taken by the human pillager, heaps of hides and robes sat by the railroads, waiting for shipment to the east where they might fetch fifty cents or a dollar in the glutton market.



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In 1874 the North-West Mounted Police
joined in the hunt



THE LAST BUFFALO

"Don't shoot, my good fellow! Here, take my 'robe', save your ammunition, and let me go in peace."

Thomas Nast, in *Harper's Weekly*, 1874.

Year after year, up to the 1870's, this tragic scene was repeated. And not just for fun or profit. Political and military considerations also played a role. Much later the American government would perhaps regret the violent and unnecessary extermination; ordinary Americans would be conscience-stricken. Now, however, they were actively encouraging it. The American Indian, free and mobile as long as his bison supply-base lasted, was to be subdued at all costs. To starve him into submission the American government blocked all attempts to halt the massacre of bison. Indeed Congress employed hunters to further the killing. General Phil Sheridan declared that the western hide-hunter in two years had done more to resolve "the Indian question" than the entire regular army in thirty — by destroying the Indian's commissary.

And in Canada:

Our route took us into the midst of the herd which opened in front and closed behind the train of carts like water round a ship. The earth trembled, day and night. . .as they moved. . .over the inclinations of the plains. Every drop of water on our way was foul and yellow with their wallowings and excretions.

Thus wrote Issac Cowie, a Hudson's Bay Company employee, as his party made its way through a large herd of buffalo north of the Qu'Appelle River, in today's Saskatchewan, in 1869. His vivid description suggests that the Canadian plains still teemed with buffalo as the century completed its third quarter, but in truth the bison would be almost extinct before another decade had passed.

Attrition upon bison in Canada was considerable throughout the 18th and 19th centuries. Not only were there the requirements of the native peoples who, said Anthony Henday in 1754, killed a "great many Buffalo; only taking what they chose to carry"; but as the hundreds of fur trade establishments marched their way westwards, particularly along watercourses such as the North Saskatchewan River, their occupants also required buffalo products. An no simple needs were these! Consider, for example, the provisions required at Fort Qu'Appelle in the 1860's when this fur trade establishment boasted about fifty-three men, women and children, and thirty dogs using the equivalent of twenty men's rations:

the daily allowance for each child was one-quarter, and for a woman one-half that for a man, which was twelve pounds fresh buffalo meat or six pounds dried buffalo meat, or three pounds pemmican, or six rabbits, or six prairie chickens, or three large white fish, or three large or six small ducks. . . with a weekly allowance of tallow or fat (besides potatoes, milk, sometimes berries). . . . Daily to feed the establishment required in the form of fresh meat, the tongue, bosses, ribs and fore and hind quarters of three animals, for the head, neck, shanks, and insides were not worth freighting from the plains to the fort. The product of three buffalo in the concentrated form of pemmican was equivalent to the daily issue of fresh meat. . . .

Such appetites were not unusual.

For example, the Chief Trader at one post was fined when consumption reached 1,444 lbs. of fresh, 3,363 lbs. of dried and 1,343 lbs. of pounded meat, along with 667 pounds of grease and 33,162 fish during the period September - June 1823-24. The post was home for 36 persons, 16 of whom were children. In addition 900 lbs. of dried provisions were used for winter journeys.

Such were the demands of the trading posts that in 1813 the North West Company required 644 bags of pemmican. And these bags weighed ninety pounds and more each! Later, in 1870, the Hudson's Bay Company would require that 2284 bags of pemmican be collectively supplied by the Saskatchewan, Swan River and Red River Departments to the company's Northern Department.

Yet another group of people emerged to accelerate the hunting of the buffalo in the 1800's. There were the halfbreeds or Metis, men retired or released from service with the fur trading companies who with their families first settled around the Pembina River post about 1820. Subsequently required to move to locations such as St. Boniface on the Red River opposite its confluence with the Assiniboine, and along the Assiniboine in the region of the White Horse Plains, the Metis experienced a high birth rate, revelled in a semi-nomadic lifestyle and considered buffalo meat to be their favourite food. Numbering some 500 souls in 1821, this group rapidly increased to 2,600 persons by 1843 and slightly more than 12,000 by 1870.

These were the people who initiated the Red River Hunts, occasions when almost the whole male population and women and children departed the settlements in search of the buffalo. Pursuing the bison in a manner not unlike the Indians the Metis differed from the natives in their preference for the Red River cart rather than the travois. The former, a high-set, two-wheel affair, was characterized by the creaking and squeaking which emanated from its ungreased wooden axles bound in hides; and by its capacity to hold large loads of meat or hides. Nine hundred pounds seems to have been a not uncommon load. In 1820 about 540 carts were used in the hunt. By 1830 the number had risen to 820; and to about 1210 in 1840. In terms of provisions conceivably 486,000 pounds were brought back to the Red River region for domestic use and for sale to the Hudson's Bay Company and the Selkirk settlers in 1820. By 1840 the amount may have exceeded one million pounds. Consider the numbers of buffalo which were killed to generate such figures; thousands, tens of thousands! It has been said that on such hunts, two buffalo were spoiled or eaten on the spot for each carcass carted back to Manitoba, not a wasteful ratio by the standards of the times.

As the century progressed the combined impact of hunting in Canada and the United States served to contract significantly the range of the Canadian buffalo. Even by the late 1820's the Metis ranged as far afield as the Cheyenne River in North Dakota. And in another four decades the hunt pushed westwards some 600 miles, so far in fact that to depart and return from the Red River in one year was impossible. Thus it was that winter camps, semi-permanent sites really, sprang up at locations such as Head of the Mountain, Four Mile Coulee and Eastend, all in the Cypress Hills.

The bison herds which roamed north of the forty-ninth parallel suffered grievously as the American robe and hide trade developed. Heavy, cumbersome and costly to transport to potential Canadian markets, these buffalo products found ready buyers at the American fur trading posts on the Missouri River. Indians and Metis alike delivered many a hide to these posts. Some were shipped south by the Hudson's Bay Company, but in numbers that were insignificant for the times. For instance, in 1869 Fort Edmonton shipped 9090 robes; in 1865 Fort Carlton supplied 1099 robes; and from Fort Pitt in 1866 came 948 robes. And in 1878 about 31,000 robes and hides were shipped south from the Mounted Police communities of Fort Macleod and Fort Walsh. A year later half as many went to market; in 1880 not one robe left the communities.

By 1878 the Commissioner of the North-West Mounted Police reported pessimistically that such had been the demands upon the buffalo by European, by Indian and by Metis, "the best authorities in the North-West are of the opinion that the buffalo as a means of support. . .will not last more than three years". The Blackfeet were having to travel up to 100 miles to secure food and Indians of all tribes were beginning to congregate about Fort Walsh in the Cypress Hills, not so much to receive their treaty money, but rather to seek beef supplies which the Mounted Police were forced to obtain from Fort Benton in Montana. In 1877, too, Sioux Indians fleeing from the site of the Little Big Horn massacre entered Canada, killed large numbers of animals and supposedly prevented "the Northern Indians from securing their usual supplies". Moreover the Sioux seemingly drove "the large eastern herd south" while the United States government posted cordons at the border to turn southwards any animals seeking pasture in Canada. Thus in not three years but one was the Commissioner's prophecy fulfilled.

In 1800, perhaps 60 million wild buffalo had called a continent their own. Fifty years later the herds were halved. Another three decades and in 1877 there were fewer than two million buffalo. By 1879 scattered herds in the United States added up to perhaps 200,000: to Canada they never came back. Another four years and in 1883 Sitting Bull led a band of Sioux to the vicinity of the Black Hills "to hunt the buffalo as in days past". They found there a herd of about 1000 animals "and in two days of hunting. . .wiped it out to the last animal".

First had gone the vast herds, then the smaller ones. Suddenly, now, it was over. For a few years more stragglers would be found, hunted down and slaughtered. But the end had come. No man would stay the hunter's hand. No one could believe that the bison were gone.

Although by 1880 when the Red River Hunt failed and was discontinued, and only pitiful remnants of the bison herds still wandered in Canada, many Americans believed that the herds had gone away northward, across the international boundary, to the far north. In 1893 a former locomotive engineer on the Northern Pacific Railroad exclaimed:

They couldn't all have been killed so quickly. I saw them crossing the Yellowstone River. They darkened the plains with their numbers. Some of them must be living in the north. I don't believe that they were all killed.

For the Indians the story is never the same twice: for them, a strange mystery shrouds the closing days of the buffalo. For a few years, on the plains of southern Canada, Indians would take to their ponies each spring in silence. Their teepees were made of canvas now, but hadn't they always gone at that time to seek the buffalo? For, perhaps, in the far north, in a great sheltered valley where the climate is tempered by the Chinook, the bison stood at bay; or from a hole in an Arctic lake, the seat of Creation, whence they had fled from men, bison would issue forth at need.

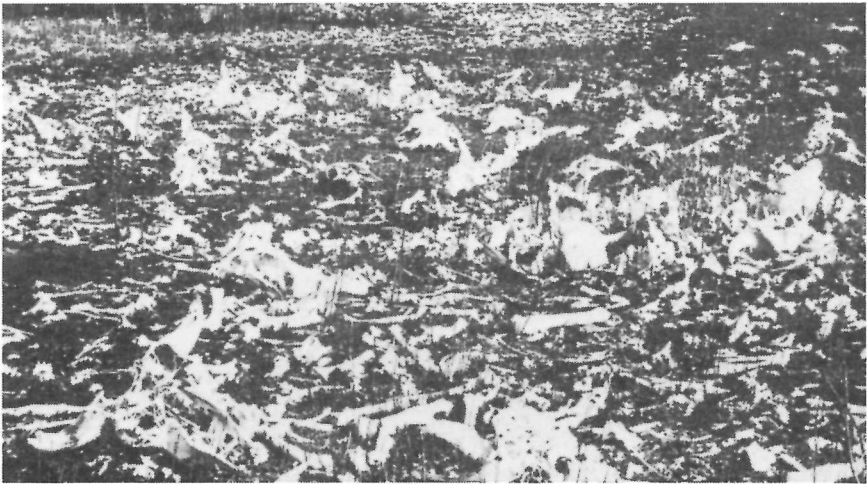
A curious belief, for far in the north lived the wood buffalo, in sheltered valleys and by Arctic lakes, waiting for the conscience of man.

TWO

“A Few Simple Regulations”

Lieutenant-Governor Morris

The wind of death had swept over. As the old century drew to a close, seeming weary from killing and empty of buffalo, the prairie saw the coming of the bone-picker, plodding and stooping in the footsteps of those who had gone before. Often the bone-picker was a former hide-hunter now out of employment, a Metis, or an early settler thinking to finance his first few years by selling what he cleared from plowland and pasture. Under the western sky where a few years before piles of hides had waited, now stood even higher heaps of bones, tons of skulls, awaiting transport to the east: the newer bones to be burned into bone black for sugar refining, the older ones to be ground down for phosphate fertilizer. One of the gathering-places for this strange harvest was Pile-of-Bones, later — as the scavengers' work was done — to be known as Regina. Bones shipped from the Saskatoon area alone represented “the anatomy of over a million and a half buffalo”.



Glenbow-Alberta Institute

*. . . a most indiscriminate
slaughter commenced. . .*

There were official attempts later in the nineteenth century by government agencies in both countries to protect the buffalo, but they proved to be largely ineffective. In the United States some politicians persistently but vainly sought to legislate against the buffalo's imminent extermination. The Executive Branch of the federal government did not favour preservation, and your Representative could be a hard man to convince! Furthermore these individuals often received contradictory and incorrect information about the animal's status.

No few than ten bills, acts, resolutions and recommendations came before the American Congress between 1871 and 1876. Each and every one of these was shelved, vetoed, or ignored. In June, 1874, a bill that might have radically changed the future welfare of the bison actually passed through both Houses of Congress, despite the opposition of those Representatives who considered that the best way to control the Indian was to eliminate his source of food. But this bill vanished like all the others. It went to President Grant for signature, was pigeon-holed, and died a premature death by passive presidential veto. A final attempt to halt the massacre was made two years later. This proved to be a mild bill, which proposed a tax on buffalo hides. Referred to the Committee on Ways and Means it was never heard of again. Apparently the bison had had their last chance for protection through the legislative process.

Not until 1894 did Congress “shut the stable door with a resounding clang”, and pass its first legislation to protect bison. The action came as a direct result of publicity given in the eastern United States to poaching activities in Yellowstone National Park. This the first national park in the world had been established in 1872 with the intent, in part, that no “wanton destruction of the fish and game” would take place. But there were no regulations to clarify the legislation, no staff actually inside the park to manage its resources, and no funds to pay for men or equipment. This situation was most regrettable for by the 1880’s the largest single group of wild bison in the United States occupied this public reserve. The animals were mercilessly slaughtered by poachers, be they guides, hunters, trappers or British sportsmen, and though protected by the act of 1894, the bison herd, reduced from about 500 animals to perhaps 200, remained vulnerable until appropriate laws were passed in all three states surrounding Yellowstone National Park.



Glenbow-Alberta Institute
...and since the slaughter
thousands of tons of bones
have been gathered up. . .

The story of official preservation efforts in Canada followed a different and arguably more creditable pattern. However, though the Dominion government moved to save the buffalo before Washington did, it likewise did not grasp the need for prompt and vigorous action if buffalo in any number were to survive.

The first formal attempt by government to do something about the deteriorating bison situation came in 1877 when the first council in the Northwest Territories met in March and passed twelve ordinances, one of which was *An Ordinance for the Protection of Buffalo*. Lieutenant-Governor Morris of Manitoba and Northwest Territories in his report on negotiations leading to the signing of Treaty No. 6 had previously observed:

These animals are fast decreasing in numbers and I am satisfied that a few simply regulations would preserve the herd for many years. The subject was constantly pressed on my attention by the Indians and I promised that the matter would be considered by the Northwest Council.

Those "few regulations" embodied in the ordinance of 1877 forbade:

the use of buffalo pounds, the wanton destruction of buffalo at any season, or the killing of animals under two years of age, or the slaughter of female buffalo during a stated closed season - briefer for Indians than for others. This law was framed in the best interests of the Indians and half-breeds, but their very destitution made the protection of the waning herds a hardship. and it was found necessary to repeal the measure in the following year. . . .

The writer might have added that the ordinance was nigh impossible to enforce by the small pockets of North-West Mounted Police scattered across the plains; that most people were unaware of the ordinance's existence; and that, in any event, the legislation was declared *ultra vires* by the federal Minister of Justice. The ordinance was repealed in 1878.

By this time the buffalo were rapidly becoming concentrated in the Cypress Hills - Wood Mountain - Milk River area, drawing to them Indian, Metis and hide-hunter. The buffalo-dependent population of Canada was considerably increased by the entry into this country in 1877 of a large number of Sioux, led by Sitting Bull, following their defeat of General Custer's troops. The appearance of the Sioux north of the international boundary pleased neither the Canadian nor the American authorities: the former because the Sioux accelerated the demand upon a declining food base and fomented unrest amongst the northern Indians; and the latter because the Sioux's residence in Canada impeded resolution of the "Indian problem" and imperilled the settlement process in the United States.

In 1878 when the bison herds moved north to graze on the southern Canadian plains they were turned south again by a cordon of American soldiers, halfbreeds and Indians spread along the forty-ninth parallel. Almost no buffalo reached Canada in that year and the Mounted Police found it essential to dole out rations to the natives. During the next four years the fugitive buffalo repeatedly sought to move to Canada but were denied their objective in many

ways. In the spring of 1879, for example, “simultaneously, and as if by some preconstructed arrangement”, fires sprang up and burned black the greening prairies from the Rocky Mountain foothills east to Wood Mountain. Blackened pasture, the Sioux harrying them along the border, and starving Canadian Indians moving out from the Cypress Hills combined to keep most of the frightened beasts in Montana.

Whenever the Canadian Indians travelled south to seek the elusive herds they clashed with their American counterparts, with cattlemen, whiskey-runners and hide-hunters. Invariably they returned, destitute and debilitated. This sad spectacle, this total disintegration of native society on the northern plains could not persist and in the early 'eighties the Indians moved onto the reserves which had been identified at treaty signing ceremonies held between 1871 and 1877. As they departed their plains ranging activities most Indians probably were unaware that yet another *Ordinance for the Protection of Game* (1883) was being passed by the Territorial Council. Perhaps it was as well for a later amendment (1889), quickly vetoed by the government in Ottawa, sought to prohibit the natives from hunting buffalo.

As Canada and the United States went about their business of settling a continent, the spattering of live buffalo which persisted here and there, out of sight and economically useless, were instantly nostalgic reminders of those herds which occupied the plains only yesterday. Only a handful of stubborn and unconvinced hide-hunters chased the scattered remnants of the herds. But there also existed a scattered handful of other white men, in search of fortune or reputation, or in search of nothing more than “buffalo and a quiet life”. They were saving a few bison here and there, on ranch and enclosure, all the way from Manitoba to Texas. From motives of profit, nostalgia or regret, these men heralded the conscience-stricken conservation movement, which, despite setback and opposition, was to gather momentum during the first energetic years of the new century.

Buffalo calves, captured in twos and threes before the wild herds vanished from the plains, grazed for decades and multiplied on private ranches. This tiny genetic pool of breeding animals was the means by which the descendants of 60 million bison sidestepped extinction. Six herds there were. Each boasts its own hair-raising and comical escapades at the hands of its own and human nature. Almost every buffalo alive today owes its survival to Walking Coyote, James McKay and Charles Alloway, Charles Goodnight, Frederick Dupree, or Charles J. Jones.

It was on a Sunday afternoon in the summer of 1893 that a gentleman known as “Buffalo Jones” in company with 26 pure-bred buffalo and 18 hybrids pulled into Butte Station, Montana, and to the end of half a lifetime of misadventures along the buffalo trail. The last of two breeding herds of buffalo - from Texas and from Manitoba - were about to join the largest existing herd of their relatives on the Flathead Indian Reservation.

More than two decades previously, long before there was any notion of a need to preserve buffalo, a series of almost unbelievable incidents had given rise to this free-ranging Montana herd, which now numbered over 300 animals. Walking



Glenbow-Alberta Institute

Lt.-Col. Samuel Bedson, Governor of Stony Mountain Penitentiary, Manitoba, stands second from right in a group photograph taken in 1886. Others include (L to R): Father Albert Lacombe; Big Bear and Father Clouthier (standing); and unidentified priest and Poundmaker (sitting).

Coyote, the Flathead Indian saviour of the original beasts, had been less concerned about preserving a vanishing life-form than in diminishing the anger of his fellow tribesmen with a profitable gift. The two ranchers, Pablo and Allard, to whom he had sold ten bison when this attempt failed, were running their descendents wild along the Flathead River, and now were about to become caretaker for Jones' homeless remnants of old Texas captures and a recent purchase near Winnipeg.

For as Walking Coyote, twenty years before, had been scheming schemes to extricate himself from his troubles with a peace-offering of five buffalo calves, Jones' Manitoba herd was being born elsewhere on the Canadian plains. Two Winnipeg pioneers, C.I. Alloway and "Tonka Jim" McKay were creaking westward in a Red River cart, following the dusty trail of a Metis brigade killing buffalo for pemmican. The two men were after live buffalo calves, and had linked up with the summer hunt of 1873. They meant to capture calves from among those who hung around the hunters once their mothers were killed. So resolved were the two pioneers that they sent for a domestic cow from Prince Albert to nurse the calves and to keep them from perishing without their mother's milk.

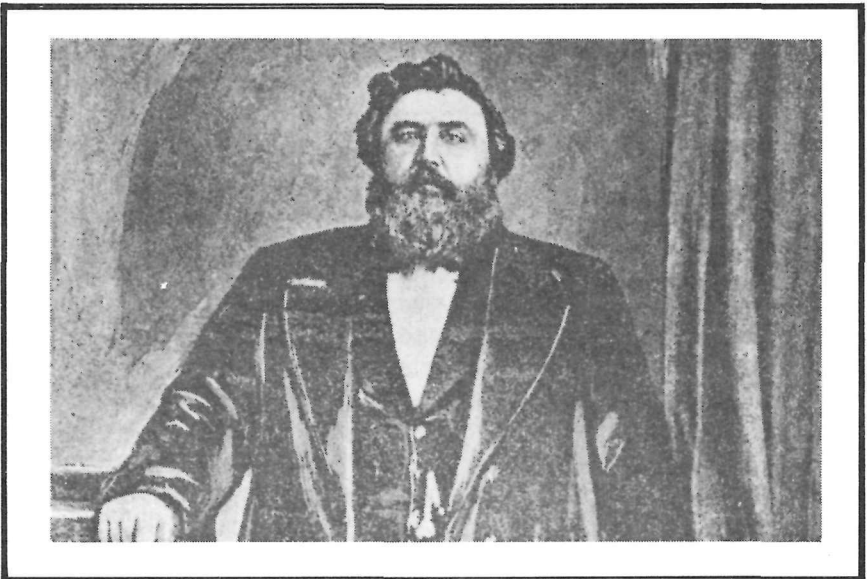
Southwest of Battleford the brigade - consisting of perhaps 2,000 Indians, Metis and settlers, and their wives, families, ox carts and horses - came upon the buffalo. Alloway and McKay ran down several calves and spent

the rest of the summer herding “two little heifer buffalo calves and a husky little bull” across the western plains to Winnipeg.

The following May they were again in buffalo country, half-way between Regina and Moose Jaw and near the international border. There they picked up another bull calf and two heifers, all that their cow could foster. Alloway complained that it was hard to make the buffalo take to a domestic cow and indeed, that year’s bull calf sickened and died before they got him back to McKay’s ranch at Deer Lodge.

By 1877 buffalo were scarce in the west. The days of the Red River Hunt were by that time numbered, although some few animals were still to be found near Winnipeg, driven south by the hunt or by natural disasters. But after the summers of 1878 and 1879 when the Red River Hunt was abandoned buffalo were rarely seen. Alloway and McKay had initiated their search for buffalo none too soon! By the spring of 1878 the five calves had increased to fifteen sheltered, hay-fed adults. Although vaguely aware of the bison’s new-found rarity, McKay and Alloway apparently had no idea that the prairies had been practically swept clear of the species.

When McKay died in 1878 his executors auctioned off eight buffalo for \$100 each to Colonel Sam Bedson, warden of Manitoba’s Stony Mountain Penitentiary, who pastured them on the prison grounds. Money for Bedson’s purchase (\$1,000) was put up by Sir Donald A. Smith (later Lord Strathcona) who also began a herd on his nearby Silver Heights estate, seemingly from the same herd. Colonel Bedson later captured three calves on the prairie and added them to his herd at Stony Mountain where he crossed some of the bison with domestic cattle.



Glenbow-Alberta Institute
Hon. James McKay, speaker of the first Manitoba
legislature and later Minister of Agriculture.

In 1888 Lord Strathcona reaped the profits of his ten-year loan, in the shape of 27 of Bedson's beasts. One decade later Lord Strathcona presented 18 buffalo to the Dominion of Canada. Citizens of Winnipeg, after vigorous protests at losing them from the city, were allowed to choose five animals to be grazed in the city's Assiniboine Park. Apparently the herd failed to prosper and eventually died out.

The City of Winnipeg boasted a second small herd at River Park. These animals had formed part of the Pablo-Allard herd and had been purchased first by Howard Eaton and then by the Winnipeg Street Railway Company. It seems that they were later transferred from River Park to Assiniboine Park.

Of Lord Strathcona's gift, the 13 buffalo remaining to the Dominion of Canada were sent west to Rocky Mountain Park at Banff as a tourist attraction. A year before (1897) this park had received a bull and two cow buffalo, the gift of a Toronto lawyer named T.G. Blackstock. Mr. Blackstock had bought the animals from the Col. Charles Goodnight herd in Texas. The animals from Texas were temporarily stabled in the old North-West Mounted Police barracks and then moved to a 500 acre paddock near Cascade Mountain where they could be seen from the Canadian Pacific Railway and the Lake Minnewanka Road. By 1899 they had increased one hundred percent, bringing this first herd of buffalo to live and breed in a Canadian national park to a total of 31 animals.

Governor Bedson, after paying off the initial cost of the herd to Lord Strathcona, had the increase of his fifteen original buffalo. These now amounted to 100 head, a third of them "cattalo" — bison and domestic cattle hybrids. In 1888 Bedson decided to sell all of them. There now appeared another colourful buffalo figure of the era, former hide-hunter C.J. "Buffalo" Jones, of Garden City, Kansas. Hotel-bar gossip rumoured that he was bidding tens of thousands of dollars for Bedson's buffalo. Local Winnipeg interests tried to get up a company to bid against Jones and keep the herd on Canadian soil. Graciously letting it be known that he'd be happy to see them take half the herd Jones allowed time for these "local gentlemen" to raise the money. But the deal fell through and Jones found the whole lot on his hands for \$50,000.

Buffalo Jones, in fact, had been working up a breeding herd of his own. He had started this herd with a definite plan: he was going to perfect the hardy beef animal of the plains, part domestic cattle, and part buffalo. Also, according to Alloway, "he had visions of big game hunters coming to his ranch and paying important money to ride and shoot in a 'buffalo hunt'". His approach to collecting a herd differed from that employed by Walking Coyote, and McKay and Alloway. He had travelled to the Texas Panhandle and to New Mexico, and there had roped calves from the remnants of the great southern herd.

Never one to spurn publicity Buffalo Jones had invited reporters along for the chase. He inspired one newsman to describe him as if he were some sort of modern Quixote rather than a former hide-hunter, successful rancher, and businessman:

I heard him call for his charger like a knight of old going out to battle, and his voice roared over the plain until it was enough, alone, to have terrified the buffalo and brought them to a standstill.

Jones' unorthodox ventures not only burnished his public image, but struck gold. Between 1886 and 1889 he had captured 56 buffalo calves (and, incidentally, lost almost as many). Also he bought several full-grown beasts from ranchers in Kansas and Nebraska who had saved one or two as a private blow struck to keep alive the memory of the herds. Five years after the first summer capture Jones sold ten of these calves, now full-grown, to a rancher called Austin Corbin, for \$1,000 each: ten years earlier, hides had gone for \$2.50 apiece.

In Winnipeg now, despite such supposedly intensive experience with buffalo as hide-hunter and calf-roper, Buffalo Jones had great trouble in getting the animals he had bought from Bedson loaded onto the train for Kansas. During the railway journey one-quarter of his entire herd destroyed itself in the confinement of boxcars. In Kansas City some animals got free and created great havoc in rail yards and streets before they were recaptured. The final blow came when the animals became infested with Texas cattle lice.

The net result of these activities was to render fragile both the health and the finances of Buffalo Jones. In desperation he chaperoned his troublesome charges to Montana, and sold the herd, now dramatically depleted to 26 pure-bred and 18 hybrid survivors, to Allard and Pablo. Thus, by accident rather than good management, three of the last herds of breeding bison were brought together: they were to form the basis for Canadian national parks herds and display herds in zoos and parks throughout the world.

A small number of discrete breeding herds also existed towards the end of the century (Table 1). For example, five wild Dakota calves had been captured about 1881 by the Dupree brothers; and Colonel Charles Goodnight's herd in the Texas Panhandle grew from seven wild bison he saved from the hide-hunters at the entreaty of his wife. But the list was small and it remained for individuals other than the rescuers to espouse the bison's cause and to ensure their perpetuation.

One such person was E.H. Baynes, a reporter and naturalist, who lived on the borders of Austin Corbin's private buffalo reserve in New Hampshire. The Corbin herd, he observed, was constantly up for sale. Private buffalo owners, however good their intentions, were constantly tempted to rid themselves of some or all of the expensive and troublesome animals. Baynes recognized this situation as posing a considerable threat to the buffalo. Through letters and articles he launched an energetic and much publicized campaign to stir up public and institutional interest in bison. He broke two buffalo calves to the bridle, and cried the economic virtues of the buffalo till one might believe the beast a sort of universal medicine for every lack. And William Hornaday, National Museum Zoologist and staunch wildlife conservationist, lobbied among zoologists and politicians for buffalo conservation by the state.

TABLE 1

BUFFALO IN CAPTIVITY, 1888*

Owner	Location	M	F	
"Buffalo Bill" Wild West Show		-	-	18
Philadelphia Zoological Society	Philadelphia, Penn.	4	6	10
Atchison, Topeka and Santa Fe RR	Bismarck Grove, Kan.	3	7	10
Lincoln Park Zoo	Chicago, Ill.	2	5	7
Dr. V.T. McGillicuddy	Rapid City, S.D.	2	2	4
Central Park Menagerie	New York City	-	-	4
U.S. National Museum	Washington, D.C.	1	1	2
John H. Starin	Glen Island, N.Y.	-	-	4
B.C. Winston	Hamline, Minn.	1	1	2
Jesse Huston	Miles City, Mont.	1	-	1 _a
L.F. Gardner	Bellwood, Ore.	1	-	1 _a
Riverside Ranch Co.	Mandan, Dak. Ter.	1	1	2
Unknown Private Parties	Dakota Ter.	-	-	4
James R. Hitch	Optima, Indian Ter.	1	1	2
Joseph A. Hudson	Estell, Nebr.	1	-	1 _a
London Zoological Gardens	London, England	-	-	1 _a
Liverpool, England	Liverpool, England	-	-	1 _b
Dresden Zoological Gardens	Dresden, Germany	-	-	2
Calcutta Zoological Gardens	Calcutta, India	-	-	1 _a
				Total
				77

FOUNDATION HERDS

Col. Samuel L. Bedson	Stony Mountain, Man.	23	35	70 _c
Charles Goodnight	Goodnight, Tex.	6	7	13
Michel Pablo and Charles Allard	Ronan, Mont.	-	-	35
Frederick Dupree	Stanley Co., S.D.	4	5	9
Charles J. Jones	Garden City, Kan.	24	33	57
				TOTAL
				184
				Grand Total
				261

^aNot considered to be in breeding situation.

^bThis was a lone animal but in the year the census was taken it was purchased by the "Buffalo Bill" Wild West Show and Hornaday evidently included it with the animals in a breeding situation.

^cThis figure includes 12 calves of unknown sex.

*Source, G.D. Coder, 1975, p. 41-42, after W.T. Hornaday, 1888.

The publicity worked. Baynes sent out 200 letters to people all over the country who had expressed interest in preserving the buffalo. Fourteen persons subsequently assembled in the Lion House in the New York Zoo in December, 1905 and founded the American Bison Society, with Theodore Roosevelt as Honorary President. The Society was to lobby successfully for American bison parks and to publicize buffalo preservation until its dissolution in 1953.

Thus did the preservation of the bison begin to pass from foresighted individuals to institutions, removing a financial burden which private persons could not sustain. In Canada the federal government would take on the mantle of leadership, this coming at a time when the conservation movement was really just getting under way and national parks were being established as tangible expressions of that movement. Canadian park administrators were experiencing their first management problems as they sought to protect much depleted wildlife stocks and to display species both indigenous and exotic to the parks' environments: elk, moose, deer, bighorn sheep, Angora goats, yaks. These difficulties would be greatly compounded, however, when the national parks unexpectedly became the hosts for precious train-loads of bison shipped northwards from Montana.

THREE

“There Aint Maney Thinks Lik Us”

*it shure looks like we could feed an protect a fiew hundred of
them but it seemes there aint maney thinks lik us*

Astonishing it may seem, but of all plains buffalo alive after 1900 over eighty percent were of Pablo pedigree. These were the descendents of the bison that this Indian/Mexican cattleman had run with his cattle on the Flathead Indian Reservation in northwestern Montana. It took an unlikely combination of circumstances to create this situation: the hunting trip of a Pend d'Oreille Indian 28 years earlier in what is now Alberta; a subsequent decision which had little to do with extermination or preservation; and the setting in motion of a fantastic chain of events which, more than anything else, would pitchfork a few buffalo into the twentieth century.

Samuel Walking Coyote's capture of eight buffalo calves along the Alberta-Montana border and their sojourn on the grassy ranges of the Flathead Indian Reservation is a tale that has been told and retold by so many voices that it has passed into legend. And, as so often happens with legends, each telling is a little different.

It was winter, 1872. Buffalo from the northern herd could still be hunted in the wilder parts of Montana and southern Alberta. Walking Coyote, a warrior-class Pend d'Oreille Indian aged about 30, roamed the Sweetgrass Hills along the Milk River, hunting buffalo with the Blackfoot. Despite traditional Blackfoot enmity towards the Flatheads, Walking Coyote's adopted tribe, the Blackfoot and he were on very good terms. They got along so well, indeed, that Walking Coyote forsook his Flathead wife for the lush charms of a Blackfoot maiden.

One can well imagine the result. By next spring the Walking Coyote family relationships were understandably, less than amiable. Samuel's Flathead wife held out for her Christian marriage rights; the Blackfoot girl, bought from her family for 16 head of horses, “though fond of excitement in war, could not endure the continual strife, and found life in Sam's lodge unbearable”.

At any rate as the time for his return approached, Walking Coyote became somewhat nervous about his reception back at the Flathead Reservation. Not only did the Jesuit fathers who had Christianized the tribe forbid more than one marriage, but Flathead tribal custom forbade one to marry outside one's adopted tribe. By any reckoning Walking Coyote had one woman too many.

Accounts vary here: some have it that Walking Coyote shot and wounded his Flathead wife; others say that the Blackfoot tribe broke camp and spirited the Blackfoot girl away, leaving Coyote with his original Flathead wife to take back to Montana.

The peculiar tendency of buffalo calves to attach themselves to the horses of their mothers' slayers - the same tendency that resulted in the capture of the Red River calves at about the same time - now took a hand in the comedy. Yearling buffalo calves had been wandering sadly about the Black-foot camp, getting underfoot among the horses. Walking Coyote, likely thinking to placate the St. Ignatius Mission fathers and the Flatheads with a peace-offering, decided to cut out some calves and herd them to the Flathead valley, from whence the buffalo already had gone.

Helped by whichever wife had, in fact, managed to keep him, Walking Coyote drove his half-dozen yearling charges through the mountain summer of 1873. Two calves died in the hard going, but on the rough brown heads of the four who miraculously survived the rugged, dusty 250 mile trek hung the fate of future buffalo in Canadian parks.

As a peace-offering the calves didn't help Walking Coyote one bit. As he entered the reservation beside his dusty yearlings, he was met by the Indian warrior police, set upon him by the Jesuit fathers. Walking Coyote was promptly beaten up - some say his wife was too - and kicked out of the tribe. He wasn't even given a chance to tender his peace-offering. So he settled down about ten miles from the Mission and sent his buffalo calves out to graze with the half-wild cattle.

He could not have done better. Other calf herds taken from the wilds had been isolated in paddocks and pastures, carefully crossed and cared for. These calves, instead, were left alone to range where they wanted, as they might have done in the wild. In 1877 when the heifers were four years old, they each bore a calf.

The herd prospered. By 1883 there were 14 animals. But they were becoming a nuisance. His neighbours didn't care for them, and Walking Coyote didn't have enough range. Discouraged he decided to sell. At this point the herd was nearly acquired for Canada some 22 years before its actual transfer. Mr. D. MacDonald, Flathead rancher and factor for the Hudson's Bay Company, the last trader to represent the company in the western United States, started negotiations with Walking Coyote. But he lost out to the more energetic methods employed by Charles Allard.

Allard was a mixed blood rancher who recognized the potential in raising some of these nearly-extinct animals. He persuaded his boyhood friend Michel Pablo to interpret for him with Walking Coyote and the partners snapped up 12 buffalo at \$250 apiece. The story goes on to say that Walking Coyote was determined to be paid in "real money". The two businessmen and Coyote met by a stream on a fine autumn day to make the exchange. Bills and coins in piles of one hundred dollars were being counted out and placed under paperweights of stones, when a squirrel or a mink ran by. Business was forgotten! Allard and Pablo chased after it. When they returned, breathless and concerned, they found Walking Coyote still brooding silently over the gleaming piles of wealth.

Walking Coyote went straight off on a \$3,000 binge. He ended his days un-

der a Missoula bridge two years later, completely broke. A less-than-heroic exit, but one that matched the spirit in which he had lived and captured the calves that were now prospering on the rich grasslands of the Flathead.

Skillfully managed, but allowed to range wild as they would, the herd suffered few setbacks, although a few were lost to buffalo rustlers. Nearly a decade passed and then one Sunday afternoon in 1893, Buffalo Jones arrived in Butte, Montana, to sell the 44 travel-stained pure-bred and hybrid buffalo which had originated in Winnipeg and the Panhandle. Allard had to chase after a millionaire friend who could supply \$18,000 ready money, for apparently Buffalo Jones and Walking Coyote were two of a kind! The hybrids were placed on an island where they would not mix with the pure-bred beasts, the latter then being allowed to infuse their breeding strains into Coyote's herd from the Milk River country.

Three years after the new animals arrived Charles Allard died. His share of the herd, some 150 head, went to his immediate family and brought some fancy prices. The Allards sold the animals to different dealers all over the United States and although some were slaughtered, many herds were stocked with the descendents of Walking Coyote's calves. There was a great scattering of the breeding strain. Over 250 head from the combined herds had already been sold in small lots over the years. These animals became the nuclei of many buffalo herds extant in the United States to this day; for example, the Conrad herd at Kalispell, the Burgess herd at Luana, and the herd with which the depleted Yellowstone Park population was restocked.

Prior to Allard's death the buffalo had been manageable and were used to being handled by men. Now, however, Pablo found that he could not look after both his huge ranch and the large herd of buffalo. The beasts became wilder, ranging freely over the hilly grasslands and in the woods along the Flathead River, with only a few Indians riding herd. They continued to do so until they were moved to Canada in 1907.

the buffalo 800 head owned by a Half Breed Pablo by name knowing the resivertion would bee throne open he asked Unkle Sam to leave him a range but Unkle wanted it for farmers then he asked him to by them and when Unkle shook his head, the Canadians jumped in an grabed them at \$250 a head.

Prior to 1907 despite the early conservaton legislation enacted by Canadian authorities, most of the action in the buffalo world had taken place south of the border. Canada had one herd of plains buffalo located at Rocky Mountains Park, a few head near Winnipeg, and an obscure, apparently safely-cloistered herd of wood buffalo ranging far to the north. Apart from these few examples, Canada was bereft of what had been one of the most numerous and dominant forms of wildlife.

In the spring of 1904 government authorities in Washington advised Pablo that the Flathead Reservation would be opened for settlement within the next few years. And indeed, by 1909 the extensive grasslands along the Flathead River which had long provided Pablo's buffaloes with grazing range would be plowed

under. Even now, as the country in the vicinity of Pablo's land had become more settled, he experienced increasing difficulty in keeping rustlers away from the herd. His problem was compounded by his not knowing exactly where each member of his herd could be found.

Things had come to a pretty pass! Faced with the cancellation of his free grazing privileges, entailing disastrous consequences for his buffalo, Pablo asked the United States government for a grant of grazing land. When he received no reply from Washington he approached both the American government and the American Bison Society with an offer to sell his buffalo herd outright as a national asset. The American Bison Society couldn't raise the money. President Roosevelt and Secretary of the Interior Hitchcock were eager to purchase the herd, but Congress offered only some grazing land which was too limited to accommodate the herd.

A man purporting to be a government agent did journey west to inspect the herd. He offered Pablo \$25 a head, an insulting one-tenth of the animals' purchase price a dozen years before. When the agent raised the offer to \$75 per head, with a ten-grand cut for himself, Pablo indignantly refused him. Shortly afterwards Pablo received notice that within the next two years he would have to give up the land upon which he ranged his cattle and buffalo. Pablo concluded that the government was trying to coerce him into sacrificing his herd at the ridiculously low figure suggested by the agent. Michel Pablo was a ward of the American government, but patriotism had its limits.

He approached the Canadian Department of the Interior for mountain buffalo range in Alberta. Instead of an offer of land, however, he received an immediate visit from the Commissioner of Dominion Parks, Howard Douglas, who brought with him an immediate offer to purchase the entire herd at a mutually agreeable price.

This proposal actually was the end product of the foresight and vigorous action of a minor Canadian servant, a friend of Pablo's. Alexander Ayotte the Canadian immigration agent in Great Falls visited Pablo shortly after the old rancher's last, bitterly disappointing trip to Washington late in 1905 and listened to his story. Ayotte recounted the situation to his own superior in Great Falls and suggested that he apprise the Department of the Interior in Ottawa that in the northwest States there existed a herd of buffalo looking for a home.

Howard Douglas's immediate response was to approach the Honourable Frank Oliver, Minister of the Interior, to persuade him that this herd was exactly what Canada needed. Oliver, who had crossed the prairies to Edmonton directly after the last great slaughter of the buffalo and had been appalled at the tremendous piles of buffalo bones, was enthusiastic about acquiring some living buffalo for Canada. Letters passed feverishly from department to department. Finally, in June, 1906, Howard Douglas journeyed by railway to Missoula and then made the arduous 80-mile overland trip to inspect Pablo's herd. He found that the buffalo were entirely pure-bred and in the peak of condition. A price was promptly agreed upon and within six months Parliament had made an appropriation for the purchase of Pablo's entire herd.

As soon as a tentative verbal agreement had been reached by Douglas and Pablo at their first meeting news began to leak out that the last big herd of American buffalo had been sold to a foreign country. Suddenly those Americans who had been indifferent, lukewarm, or actively obstructive were roused to a positive storm of protest. The public believing this to be a distinct national loss, brought pressure to bear on the tardy government. Government offers poured in on Pablo, double and finally nearly treble the price the Canadians were paying. Even at \$700 a head Pablo resolutely refused these belated inducements. The old rancher was warned that he was taking a serious risk in dealing with the possibly untrustworthy agent of a foreign power. Had Washington so soon forgotten the strange showing made by their own "representative" only 18 months before?

Anxious that Pablo should trust the Canadians Oliver and Douglas between them were able to arrange, quite against regulations, that Douglas go to Montana armed with an official contract to which had been affixed the Seal of the Department of the Interior. In fact this precaution was hardly necessary. Pablo viewed the Canadians very favourably as they had saved him from being forced unwillingly into a humiliating transaction with his own government and from having to sell his valuable buffalo for less than their true worth.

There then ensued a nerve-racking delay of six months. Was Canada going to pull back at the last moment? An estimated \$95,150 would have to be borne by the Canadian taxpayer in the first year of this quixotic venture in buffalo. Such an expenditure seemed excessively high to many of those who must needs approve the decision and indeed, the authorities were on the eve of rejecting the agreement at one point. The matter was satisfactorily resolved, however, and Howard Douglas triumphantly wrote of the agreement as follows:

The Dominion Government is to be congratulated on securing this herd, and in my negotiations I found considerable opposition from parties who were averse to seeing these animals leave the American side. In spite of many obstacles placed in the way of purchase and sale of the herd, I always found Mr. Pablo perfectly upright in all his dealings, and as soon as he signed the contract he was determined to deliver the entire herd to the Canadian government.

*it seemed like they all ways winded
us before we sighted them they were all ways running*

Unsure as to exactly just how many buffalo he possessed Pablo had signed a contract for them all, with the exception of twelve head which he wished to retain for himself. This first contract, signed in February of 1907, was only for between 150 and 400 head, although eventually more than 700 animals were to be delivered in Canada. The price to be paid by the Canadian government was \$200 per head, plus \$45 apiece for roundup and live delivery at Edmonton. Wrote Douglas: "I consider the herd very cheap at the price asked and I am sure there will be a great howl from the Americans. . . ."

Pablo expected to make a profit on the \$45 extra per head that he would be paid for delivery. But between the Flathead range and delivery in Edmonton lay a roundup and five railways to be travelled and his mythical profit disappeared on the heels of the buffalo. The cost of shipment was nearly \$40,000. Pablo launched the roundup over the wild, rugged, broken gullies and canyons of the Flathead, using the finest cow ponies and the pick of Montana's range riders. At wages of five dollars a day seventy-six veteran cowboys chased wild buffalo all day for two weeks with Pablo himself directing the affair. Even amateurs took part: one lady of sixty years had a legendary 100-mile ride to her credit and single-handedly prevented a stampede. Seventy-seven buffalo were collected in that roundup.

The problems were just beginning. Stampede followed stampede, often just as the troublesome beasts were on the point of being safely corralled. Buffalo charges at speeds over 40 miles an hour left a trail of dead cow ponies and injured riders in their dusty wake. And even the most experienced brigade of cowboys could only lead a buffalo to the train station, nobody could persuade him a boxcar should be his temporary home. Nevertheless in May of 1907, two weary months after the roundup began, 199 entrained bison set off on the long trip from Ravalli Station to their new home in Canada.

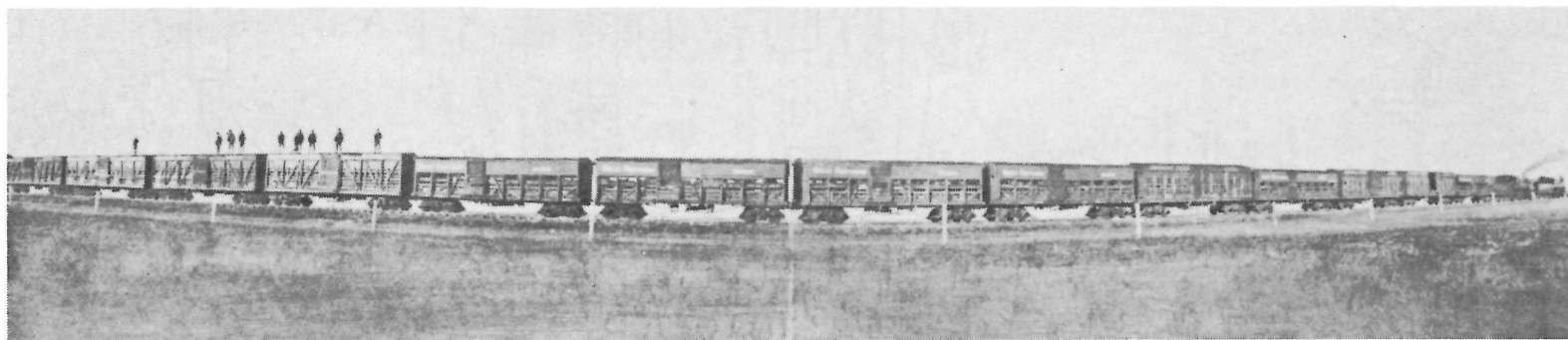
That summer was spent in further roundups and in implementing Plan Number Two: the building of twenty-six miles of fence leading from wing corrals on the buffalo home range to 24 inch timber corrals near the boxcars awaiting at Ravalli. Even so few buffalo were captured. Pablo was in despair, his cowboys and their mounts exhausted, Americans hostile to the project rejoiced. At this critical juncture young, devil-may-care Charles Allard, son of Pablo's old buffalo partner, appeared on the scene and agreed to corral at least 125 buffalo at ten dollars a head, or to sweep the range of buffalo for \$2000. Pablo took him up on his offer.

Allard launched 20 hand-picked cowboys and 125 horses in the campaign against the elusive buffalo. More often than not, however, the buffalo somehow escaped, up more-than-vertical cliffs and down the rushing torrents of the Flathead, if half the tales of newspapermen can be believed. Stories of the shipment of Pablo's buffalo were to become tall tales of Montana's wild west.

*Shades of the happy hunting grounds, think of
entraining buffalo by the trainload!*

In September Douglas came from Canada to witness the loading of the second trainload of buffalo. It was to follow as wild a pattern as the first, especially for Ayotte, who had already had some bad experience in Montana - an unhappy episode with bedbugs the preceding June, and a bullet-ridden cowboy who staggered through the swing doors of a Missoula tavern and fell dead at his feet.

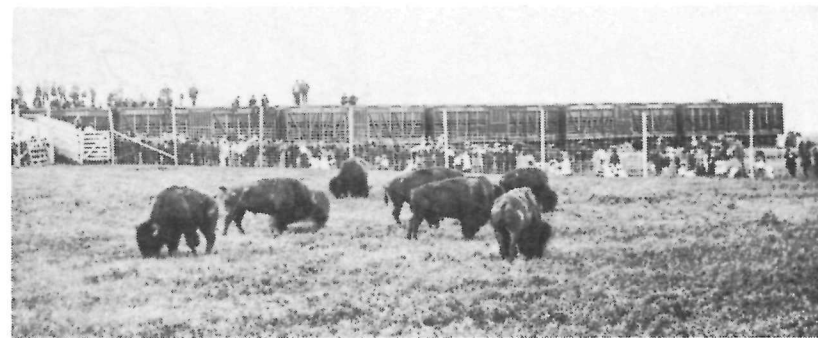
From a small corral each animal was pushed and prodded up the chute leading to a specially reinforced boxcar. Halfway up the beast's head slid into a lariat loop which was then yanked tight by two cowboys and kept that way until the buffalo had been manoeuvred into the boxcar. During one of these



Buffalo from the Pablo-Allard herd in Montana were shipped to Canadian National Parks by train between 1907 and 1912.

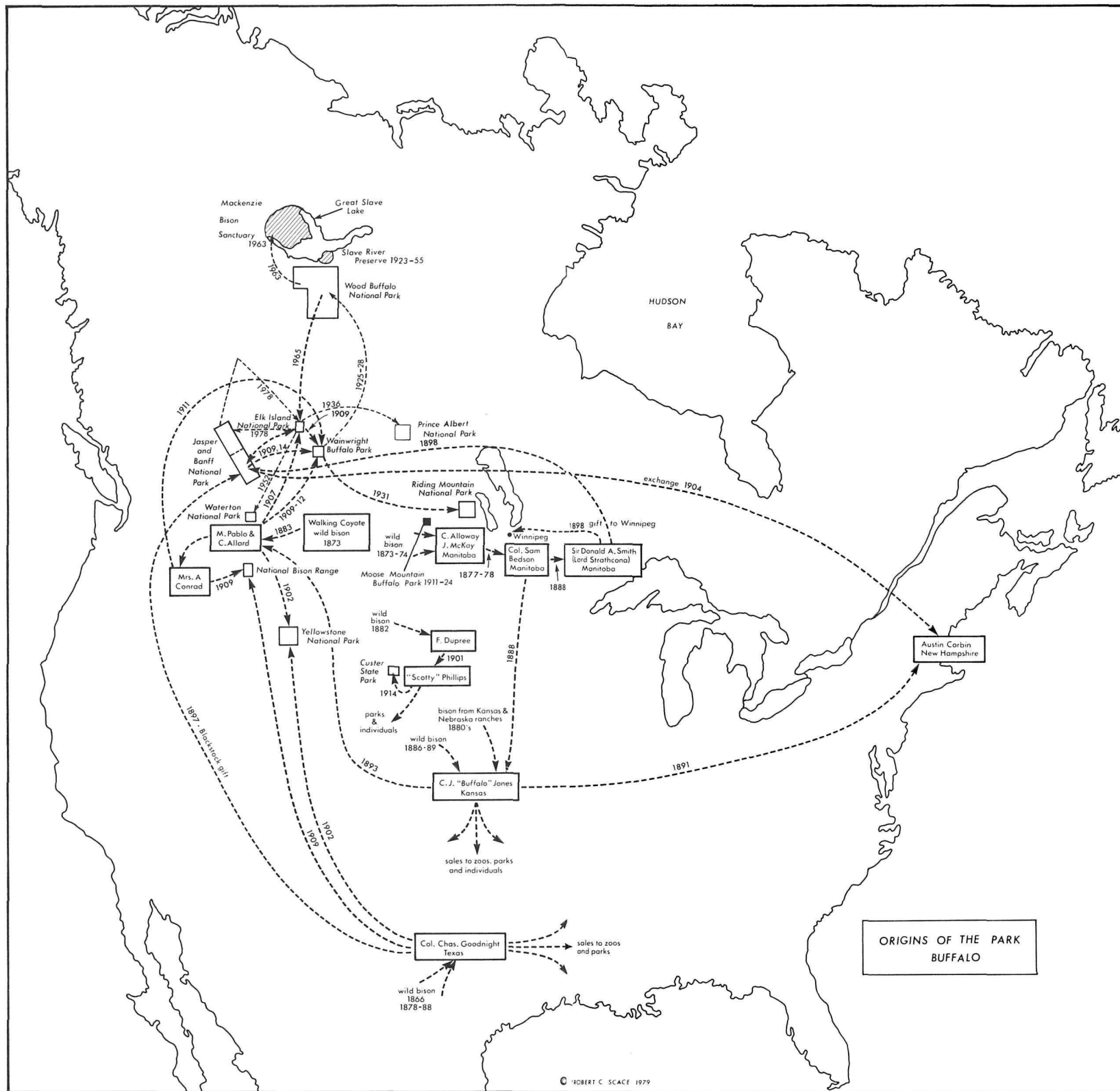


Alexander Ayotte, Charles Allard and Howard Douglas all played vital roles in securing the foundation herd for Canada's National Parks



The arrival of Montana buffalo at the Buffalo Park at Wainwright, Alberta in 1909 attracted many curious onlookers

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operations an especially energetic bull broke the inch-and-a-half thick rope and took off in pursuit of Ayotte, Douglas and a Canadian Pacific Railway official named MacMullen. Fortunately the bull's legs slipped; MacMullen broke his arm leaping over the fence, but the others suffered nothing but shock.

For Ayotte insult was yet to be added to injury. An onlooker who stated his dislike of Ayotte tells the story of his discomfiture with obvious enjoyment:

After he came to, Ayotte went back of the car I was standing on, and suddenly that car shook as if by earthquake. One of the on-lookers fell on Ayotte's head. We didn't see him any more that day.

On the day the train was due to depart for Canada a crowd of Montana rough-necks rode out from Missoula to stop the loading and to free the buffalo so painfully corralled, in protest against their removal to Canada. Pablo himself faced them, averting disaster by persuading them that if the buffalo were freed, he, and not the Canadian government, would be the loser through their actions.

The entire operation took five years, from June of 1907 to June of 1912 (Table 2). By 1910 buffalo were being crated individually on the range and driven thirty-six miles to Ravalli Station in wagons. During that time 716 buffalo were delivered to the Canadian national parks, as well as seven head of elk and numerous squirrels and jackrabbits inadvertently caught in the roundup and bypassed in the mad scene at the railroad station. In all the Canadian government paid close to two hundred thousand dollars merely to buy and to ship the beasts. Such an expenditure of time, effort and money never had been focused on so unbusinesslike a cause as wildlife conservation.

Home on the Range

Originally the intention had been to place the buffalo on Moose Mountain Timber Reserve in southern Saskatchewan. But local resentment in Montana was strong and the Department decided not to put them within such easy reach of the boundary line; forty miles was not a very long run for a herd of buffalo. So a new Buffalo Park was established at Wainwright in east-central Alberta, several safe hundreds of miles from the border.* Because Wainwright Park was still being fenced when the first trainload of bison arrived in Canada, the beasts were sent instead to Elk Island Park, already entirely fenced, and not far away from their eventual home.

The arrival of the buffalo was a striking occasion. In June, 1907 when the first shipment arrived in Lamont, a few miles north of Elk Island Park, the prairie town of about 100 people was flooded with visitors. More than 1,000 sightseers arrived on special trains from Edmonton. And within 24 hours the new Canadians were pawing and sniffing at the unfamiliar and varied vegetation that was to be their pasture for the next few years. A large group of them

* Although Moose Mountain Buffalo Park was established adjacent to Moose Mountain Timber Reserve in 1911 no buffalo were shipped to this location.

charged straight off into a slough where they caught themselves in floating vegetation and had to be hauled from the mire by cowboys. Despite all efforts eleven animals drowned, one a splendid old beast who still carried brass caps on his horns, relics of the colourful Wild West shows that Buffalo Jones had given many years before.

October saw an even more impressive arrival in Lamont, and the same crowds of visitors. Since the Northern Pacific Railway had arranged for the swiftest possible journey for the buffalo only minor setbacks delayed the second shaggy trainload as it clattered north through Great Falls to Lethbridge. There the Canadian Pacific Railway was no less efficient. The animals were sped through Calgary and on to Strathmore where the train was boarded by the Premier of Alberta, the Lieutenant-Governor and ladies from Government House for the last lap of the trip. At six in the morning of October 11, 1907 another 211 buffalo arrived in Lamont.

By 1909 Pablo's buffalo were being shipped directly to Wainwright, where two hundred square miles of buffalo range, now fenced, stood ready to receive them. At the same time, those buffalo originally sent to Elk Island were rounded up and transported to Wainwright.

TABLE 2

BUFFALO RECEIVED FROM MICHEL PABLO

<u>Destination</u>	<u>Date Receipt Signed</u>	<u>Number of Head</u>
Elk Island National Park	June 1, 1907	199
Elk Island National Park	October 22, 1907	211
Wainwright Buffalo Park	July 3, 1909	190
Wainwright Buffalo Park	November 4, 1909	28
Wainwright Buffalo Park	June 21, 1910	28
Wainwright Buffalo Park	October 19, 1910	28
Wainwright Buffalo Park	June 16, 1911	7
Wainwright Buffalo Park	June 6, 1912	7
	Total	716

Both in Montana and in Elk Island Park there remained a few head of buffalo. They had hidden themselves in the rougher parts of the countryside and could not be rounded up. Despite efforts to remove them between 50 and 70 bison remained in Elk Island Park to become the nucleus of the herd that exists there to the present day. It is said that some of those who conducted the search deliberately missed a few animals as they did not wish the entire population to be taken from the park.

The 75 or so bison remaining in the Flathead country after Pablo's final shipment of seven had been paid for by Canada could not be rounded up. So in 1912 Pablo invited members of the government who had worked with him for so long to come on a private buffalo hunt of the delinquent Canadian beasts. When the Canadians arrived the Montana government, responding to complaints by local citizens, stopped the hunt on the grounds that the animals were wild and must be protected. It was an appropriate "sour grapes"

conclusion to the American government's involvement with the buffalo herd. The last of Pablo's bison were shot indiscriminately by private individuals as the range was settled.

In Canada the buffalo settled contentedly on their new range. A program was begun to restock Canadian ranges with the plains bison that had been so long absent from them. It would become one of this country's greatest accomplishments made in the cause of preservation. In the years ahead, however, Canada's national parks administrators, faced with the task of conserving almost 10,000 buffalo, would encounter many difficult problems associated with their management. These problems, both biological and human in origin, haunt our national parks' and other public buffalo herds to this day.

FOUR

"The Power of Man"

Insofar as it is within the power of man, the buffalo shall not perish from the earth. . .

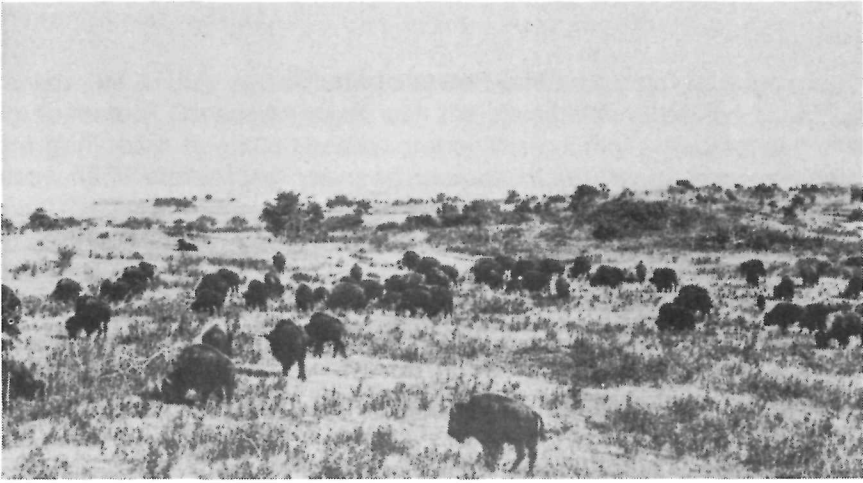
Prime Minister Wilfrid Laurier

In the Buffalo Park at Wainwright the pride of the Dominion Parks Branch at having obtained close on 800 buffalo for the people of Canada was to be tempered by some bitter lessons in management. Concerning this range it had been written:

Canada has prepared to take befitting care of her bargain in buffaloes and these latest wards of the nation will have a magnificent range where the conditions will comply with the natural habits of the animals so closely as to be almost ideal, and so vast will the area be, that they will scarcely realize they are in captivity

Initially residents in the area in which the park lay were sympathetic to the presence of a herd of buffalo. But as early as 1914 local ranchers were beginning to express resentment. They claimed that having the whole southern portion of a good farming district - 197 square miles - out of bounds to ranching was holding back regional economic development. A petition was presented to Parliament to remove the buffalo. The situation was one of constant political intrigue. Although very few buffalo, perhaps five or six annually, were being culled from the herd at this point, mainly because of old age, ranchers claimed that buffalo meat was supposedly cutting into the beef market!

In fact the contrary was true. The buffalo themselves had to be protected from domestic cattle, though not in the meat market. Thus far the herd had been ranged in a natural state. The animals suffered from no illnesses other than those that wild bison traditionally carried; occasional cases of mange, eye disease, and granulated liver. However, immediately beyond the boundaries of Buffalo Park there grazed cattle which had become heavily infected with tuberculosis and brucellosis. The dangers inherent in these diseases being transmitted to the bison were recognized by Park administrators and to prevent their spread to the park bison a special double line of fences was constructed along the park boundary. Despite this precaution cattalo and several certified domestic cattle employed in buffalo crossing experiments were allowed to graze among the buffalo. And the latter instead of being permitted to range freely, were rather closely managed and were fed on hay during the winter. As early as 1914 Dr. Maxwell Graham, Director of Parks Animals, counselled strongly against this practice because, he argued, it encouraged the spread of disease. His warning went unheeded. By 1917 at least one bison had died of tuberculosis, by which time too, because of other problems, the disease was rapidly spreading through the herd.



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Buffalo Park, ca. 1911

The buffalo were turned loose to feed, as their ancestors had done, on the rich buffalo grass of Alberta.



Glenbow-Alberta Institute

Buffalo round-up, Buffalo Park, 1929

It was a great life riding the buffalo range. . . Here was something different, with a promise of unknown excitement - certainly a change from cow-camp!

In 1914, two years after the last Pablo shipment, the Wainwright buffalo herd had increased to almost 1,500 animals. Most had come from Pablo's range in Montana, either having been shipped directly to Wainwright, or by way of Elk Island. In addition there had been an increase of about 90 beasts through an exchange with Banff. These latter bison were descendents of the first three Blackstock animals and Lord Strathcona's gift. In the spring of 1911 an additional 30 head had been purchased from the Conrad ranch at Kalispell, Montana. These animals were descendents of Allard's half of the Flathead herd. And since the original Pablo purchase the natural increase of the herd at Wainwright had been greater than 100%.

Yet those administering the Wainwright Buffalo Park did not perceive or failed to react to this evidence of the phenomenal fertility of the bison in captivity. Concerned that Canada's new present to herself and to conservation should never again approach want or extinction, and possibly having in mind the northern wood buffalo's extreme difficulty in increasing its numbers, parks' officials aided and abetted all further increase in the bison herd.

The science of wildlife and range management was then in its infancy. Basic concepts now taken for granted were unknown. On the grassy, aspen-studded range at Wainwright the number of bison grazing on the land was never adjusted to match the forage which was available. As the grazing population passed the theoretical carrying capacity of 5,000 beasts, a figure which had been set for the area by a land capability report, it became impossible to alternate periods of grazing so as to rest and maintain the range.

The chosen range was on the fringes of the traditional grazing grounds of the plains buffalo. The capability report recommended it as having extremely high capability for precisely the use to which the parks' administration was putting it: the grazing of wild ungulates, or grass-eating mammals. Dotted over the park were numerous popular bluffs and sloughs which supplied shelter and ample water for buffalo. Older residents would observe, however, that in some winters there would be a thaw after heavy snow, followed by a hard frost, thus forming a solid crust between the buffalo and its forage. In the event that just such a winter prevented the buffalo from foraging for themselves a thousand acre modern farm was put under cultivation. And initially Wainwright actually produced a surplus of oats and hay, which was shipped to other parks. But as the buffalo population increased by leaps and bounds the animals required all the forage the park's hay meadows could produce, and more.

In May, 1915, 1,500 buffalo grazed in the Wainwright park. By the following February there were over 2,000. In May, 1917, four hundred more trod the grassy ranges. In the following year management staff was increased to cope with between 700 and 800 new calves. At this rate of increase, even on a range of 197 square miles, the buffalo population reached and surpassed the limit of 5,000 beyond which point in time the range could not continue to sustain the herd without considerable deterioration of the food base. And as was to be expected the signs of over-grazing begin to appear on the

previously “ideal” range. By 1921 the eight or nine thousand bison were eating even small twigs and browse. Unusable species of plants replaced palatable grasses. Elk, moose, deer and smaller animals competed for food with the immense buffalo herds which, fenced and protected, roamed over the same run-down prairie day after day.

The buffalo never stopped reproducing and each new calf was regarded as Nature’s gift to the census-takers. Fully two thousand buffaloes were being slaughtered each year, but the population continued ever upwards. Almost every winter extra forage had to be provided. This was not wildlife management, it was stockraising. By 1925 an astounding ten thousand buffaloes were milling about on the over-grazed prairies of Wainwright Buffalo Park. The impoverished range had affected their health and the herd was by now infected with tuberculosis and liver fluke.

We might easily forget that the sojourn of the buffalo at Wainwright, although by modern estimates a primitive and misguided attempt at managing wildlife, saw many days of ease and happiness. From the beginning the pleasant, welcoming and careful attitude of the men working at Wainwright was well-known to visitors to the park. There was Bud Cotton, head range rider, endlessly going on about that friend of his. One Spot, the buffalo bull he’d known as a calf. On a cold winter day, clad in his shaggy buffalo coat, Big Jim Wilson, caretaker of the cattalo division, looked as if he, too, might have been crossed with a buffalo somewhere. And Sam Purchel, with his grisly job of shooting 2,000 a year to keep down buffalo numbers had his memorable moments, as when a buffalo bull he thought he’d shot dead placidly continued to graze!

In the summer of 1923, there was even a spot of movie-making. “The Last Frontier”, which employed three hundred Hobbema Reserve Indians and a whole herd of “stampeding” buffalo was shot on location in Wainwright Park. Although the film was never finished (the producer died half way through the filming) seventy-five buffalo are said to have died in the excitement of the stampede, for which the film-makers had to pay \$250 each.

The range rapidly became unbearably crowded and disastrously infested with disease. The buffalo had been protected from predators, winter food shortages, fires, cold, and over-exertion. They had merely to stand and eat. The parkful of bison became too large and too complex to manage and as the park’s grazing capacity declined, it could not be reclaimed from the impoverished state into which it had fallen so long as it was grazed by the prevailing numbers of bison. It is an unhappy fact that the Dominion Parks Branch was ready to do anything to salvage some buffalo from the foundering wreck of the Wainwright herd. By 1923 calf crops were approaching 1,000 a year. Something drastic had to be done, and consequently the decision was made to move a goodly number of young Wainwright bison northwards to the range of the wood buffalo in the country which the latter occupied in the vicinity of Lake Athabasca.

Proposals to reduce numbers and eradicate disease in Wainwright Park through wholesale slaughter met with great public outcry. Seemingly the

only alternative was to ship bison to another park: and there in the north lay Wood Buffalo Park, all 10,000 square miles of it, inhabited by southern and northern herds totalling 1,500 elusive wood buffalo by contemporary reckoning. There had been complaints by Members of Parliament about such a large area being devoted to so few wild animals. But mainly the appeal was the mere presence of the park itself, already equipped for bison protection, seeming half-empty and waiting.

Was the Department of the Interior aware that there probably would be interbreeding between the two subspecies? In an attempt to forestall protests about the risk to the racial purity of the wood buffalo - for although there were plains buffalo in other reserves, this was the only herd of wood bison in the world - the Department prepared a statement.* This statement cited the opinion of the geologist Charles Camsell following his brief study of the wood buffalo range in 1916. There was no apparent contact, he had written, between the southern herd of 1,000 and the northern herd of 500, since the ranges were separated by a tract of rough and impassable country. The implication was that any influence emanating from the invading plains bison would be confined to the southern herd. The northern wood bison would, according to the Department's official view, "remain inviolate so far as admixture with the introduced bison is concerned".

Nonetheless when the article was published an absolute storm of protest broke and fell about the heads of the Canadian parks officials. Mammalogist and bison authorities all over North America condemned so drastic a measure, claiming that the racial purity of both subspecies and the health of the wood bison herd would be greatly endangered. These cries fell upon bureaucratic ears which, for whatever reasons, refused to hear.

Prominent among those supporting the transfer of plains bison to Wood Buffalo Park was Dr. Maxwell Graham who had made so many unavailing attempts to halt the spread of disease among the plains buffalo in Wainwright eight years before. Graham retracted his previous view of the wood buffalo as a separate and superior species** and purveyed the official opinion of the Canadian government. The Department's experts on the scene (who were never publicly identified) were better qualified than "zoologists at a distance" to make crucial decisions on bison policy. The Department entertained serious doubt concerning the value of maintaining *Bison bison bison* and *Bison bison athabasca* as separate subspecies. The site where the plains buffalo were to be set loose was absolutely isolated from the northern range of the wood buffalo by a tract of jackpine supposedly never traversed by buffalo. In fact, Graham wrote, the southern herd was already a plains/wood bison hybrid. As to disease in one breath the Department of the Interior denied that the Wainwright herd was heavily infected, and in the next protested that it didn't matter because the relocated animals would be one- and two-year-olds free from tubercular infection and who, besides, would be tested for the disease before shipping, and, if infected, slaughtered.

* M. Graham, 1924. "Finding Range for Canada's Buffalo", Can. Field-Nat. 33:189.

** M. Graham, 1923. Canada's Wild Buffalo. Observations in the Wood Buffalo Park. Ottawa; King's Printer.

Redoubled protest fell upon deaf ears. Zoologists pointed out to the government that the incoming plains buffalo were to be released in the very heart of the wood buffalo's southern range; that in the previous and perhaps less biased report of 1923 Maxwell Graham himself had noted the abundance of buffalo trails through the "impassable" tract of jackpine; and to assert that there existed a thousand plains/wood bison hybrids in the southern range was absolutely without evidence, either in history or in science.

In April of 1924 the Parks Supervisor of Wildlife Protection stated in a memorandum to the Commissioner of Dominion Parks:

It is thought to be very bad epidemiology to ship buffalo from a herd known to be diseased and place them in contact with the buffalo at Wood Buffalo Park which are not known to be diseased as far as I am aware.

This caution had no effect upon events.

Naturalists of both Canada and the United State pleaded with the Department of the Interior to shift the surplus buffalo to another park and start again from scratch. Although money already had been spent in preparation, wrote "A Canadian Zoologist" in the *Canadian Forum* (5:301-305) in 1925, the general program could still be retained, but the buffalo released elsewhere. Specific places were suggested: the Birch Hills on the Athabasca River; an area southwest of the Caribou Mountains by the Peace River; even the eastern bank of the Slave River. All three had at one time been known to support buffalo. Without endangering the wood bison portions of the semi-domesticated Wainwright herd could be released in any of these places and thus guarantee a future meat supply in the far north. The Alberta big game list could be enlarged to carry the name of the buffalo once more and high-priced hunting licenses would pay for wardens to care for the animals. Most naturalists agreed that it would be better to slaughter every buffalo on the Wainwright range before releasing a single, possibly contagious member of a purebred, alien subspecies onto the cloistered range of the last, painstakingly preserved remnant of the pure wood buffalo.

FIVE

“And They Will Wonder How It Was Done”

Wood Buffalo Dominion Park: what kind of a home for bison was this? Here, straddling the boundary between Alberta and the Northwest Territories, Canada boasted a second buffalo park. How had it come into being? How much did anyone know of the dark beasts who roamed along the three great sub-arctic rivers, the Peace, the Athabasca, and the Slave, far north of most human habitation?

Early efforts at conserving the buffalo had focused upon the plains bison. These had roamed in spectacular and countless herds directly in the way of white settlement. They ranged close to centres of population. And it was the plains bison which first attracted the attention of preservationists. Until the early years of the nineteenth century the wood buffalo, a bison subspecies which is darker, heavier and more retiring in character than its plains' counterpart, ranged widely through the mountains and aspen parklands of central Saskatchewan and Alberta, and north into the area between the Athabasca, Slave and Peace Rivers.

The first white man known to have laid eyes on the wood buffalo was the explorer Samuel Hearne. Crossing the frozen waters of Great Slave Lake on a chilly January day in 1772, his exploring party sighted “plentiful bison”. No one ever wrote so moderately of the plains bison in their prime. Alexander Mackenzie caught sight of them in 1789, on his way to the mouth of the river to which he gave his name. He recorded “large herds of buffalo on the Slave River” at a time when the number of wood bison extant on the North American continent possibly was at its peak: close to 168,000 compared to the many, many millions of plains bison inhabiting the plains ranges.

By the middle of the nineteenth century most of northwestern Canada still boasted wood bison although they had been hunted out of some of the outlying parts of their range by Indians and fur traders. Thus as man began to slaughter the vast herds of plains bison in the south a similar fate, though on a smaller scale, was being meted out to the smaller and more solitary herds of wood buffalo. Where sheer weight of numbers, however, had not helped the plains bison, remoteness and bashfulness saved the wood bison. The country they inhabited was so isolated and transportation to and from the region so primitive, that the export from the region of the small quantities of buffalo meat and hides would never have been worthwhile. Trading companies, principally the Hudson's Bay Company, positively discouraged the Indians from killing and bringing buffalo hides in to the trading posts because buffalo just were not worth enough in small numbers. One year of standard plains bison slaughter, and the entire wood bison population would have been wiped out.

There never was a systematic hunt for the wood buffalo. Nevertheless their numbers gradually declined until they were in almost as great a plight

as the bison of the plains. The Indians disclaimed responsibility: it was, they said, "the great winter twenty years ago", in which snow fell until it covered the backs of the bison and they died for want of food. It is true that the wood buffalo living on the very margin of possible bison range needed to be certain of enough grazing throughout each long sub-arctic winter. True, too, that white travellers along the Hay River in the 1870's saw "thousands of buffalo skulls piled up from two to three feet deep". Possibly a succession of hard winters did bring deep snowfalls which rendered grazing difficult and Indian tracking easy. The wood bison were limited in number, their range was more circumscribed and therefore their existence was rendered so much more precarious.

Will we ever know how closely the wood buffalo approached extermination? They were practically gone from south of the Peace River after 1875. And in 1888 a Senate Investigating Committee was informed that the wood buffalo was "nearly a thing of the past". By 1891 perhaps 300 animals held on in a wilderness stronghold south of Great Slave Lake and west of the Slave River. Frank Russell, a hunter of wood buffalo until 1894, recalled that forty bison were killed in the winter of 1892-93. These bison yielded a very dark, thick, curly robe, superior to musk ox or plains bison. Many of the hides proved so large that the Indians cut them in half in order that they might fit them onto their sledges. Traders prices for the forty robes supplied from that winter's hunting fetched \$10 to \$50 apiece. This may have been the largest hunt ever and it was to be the last before protective measures were introduced.

The reader will recall that half-measures towards bison protection had been taken in 1877 with passage of *An Ordinance for the Protection of Buffalo*; and that subsequent legislation passed by the Territorial Council in 1889 sought to prohibit natives from hunting buffalo. Ottawa, we have noted, vetoed this decision. The federal government did so on the basis that Indian hunting and fishing rights had been protected by the Government of Canada in Treaties 4 and 7, "and the legislation which violated such guaranteed rights required the concurrence of the Indians". What then could be done to protect the fast declining wood buffalo, estimated at only 250 animals in 1893?

In response perhaps to both the Senate Investigating Committee Report (1891) on the resources of the Mackenzie Basin and to disagreements between Ottawa and the Territorial Council over native hunting rights:

the federal government became directly involved in 1894 with the Unorganized Territories Game Preservation Act. This federal Act applied to the District of Keewatin and to those portions of the North-West Territories not included within the provisional districts of Assiniboia, Alberta and Saskatchewan. Then, outstanding territorial legislation on this subject, such as The Ordinance for Protection of Game, would apply only in those areas not covered by the federal laws.

The general effect of the 1894 federal Act was to prohibit the hunting of wood bison until 1900, and to establish closed seasons on

musk-ox and various fur-bearing animals. Indians were exempted from the Act limitations, except for buffalo, wood bison, and musk-ox during their closed season.

Enacting appropriate federal legislation was a significant step forward in the preservation process. Stringent enforcement of the law was another matter altogether. Although they had done much to alert southern Canadians to the precarious condition of the wood buffalo the Mounted Police were too thinly spread on the ground to fully enforce the provisions of the new act. Not until 1897 did Inspector Jarvis make the first extensive patrol into the bison's range. Once in buffalo country he fell in with a party of Indians off on a bison hunt. They were astounded to learn that their hunt was illegal. The Mounted Police took action. From that year onward until the summer of 1911, a far-reaching investigative and protective service was carried out by the various Mounted Police patrols between Fort Chipewyan and Fort Resolution. Through the work of these patrols the boundaries of the wood buffalo range were gradually defined. Much valuable information was gathered concerning the last herds and their main ranges. The watchful eyes of the Mounted Police ensured the true beginnings of protection for the wood buffalo and from then on buffalo populations in the north would slowly but steadily increase. Coincidental with these federal initiatives, it should be noted, the new provinces of Alberta and Saskatchewan in 1907 passed provincial game acts which absolutely prohibited the killing of bison.

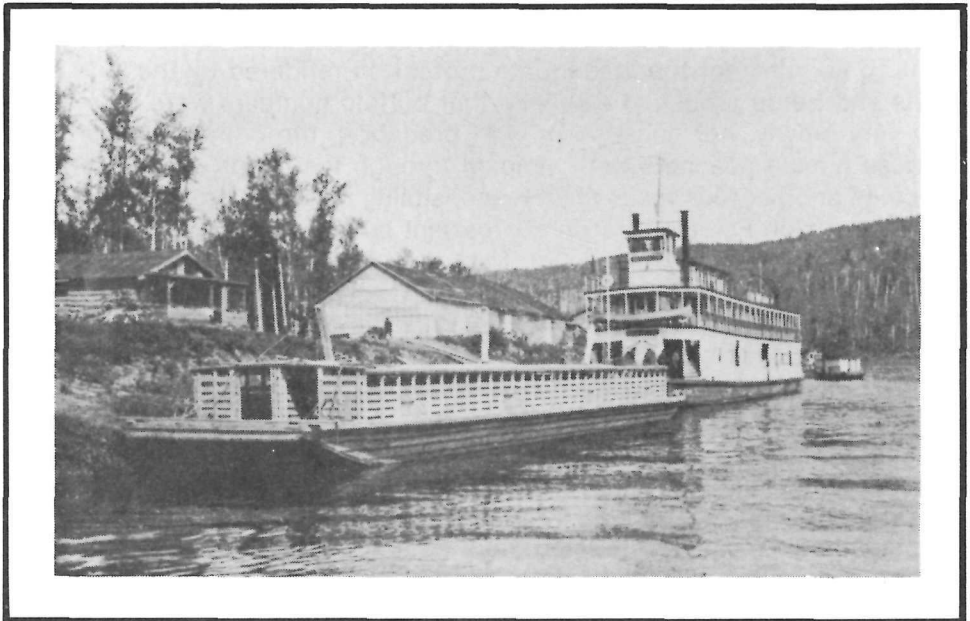
The celebrated Canadian naturalist and writer Ernest Thompson Seton joined Inspector Jarvis on his yearly patrol into the range of the wood bison in 1907. Upon their return south both men stressed the need for resident guardians to supplement the inadequate protection rendered by the N.W.M.P. Jarvis and Seton produced evidence that buffalo numbers were increasing only very slowly, not because of wolf predation, the common belief, but because human poachers were slipping through the hands of the Mounted Police. In another four years when responsibility for bison protection passed to the Dominion Forestry Branch six resident buffalo rangers were appointed by the Superintendent of Forestry. They took over the guardianship of perhaps 325 wood buffalo, all that remained. Under this more intensive protection the bison increased by 1914 to two herds totalling perhaps 500 animals.

The assumption of administrative responsibilities for the wood buffalo by the Forestry Branch was vigorously contested by the equally youthful Parks Branch, particularly the Commissioner, James B. Harkin, and Maxwell Graham of the Branch's Animal Division. Graham seems to have been the principal supporter of the idea that the wood buffalo be protected in a new national park, a move which undoubtedly would reinforce the Park Branch's commitment to the protection of endangered wildlife species. No national park was immediately forthcoming, but in 1917 the decision was made to place wildlife protection in the Northwest Territories under the Parks Branch and this arrangement was confirmed with the passage of the *Northwest Game Act*. The arrangement proved to be brief. Following the discovery of oil at Fort Norman in 1921 the Northwest Territories Branch was established and administration of the *Northwest Game Act* passed to this new branch. Although national parks officials would later have a direct hand in the supervision of the yet-to-be established Wood Buffalo Dominion Park, not

until 1964 did the administration of the park return to the National Parks Branch!

A reconnaissance of bison ranges and population in 1920 and 1922 revealed that more than fifteen hundred wood buffalo now claimed Canada as their guardian. Bounded by four rivers, the Little Buffalo, the Salt, the Slave and the Jackfish, the southern range supported about a thousand animals. The northern range which lay between the Little Buffalo River and the Nyarling River was grazed by perhaps 500 wood buffalo. These ranges were incorporated into Wood Buffalo Dominion Park which was formally established in December, 1922. The District Agent for the Mackenzie District whose headquarters were at Fort Smith was appointed Park Superintendent.

A fortunate combination of circumstances had brought about the formation of the park. The isolation of the bison ranges from the mainstream of European settlement and communications had contributed to the wood buffalo being uneconomic in external markets. This in turn had allowed time for the passage of protective legislation and the mounting of an administrative structure to implement this legislation. By road and by telephone, the wood bison entered the modern world. The first telephone system in the Northwest Territories linked the herds of buffalo with Fort Smith, with Ottawa, with anywhere in the world. A protection service gradually developed, with warden stations at Hay Camp and Pine Lake. Fire detection towers were raised, and roads were built to connect Hay Camp and Pine Lake with the Fort Fitzgerald-Fort Smith route.



Glenbow-Alberta Institute

Buffalo barge at Waterways.

Altogether 1,634 young animals under two years were selected and shipped north by railway and river-boat.

There were few visitors during the park's first years; mainly a handful of scientists scrambling about over the muskeg and through karst-like country,

counting heads and analyzing range conditions. Park wardens continued to be known as buffalo rangers. All seemed to auger well for the future of the wood buffalo.

Then into the sanctuary came the invaders from the south. They came armed with biological weapons never before seen in the northland. Alien and tubercular the invaders floated in by barges, changing forever the nature and the future of both beast and habitat. This year of 1925 witnessed the second major buffalo migration orchestrated by man. On June 15 the first train-load of plains buffalo had pulled out of a siding at Wainwright. Custom cars carrying large supplies of water and food clattered north through the summer sunshine with their living cargo. Two days and 400 hot miles later they reached Waterways, Alberta, the end of the tracks. For a day and a half the buffalo rested there in corrals. Then they were on the move again: two special barges were loaded with the enormous beasts and were pushed by steamboat a distance of 257 miles down the Clearwater, Athabasca and Slave Rivers. Finally in early July they were released one by one onto the southern range of Wood Buffalo Park, at points south and north of Hay Camp on the west bank of the Slave River. The whole operation was conducted with efficiency and a minimum of confusion. Seven times during the summer there appeared the strange flotilla of invaders. This was a far cry from the earlier transfers and one thing seemed certain: the National Parks Branch had learned how to move buffalo!

At the last moment the tuberculin test had been dispensed with. In the belief that only the older bison in the Wainwright herd were susceptible to the disease staff in charge of the transfer decided that the younger animals should be segregated from the older bison and sent off without testing. Even officials of the Department of the Interior were unhappy with this decision. Tragically the herd was heavily infected. A zoology professor at the University of Alberta was to be quoted in the *Calgary Herald* as saying of the Wainwright herd that "the animals were riddled with tuberculosis and. . .their hides were infected with numerous parasites". The statement was not refuted.

A year after the first shipment there appeared a government statement which claimed the move to be an unqualified success. Though the Minister of the Interior Charles Stewart had said "it is not the intention to mix the herds in any way", in *Bringing Back the Buffalo*, a government account of the transfer, it was observed:

that the introduced buffalo have settled down, are mingling with the wood-buffalo, and under the leadership of adult wood-buffalo are now assured of ample feed, water, and natural shelter.

And despite the shipping of only young bison, wood buffalo of both northern and southern ranges in the park were soon heavily infected with tuberculosis, a disease impossible to eradicate in herds of wild animals. Moreover plains and wood bison were sharing the range indiscriminately and were already interbreeding. The health and racial integrity of both herds had received a death blow at each other's hands. With over eight thousand buffalo now in the wilderness it was even more impossible than at Wainwright to control disease. Indeed tuberculosis is still an annual killer in Wood Buffalo National Park. The vaunted "pure bred" wood bison herd of

the Athabasca, and the pride of Pablo's "last pure-bred herd of wild plains bison" had degenerated into a diseased and interbred mass of hybrids.

From now on scientists would be uncertain as to what they were studying: the range and behaviour of all bison in history, or the characteristics of this peculiar and unnatural hybrid herd; the appearance and evolved anatomy of which? Large, dark wood buffalo, or smaller "bleached" denizens of the southern plains? The scientific uniqueness of Wood Buffalo Park as an unfenced range where pure-bred wood buffalo still roamed in their natural and historical habitat seemed lost forever.

So, too, was much of the conservation value of both herds, although Wainwright had been debased for years. From the late years of the nineteenth century until 1925 a miraculous chain of events had ensured the preservation of two subspecies pushed nearly to extinction. The desperate actions of the next three years had preserved buffalo of a sort, but neither under natural conditions - plains bison had never ranged this far north - nor in their original pure-bred herds. The paths of the buffalo of the plains and the buffalo of the northern woods had been crossed with a vengeance.

Throughout this chapter of misfortunes not quite all had been lost. The people working in the National Parks Branch had learned a lot: the science of wildlife management dates its coming-of-age from this last disastrous error in judgement. Faced with 10,000 famished bison steadily chewing two hundred square miles of Alberta down to bare earth, and succumbing to the worst of the cattle diseases, those responsible were compelled to act *somehow*. They were genuinely desirous of saving something, if only the new calves pouring forth each year from the Wainwright herd. Unfortunately no-one had sufficient experience in the behaviour of herding animals. And certainly insufficient thought was expended on the consequences of introductions to the wood buffalo herd which had remained precariously afloat until now, despite grey wolves and man. Any solution to the Wainwright Park dilemma would have raised protests from someone: it is unfortunate that man's knowledge was unequal to his problems!

It would be wrong to minimize or excuse this disaster, but it should not blind us to the mighty achievement of preservation. From a few calves captured here and there on the plains, through the efforts of individuals and the aid of institutions, the plains buffalo had triumphantly side-stepped extinction. In the north the Mounted Police, the National Parks Branch and others had successfully preserved the wood bison. It is true that in Wood Buffalo Park today ranges a hybrid herd, heavily infected with tuberculosis and anthrax: a drastic mistake it seemed we might never be in a position to redress.

Through a piece of unbelievable luck, a solution *is* possible. In 1957 in a remote and secluded corner of the park, a pocket of pure-bred wood bison was discovered by federal wildlife officers. The animals were split into two herds, one to range wild in the Northwest Territories, and the other to be isolated and intensively managed in Elk Island National Park. By some miracle the last of the wood bison had been saved from a second near-extinction at the hand of man.

"The Land of Little Sticks"

When Wood Buffalo Park inherited the position of Number One buffalo park in Canada it fell heir to many problems not of its own choosing. The liberated youngsters from Wainwright proved to be the first of these problems. The one and two-year-old plains buffalo which were disembarked on the west bank of the Slave River found themselves in entirely new country. They looked around, decided they didn't care for the neighbourhood, and took off in search of lush pastures. These they discovered *outside* the park boundary and within a few months there were an estimated 400 bison grazing on the rich meadows of Peace-Athabasca Delta.

Immediate steps were taken to protect this new concentration of bison. Four years after its establishment the park was enlarged to include most of the Delta and upland areas to the west. These boundary changes increased the size of Wood Buffalo Dominion Park to an impressive 17,300 square miles. In 1930 when the National Parks Act was passed Wood Buffalo formally became a National Park, although its administration (as we noted earlier) continued to be vested in the District agent (later Administrator) of the Mackenzie District of the Northwest Territories.

The boundary question resolved, the next great need was for information about the manner in which the plains bison were adapting to an unfamiliar environment. This huge park into which Prince Edward Island and Vancouver Island might fit comfortably, was largely unknown territory to all but the bison and the small population of native people who hunted over part of it. Europeans who had been responsible for the park for years knew very little about the more remote, wooded portions of the park, areas largely inaccessible in the days before the ready availability of floatplane and helicopter. Given this inaccessibility, park staff experienced great difficulty in learning exactly what was happening to its wildlife immigrants.

Two developments became apparent rather quickly; the herds continued to multiply quickly just as they had done in Wainwright; and the plains bison freely interbred with the wood buffalo. Some ten years after the buffalo transfer, educated guesses placed the park's bison population at 12,000. Park and wildlife staff would continue to make educated guesses for many years. A form of census was taken in 1947 and two years later the first reliable count was made during winter-time when the buffalo showed up well against the snow. Teams flew over part of the park in close, parallel runs making a note of the animals running below. The census takers concluded that there were between ten and twelve and a half thousand buffalo on the winter meadows. In 1951 more sophisticated aerial censuses yielded a bison count of 12,000 from which it was determined that the bison population of the park was remaining rather stable.

Notwithstanding the expansion of the park's boundaries to include most of the bison range the bison would not confine themselves to the reserve made on their behalf. Terrified inhabitants of Fort Vermilion might be expected to phone park wardens breathlessly enquiring whether they could shoot a buffalo in self-defence! On the south shore of Lake Athabasca, eastwards into Saskatchewan, startled wilderness travellers would report seeing a buffalo loom out of the twilight. And in that part of the Northwest Territories lying east of the park and the mighty Slave River, whole herds of bison wandered on the Canadian Shield. It is in this latter region that bison hunting is again permitted, the first bison hunting for sport in more than three-quarters of a century

the buffalo were well protected and cared for. Regulations were strictly enforced. The Public Archives of Canada retain voluminous files on the convictions imposed on native people trying to infringe on the buffalo's rights.

Hunting and trapping for subsistence purposes and the relationship of Wood Buffalo Park to the traditional uses and continued needs of the region's Indians and Metis became a significant issue in the establishment and later administration of the buffalo sanctuary. The question remains unresolved as of this writing, perhaps not surprising in light of the vigorous debate which has ensued in recent years about who should administer Canada's northern lands and to what ends.

In the case of Wood Buffalo the park area encompassed land traditionally hunted and trapped by natives resident in the Peace-Athabasca Delta and upper Slave River areas. In 1922:

The report of the possible creation of a large reserve west of (Fort) Smith, as reserve for the wood buffalo, caused a long and hostile discussion. The purpose of which was that from time immemorial they had made their living from this district, and that when they made treaty they were solemnly assured, in the preamble to the treaty, that their former mode of life would not be interfered with except insofar as it would be in their interest, and would be necessary for the preservation of game.

As events transpired treaty Indians were and still are allowed to hunt game other than buffalo and to trap fur-bearing animals. A set of regulations unique to this national park was devised and "in many ways Wood Buffalo served as a bridge between the concept of a conservation reserve in southern Canada and that applied north of 60 degrees. . . (which) sought to resolve the two pressing matters of wildlife depletion and native subsistence requirements".

Although the buffalo herds were officially protected from poachers, park staff invoked the aid of nearby missions when conducting "official" buffalo hunts. As early as 1929 the meat from ten bison was given to the Roman Catholic missions at Fort Chipewyan and at Fort Resolution. This marked the beginning of hunts conducted by the Chief Buffalo Ranger who was assisted by

park staff and by teams of horses or sleighs from the Fort Chipewyan Mission. Most of the meat went to the Mission's residential school and hospital and the rest was given to the Indian agent to distribute to the settlement's needy and infirm. From 1929 until the early 1950's the number of bison killed each winter and hauled away over the snow by sleigh depended upon the success which native people had experienced in fishing the waters of Lake Athabasca during that year. If the catch had been good perhaps only eight or ten buffalo might be hunted down, usually old bulls whose death would not affect the breeding abilities of the herd. If fishing had been poor as many as twenty-five buffalo might be shot, about 17,500 pounds of dressed meat. Later, in the 1940's a number of animals each year were to be pronounced unfit for human consumption because of tuberculosis: the quarters of such beasts would be fed to dogs used in the hunt and the rest of the carcass burnt.

The field slaughters with their odd mixture of transportation - horses, sleighs, dog teams, occasionally an aeroplane - were abandoned in 1950 in favour of temporary abattoirs. If the buffalo meat was to be eaten by humans, insisted the federal Department of Agriculture, then the beasts had to be slain under more rigid conditions. Permanent facilities for killing the buffalo were built at Hay Camp in 1954 by which time the annual slaughter exceeded 200 animals.

Aeroplanes, helicopters, "cat" tractors, even horses on occasion, would herd the restless, plunging bison into a system of corrals. There they would be killed and then hauled to the abattoir for butchering. Usually they were tested for tuberculosis and reactors were destroyed. Then additional animals would be rounded up to satisfy what seemed to have become an insatiable demand for more meat. These animals would often be healthy young cows at the beginning of their breeding cycle, probably the least likely candidates for tuberculosis and certainly the worst possible animals to slaughter from the point of view of population increase.

In the last year of the slaughter, 1967, meat was being sold over the counter in Fort Smith, Fort Chipewyan and Hay River, sold to missions and the Department of Indian and Northern Affairs, and to dealers in the south. It was also sent to Expo '67 in Montreal. The killing was ended in that year because the obvious incongruity of massive commercial slaughtering in a national park was recognized. Moreover, the unpredictable amount of meat to be obtained in any year, the deterioration of the Hay Camp abattoir, and the outbreak of anthrax in 1964, ensured that even at 40¢ a pound wholesale, buffalo meat was costing too much to ship south to the supermarkets.

During the 1950's bison numbers had reached their peak. In 1957 between 12,000 and 14,000 buffalo grazed the northern meadows and Boreal forest. Yet by 1961 fewer than 9,000 buffalo were to be counted on the primary ranges of the park.

Slaughter was not the only factor keeping buffalo numbers down. This Peace-Athabasca-Slave River wilderness was a far cry from Wainwright Buffalo Park. The open forests, the unspoiled meadows and the many lakes

were inhabited by a far more natural and varied population of animals than had trod the prairie of Wainwright, already tamed to the hand of man when the buffalo came. In the wild state the buffalo population had never increased explosively, due to a natural disaster one year, a hard winter the next, or the ever-present packs of timber wolves. Even the condition and type of range they could graze affected the population.

In Wood Buffalo Park the wood bison was almost at the northern-most limits of its range. Plains bison had never lived in such country, nor in the climate of these latitudes. Harsh weather conditions could limit population growth even for the wood bison; the plains bison had evolved in the prairie sunshine of the south. It is possible, too, that the hybrid descendants of the two subspecies may possess a lesser ability to withstand a northern winter.

Drowning kills many park buffalo, as it did their ancestors. The Peace and Athabasca River deltas flood during the spring, hundreds of square miles of low-lying meadow are under water, taking high tolls of bison. Buffalo drown in the winter as they migrate over frozen rivers, falling through when the thin ice cracks beneath their hooves. Drowned buffalo are very hard to spot from the air, but an estimated 6,000 or more animals must have perished in this way between the late 1950's and the early 1970's. Between 1972 and 1975 alone there was a marked decrease in bison, from 8,700 in 1972 to 4,300 in 1975, a decline which has been blamed principally on winter drownings.

Another population control in the wilderness of Wood Buffalo Park is the timber wolf. Although buffalo rangers began poisoning wolves with strychnine as early as 1935 (a practice no longer carried out), many of them still harry the edges of the bison herds. In a natural population only very old animals "surplus" calves and handicapped adult bison should be the victims. Officials suggest, however, that the recent decrease in the Northwest Territories herd near Fort Smith, which numbered 2,000 head in 1971 and was reduced to perhaps 750 beasts by 1977, was due to wolf predation. That the bison in Wood Buffalo National Park are still not entirely balanced with their environment is still possible. There may be too many wolves.

And it shall become small dust in all the land. . .and shall be a boil breaking forth with brains upon man and beast, throughout all the land. . .
Exodus, 9:9

Disease is by far the greatest killer in the park. Tuberculosis most probably was introduced by the animals from Wainwright in 1925-28, but it was not identified in the park until the late 1930's. Brucellosis was discovered in the late 1940's. And anthrax broke out in the mid-sixties. Today the herds are still infected by all three diseases. Each of these diseases is named in the Animal Contagious Diseases Act which requires the park by law to take all possible measures towards control and eradication. However, the remoteness of the park and the absence of livestock ranching in the neighborhood have encouraged the Health of Animals Branch of the Department of Agriculture to be somewhat lenient towards tuberculosis and brucellosis control through the years.

Tuberculosis affects many animals, human, hooved, and even winged. One cannot detect it visually in the bison. He must either be killed and his internal organs examined for the inroads of the disease, or he must be corralled, injected, and left for 72 hours for the test to take effect. The testing itself is not reliable and moreover it puts the animal under so much stress that he may, as a result, succumb to tuberculosis later on.

The first cases of tuberculosis were diagnosed during Mission field kills in the late 1930's. Parts of the meat were safe for human consumption since tubercle bacilli survive only about a week in dead meat, but the diagnosis placed pressure upon the park authorities to try to eradicate the disease and they did attempt to eliminate it. However, the killing of reactor animals at the Hay Camp abattoir was given up on the abandonment of commercial slaughtering there. Other control measures were abandoned in 1972. For one thing the tuberculin tests did not differentiate between TB-infected and TB-resistant beasts. Although there was danger for the barren-ground caribou which migrate through the park from time to time and forage on the same grassland as the bison, no other animal, including man, was threatened. Moreover since tuberculosis does not affect the appearance of the buffalo this seemed to be one less reason to try to cure it. If the goal was to be a complete cleansing of the herd it could only be achieved by eliminating perhaps every buffalo on the range. This was drastic. It was thought that even tubercular descendants of the last bison should be preserved.

Brucellosis is a disease which causes abortion of calves. Vaccination for the disease is only effective for three out of every four animals; in some cases the vaccine may infect the animal rather than protect it. For this reason Wood Buffalo Park authorities tended to regard it as "a population regulator", and felt that the cure would be more severe than the disease.

Anthrax has had a long, ignoble, and even terrifying history. Acquired by any warm-blooded animal by touch or by inhalation, and carried by extremely resistant spores which remain in the earth for many years, it kills within seven days of infection. It is so ancient a disease that Moses, in Exodus, inflicted it upon the Egyptians. In 18th and 19th century Europe it was a danger to both man and beast. It reached the Canadian buffalo in 1962.

On July 28, 1962 anthrax was diagnosed in the carcass of a buffalo which had died from the disease. A week later more than 100 bodies had been found, all outside the park boundaries and northwest of the Slave River. A veterinarian team was flown to the area and hovered about over the open meadows looking for dead bison. In two weeks some 265 bison were burned, covered with lime, and bulldozed into pits. The spores were fought by fires: 700 square miles of muskeg, bush and forest were burned in that year alone. Although anthrax spores are only active during the summer months, and the disease occurred only sporadically in pockets among the herds, over 1,000 carcasses were discovered over a ten-year period, and the carcasses of many more may never have been found at all.

Anthrax spores are microscopic in size. Their menace to beast and man is

incalculable. Dormant and undetected, in soil or vegetation, or within the skeletons of the beasts they kill, they may lie for decades before a hot, dry summer brings them to terrible life. However well we burn the land, years later wolf or bear will gnaw the lost bones of an anthrax-ridden buffalo carcass, breaking them open and once more releasing the menace.

Three years after the outbreak had been diagnosed a system of vaccination was undertaken, the first attempt in the world to control anthrax in wild, free-roaming herds. In late winter and spring, using aircraft, helicopters and other modes of transport, officials corralled as many buffalo as possible. The excited, plunging beasts were given a delicate vaccination, a mere scratch on the skin, and were released again to the range. This operation must be repeated in each of five subsequent years, and on at least 80% of the buffalo, to control anthrax. The program which cost \$50,000 to \$100,000 per year and which proved to be only partially successful has been terminated. The program's demise was perhaps heralded in the words of one parks official who said: "we can only hope to give some of the animals some of the shots".

Today Wood Buffalo National Park remains virtually undeveloped, it is inaccessible, and it is the possessor of an array of renewable and non-renewable resources. It is also the focus of varied and continued interests expressed by people of diverse callings. Mining interests may wish to exploit the large gypsum deposits in the Alberta portion of the park and on occasion companies have sought permission to stripmine. The Indians of the Fort Chipewyan area who have not been accorded all of the land area to which they are entitled under Treaty No. 8, have identified and will receive two areas in the national park. Indeed, some families have already settled in the Peace Point area. Lumber interests log over 192 square miles of Wood Buffalo, and can continue to do so until the year 2022. Roads are demanded by regional inhabitants who complain that the bison have caused them to be cut off from the world since 1922. (In fact the right-of-way for an extension of Alberta Highway 58 already has been cleared. It passes directly by the gypsum deposits at Peace Point). The Government of Alberta wants portions of the park to revert to the province so that it can pursue resource exploration and production. And the Bennett Dam, some hundreds of miles upstream on the Peace River in British Columbia, has contributed its share of problems to the ecological condition of the Peace-Athabasca Delta.

The effect that any or all of these activities may have upon the buffalo is not known, although there are many and firm opinions. It is hard to tell who may be right. Using and maintaining the national parks unimpaired for the enjoyment of future generations is all very well, but it depends whether one stresses the phrase "for the enjoyment of" or the word "unimpaired". Wood Buffalo National Park so far has remained relatively unimpaired. It is remote. It is unspoiled. Large herds of bison can be seen there in something approaching their natural habitat. There are no hotels in the park, no stores, no souvenir stands, no well-worn hiking trails. There are 200 miles of gravel road largely fit for trucks. It is a true wilderness, a slice of real backwood country, contemporary as the cities and resorts that are but a few hundred miles away.

It is not necessary that the park should stay unchanged: it probably will not do so. But the phenomenon of wild herds of thousands of buffalo roaming a native range is perhaps so unique that the Canadian people can forego another resort and suffer the wilderness for the sake of it. It is one of the last places of its sort in the world. It is the home of some of our last buffalo.

SEVEN

“The Enjoyment of Future Generations”

For those who want to meet a buffalo for a day in the country, Elk Island National Park is the place to go. It serves as a buffalo park for the visitor who wishes to see the splendid beast in nature, without undue exertion on the part of the former. For not all our buffalo are confined to Wood Buffalo. In at least four other national parks these shaggy creatures have found some kind of home, be it free in the wilds or behind the fence of a display paddock. Future years may see bison in several other national parks and even roaming unprotected in wilderness that is not parkland.

Though most of the Pablo buffalo given guest accommodation in Elk Island Park from 1907 to 1909 had been transferred to Wainwright some of the more elusive creatures eluded the round-up or were permitted to stay by sympathetic individuals. The park had large areas of prairie and meadowlands in those days, a result of extensive earlier burning of the Beaver Hills area, and with some additional forage in winter, about fifty of these last-ditchers prospered and increased. Disease and want were unknown. Surplus buffalo specimens were sent far afield - to New Zealand, and to Scotland (where the latest addition to the clan bison was recently christened McTankah!). And Prime Minister Mackenzie King took a gift of six buffalo to Hitler in 1936. Despite these periodic removals overgrazing of the small park was apparent at an early date. In 1922 part of the Cooking Lake Forest Reserve had been fenced for additional buffalo pasture. By late 1920's the herd had reached 1,700 head, and was multiplying as quickly as the Wainwright herd had done only years before.

Wainwright Buffalo Park was to experience a lingering death. The transfer of 6,673 surplus animals to Wood Buffalo Park gained little respite for the overstocked range and for the diseased and undernourished bison that still grazed there. Once the Depression set in relocation to Wood Buffalo Park was discontinued. It was too great a tax on the Canadian budget. As to the future of the remaining animals the park could be enlarged or the animals slaughtered: the decision was for slaughter. By killing about two thousand buffalo each year, the herd was kept constant between six and seven thousand beasts. The animals were in too poor a condition for donation to parks or zoos, but the R.C.M.P. officer in his lonely prairie vigil could huddle under a fine buffalo coat, and hotel and restaurant menus proudly advertised barbecued buffalo steak, and bison goulash. In 1936 and 1937, over 3,500 bison were slaughtered: half of them were found to be tubercular.

Wainwright Buffalo Park was costing the taxpayer between \$45,000 and \$50,000 each year, almost \$500,000 since its establishment. And now, officials decided, the urgency to preserve the buffalo had diminished. At Elk Island Park there were a great many healthy animals grazing on range

far superior to the deteriorated ranges of Wainwright. There were 75 buffalo on good range in Riding Mountain National park in Manitoba. And there were nearly ten thousand bison in Wood Buffalo Park. The purpose for which Wainwright had been established, the preservation of the buffalo, seemed to have been amply accomplished.

It was about this time that the Department of National Defence cast its eye on Wainwright. It had been searching since 1915 for a training area in Alberta. Wainwright's many square miles would permit not only the training and manoeuvring of troops, but also artillery practice where shells might need a range of five to seven miles. Although Wainwright was to remain a national park in name until 1947, in fact in 1940, two years into the war in Europe, the Canadian Army took it over.

It was the end. In the winter of 1939-40, bison, elk, moose and deer were killed in the new slaughterhouse and carcasses removed by the truckload. Nothing like it had been seen since the days of the hide-hunters.

As to the herd at Elk Island the decision was made as early as 1934 to control the bison population by slaughter. The slaughter began in the winter of 1935. The bison were used to some handling, but by most definitions were still wild. It was a long and tricky business to herd 2,800 buffalo through dense bush and snow into a system of corrals. The actual killing was carried out by a noted sharp-shooter, the same Sam Purchel who had shot bison at Wainwright Buffalo Park.

Five hundred of the surplus beasts, fortunately undiseased, were driven to Wood Buffalo Park by truck. Although the National Parks Branch had by now learned how to transfer bison, every time you moved a buffalo, you had a two-thousand pound problem! Originally, each individual bison was charged up a ramp and into a crate on the back of the truck. After many of them had charged straight through the crate and into the cab of the trucks, the method was varied. The crates were chained to the corral fence, before being loaded and driven the 800 miles north.

Perhaps the most frequently and most easily seen of the Canadian buffalo were located in the large buffalo enclosure nestled in the shadow of Cascade Mountain, Banff National Park. Inquiries concerning the buffalo poured in to the Administration Building. Children would write and ask for information for school projects, professional writers for juicy stories to recount in magazine articles. Buffalo were prime news. Park officials were usually delighted to help, but occasionally even they ran out of answers. One lady was given this reply:

Banff, August 10, 1949

Dear Madam,

With reference to your letter of the 24th ultimo, regarding further information about the buffalo, it is regretted we have no anecdotes to supply.

During the hard lean years of the early 'thirties, souvenir-hunters and meat-packagers were requesting dead buffalo, and ranchers were requesting live

ones. But the time when bison would again be owned by private citizens was still some years away. In 1939 the Director of Lands, Parks and Forests wrote to one Albertan who saw advantages in game ranching over slaughtering for meat:

The policy for this department has always been against providing stock for the formation of private buffalo herds in Canada.

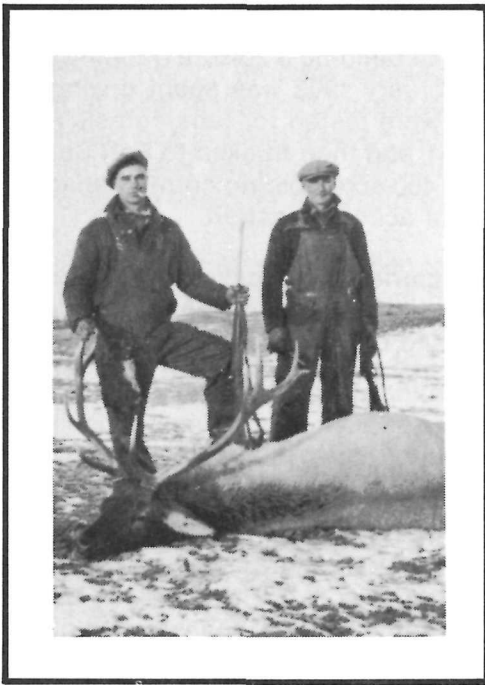
Although this same rancher soon would be phoned by Alberta's Game Commissioner and offered some escaped buffalo from Banff (thereby gaining the distinction of being the first private Canadian rancher to range park buffalo), thirty years would pass before we became certain enough of our bisons' future to sell them for commercial ranching purposes.

In the early 1950's bison were reintroduced to Waterton Lakes National Park on a seasonal basis, just as had been the case with the Banff animals. As buffalo are notoriously contrary creatures, there is no guarantee that they will consent to stay on the range man allots them, however good the forage. Thus in the smaller parks such as Waterton Lakes and Elk Island the staff dare not remove the fences round their display herds, for fear that suddenly the impetuous bison should confront frightened tourists and enraged ranchers. While it is true that the parks practice has changed considerably since the days when the Banff buffalo display herd included ten yak among its numbers, the initial conception of a national park as a place where people could see animals, any animals, has given away gradually to the idea of the park as a place of natural landscapes inhabited by unmanaged, free-roaming herds of native wildlife. Display herds in comparatively tiny enclosures do not match this ideal. On the other hand, the display herds may be no more incongruous than ski-slopes, souvenir stands, crowded campsites, and an environment where one may yet see a bear or bighorn sheep feeding on illegal roadside handouts.



Glenbow-Alberta Institute

The buffalo rangers, the slaughterhouse and the butchers: an end point for buffalo at Wainwright.



Slaughter of the beasts: the removal of wildlife from Wainwright prior to the park's occupation by military personnel

Glenbow-Alberta Institute

It is somewhat ironic that the last considerable herd of uninfected plains buffalo in Canada should be living in Elk Island National Park, where initially relatively little attention was paid to the subspecies and where open grazing areas gradually diminished through the encroachment of poplar forests and other vegetation. And it was at Elk Island in 1966 that a most unexpected cargo was received - a herd of 23 pure-bred wood bison which had been believed to be extinct for three decades. The astonishing discovery had been made in 1957 by wildlife officers. They were taking an aerial count of bison in the extreme northwestern portion of the park when they sighted the isolated animals, 75 swampy miles away from the nearest known herd. Later reconnaissance flights revealed that these bison ranging around the Nyarling River and Big Buffalo Lake were totally cut-off from the three herds of hybrids living elsewhere in the park. The "impassably rough" tract of land postulated in 1916 by Maxwell Graham and the Department of the Interior actually did exist, in the form of 75 miles of "extremely inhospitable and unproductive terrain", swamp and muskeg and timber, offering no invitation to wandering bison.

The following winter after more surveys from the air, men in snow tractors managed to make their way into the inaccessible range. February and March saw the capture of five of these new bison. They were flown to Ottawa to be studied eagerly at the National Museum. There they were painstakingly measured and compared with other wood bison specimens. Scientists decided that this herd of about 200 animals indeed represented the last of the true wood bison.

How might the subspecies be protected forever against hybridization and extermination, and the infection of tuberculosis or anthrax? Parks and

Canadian Wildlife Service biologists decided the herd should be split. Not until 1962 was the long and arduous task of building a 20-acre trapping corral near Buffalo Lake accomplished. February 1963 was spent driving 77 wood bison into the snowy corral. They were tested for tuberculosis (one case) and for brucellosis (more than forty), and then trucked to Fort Smith, to wait for summer in the newly finished 450-acre holding corral. Canada's new wood bison were not to be stinted of accommodation.

When June came barge and truck again carried bison passengers as eighteen uninfected pure-bred beasts were shipped over to the west side of Great Slave Lake. There they were released on what once had been wood buffalo range. They were released with the fervent hope that they would "breed and multiply".

Only two years later there was a red alert along the Nyarling River where the original herd still roamed! Anthrax had broken out outside the parks in 1962 and was still spreading like wildfire from bison to bison. Labouring to eradicate the plague, men and machines along the Slave River accidentally disturbed the summer ranges of the plains bison. The plains bison began, ominously, to drift westward towards the stronghold of the last small group of wood bison. The twin menaces of disease and interbreeding again seemed to be about to become a reality. Then, not far from the trapping corral at Needle Lake, two wood bison were found dead for no apparent reason. Could it be that one menace *had* become a reality?

The park officers could risk waiting no longer. February 1965: a second round-up of wood buffalo. Of 69 wood bison that could be found near Needle Lake 47 were captured and held in corrals at Fort Smith. Tests for brucellosis showed that this herd might not have been so free from contact with their plains cousins as had been hoped. After being held in quarantine for a year 23 were shipped south to Elk Island National Park: two dozen wood bison, almost the last of a kind!

By early 1968 the wood bison population at Elk Island had more than doubled itself. But Parks Canada and the Canadian Wildlife Service hesitated to act because they wished to be more than doubly certain that the relocation had been totally successful. Only when the Elk Island wood bison population approached 200 animals in 1973 did officials begin to implement the plans they had cherished for so many years: the relocation and dispersal of wood bison to the Canadian wilds. People in various government departments who were responsible for and interested in the future of bison in Canada set up a Wood Bison Advisory Committee. The WBAC is still the committee which decides what is to happen to wood bison both within and outside the national park system.

During the spring of 1976 the Committee offered to provide wood bison to the governments of Alberta, British Columbia, Saskatchewan and the Northwest Territories. The beasts were to be sent to carefully selected natural wood bison ranges in each of these provinces, left there, and allowed to range freely in perpetuity. The provinces have accepted the offer, although some with rather guarded enthusiasm. And why? Seventy years after Pablo's

troubles, moving bison is still a tricky business. For example, plains bison released in southern Saskatchewan ended up near The Pas, Manitoba, to the consternation of those people responsible for them and to the astonishment of local residents unexpectedly meeting a bison face to face. British Columbia has in mind a range in the northeastern interior of the province. The Northwest Territories will not only soon be permitting wood bison to graze by the Grainger River, but may help to finance their transfer.

The first release of wood buffalo took place in Alberta in July, 1978. Twenty-eight animals were trucked from Elk Island Park to the Snake Indian Valley in Jasper National Park where, it was hoped, they would establish a range for themselves. Such was not to be the case. After almost two weeks residence in the area 21 of the animals moved off in a generally northward direction, eventually ending their migration southwest of the town of Grande Prairie in late August. Most of the animals were recaptured there and returned to Elk Island National Park. However, a few animals are thought to remain alive in the Grande Prairie area in addition to those which continue to occupy the Jasper range.

No universally acceptable explanation is available as to why the animals migrated from their intended range, and so quickly. It has been suggested that a dominant cow led the group away from the Jasper area to escape molestation by insects, or to seek preferred ranges. Whatever the cause or causes the program of releasing wood buffalo to wild ranges has been impeded. If further releases are made to Jasper or elsewhere it may be necessary to select only younger animals and possibly contain and to some extent feed them during their first year on the new range.

In scientific and not-so-scientific circles the debate will continue. Is the wood bison really any different from plains bison or a hybrid? Should we devote time and energy to the preservation of wood buffalo in discrete herds? Doubtless both the wood buffalo and its plains counterpart will be used as levers in a continuing scientific controversy for the debate is still going on. There are cries of expense and impracticality. But the relocation goes on.

EIGHT

“The Proper Study of Wildlife is Man”

*I realize that the proper study of wildlife is man. What we fear,
what we hate, what we admire in animals determines their fate.*

T.B. Allen

Canadian buffalo are still in danger.

We have agencies dedicated to the preservation of wild creatures. We have national parks and other wildlife refuges where these creatures are conserved and managed. Preservation and conservation are necessary because man, wherever he finds the natural, inevitably disrupts it or modifies it. So the future of our buffalo is still precarious and there may yet come a time when men will feel that they can no longer afford such time and effort on behalf of their fellow creatures. It is a curious and sad fact that when hard times come man seems to become increasingly disinterested in wildlife protection and other conservation practices to which he has assiduously applied himself in previous decades.

Buffalo tastes better than meat.

Man also has the habit of seeking to improve upon nature, to apply science and technology and all that is associated with human ingenuity. The buffalo have not escaped human endeavours and bison ranching and crossbreeding with domestic cattle have been activities engaged in almost since the first exploring Spaniard caught sight of the North American “wild ox” in an ancient Mexican zoo. From early Virginian settlers, through Governor Bedson and Buffalo Jones to our Canadian Agricultural Experimental Stations, people without number have wanted to breed a “cattalo” (Buffalo Jones coined the word) which would combine the hardiness and winter foraging ability of the buffalo with the beef-bearing stolidity of domestic cattle.

Apart from Buffalo Jones who made a great many extravagant claims, not all of them wholly credible, about the cattalo he bred, the early breeders did establish a scientific basis for bison/cattle crossbreeding in their experiments. They proved that while a domestic bull/buffalo cow cross frequently proved successful, a cross in which a domestic cow must bear a half-buffalo calf was not. The cattalo calf was too big for the domestic cow. The experimenters established that the hybrids displayed all the durable qualities of the buffalo and carried more meat than a buffalo ever did. Experiments further showed that while buffalo bred regularly and successfully in captivity, hybrids not infrequently were sterile: and moreover, animals of the two species often were indifferent to breeding with one another.

Early in this century, about the time that private breeders were giving up cattalo daydreams because of the difficulties and the expense, a man called

Mossom Boyd was running cattalo on his Big Island stock farm at Bobcaygeon in Ontario. When he died in 1915 the experiments might have ended, but the Dominion Department of Agriculture was persuaded to buy his herd and place the resources of the department behind the development of a new breed.

This herd of 16 crossbred cows (1/4 to 3/4 bison) and four crossbred bulls (5/16 to 3/4 bison) was wintered on a quarter-section at the Experimental Station at Scott, Saskatchewan. An ordinary wire fence was enough to hold the animals and they were fed forage, although they grazed a little of their own volition. Breeding was very slight.

Three years later the herd was moved from Scott to Wainwright Buffalo Park where experiments continued in a special cattalo enclosure. Again breeding was very slight. The twenty years of crossing experimentation carried out by Boyd was wiped out and work began afresh.

In 1950 the cattalo herd was transferred from Wainwright to the better facilities and the trained staff of Manyberries Range Experimental Substation in southern Alberta. The cattalo bulls were moved in June. Sperm counts were carried out immediately. Four of the sixteen bulls showed signs of fertility; two were fertile but would not breed; and the remaining ten showed no signs of fertility and were shipped to the slaughterhouse. In September of the same year two truckloads of hybrids (half bison) and five boxcars of cattalo cows (less than half bison) rolled into Manyberries Range Station, completing the transfer from Wainwright of 39 hybrids from Hereford, Angus and Shorthorn cattle, and 84 female cattalo.

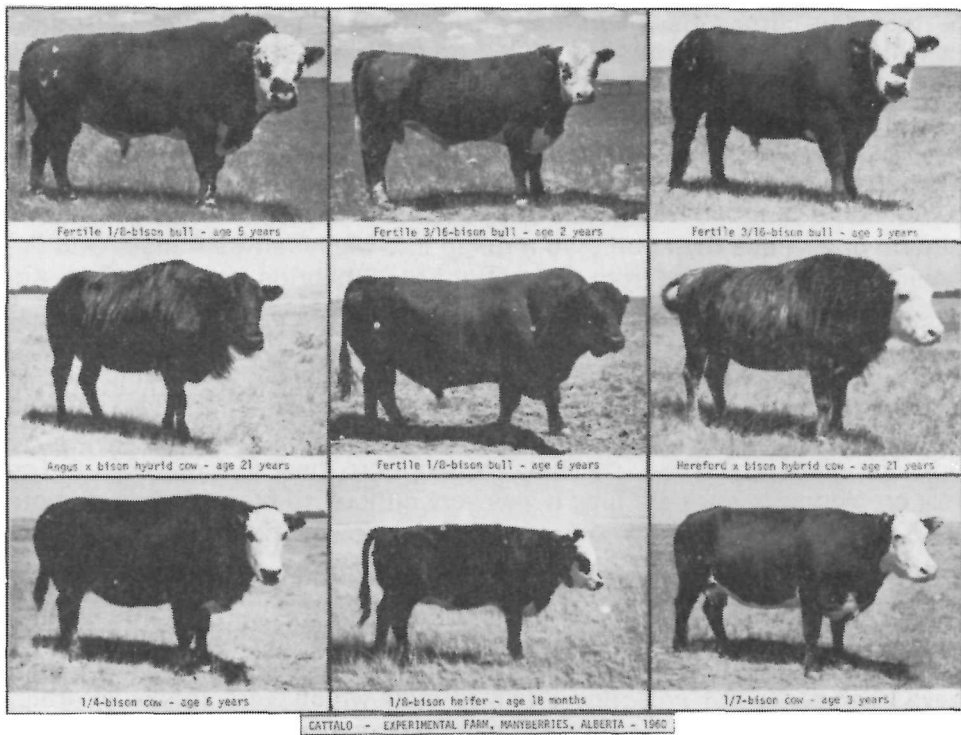
Tests of the beasts for winter hardiness and beef-producing ability were fairly successful. The cattalo showed some bison characteristics, such as nuzzling through snow in winter for forage, and facing a blizzard instead of drifting before it; and they certainly carried more meat than pure bison. The real problem was male sterility: it was very difficult to breed cattalo of more than 3/4 bison breeding who were not infertile, or indifferent to mating. Thus a true new breed was not produced.

After 23 years of effort, federal agriculture officials scrapped the experiment and slaughtered the herd of 100 cattalo. The sterility problem could have been beaten by selecting those animals which were specially fertile, and who grew quickly. But then the cattalo were never much good as beef-producers, even at the best of times! Nevertheless even after the program was scrapped, consideration continued to be given to bison/cattle crossbreeding, with a time in mind when meat would be in such demand that ranges in the north of Canada, too poor to support domestic cattle, might support cattalo - for winter hardiness, if not for beef excellence. Instead of being slaughtered the cattalo might have been released in the northern regions to establish whether they could make it on their own as a semi-wild species, harvested periodically by some form of hunting. But they were not.

It was again left to American initiative to introduce the latest word in buffalo crosses. This is the "beefalo", developed by a California breeder called

Basolo, who perceives twentieth century buffalo in their economic context and in no other way. He claims that he has developed a cross that is 3/8 buffalo, 5/8 domestic cattle, perfectly fertile, and a very good meat-producer. "Joe's Pride", Basolo's prize beefalo bull, was sold to some Calgary investors a few years ago for a couple of million dollars, but it is understood that when the bottom dropped out of the exotic cattle business shortly thereafter, the beefalo bull was sent home to California.

Saturday, August 14, in the summer of 1976, saw the sun rising on Beefalo Day at the Lacombe Research Station in southern Alberta. "A lot of glossy advertising, and no hard information", was the verdict of some who were there. Beefalo are supposed to "revolutionize the cattle industry within ten years". Many Canadians remain skeptical. Neither enough answers nor enough animals are available, it is thought, to make a significant impression upon the beef market. Nevertheless when Parks Canada sold 125 surplus buffalo from Elk Island National Park in December, 1978, thirty-four bids were received from across Canada and the sale realized \$91,886!



Cattalo at the federal Experimental Farm, Manyberries, Alberta, 1960

The object of this experiment is to develop a range beef animal for Western and Northwestern Canada which combines a maximum of the hardy characteristics of the buffalo (bison) and the superior meat qualities of the domestic breeds.

Hybridization of Domestic Beef Cattle
and Buffalo, A Progress Statement, 1950

Experiments crossing buffalo with other species have ranged from beefalo to yakalo. So notorious are the obsessive vagaries of buffalo-breeders that the latest invention in the "muffaloose", product of the crossing of several

warped minds at a local radio station! According to reports heard during the summer of 1976 the Fort Smith muffaloose is an innocent by-product of a mutation caused by "the red stuff they use to control forest fires". Among the stranger characteristics of the muffaloose, apart from large brown eyes, buck teeth, and a shaggy forelock, is its habit of living in deformed trees and emitting a sort of whistling howl at night. This hybrid is expected to revolutionize the beefalo market within ten years.

But despite the apparent zaniness of some people's claims, pure-bred buffalo meat, though always a gourmet food, has never before had so many people speaking for it. It is said to be finer-grained and more flavourful than beef, to contain 25% more protein, and much less cholesterol. The meat is expensive: \$2.25 a pound for steak, \$2.00 a pound for roasts, and buffalo-burger at four pounds for \$5.00. Buffalo make more efficient use of natural prairie than do domestic cattle, but less meat comes off each individual. (some observers suggest, however, that because the native prairies have virtually disappeared the buffalo population will never become sufficiently large to serve as a viable food source). And, of course, neither buffalo numbers nor buffalo markets are particularly well developed at this time.

It was not until 1968 that the federal government permitted private citizens to own or deal in buffalo. Staff at Elk Island National Park immediately took the opportunity to send away surplus animals. The demand for these animals at sealed tender sales has been considerable and is increasing. For example, when Parks Canada sold 125 surplus buffalo from Elk Island in December, 1978 (the first such sale from the park in five years), thirty-four bids were received from across Canada. Six bidders were successful and the sale realized \$91,886. One successful Alberta buyer stated that the existing demand for buffalo meat in his province far exceeded his ability to supply it, notwithstanding his ownership of 90 plains bison prior to his purchase of 13 additional animals from Elk Island. He indicated too that an export interest in buffalo meat is developing.

Other than those individuals who acquire buffalo with the intent of forming commercial buffalo ranching enterprises, there are many others who keep a few buffalo on their range for reasons varying from "I like buffalo and I want to see what'll happen", to "You don't make friends with a buffalo, you respect him".

Despite repeated requests from ranchers wood buffalo have not been released outside the protection of the parks, save to be relocated in the wild where they are also protected by law. Indeed the wood buffalo has been protected from hunting since the first protective legislation was passed in the nineteenth century. In the Northwest Territories the Fort Providence herd of wood buffalo now numbers some 450 free-roaming animals, a substantial increase from the original eighteen transplants. They are never sold. They are never slaughtered. They are never hunted.

These animals have fared so much better than their wood buffalo - plains cross counterparts in the Slave River lowlands which indeed have been hunted by man and wolves, assailed by anthrax and reduced by severe winters to the extent that the herd's future is in jeopardy. This herd migrated northwards

from Wood Buffalo National Park onto the flatlands south of Great Slave Lake several years ago and its numbers reach about 3000 by the late 1950's. On May 31, 1959 the Commissioner of the Northwest Territories signed "The Regulations Respecting the Sport Hunting of Buffalo in the Northwest Territories" and for the first time in 66 years it became legal in Canada for non natives to kill a buffalo. The regulations provided that licensed outfitters could take licensed sportsmen on buffalo hunts during the fall season from September 15 to November 30.

In 1978 biologists who had been observing the herd stated that in the period 1975-1978 the number of animals had decreased dramatically from 1900 to 750. The Fish and Wildlife Service of the Northwest Territories has sought to arrest the decline in a number of ways. First of all resident and non resident sport hunting of the herd was disallowed. "Although the government cannot close hunting to holders of general hunting licenses (generally local indigenous people)", stated the Service, voluntary restraint from this group was being requested. Secondly selective hunting of the wolf population which preys upon the herd was introduced. But as the wolf population was reduced, the decline in buffalo numbers continued. Investigations revealed that trappers were continuing to kill buffalo during the wolf control period. "Without a decrease in hunting there would be little point continuing wolf control", the Service points out, "since it would only lengthen the period of the inevitable decline of the bison. . . ." An outbreak of anthrax in mid-1978 which claimed more than fifty of the remaining herd only serves to underscore the precarious future in store for these particular animals.

The correct balance between preservation and wildlife management, between use and overuse, is difficult to achieve. Man's knowledge will never outweigh his needs; he will never be more than a step ahead with the solutions to the problems he has created. Nevertheless if any ardent buffalo-saver of the last century could be transported through the mists of time to the 1970's, he doubtless would be pleased to see what has become of a species once a breath from extinction. Now there are over 30,000 on the North American continent - in park, on ranch, in zoo, and free in the northern wilds. Our ghostly viewer would be justly proud that his efforts, his foresight and his devotion have been so fully realized through the dedicated work of those who serve in our national parks system.

Now the preservation of the buffalo is accomplished, a task which has been going on for nigh on a century. The keeping of a vanishing resource in close to its original form can give way to the question of conservation, of managing that resource in the context of the times we live in, finding a place for it in the world as man has made it. Bison are there to be assigned a new role in what remains of the twentieth century: what do we imagine that role to be?

We have witnessed a mighty achievement, the rescue of a species. In the early days of this century, a new-born parks system took from the failing hands of individuals the execution of an ideal. It will never be possible to fill the place of 60 million bison. But the buffalo of today are finding their own place. Canada's "grey-faced bureaucracy" has done a fine job. It has given us parks. It has given us buffalo. Now, collectively, we must decide the directions which both parks and wildlife will take in the future.

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The list of books, monographs, papers and articles, and unpublished reports on the North American buffalo is seemingly endless; and yet comprehensive accounts of the buffalo in Canada are comparatively few in number. The bibliography contains references which will provide the reader with useful information on the buffalo story in Canada.

The National and Provincial Parks Association of Canada is a private, educational, non-profit organization incorporated under Federal Charter for the purpose of promoting the benefits and ensuring the protection of our great National and Provincial Parks, so that Canadians as well as visitors to this country, may enjoy them unimpaired for all time.

Specifically, its aims and objects are:

- * TO PROMOTE THE USE AND MANAGEMENT OF NATIONAL AND PROVINCIAL PARKS IN A MANNER THAT WILL CONTRIBUTE TO THE EDUCATION, INSPIRATION AND WELL-BEING OF THE GENERAL PUBLIC;
- * TO UPHOLD THE HIGHEST STANDARDS OF THESE SAMPLES OF OUR HERITAGE AND PROMOTE BY ALL APPROPRIATE MEANS THE WIDEST UNDERSTANDING OF THEIR PURPOSES;
- * TO ENCOURAGE THE EXPANSION OF BOTH THE NATIONAL AND PROVINCIAL PARKS SYSTEMS AND THE PRESERVATION OF PLACES HAVING OUTSTANDING NATURAL OR HISTORIC SIGNIFICANCE;
- * TO COOPERATE WITH GOVERNMENTAL AGENCIES AND WITH PRIVATE, NON-PROFIT, CHARITABLE, EDUCATIONAL, AND SCIENTIFIC ORGANIZATIONS IN PROTECTING THE INTEGRITY OF NATIONAL AND PROVINCIAL PARKS, HISTORIC SITES AND NATURE RESERVES, AND TO SEEK THE SUPPORT OF SUCH ORGANIZATIONS AND OF ALL OTHER INTERESTED PERSONS IN FURTHERING THESE OBJECTIVES;
- * TO INSTITUTE AND ENCOURAGE RESEARCH INTO ALL MATTERS PERTAINING TO THE FULFILLMENT OF THE FOREGOING AIMS.

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Pablo-Allard Buffalo Drive. Charles M. Russell, 1909. Watercolour.
Courtesy Mr. and Mrs. Frederic G. Renner.

