Wood Buffalo National Park

Introducing a park and an idea
Canada covers half a continent, fronting on three oceans and stretching the extreme Arctic more than halfway to the equator.

There is a great variety of landforms in this immense country of which the ranges have been created to preserve important examples for you and for generations to come. The National Parks Act of 1930 specifies that national parks are "dedicated to the people . . . for their benefit, education and enjoyment" and must remain "unimpaired for future generations."

Wood Buffalo National Park is a wilderness area of 17,300 square miles straddling the boundary between the Northwest Territories and the Province of Alberta. It was established in 1922 to protect the only remaining herd of wood bison.

The park's greatest length is 176 miles and it has an average width of more than 100 miles. Two-thirds of its area lies west of Alberta.

The park environment
Wood Buffalo contains examples of four types of topo­graphical features common to the northern plains. These are erosion plateaus left by the glaciers, glaciated plains, a delta formed by two major rivers, and the alluvial lowlands of the rivers. In addition, there are two special types of area not common in Canada: the Salt Plains and the Karst area of the Alberta Plateau.

Erosion plateaus
The Birch Mountains in the southwest and the Caribou Mountains in the west are erosion plateaus of the Cretaceous Age, about 150 million years old. They are round to oval shaped and range from 1,500 and 2,200 feet above sea level, rising abruptly from almost flat plains. They are all that remain of deep sedimentary layers which covered the whole area and which are now dissolved in places by sub-surface run-off and result in collapsed areas or sinkholes, some of great size. There is a large sinkhole, 120 to 150 acres and 80 feet deep, beside the Nyarling River Warden Station. Pine Lake, with a depth of 70 feet, three miles long, results from the joining of several very large sinkholes.

Glaciated plains
The major area of Wood Buffalo National Park is the Alberta Plateau. This is a large, almost flat area which extends over a great part of this country, in and out of the parks. It lies between 500 and 1,000 feet above sea level, a land of poor drainage, meandering streams and many shallow lakes and bogs. Throughout the plains eskers (long low ridges of sand and gravel) are thickly scattered. These eskers are composed of material that was carried by the glaciers and deposited along the course of streams formed in the melting ice.

The eastern edge of the Alberta Plateau is marked by an escarpment with a maximum height of 200 feet. It is noticeable on Highway 5 between a steep hill west of the Salt Plains and the Karst area of the Alberta Plateau.

The river valleys and lowlands
The Peace River occupies a wide, flat valley with very little drop along its course. This causes the river to meander and change its course from time to time. Davidson Lake and the Big Slough are remains of old river courses.

The Peace River plains occupy only small areas along the west side of the river above Fort Smith. Here the river marks the boundary between the Precambrian Shield and the Great Central Plains. On the east are old, eroded granite formations; on the west are the younger sedi­mentary rocks which underly the Canadian Prairies.

The delta
The delta formed by the Peace and Athabasca Rivers is one of the major deltas in Canada. During the time the glaciers were melting, Lake Athabasca was far larger than it is now. As the ice retreated farther and freed the north­flowing Slave River, much of the lake was drained. Still carried by the rivers filled in much of the area, creating the present delta of winding channels, shallow lakes and mud flats.

Plant life
Plants in the park are typical of the boreal forest zone of Canada. White and black spruce, jack pine and tamarack predominate. Black poplar is found along many water courses and often occurs in nearly pure stands on some upland sites and in places where the spruce forest has been destroyed by fire. Inter­spersed with the forests are numer­ous bogs or muskegs. There are also patches of prairie dominated by grasses and such showy flowering species as shooting star, bluebell, goldenrod, aster, and gentian. The flora of the Salt Plains is composed of species that tolerate a high salinity. Most of the species found in the Salt Plains contain extensive curtail marshes and sedge meadows. There are extensive stands of white spruce forest along the banks of the Peace, Athabasca and River Basins. Balsam poplar also is plentiful in the area.

The Salt Plains
East of the escarpment, in an area drained by the Salt River, are the Salt Plains. These are flat, mostly open areas with many salty streams and salt springs. Some parts the ground has such a high salt content that there is no plant life. In other areas there are plant communities composed of salt-tolerant species only. Some of the salt springs leave deposits of salt around them through evap­oration of the water. This was the source of salt for In­dians, explorers and early settlers. An excellent view of the Salt Plains is gained from the top of the ski hill off the Parson Lake road. The side road from Highway 5 to the east side of the Salt River leads through the Salt Plains.

Natural succession of plants and forests
The park shows all stages of plant and forest succession. Most of the upland prairies, if not due to poor drainage, are due to forest fires, usually caused by summer lightning. A recent burn is about two miles east of the Nyarling River Warden Station. This is a small area burned in 1965 and so far has recovered only to the grass stage. Further east are areas of more advanced recovery, perhaps 20 years old. These are marked by dense, even-aged stands of young jackpine, which grow amidst dead and falling trees, providing fuel for further fires. Then, if there is a fire, the cycle starts all over again. Other areas with more types of soil have a more complicated cycle. There the cycle may be grassland, willow, poplar, poplar-spruce, spruce, or undisturbed by fire in between. Eventually, through random chance, lightning will strike in the old and decreased spruce forest and fire will restart the cycle. This type of succession is illustrated by a 1961 burn, eight miles west of the Caribou Landing warden station, which is in the willow stage. Between Fitzgerald and Hay Camp lies an older burn area in the willow-poplar stage. Fifteen miles north of Peace Point there is an area of mature poplar with younger spruce which by now reach almost to the poplar cresews. The pure spruce stands seen east of Peace Point are an example of the climax stage in this cycle of succession.

Wildlife
The buffalo, for whose protection the park was estab­lished, is the symbol alike of pioneer North America and man's waste of natural resources. When the killing of wood buffalo was prohibited in 1893 it was estimated that there were fewer than 500 remaining, all in the region of what is now the park. By 1922 their numbers had grown to an estimated 1,500. The wood buffalo is a slightly larger, darker, northern relative of the plains buffalo.

Shortly after the establishment of the park more than 6,600 plains bison were moved by rail and barge from Buffalo National Park (now non-existent) at Wainwright, Alberta, to Wood Buffalo National Park. The two species intermingled and now number 10,000 to 12,000.

Cover: Two bison bulls

Fielded rock beds on Peace River

A whooping crane

Alberta & N.W. Territories
Other large animals in the park are moose, woodland caribou and black bear. The southwestern winter migration of both species avoids the park, but there is a small herd of mule deer and white-tailed deer in the park. There are a few moose and elk, and small numbers of barren-ground caribou. The southward winter migration of barren-ground caribou used to carry them into the park, but the country is not really suitable for them. Smaller mammals are locally abundant in various areas throughout the park. Suitable streams are well populated with beaver and the marshy delta areas provide ideal habitats for muskrat, mink, otter and red squirrel are also common. Altogether 46 species of mammals have been recorded in the park.

More than 200 species and sub-species of birds have been reported in the park. Most of these are summer residents and are species familiar to birdwatchers in western Canada and the United States. The accumulation of waterfowl on the Peace-Athabasca Delta in autumn is one of the greatest spectacles of its kind to be found anywhere. Ruffed, sharp-tailed and spruce grouse reach extremely high peaks of abundance about once each decade, and there are other peaks of abundance in other species. The Government of the Northwest Territories maintains a campground at Little Buffalo Falls just outside the park. Several of these came to study the wood bison before it was determined to be a separate species. A number of these men are commemorated by place names: Henney River, Buffalo Creek (after Ernest Thorne Seyton), Preble Creek, Rapp Lake. Charles C. Southwell travelled extensively through the park, making the first recorded capture of a whooping crane in 1926 by taking in the area southeast of the Peace River.

How to get there
The park may be reached by road via the Mackenzie Highway to Hay River and Highway 5 to Fort Smith. Fort Smith is approximately 850 miles north of Edmonton, the last 480 of which are gravel. There is daily airline service from Edmonton and Yellowknife. Fort Smith is the nearest town. There is a limited number of cars for rent in Fort Smith. The park may also be reached by boat on the Peace and Athabasca Rivers and from Great Slave Lake, but this should not be attempted except in seaworthy boats by experienced operators. The large lakes can be very rough.

Light aircraft for visitor use are not permitted to land within the park. To protect the nesting grounds of the whooping crane there is a height restriction for airplanes over the park north of Highway 5 (see Canada Ministry of Transportation regulations).

Accommodation and other services
The park is little developed for visitor use. There are a picnic ground and a 16-site campground at Pine Lake and a beach where the water is warm enough for swimming from mid-July until mid-August. Elsewhere in the park all camping or picknicking must be done under natural conditions. The Government of the Northwest Territories maintains a campground at Little Buffalo Falls just outside the park, and there is an attractive picnic area at Mountain Park between Fort Smith and Fort Fitzgerald.

Visitors on overnight trips may bivouac en route anywhere in the park, provided they have previously registered with a park warden and obtained a camping permit. Supplies, services and accommodations are available in Hay River and Fort Smith but not in the park. Travellers by boat can obtain supplies in Fort Chipewyan, but there is no commercial accommodation there. Fort Fitzgerald no longer exists as a town, so there is no source of supply there.

How to enjoy the park
Season - The main park roads are open throughout the year, but during spring breakup or after heavy rains they may be soft in places.

Boating - Motor boats may be used on the Peace, Slave and Athabasca Rivers and the deltas channels connecting Lake Athabasca to the Peace and Slave River. Motor boats may be used on Pine Lake only if a permit is obtained (free of charge) at the park office in Fort Smith. All motor boats must carry proper safety equipment and conform to federal navigation regulations. Fishing - Pike and pickerel (walleye) are found in many of the shallow lakes and sluggish streams in the park. Goldie are present in the lower Peace River, Pine Lake and the Rainbow Lakes are stocked with trout. Whitefish, suckers and carp (somewhat like whitefish) are also found. It is necessary to have a fishing permit when fishing in the park. Permits are sold at a nominal fee at the park office and the Pine Lake warden station. Fishing regulations are available at the same locations. Snowmobiles - These must stay on trails designated for their use. All other motorized land vehicles are restricted to regular roads.

Some don'ts
National parks are set in areas apart as nature sanctuaries and special care is taken to maintain them in their natural state. For this reason, all wildlife, including birds and animals, and all plants, trees, rocks and fossils are to be left undisturbed. Even the wild flowers are not to be picked; they must be left for others to enjoy. Feeding, touching or molesting wild animals is not permitted.

Dogs and cats may accompany visitors into the park. For protection of park animals, however, dogs must be kept on leashes. No permit or vaccination certificate is needed.

Fires
Campfires may be set only in places provided for this purpose, or in outdoor portable stoves. Barbecues may be used only in the campground or the picnic area, and all coals must be dumped into existing park fireplaces. Fire permits must be obtained from a park warden for open fire cooking. Information about the conservation groups, Interpretive Services, National Parks, Northern Development, Ottawa.
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Note: This is but a reference map, designed to give you a general idea of what you will find in this park. It is not a road, hiking or boating map. To find your way accurately, you should obtain a topographical map, available at the park administration office.