

# Wood Buffalo National Park of Canada

## Climate

The climate of the boreal plains, with its cold winters, cool summers, and light precipitation, is generated by a mixture of warm air from the west (in the summer) that loses much of its moisture passing over the mountains, and cold, dry arctic air (in the winter). Unstable weather patterns with frequent thunderstorms are produced when these different air masses meet.

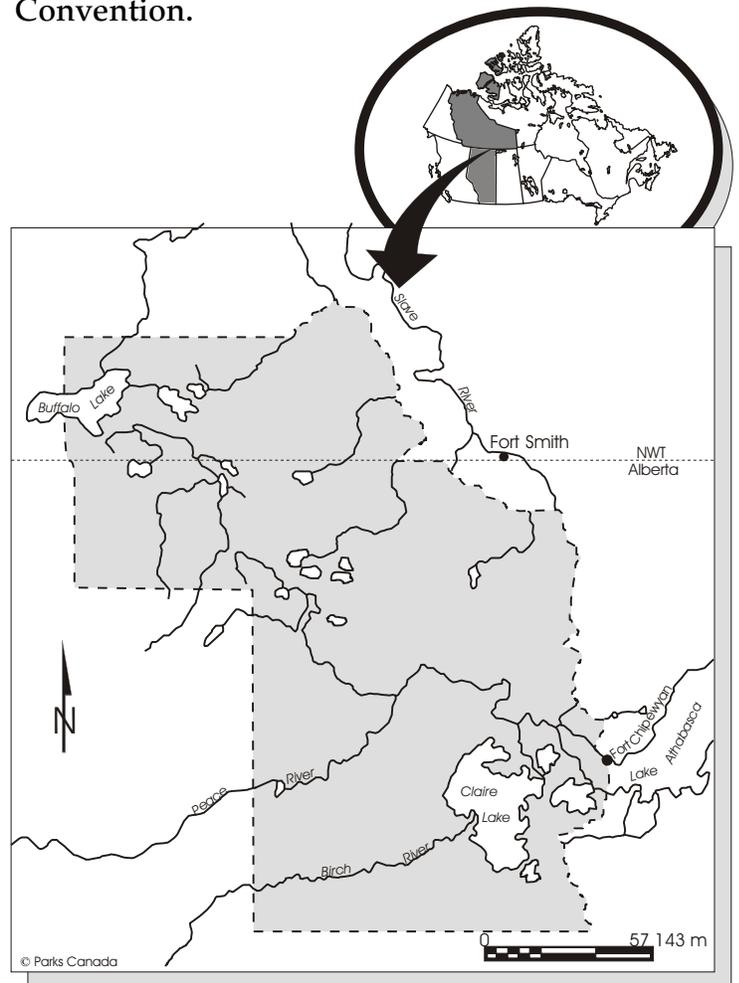
## Geology

Wood Buffalo's landscape consists largely of poorly drained, flat or gently undulating boreal plain. Wetlands are common and often extensive, as seen in the Peace-Athabasca Delta. In much of the park, the soils are sandy and home to fire-prone Jackpine forest. The park also protects some of the best examples of karst topography in the world. Here, much of the terrain is made up of soft, water-soluble limestone and gypsum-based bedrock. As water percolates down through tiny cracks and fissures, it dissolves the bedrock and circulates underground, creating unique features like sinkholes, swallow holes, underground caves and waterways. At the park's famed Salt Plains, saline water is forced to the surface where the limestone bedrock meets the impermeable granite of the Canadian Shield. As the water evaporates on the plains, salt mounds and formations are left behind.

## Location

Wood Buffalo National Park straddles the Alberta-Northwest Territories border between Lake Athabasca and Great Slave Lake. With an area of 44 807 km<sup>2</sup>, it is Canada's largest national park and the second largest national park in the world. It is representative mainly of the Northern Boreal Plains Natural region, with small portions falling within the Southern Boreal Plains and the Northwestern Boreal Uplands. Wood Buffalo is located in the Boreal Plains and Taiga Plains Ecozones.

The park's ecological significance was recognized to be of global significance with its designation as a UNESCO World Heritage Site in 1983. The Peace-Athabasca Delta and the Whooping Crane nesting habitat have also been recognized as wetlands of international significance under the Ramsar Convention.



## Vegetation

The vegetation communities of the park are dynamic. They can respond slowly to changing environmental conditions, or to sudden disturbance events such as fire, flooding and wind throw. On drier upland sites, there is typically jack pine forest with an understory of buffalo berry, prickly rose, and bear berry. Wetter sites may be more conducive to aspen parkland, with an understory of dogwood and alder. Over time, these communities may be succeeded by white spruce, and the associated species of raspberry and lowbush cranberry. Where the water table is particularly high, or nutrients are low, larch and black spruce predominate, frequently in conjunction with Labrador tea, dwarf birch and crowberry. In flood plain areas that are submerged seasonally, the common species are sedges, bulrushes, and cattails. Aquatic species include pondweeds and duckweeds.

## Wildlife

Wood Buffalo National Park was established to protect the last remaining herds of wood bison, a larger and darker relative of the plains bison. In 1893, it was estimated that there were less than 500 remaining. Today, there are about 2 100 bison in the park, one of the largest free-roaming herds in the world. Other large animals include moose, black bears, caribou, wolves and lynx. There are 47 mammal species known to exist in the park, as well as 226 species of birds, 5 species of amphibians and one reptile.

During peak migration periods, the Peace-Athabasca Delta sees waterfowl concentrations exceeding a million individuals, and the world's only remaining nesting site of the Whooping Crane is located in the northeastern corner of the park. Outside the park, near Fort Smith, the Slave River Rapids are home to the northernmost nesting colony of white pelicans. The red-sided garter snake is also at the northernmost extent of its range, using the cracks and fissures of the karst topography to hibernate beneath the frost line. There are two hibernacula in the park. Leopard, wood and chorus frogs, along with 33 fish species, are also known to occur in Wood Buffalo.



## Activities

In summer, visitors to the park come by vehicle or plane to camp, hike, watch wildlife, canoe or take boat tours along the park's rivers or into the Peace-Athabasca Delta. During the winter months, one day-use area remains open and trails are open to cross country skiing and snowshoeing. Back country camping is available throughout the park, except in special protection zones. When planning to go out into the back country for more than a day, you must register at one of the Visitor Reception Centres and get a Park Use Permit.

Visitor Reception Centres are located just outside the park, in the communities of Fort Chipewyan, Alberta and Fort Smith, Northwest Territories. Both Visitor Centres feature interpreters, exhibits and an exciting multimedia program about the park. Park-licensed guides and outfitters are based in both communities, available for water and land excursions in the park. Interpretive programs are available, for groups of six or more, with at least two weeks notice.

For more information, contact:  
The Park Visitor Reception Centres  
Wood Buffalo National Park  
Box 750  
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Telephone: (867) 872-7960  
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