

TAIGA

This ecological region lies on both sides of Hudson Bay. The eastern segment occupies the central part of Quebec and Labrador, while the western segment covers portions of northern Manitoba, Saskatchewan, Alberta and British Columbia as well as the southern Northwest Territories. Overall, it encompasses much of Canada’s northern boreal forest and is underlain by the ancient bedrock of the Canadian Shield. With a population of 55,000, hunting, fishing and trapping are the major activities. Locally, forestry, and oil and gas exploration are taking place.



Photo: Ed Wiken

Physical setting

Most of this ecological region consists of broadly rolling uplands and lowlands. Precambrian bedrock outcrops and discontinuous shallow and deep deposits of hummocky to ridged moraine are the main surface materials. The western portion is underlain by horizontal sedimentary rock—limestone, shale and sandstone—creating a nearly level to gently rolling plain covered with organic deposits, hummocky moraines and lacustrine deposits. Thousands of lakes and wetlands occupy glacially carved depressions. Strung across the landscape is the largest concentration of long, sinuous eskers in Canada. Lowlands are covered with peatlands and permafrost is widespread, with patterned ground features being common. Nutrient-poor forest soils are dominant in the southern portion and permafrost soils occur in the northern portion.



Photo: Ed Wiken

Population: 55,000
Surface Area: 2,799,230 km²

The subarctic climate is characterized by relatively short summers with prolonged periods of daylight and cool temperatures; winters are long and very cold. Mean annual temperatures range from –10°C in the Mackenzie Delta to 0°C in parts of Labrador. The cold, south-flowing Labrador current reduces the moderating effect of the Atlantic Ocean on the climate of the eastern portion of this region. Mean summer temperatures range between 6°C and 14°C, winter temperatures between –26°C and –11°C. Mean annual precipitation ranges from 200 to 500 mm west of Hudson Bay. East of Hudson Bay it ranges from 500 to 800 mm, except near the Labrador coast where it can exceed 1,000 mm a year. Snow and freshwater ice persist for six to eight months annually.

Biological setting

The pattern is one of innumerable lakes, bogs, other wetlands and forests interwoven with open shrublands and sedge meadows more typical of the tundra. From south to north, forests become open and form woodlands with a characteristic groundcover of lichens, which merge into areas of tundra. Along the northern edge of this ecological region the latitudinal limits of tree growth are reached. In the transition zone, dwarf birch, Labrador tea, willow, bearberry, mosses, and sedges are dominant. Further south, the region contains open stands of stunted black spruce and jack pine accompanied by alder, willow and tamarack in the fens and bogs. Mixed wood associations of white and black spruce, lodgepole pine, trembling aspen, balsam poplar and white birch are found on well-drained and warm upland sites, as well as along rivers and streams. Along the nutrient-rich alluvial flats of the larger rivers, white spruce and balsam poplar grow to sizes comparable to the largest in the boreal forests to the south.

Characteristic mammals include moose, woodland caribou, wood bison, wolf, black bear, marten, lynx, snowshoe hare, Arctic fox and Arctic ground squirrel. Barren ground caribou over-winter in the northwest corner of the ecological region. Overall, there are about 50 species of mammals that inhabit the region. The abundance of water attracts hundreds of thousands of birds (e.g., ducks, geese, loons and swans) which come to nest, or rest and feed on their way to Arctic breeding grounds. The Mackenzie Valley forms one of North America’s most travelled migratory corridors for waterfowl breeding along the Arctic coast. Common bird species include the common redpoll, gray jay, common raven, red-throated loon, northern shrike, sharp-tailed grouse and fox sparrow. Fish-eating raptors include the bald eagle, peregrine falcon and osprey. In the marine environment, representative species include walrus and seal.

Human activities

The population of this ecological region is approximately 55,000. The major communities include Yellowknife, Fort Nelson, Inuvik, Hay River, Fort Smith, Fort Simpson, Labrador City, Uranium City and Churchill Falls. Hunting, trapping and fishing are the primary subsistence activities in the local economy. Mining, oil and gas extraction, and some forestry and tourism are the main commercial activities.

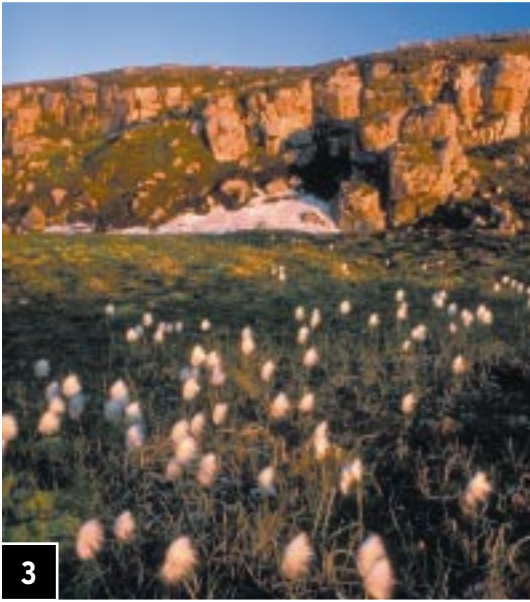


Photo: CEC file



Photo: I. Pisanty

- 1 Caribou in the Northern Yukon.
- 2 A view of the open boreal forest typical of the southern portion of this ecological region.

- 3 Cotton grass, a common species found in wet areas.
- 4 Sluice gates at the James Bay hydroelectric project.