



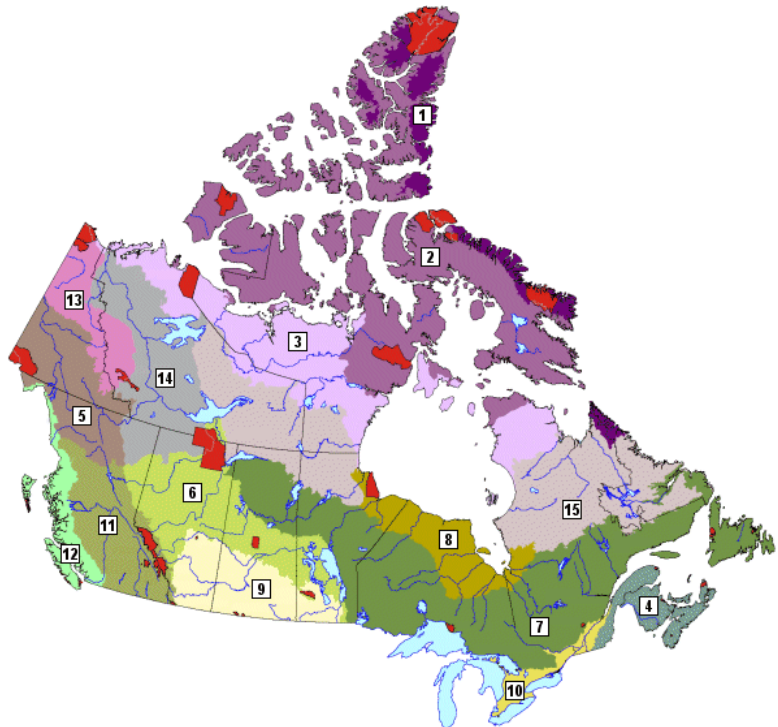
# Terrestrial Ecozones of Canada

Ecological land classification is a process of delineating and classifying ecologically distinctive areas and classification areas of the earth's surface. Each area can be viewed as a discrete system which has resulted from interplay of geologic, landform, soil, vegetation, climatic, water and human factors which may be present.

Canada is divided into 15 separate terrestrial ecozones. Ecozones are areas of the earth's surface representative of large and very generalized ecological units characterized by interactive and adjusting abiotic and biotic factors.

Canada's national parks and national park reserves are currently represented in 14 of the 15 terrestrial ecozones.

1. [Arctic Cordillera](#)
2. [Northern Arctic](#)
3. [Southern Arctic](#)
4. [Atlantic Maritime](#)
5. [Boreal Cordillera](#)
6. [Boreal Plains](#)
7. [Boreal Shield](#)
8. [Hudson Plains](#)
9. [Prairie](#)
10. [Mixedwood Plains](#)
11. [Montane Cordillera](#)
12. [Pacific Maritime](#)
13. [Taiga Cordillera](#)
14. [Taiga Plains](#)
15. [Taiga Shield](#)



Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.

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## Arctic Cordillera Ecozone

The Arctic Cordillera contains the only major mountainous environment other than the Rocky Mountain system. It occupies eastern Baffin and Devon islands and most of Ellesmere and Bylot islands. The highest parts are strikingly crowned by ice caps and multiple glaciers.

The climate is very cold and arid. Mean daily January temperatures range from  $-25.5^{\circ}\text{C}$  in the south to  $-35^{\circ}\text{C}$  in the north and mean daily July temperatures are about  $5^{\circ}\text{C}$ . Precipitation amounts to 200 mm to 300 mm generally with higher totals on exposed eastern slopes and at lower latitudes.

Vegetation at upper elevations is largely absent due to the permanent ice and snow.

The Arctic Cordillera Ecozone is largely devoid of terrestrial mammals, although polar bears are common in coastal areas.

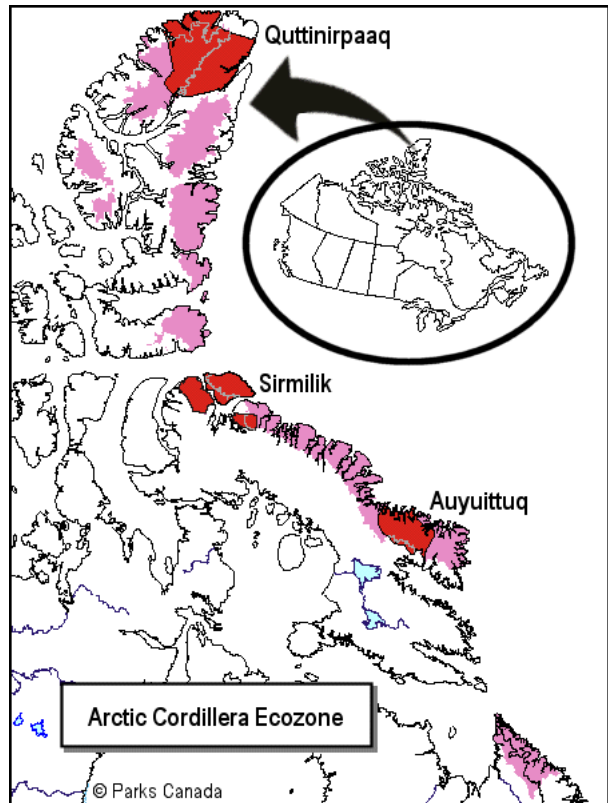
Representative birds in the warmer coastal margins include northern fulmar, ringed plover, hoary redpoll and snow bunting.

The marine environment is typified by walrus, bearded, harbour, ringed and harp seals, narwhal, and beluga and killer whales.

This ecozone includes:

- [Auyuittuq National Park of Canada](#)
- [Sirmilik National Park of Canada](#)
- [Quttinirpaaq National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.





## Northern Arctic Ecozone

The Northern Arctic ecozone encompasses most of Nunavut and a portion of both the Northwest Territories and northern Quebec. Physically, the western portion consists mostly of lowland plains covered with glacial moraine. East of a longitudinal line which runs between Prince of Wales and Somerset islands, the terrain tends to be uplands consisting of plateaux and rocky hills.

The climate is very dry and cold. The annual precipitation ranges from 100 mm to 200 mm. Mean daily January temperatures ranges from  $-30^{\circ}\text{C}$  to  $-35^{\circ}\text{C}$  in the long winters and the daily July temperatures are between  $5^{\circ}\text{C}$  and  $10^{\circ}\text{C}$  in the short summers.

Herb and lichen dominated communities constitute the main vegetation cover.

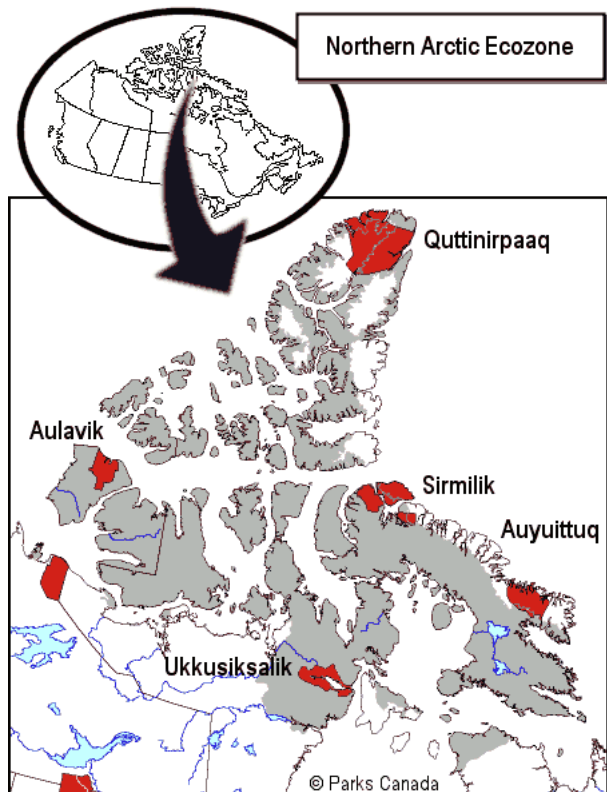
Mammals of the Northern Arctic Ecozone include Peary and barren-ground caribou, muskox, wolf, arctic fox, polar bear, arctic hare, and brown and collared lemmings.

Some representative birds include red-throated loon, brant, oldsquaw, gyrfalcon, willow and rock ptarmigan, and snowy owl.

In the marine environment, typical species include walrus, bearded, harp and harbour seals, beluga and narwhal.

This ecozone includes:

- [Aulavik National Park of Canada](#)
- [Auyuittuq National Park of Canada](#)
- [Sirmilik National Park of Canada](#)
- [Quttinirpaaq National Park of Canada](#)
- [Ukkusiksalik National Park of Canada](#)



Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.

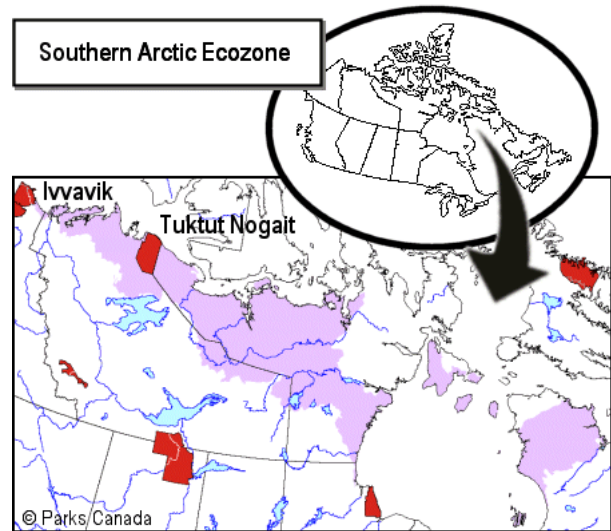


## Southern Arctic Ecozone

The land portion of the Southern Arctic is split by Hudson Bay into east and west portions. The Bay is included within this area as a marine environment. The larger land portion covers the mainland of Nunavut and a small section of the Northwest Territories. The smaller eastern segment bridges northern Quebec and Labrador. The terrain consists largely of strongly rolling lowland plains. Much of it is mantled by glacial moraines.

The climate is typically arctic with long, cold winters and short, cool summers. Mean daily July temperatures tend to be cool (about 10°C). Winter temperatures are highly variable, but the mean daily January temperature tends to be about -30°C. Mean precipitation north-south ranges between 200 mm and 400 mm.

This ecozone represents a major area of vegetation transition and contains the major shrublands in the tundra. Typical shrubs include dwarf birch, willows and heath species; these are commonly mixed with various herbs and lichens.



Characteristic mammals of the Southern Arctic Ecozone include moose, muskox, wolf, arctic fox, grizzly and polar bears, and arctic hare. The area also includes the major summer and calving grounds of two of the largest caribou herds.

The area is also a major breeding and nesting ground for a variety of birds. Representative species include yellow-billed, arctic and red-throated loon, whistling swan, snow goose, oldsquaw, gyrfalcon, willow and rock ptarmigan, northern phalarope, parasitic jaeger, snowy owl, hoary redpoll and snow bunting.

The marine environment include different species of seal and whale.

This ecozone includes:

- [Ivvavik National Park of Canada](#)
- [Tuktut Nogait National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.



## Atlantic Maritime Ecozone

The Atlantic Maritime Ecozone extends from the mouth of the St. Lawrence River southeasterly across New Brunswick, and into Nova Scotia and Prince Edward Island. The area is dominated by the interior Appalachian upland and the Northumberland coastal plain.

The Atlantic Ocean and its current have created a moderating and cool-moist maritime climate. Mean annual precipitation ranges from 1000 mm inland to 1425 mm along the coast. The mean daily January temperatures range between -2.5°C and -10°C and mean daily July temperatures of about 18°C.

Forest stands are mixed coniferous-deciduous, characterized by red spruce, balsam fir, yellow birch and sugar maple, with red and white pine and eastern hemlock. Some boreal species are present, including black and white birch.

Characteristic mammals of the Atlantic Maritime Ecozone include white-tailed deer, moose, black bear, raccoon, striped skunk, bobcat and eastern chipmunk.

Representative birds include whip-poor-will, blue jay, eastern bluebird and rose-breasted grosbeak.

In the marine environment, representative species include grey seal, hooded and harp seals, and Atlantic pilot, killer, and northern bottlenosed whales.

This ecozone includes:

- [Cape Breton Highlands National Park of Canada](#)
- [Forillon National Park of Canada](#)
- [Fundy National Park of Canada](#)
- [Kejimikujik National Park of Canada](#)
- [Kouchibouguac National Park of Canada](#)
- [Prince Edward Island National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.



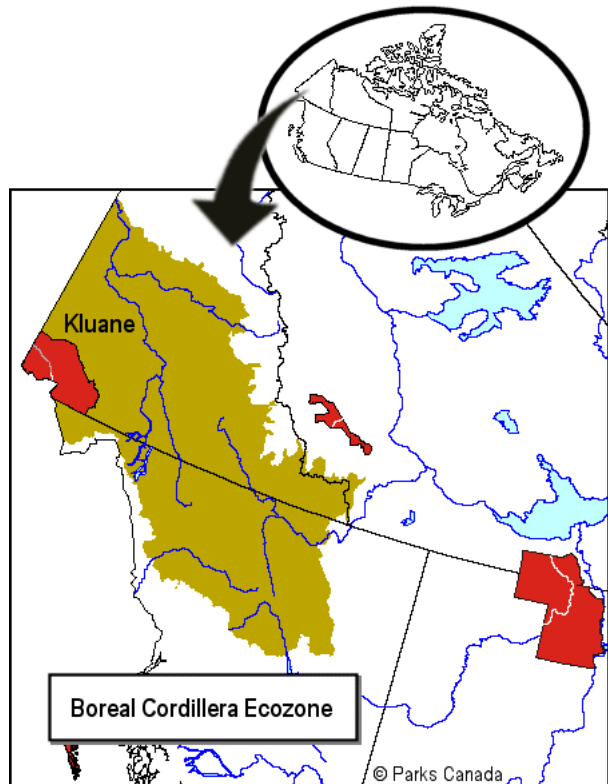


## Boreal Cordillera Ecozone

The Boreal Cordillera Ecozone is located in the mid section of the Canadian Rocky Mountain System. It covers sections of northern British Columbia and southern Yukon Territory.

Physiographically, the area is generally characterized by the mountain ranges which contain numerous high peaks and extensive plateaux, and the intermontane plains.

The climate is typified by long, cold winters and short, warm summers. The mean January temperature ranges from  $-15^{\circ}\text{C}$  to  $-27^{\circ}\text{C}$ , with the mean daily July temperature ranging from  $12^{\circ}\text{C}$  to  $15^{\circ}\text{C}$ . Precipitation is about 400 mm per year over much intermontane plateau areas; it is extremely high on the mountains in the west and ranges from 1000 mm to 1500 mm on the mountains in the east.



The vegetation for this section is typical of the Boreal Forest. Tree species include white spruce, black spruce, alpine fir, lodgepole pine, trembling aspen, balsam poplar and white birch.

Characteristic mammals of the Boreal Cordillera Ecozone include woodland caribou, moose, Dall's sheep, mountain goat, black and grizzly bears, marten, lynx and American pika.

Representative bird species include willow, rock and white-tailed ptarmigan, and spruce grouse.

This ecozone includes:

- [Kluane National Park and Reserve of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.





## Boreal Plains Ecozone

The Boreal Plains Ecozone extends as a wide band from the Peace River country of British Columbia in the northwest to the southeastern corner of Manitoba.

The physical features of this area are similar to those of the Prairie Ecozone to the south.

The moist climate is typified by cold winters and moderately warm summers. Precipitation is about 400 mm over much of the ecozone, nearing 500 mm along the southern boundary. The mean daily January temperature ranges from  $-17.5^{\circ}\text{C}$  to  $-22.5^{\circ}\text{C}$ , with the mean daily July temperature ranging from  $12.5^{\circ}\text{C}$  to  $17.5^{\circ}\text{C}$ .

White and black spruce, jack pine and tamarack are the main conifer species. Nevertheless, there is a wide distribution of broadleaf trees, particularly white birch, trembling aspen and balsam poplar.

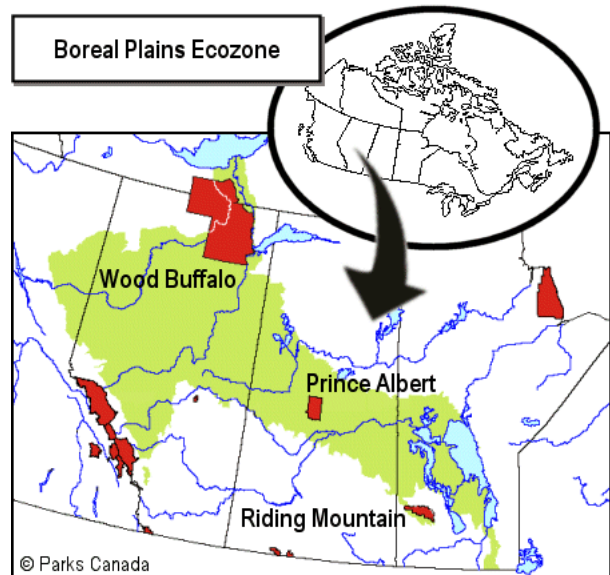
Characteristic mammals of the Boreal Plains Ecozone include woodland caribou, mule deer, bison, coyote, fisher and least chipmunk.

Representative birds include boreal owl, great horned owl, blue jay, evening grosbeak and brown-headed cowbird.

This ecozone includes:

- [Wood Buffalo National Park of Canada](#)
- [Prince Albert National Park of Canada](#)
- [Riding Mountain National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.





## Boreal Shield Ecozone

The Boreal Shield Ecozone is a broadly "U" shaped zone that extends from northern Saskatchewan east to Newfoundland, passing north of Lake Winnipeg, the Great Lakes and the St. Lawrence River.

Climatic conditions vary slightly over the area. This ecozone is largely influenced by cold Hudson Bay air masses, which are also responsible for relatively high levels of precipitation, 400 mm in the west to 1000 mm in the east. Mean daily January temperatures are  $-10^{\circ}\text{C}$  to  $-20^{\circ}\text{C}$ , while daily July temperatures average  $15^{\circ}\text{C}$  to  $18^{\circ}\text{C}$ .

Characteristic mammals of the Boreal Shield Ecozone include woodland caribou, white-tailed deer, moose, black bear, raccoon, marten, fisher, striped skunk, lynx, bobcat and eastern chipmunk.

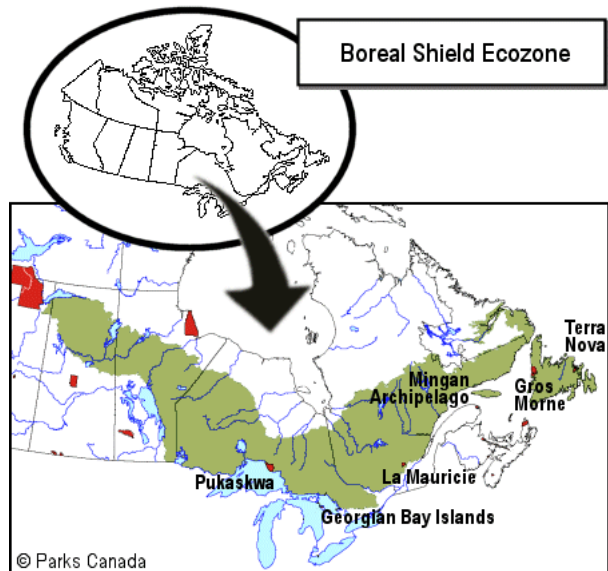
Representative birds include boreal owl, great horned owl, blue jay and evening grosbeak.

In the Atlantic marine environment, typical mammals are the grey, harp and hooded seals, and the northern bottlenosed, sperm, killer, Atlantic pilot, fin and blue whales.

This ecozone includes:

- [Georgian Bay Islands National Park of Canada](#)
- [Gros Morne National Park of Canada](#)
- [La Mauricie National Park of Canada](#)
- [Mingan Archipelago National Park Reserve of Canada](#)
- [Pukaskwa National Park of Canada](#)
- [Terra Nova National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.







## Hudson Plains Ecozone

Although wetlands are distributed throughout the nation, the largest extensive area is associated with the Hudson Plains Ecozone — an area centered in northern Ontario extending into northeastern Manitoba and western Quebec.

Climatically, this ecozone is heavily influenced by the cold and moisture-laden Hudson Bay-low and Polar-high air masses. It is generally a cold climate with moderate precipitation of 400 mm to 700 mm annually. Mean daily January temperatures are about  $-19^{\circ}\text{C}$ , while mean daily July temperatures hover between  $12^{\circ}\text{C}$  and  $16^{\circ}\text{C}$ .

Characteristic mammals of the Hudson Plains Ecozone include woodland caribou, moose, black and polar bears, marten, arctic fox and fisher.

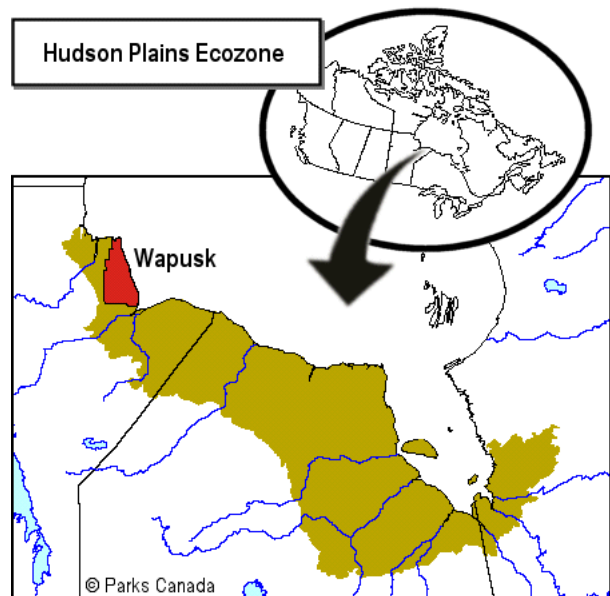
Representative bird species include snow geese, Canada geese, swans, loons, gyrfalcons, and peregrine falcons.

In the marine environment, representative mammals include walrus and bearded, harbour and ringed seals.

This ecozone includes:

- [Wapusk National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.





## Prairie Ecozone

The Prairie Ecozone occupies a semi-circular area that has its base on the Canada-U.S. border and arcs from the western edge of Alberta to the eastern edge of Manitoba.

Climatic characteristics include over 400 mm of precipitation annually. The mean daily January temperatures of  $-22.5^{\circ}\text{C}$  to  $-25^{\circ}\text{C}$  and mean daily July temperatures of  $15^{\circ}\text{C}$  to  $17.5^{\circ}\text{C}$ .



Characteristic mammals of the Prairie Ecozone include mule and white-tailed deer, elk, coyote, pronghorn antelope, and white-tailed jack rabbit.

Unique bird species include ferruginous hawk, great prairie chicken, sage grouse, American avocet and burrowing owl.

This ecozone includes:

- [Elk Island National Park of Canada](#)
- [Grasslands National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.

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Parks  
Canada

Parcs  
Canada

Canada



## Mixedwood Plains Ecozone

Covering the Lower Great Lakes - St. Lawrence Valley areas, the Mixedwood Plains Ecozone is one of the smallest. However, its combination of agricultural soils, gentle topography and a relatively warm summer climate have caused this area to be one of the most intensively used and highly populated.

The climate is continental, typified by warm summers and cool winters. Mean July temperatures are 18°C to 22°C, while mean daily January temperatures are -3°C to -12°C. The area receives approximately 720 mm to 1000 mm of precipitation annually.

The forest in the northern portion of this ecozone is mixed coniferous-deciduous, dominated by white and red pine, eastern hemlock, oaks, maples and birches.

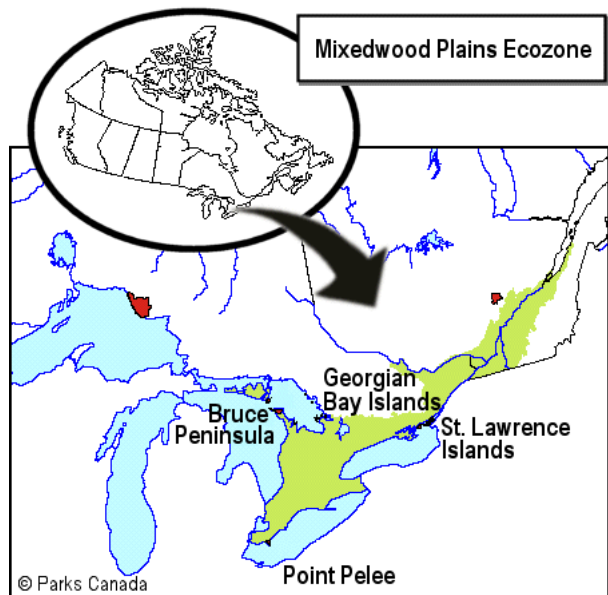
Characteristic mammals of the Mixedwood Plains Ecozone include white-tailed deer, black bear, raccoon, striped skunk, eastern cottontail, eastern chipmunk, and grey and black squirrels.

Representative birds include great blue heron, red-shouldered hawk, whip-poor-will, red-headed woodpecker, blue jay, eastern bluebird and Baltimore oriole.

This ecozone includes:

- [Bruce Peninsula National Park of Canada](#)
- [Georgian Bay Islands National Park of Canada](#)
- [Point Pelee National Park of Canada](#)
- [St. Lawrence Islands National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.





## Montane Cordillera Ecozone

Most of southern British Columbia and a portion of southwestern Alberta are contained within the Montane Cordillera Ecozone.

Physiographically, it is essentially a rugged mountain unit which rings several major interior plains. The plains are more extensive to the north and finger out as intermontane valleys towards the southerly half.

The climate is typified by moderately long, cold winters and short, warm summers. Annual precipitation is about 800 mm over the northern section, 1200 mm along the British Columbia-Alberta border, and only 500 mm in the desert-like environments towards the Canada-U.S. border. The mean daily January temperature ranges from  $-7.5^{\circ}\text{C}$  to  $-17.5^{\circ}\text{C}$ , with the mean daily July temperature ranging from  $13^{\circ}\text{C}$  to  $18^{\circ}\text{C}$ .

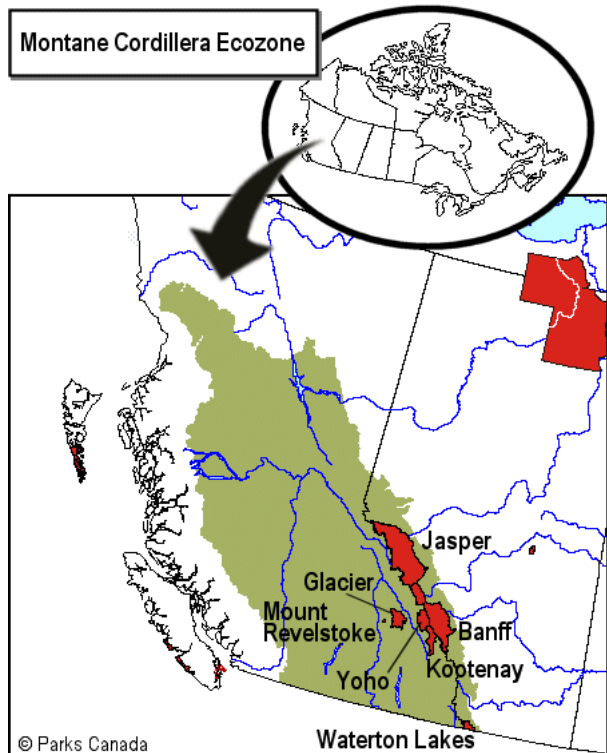
The vegetation pass by the alpine environment with lichen and shrub associations, by the subalpine with trees species such as lodgepole pine, alpine fir and Engelmann spruce. With decreasing elevation, the vegetation of the mountains changes.

Characteristic mammals of the Montane Cordillera include woodland caribou, mule deer, wapiti, bighorn sheep, fisher, badger and hoary marmot.

Typical bird species include blue grouse, stellar's jay and black billed magpie.

This ecozone includes:

- [Banff National Park of Canada](#)
- [Glacier National Park of Canada](#)
- [Jasper National Park of Canada](#)
- [Kootenay National Park of Canada](#)
- [Mount Revelstoke National Park of Canada](#)
- [Waterton Lakes National Park of Canada](#)
- [Yoho National Park of Canada](#)



Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.



## Pacific Maritime Ecozone

The Pacific Maritime Ecozone, as the name implies, includes the land margin along the entire Pacific Coast, as well the marine portion. Mountainous topography dominates, cut through by numerous fjords and glacial valleys and bordered by coastal plains along the ocean.

This ecozone has some of the warmest and wettest climatic conditions in Canada. This maritime-moderated climate receives as little as 600 mm of precipitation per year in the lower Georgian Strait, while the overall area is typically much wetter, receiving up to 3000 mm. There is generally relatively little variation between the mean monthly temperatures, compared to elsewhere in Canada: average July temperatures are in the 12°C to 18°C range, while the average January temperatures are relatively warm 4°C to 6°C.

The western coastal forest is composed mostly of western red and yellow cedar, western hemlock, Douglas fir, mountain hemlock, amabilis fir, Sitka spruce and alder.

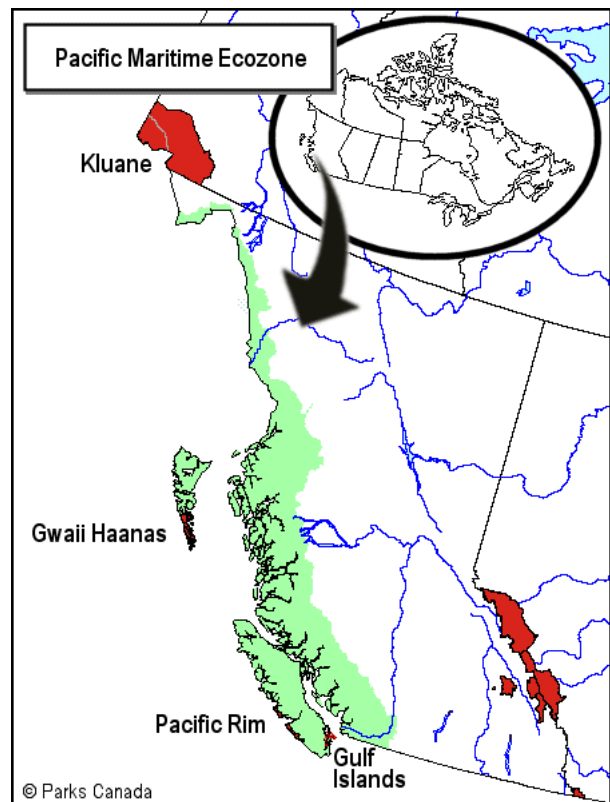
Characteristic mammals of the Pacific Maritime Ecozone include white-tailed deer, black and grizzly bears and mountain lions.

Bird species include black oystercatcher, California and mountain quail, tufted puffin and chestnut-backed chickadee.

Marine environments are typified by northern sea lion and by different species of seal and whale.

This ecozone includes:

- [Gulf Islands National Park Reserve of Canada](#)
- [Gwaii Haanas National Park Reserve and Haida Heritage Site](#)
- [Kluane National Park and Reserve of Canada](#)
- [Pacific Rim National Park Reserve of Canada](#)



Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.



## Taiga Cordillera Ecozone

The Taiga Cordillera is located along the northern extent of the Rocky Mountain system. It covers segments of the Yukon Territory and the southwestern portion of the Northwest Territories.

Steep, mountainous topography, consisting of repetitive, sharply etched ridges and narrow valleys, predominates.

The climate is generally dry and cold. Total precipitation averages about 300 mm per year. The mean daily January temperature ranges from about  $-25^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$ , with the mean daily July temperature ranging from  $12^{\circ}\text{C}$  to  $15^{\circ}\text{C}$ .

The Arctic tundra formations are more common in the north, the alpine tundra in areas of higher elevations and the taiga in the south.

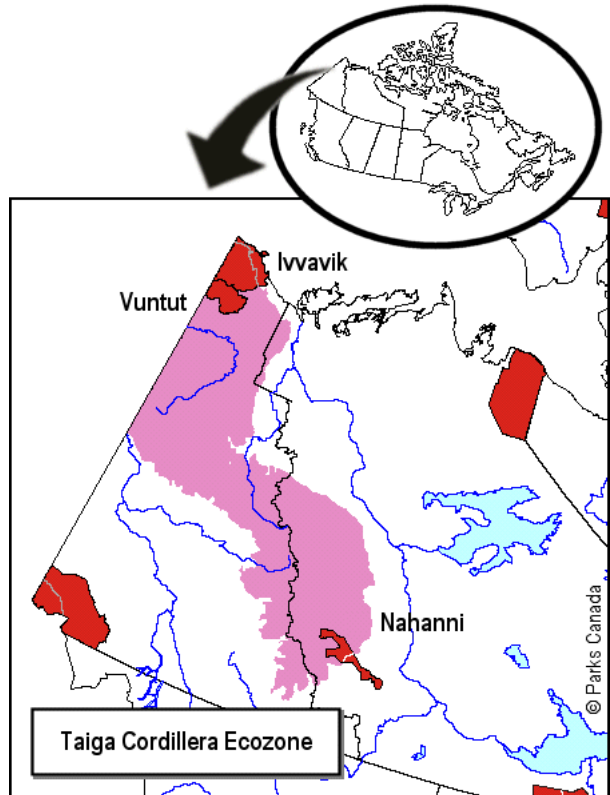
Characteristic mammals of the Taiga Cordillera Ecozone include Dall's Sheep, woodland and barren-ground caribou, moose, mountain goat, black and grizzly bears, lynx, arctic ground squirrel, American pika and wolverine.

Gyr Falcon and willow ptarmigan are representative bird species.

This ecozone includes:

- [Ivvavik National Park of Canada](#)
- [Nahanni National Park Reserve of Canada](#)
- [Vuntut National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.







## Taiga Plains Ecozone

The Taiga Plains are mainly located in the southwesterly corner of the Northwest Territories; however, they also extend into northeastern British Columbia and the upper margin of Alberta.

The climate is semi-arid and cold. Annual precipitation ranges from about 400 mm in the south to about 200 mm in the north. The mean daily January temperature ranging from  $-22.5^{\circ}\text{C}$  to  $-35^{\circ}\text{C}$ , with the mean daily July temperature ranging from  $10^{\circ}\text{C}$  to  $15^{\circ}\text{C}$ .

Dwarf birch, labrador tea, willows, bearberry, mosses and sedges are associated with the arctic tundra environment. Upland and foothill areas and southerly locales tend to be better drained and warmer. The mixedwood forest is characterized by white and black spruce, tamarack, white birch, trembling aspen, balsam poplar and lodgepole pine.

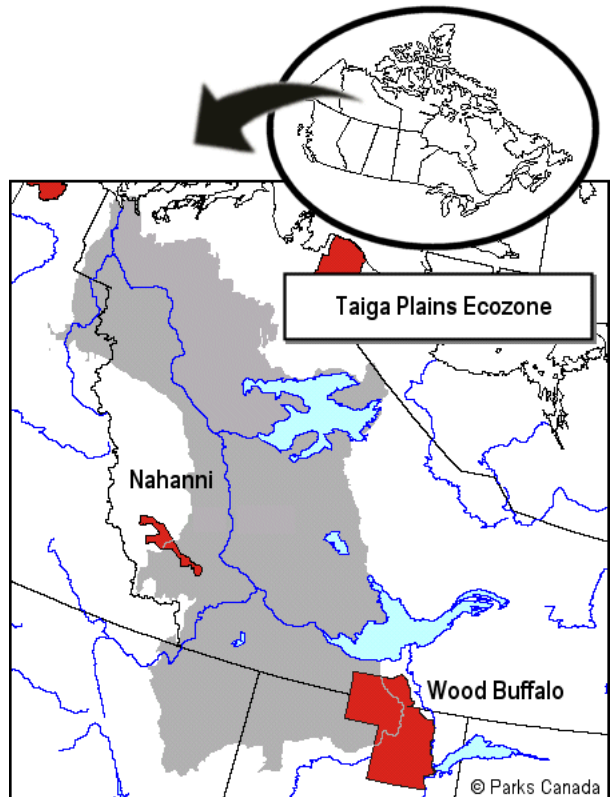
Characteristic mammals of the Taiga Plains Ecozone include moose, woodland caribou, bison, wolf, black bear, marten and lynx.

Some representative bird species include red-throated loon, northern shrike, and common redpoll.

This ecozone includes:

- [Nahanni National Park Reserve of Canada](#)
- [Wood Buffalo National Park of Canada](#)

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.

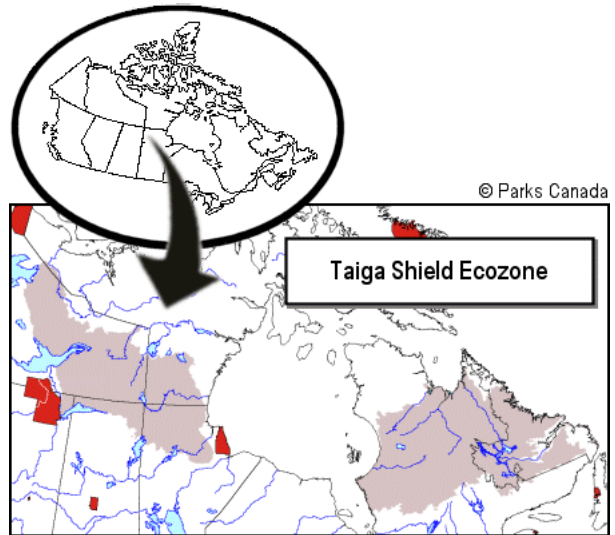




## Taiga Shield Ecozone

The Taiga Shield Ecozone lies on either side of Hudson Bay. The eastern segment includes the central part of Quebec and Labrador. The western segment includes portions of northern Manitoba and Saskatchewan, a portion of southern Nunavut, and the south-central area of the Northwest Territories.

The climate is subarctic continental. Precipitation is low (from 175 mm to 200 mm). The mean daily January temperature ranges from  $-17.5^{\circ}\text{C}$  to  $-27.5^{\circ}\text{C}$ , with the mean daily July temperatures ranging from  $7.5^{\circ}\text{C}$  to  $17.5^{\circ}\text{C}$ .



Along the northern end of this ecozone, the poleward limits of tree growth are reached. The forest stands are open and form lichen woodlands which merge into areas of open arctic tundra. The central portion contains relatively unproductive and commonly stunted coniferous and deciduous stands, including open, stunted black spruce, accompanied by alders, willows and tamarack in the fens and bogs, and open, mixedwood associations of white spruce, balsam fir and trembling aspen.

Characteristic mammals of the Taiga Shield Ecozone include barrenground and some woodland caribou, moose, wolf, snowshoe hare, arctic fox, black and grizzly bears and lynx.

Representative birds include arctic and red-throated loons, northern phalarope, tree sparrow and grey-cheeked thrush.

In the maritime environment, representative species include walrus and bearded, harbour and ringed seals.

No national parks exist yet in this ecozone.

Reference: Lands Directorate, *Terrestrial Ecozones Of Canada*, Ecological Land Classification No. 19, 1986, p. 26.