

# Maritime Barrens

## Central Barrens subregion

One of four subregions in the Maritime Barrens ecoregion, the Central Barrens is located in the south-central area of the island of Newfoundland, between the forests of central Newfoundland to the north and the foggy South Coast Barrens subregion to the south. This 15,243.9 km<sup>2</sup> subregion, which contains no coastal areas, is similar to the rest of the ecoregion by the abundance of **barrens** broken by scattered peatlands and pockets of forest.


Frequent fog and strong winds off the ocean make the Maritime Barrens as a whole one of the coldest ecoregions on the Island during the summer. However, due to its more central position, the Central Barrens subregion experiences less fog and wind than the ecoregion's three other subregions. As a result, it is drier than the rest of the Maritime Barrens and has warmer summer temperatures.

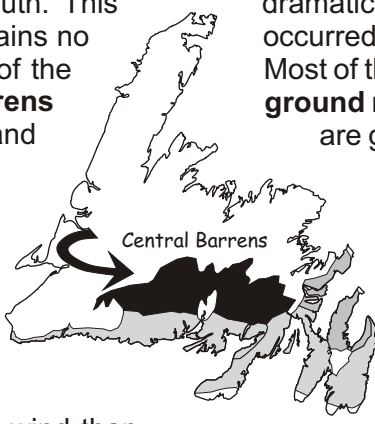
With the exception of the Northeastern Barrens, forest cover is greater here than the other subregions, due to this more moderate summer climate. Another distinguishing

characteristic is lower winter temperatures than in the Maritime Barrens's three coastal subregions. As a result, winter snow cover is usually deeper and longer-lasting. But like the other subregions of the Maritime Barrens, **bogs** and **fens** also occur regularly, though in this subregion **domed bogs** become more common than in the rest of the Maritime Barrens.

The topography of the Central Barrens dramatically reflects glacial activity that occurred here more than 10,000 years ago. Most of the area is covered by gently rolling **ground moraine**, but scattered throughout are gigantic boulders ("erratics") left by retreating glaciers, and hundreds of lakes and ponds created by glacial gouging of the earth's surface.

Until recent times this subregion, as well as all of the Maritime Barrens, had a much more extensive forest cover.

The vast expanses of open barrens so abundant now are due largely to the widespread fires that occurred following European colonization. Once areas had been burned, highly competitive dwarf shrub species were able to invade and dominate the landscape, resulting in the barrens so characteristic of this ecoregion. 



**Ecoregion:** An area that has distinctive and repeating patterns of vegetation and soil development, which are determined and controlled by regional climate. Ecoregions can be distinguished from each other by their plant communities, landscapes, geology, and other features. These characteristics, in turn, influence the kinds of wildlife that can find suitable habitat within each ecoregion. Subregions occur when distinctive variations within ecoregions are on a smaller scale than between ecoregions. The Maritime Barrens is divided into four subregions.

**Barrens:** Primarily treeless areas containing low-growing plants that are well adapted to exposed conditions and soils low in nutrients. Barrens are also known as "heath" or "heathlands," since much of the plant life found on them belongs to the heath family.

**Bogs and fens:** Two types of peatlands, which are wetlands characterized by poor drainage and a thick layer of peat. Shrubs and mosses are the common plants in peatlands — particularly sphagnum moss. Fens generally have more grasses and sedges than bogs, and so look more meadow-like. Because bogs receive most of their nutrients from rainfall, they are generally nutrient-poor. Water entering fens, on the other hand, seeps in from nearby soils and results in a more nutrient-rich habitat.

**Domed bogs:** Bogs with convex surfaces, which form mainly in forested valleys and basins. Build-ups of sphagnum mosses that can reach 3 to 10 meters in depth form a bulge or convex shape on the surface of the bog. Typically, circular pools of standing water radiate outwards from this bulge.

**Ground moraine:** The uniform deposit of till — sediment that has a range of particle sizes (sandstones and gravel, for example) — that is left when glacial ice recedes or melts. Ground moraine forms no recognizable topographical feature, so it is not always immediately identifiable.

Check your public library for a full set (36) of these booklets: one introductory document and one for each of the 35 ecoregions and subregions in the province. For more information about the series see page 4.

## Landscape Profile — Central Barrens



**Soils:** The soils here are mostly "humo ferric podzols." These are brown soils containing mostly inorganic material that occur in relatively dry sites.

**Geology:** Rocks of this subregion belong mainly to the Dunnage zone. Granite intrusions (where molten rock seeped up) that formed 300 to 400 million years ago cover large sections of this subregion, especially in the south and east. Sandstones, shales, and conglomerates deposited about 500 to 550 million years ago occur along the Bay d'Espoir highway as far north as Northwest Gander River and around Pot Hill. In the extreme east are sandstones, shales, ash, and lava deposits that belong to the Avalon zone and date back over 570 million years.

200 m  
Sea Level

## Vegetation Profile

Like the rest of this ecoregion, open barrens — mainly of "dwarf shrub heaths" and small pockets of stunted balsam fir, or tuckamore — are widespread. Dwarf shrub heaths are thickets 30 to 50 cm in height of plants belonging mostly to the heath family, such as sheep laurel and low bush blueberry. Rhodora, another member of this family, is abundant, reflecting the deep snow cover

during the winter.

Other plants, such as dogberry, larch, mountain holly, and stunted balsam fir, also commonly grow on these barrens. On interior uplands, sheep laurel is replaced by partridgeberry and black crowberry — though on the most exposed of these sites, pink crowberry is more common than black crowberry.

Balsam fir dominates the forests of the Central Barrens, although black spruce is also common. The forest floors generally contain an abundance of mosses: broom moss, feathermoss, and others. Speckled alder grows


along the edges of brooks, but due to the lower moisture level in this subregion, it does not form alder swamps as it does in the South Coast Barrens. Also because of this lower moisture level, yellow birch, which prefers rich, moist woodlands, is virtually absent. 



Photo: A Glen Ryan

**Species in Focus:** Rhodora (*Rhododendron canadense*), which is closely related to the garden rhododendron, grows abundantly throughout Newfoundland, particularly in the open barrens of the Central Barrens subregion. At the time its leaves begin to unfold in spring, clusters of lavender or purplish-pink flowers bloom at the tips of branches, making this bush one of the most distinctive and easy to identify.



Photo: Parks and Natural Areas Division

## Wildlife Profile

Many land birds live in the forests of this subregion, some as migratory breeders (they breed here but migrate elsewhere for the winter), others as residents (they remain year-round). The migratory breeders include the ruby-crowned kinglet, northern waterthrush, white-throated sparrow, hermit thrush, fox sparrow, and yellow-rumped warbler. Boreal chickadee, dark-eyed junco, and pine grosbeak are residents in the same habitat.

In the barrens willow ptarmigan, or "partridge," are resident, while the savannah sparrow occurs as a migratory breeder. Lincoln's sparrow, and shorebirds such as common snipe, greater yellowlegs, and least sandpiper, are migratory breeders in wetland areas.

Higher numbers of breeding waterfowl occur in this subregion than in the rest of the Maritime Barrens. Canada goose, red-breasted merganser, American black duck, and green-winged teal all nest near lakes and rivers in the Central Barrens. Common goldeneye, which nests in natural tree cavities or large woodpecker holes, can be found in the vicinity of

The **river otter** — a member of the weasel family — inhabits the lakes and streams of this subregion. Although it will travel overland from one lake or pond to another, it is not as efficient on dry ground as it is in water. Its short, dense fur keeps it dry, while its streamlined body, tapered tail, and webbed feet make it an excellent swimmer. A favorite activity of the otter is "tobogganing" down snowy slopes in winter and muddy or grassy banks in summer.



Photo: Sandy Newton

**Species in Focus:** Canada geese breed in wetlands throughout the Central Barrens. They typically lay four to six eggs in nests made of twigs, reeds, grasses, and an inner lining of down. The young fly south with their parents in the fall and do not separate from them until they return to the nesting grounds the following spring. Canada geese usually mate for life.

water in the forests of this subregion. The common loon also nests near water — usually on islands with one pair per pond or lake — in this subregion.

Caribou is a characteristic animal of this subregion. Numbering about 8,700 animals, the Middle Ridge caribou herd roams throughout this region. With most recent estimates from 1997, the Sandy Lake herd, with about 1000 animals, and the Gray River herd, with about 11,000 animals, also occur here.

As elsewhere in the province, moose, black bear, mink,

snowshoe hare, and red fox occur in The forest and shrub habitats. Beaver can be found in the ponds and streams. Other mammals that live here include muskrat, short-tailed weasel, red squirrel, masked shrew, meadow vole, otter, lynx, snowshoe hare, and little brown bat.


The region's many lakes and rivers support a variety of fish, the most common of which are Atlantic salmon, brook trout, brown trout, rainbow smelt, American eel, and three-spine and nine-spine sticklebacks. However, no reptiles or amphibians inhabit the subregion. 



Photo: Parks and Natural Areas Division

Extensive barrens have replaced much of the natural forest cover in the Central Barrens, following widespread fires in the last few centuries.

# Protected Areas Profile

There are two protected areas in this subregion; Bay du Nord Wilderness Reserve and Middle Ridge Wildlife Reserve. These two areas protect a combined 21.7% of the subregion.

Bay du Nord Wilderness Reserve is one of the last large natural areas on the island of Newfoundland. It was established as a reserve in 1990 to protect natural ecosystems and habitats from the effects of development projects. The reserve is particularly vital because it protects all essential features of the Central Barrens subregion.

Traditional sustainable activities — fishing and hunting, for example — are permitted in the

## Climate

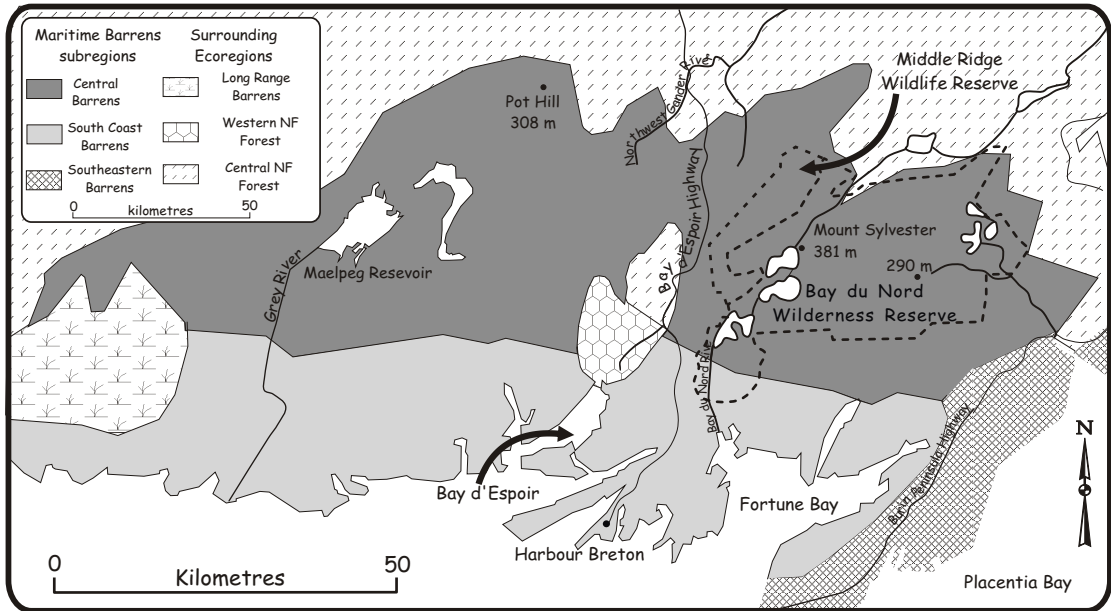
This subregion is slightly drier than the rest of the Maritime Barrens, with warmer summers and less fog. Winters are also colder, with permanent snow cover more common.



Annual precipitation  
>1250 mm



Mean daily temperatures  
February -3°C to -8°C  
July +13°C to +16°C




reserve, but industrial or extraction activities such as mining, logging, and hydro electric projects are not.

The reserve includes 2,895 km<sup>2</sup> of barrens, bogs, rivers, and forests, and its borders were drawn to take in, as much as possible, the natural habitat range of the Middle Ridge caribou herd. All mammals common to the island of Newfoundland, as well as a wide variety of waterfowl, songbirds, and fish, are found within the Bay du Nord Wilderness Reserve. As well, eastern Newfoundland's largest Canada goose habitat is protected within its borders, where extensive wetlands provide ideal breeding grounds.

Members of the Middle Ridge caribou herd range throughout this reserve and the adjoining Middle Ridge Wildlife Reserve. Middle Ridge covers 618

km<sup>2</sup> and was established in 1990 to protect the remaining area of habitat for the Middle Ridge caribou herd.

In winter the herd inhabits the central portion of the Bay du Nord Reserve, where they feed on lichens. Before the calving season in late May, some females migrate northwest into the Middle Ridge Reserve, while others move to a southeastern area of the Bay du Nord. Then, in summer, the majority of the herd moves southward.

The Bay du Nord River flows through both reserves. Because of its unspoiled scenery and pristine condition, this 90-km waterway is now a river of the Canadian Heritage River System. This system gives national recognition to key rivers in the country and emphasizes the importance of their preservation and wise management. 



Protected Areas Association of Newfoundland and Labrador (PAA) gratefully acknowledges the following partners for their generous contributions to the Newfoundland and Labrador Ecoregion Brochures project:

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