



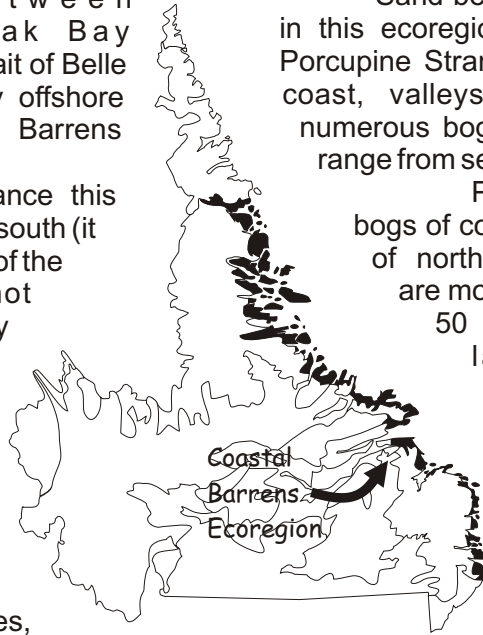
Coastal Barrens

and Battle Harbour on the Strait of Belle Isle — as well as the many offshore islands — is the Coastal Barrens ecoregion.

Given the great distance this ecoregion spans from north to south (it includes about three-quarters of the Labrador coast), it is not surprising that the topography varies considerably.

In the north, the landscape resembles the Alpine Tundra ecoregion, with coastal inlets, **fjords**, and wide, U-shaped valleys containing streams that drain the surrounding higher ground. South of Nain, waves, wind, and ice have contributed to

Taking in nearly all of the Labrador coastline between Okak Bay



the development of a barren, irregular coastline with sheer cliffs, numerous islands, and long sheltered inlets.

Sand beaches are generally uncommon in this ecoregion, except for the 40-km long Porcupine Strand and some islands. Near the coast, valleys contain salt marshes and numerous bogs. Elevations in this ecoregion range from sea level to 630 metres.

Palsa mounds are unique to the bogs of coastal Labrador and some areas of northeastern Newfoundland. These are mounds about five metres high and 50 metres long made of soil and layers of ice, topped by peatmoss. Expansion of the ice within the soil causes the peat to rise up and form mounds. Palsas usually occur in bogs in which part of the ground stays frozen for most of the year. Bogs containing palsas are called palsa bogs.



Focus on Pack-ice: Pack-ice remains along the Labrador coast for up to five months of the year. Particularly in winter, it can blur the boundary between land and sea. Pack ice is made of frozen sea water, not glacial ice, and forms in two ways. Landfast ice forms in bays and along coastlines and is solidly anchored to the shore. Less stable but more abundant is the shifting ice referred to as ice pans or floes. This ice constantly moves and can have areas of open water. It can also extend over several thousand square kilometers of ocean, with a chilling effect on air temperature. Both types of ice provide a floating platform for polar bears and seals.

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

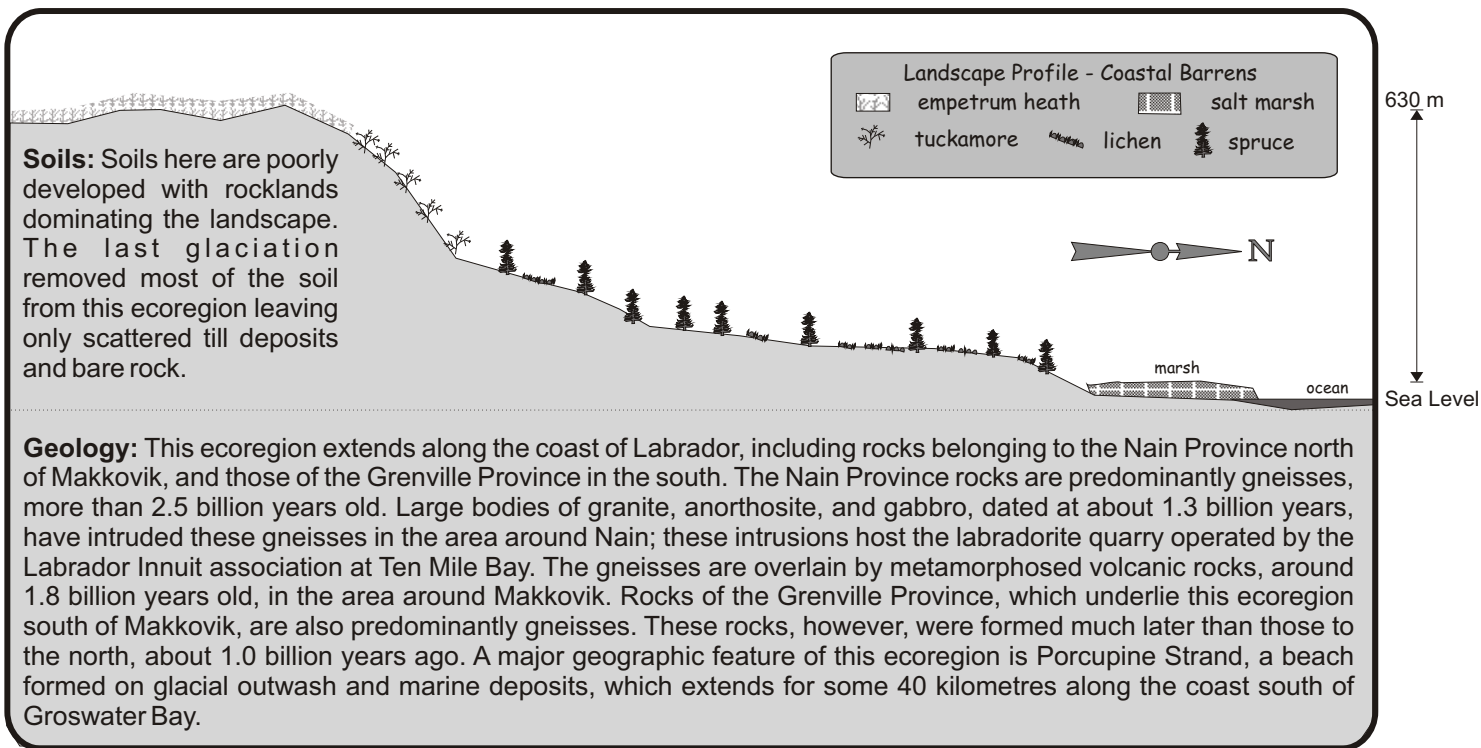
within each ecoregion.

Fjord: A deep U-shaped valley formed by a glacier and afterwards filled by sea water to form a long, narrow, steep-sided inlet.

Tuckamore: Also known as "krumholz," tuckamore are areas where growth-limiting factors (such as exposure to harsh weather, or excess soil

moisture) have resulted in dense thickets of stunted coniferous trees.

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.



Vegetation Profile

The northern limit of conifer trees in Labrador — black and white spruce — occurs at the northern tip of the Coastal Barrens ecoregion.

Black spruce **tuckamore** grows on upper slopes, while in the moister, more sheltered valleys, black spruce forests with an understory of moss or lichen occur. Because black spruce is less tolerant of salt spray, white spruce is more common along the coast. Willows, alders, and dwarf birch also grow abundantly on valley slopes and upland areas.

North of Nain, where deep valleys run in an east-west direction, south-facing slopes have thicker plant growth than north-facing slopes, because they receive more sunshine. In upland areas where there is very little soil and exposed bedrock is common, mosses and lichens are dominant.

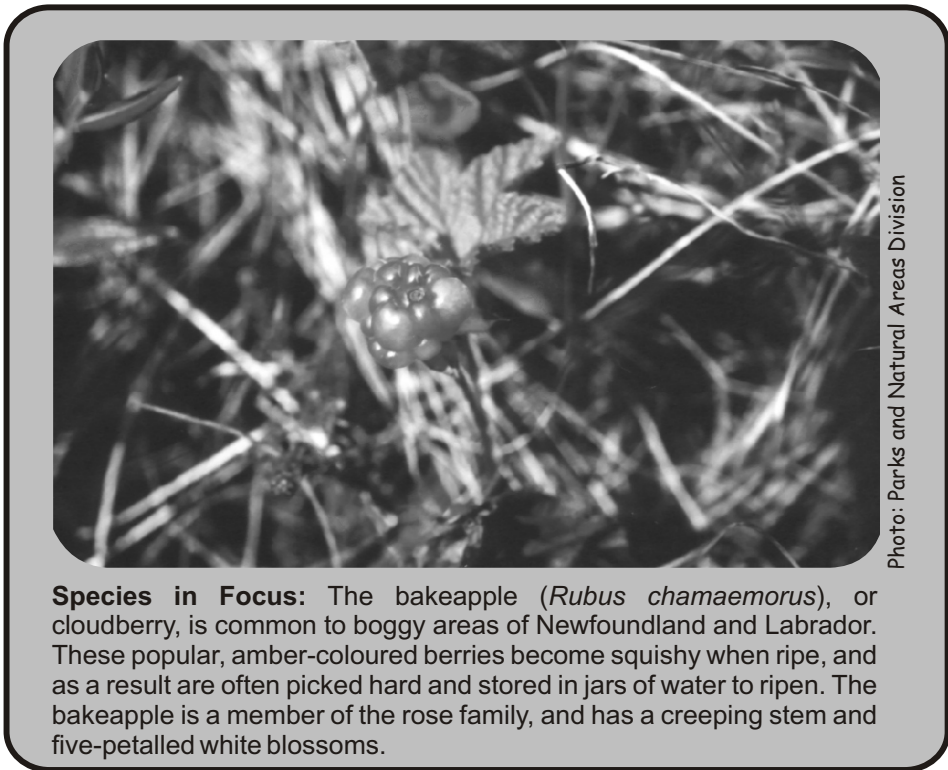
Barrens characterized by the presence of black and pink crowberry are common throughout the Coastal Barrens ecoregion. They occur on exposed coastal

headlands and inland ridges.

Particularly in the southern portion of the ecoregion, bogs are often surrounded by black spruce and larch stands, and are broken in many places by small ponds. Sphagnum moss grows in these bogs, most commonly in association with Labrador tea, bog

laurel, and bakeapple.

In the sand flats between Groswater Bay and Sandwich Bay, the black spruce often grow in a distinctive shape: the branches grow parallel to the ground then shoot straight upwards, making the trees look like candelabra.



Wildlife Profile

Mammals found on the barrens of the Coastal Barrens ecoregion include arctic fox, red fox, arctic hare, heather vole, and northern bog lemming. As well, part of the Mealy Mountain caribou herd spends the winter along the southern shore and islands of Groswater Bay.

Polar bear occur in coastal areas, and several species of seal (ringed, bearded, harp, hooded, grey, and harbour) use the offshore islands, coastal areas, and pack ice for whelping (giving birth) — or pass through the area during their annual migrations.

Forest and shrub areas provide habitat for several species of mammals, including short-tailed weasel, American marten, snowshoe hare, red squirrel, masked shrew, pygmy shrew, red-backed vole, mink, flying squirrel, heather vole, and porcupine. In recent years, moose have spread into northern Labrador and are increasing in numbers.

Black bear and wolf can be found in a variety of habitats, while meadow vole and meadow jumping mouse are wetland animals. In aquatic habitats, beaver, muskrat, water shrew, and river otter occur.

Birds that breed in the tundra habitat of this ecoregion include peregrine falcon, rough-legged hawk, northern wheatear, and snow bunting. Gyrfalcon occur

most commonly in the north. Spruce grouse and Swainson's thrush are among the birds living in forested areas, while willow ptarmigan and tree sparrow can be found in thickets.

Breeding waterfowl include the red-breasted merganser, common eider, common goldeneye, Canada goose, and harlequin duck. The area is also important to Barrow's goldeneye and scoters, primarily surf scoters, which congregate along the coast in July and August.

In late summer, migrating whimbrels and golden plovers congregate in coastal crowberry barrens in the south, where the now

likely extinct Eskimo curlew also once stopped before migrating southwards. This shorebird occurred in the millions 150 years ago, but by 1890 had virtually disappeared from Labrador. It nested in the northwest Canadian arctic and in the fall migrated east to coastal Labrador, then south to South America. On its return each spring it migrated up through the Mississippi River valley. Excessive hunting for its meat occurred during both the spring and fall migrations — including along the Labrador coast — and at its winter grounds. Although there is a report of an Eskimo curlew sighting nearly every year, confirmed records are few. A confirmed record is one in which the bird is photographed, collected, or seen by multiple qualified observers.


Fish inhabiting this ecoregion include Atlantic salmon, threespine and ninespine stickleback, arctic char, brook trout, longnose sucker, and white sucker. Lake trout and rainbow smelt occur occasionally. The American toad, which is native to Labrador, occurs in the southern part of this ecoregion in moist to wet areas. 



Photo: Parks and Natural Areas Division

Species in Focus: The Atlantic puffin belongs to the Alcids — a family of seabirds including murres, razorbills, dovekies, guillemots, and the extinct great auk. It is easily recognized by its large, colourful, clownish bill. Atlantic puffins generally nest in burrows about 70 to 100 cm long, which they excavate with their bill and feet. They lay a single egg in a nest chamber at the end of the burrow. Once the chick has hatched it remains deep in the burrow where it is fed by both parents. To avoid predation by gulls, the chick stays away from the entrance until ready to fledge, which it does alone, just after dusk.

This ecoregion contains primarily coastal habitat, including numerous islands, beaches, and coastal inlets.



Photo: Paul Linegar

Climate

Summers in the Coastal Barrens are cool to warm, and winters are cold.

The growing season is 100 to 120 days.



Annual rainfall
1000 to 1300 mm



Annual snowfall
3.0 to 4.0 m



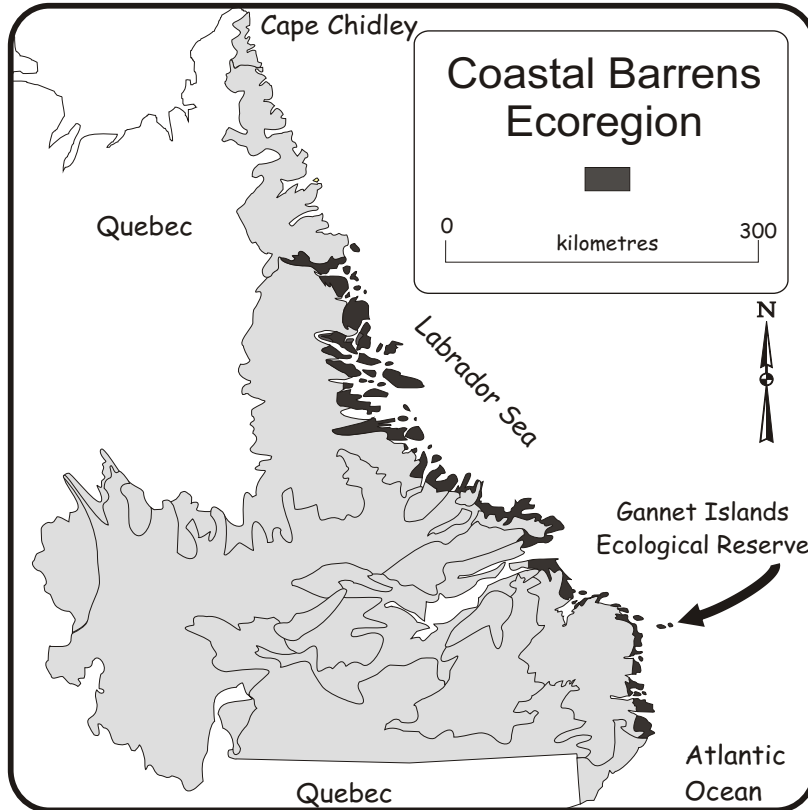
Mean daily temperatures
February -10°C to -19°C
July +9°C to +13°C

Protected Areas Profile

There is one protected area, protecting a very small fraction of this 13,606 km² ecoregion. The Gannet Islands Ecological Reserve the reserve is small (2 km² terrestrial and 20 km² marine) and does not represent all essential features of this ecoregion. However, the reserve protects the largest concentration of nesting seabirds in Labrador.

More than 200,000 seabirds, including 39,000 pairs of Atlantic puffins and 46,000 pairs of common murres, nest in the Gannet Islands Ecological Reserve. The reserve is particularly important for the 12,000 pairs of nesting razorbills found here, making it the largest razorbill colony in North America.


Despite the islands' name, no gannets breed here. The name comes from a schooner, The Gannet, which was lost in a storm in the area in 1867.



Focus on the Harlequin Duck

The small, colourful harlequin duck has a life cycle more like a salmon than a bird. In early spring, harlequins arrive at the mouths of fast-moving streams and rivers. They travel upstream, sometimes hundreds of kilometers into Labrador's interior, where they build nests in bushes or rock crevices along the water's edge. In the fall, the harlequin moves back downstream, and spends time along

the Labrador coast molting before migrating south to coastal Newfoundland.

Unfortunately, the eastern North American population of the harlequin duck has been decreasing and as a result, is now endangered. There are several possible reasons for this decline. Although it is illegal to hunt harlequins, some are shot each year, either mistakenly or intentionally. It is likely that habitat destruction, oil pollution, and natural fluctuations in food resources have also played a role in their decline. 



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:

- Department of Environment and Conservation
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