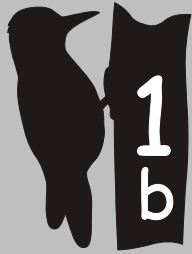


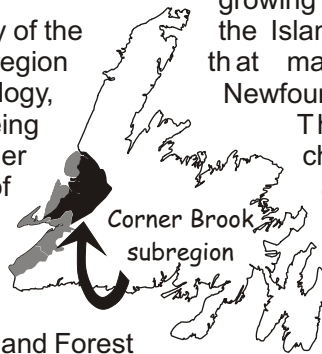
Western Newfoundland Forest Corner Brook subregion



One of the largest ecoregions on the island of Newfoundland, the Western Newfoundland Forest covers more than one million hectares in the western portion of the Island. It stretches from the Codroy Valley in the south to Bonne Bay in the north and extends from the west coast inland, including much of the Long Range Mountains.

Its neighbouring ecoregions are the Maritime Barrens to the south, the Long Range Barrens and Central Newfoundland Forest to the east, and the Northern Peninsula Forest and Long Range Barrens to the north.

Local variation in the geology of the Western Newfoundland Forest ecoregion has affected its geography and biology, and has led to this ecoregion being divided into six subregions. The Corner Brook subregion is the largest of these. It covers the inland area east of the Serpentine Range subregion, from Bonne Bay south to the Stephenville area.



All of the Western Newfoundland Forest ecoregion experiences warm summers and cold winters, and is considered one of the most climatically favourable regions for plant growth on the Island. Its mountainous terrain leads to high rainfall amounts, as winds off the Gulf of St. Lawrence drop their moisture when they ascend the slopes. This high humidity contributes to the favourable growing conditions. The Long Range Mountains also provide protection from cold northeasterly winds, which gives this ecoregion the longest frost-free periods on the Island.

Topography and location within the Western Newfoundland Forest also affect climate. As you move from the west coast inland, precipitation increases, winters become colder, snow cover lasts longer, the growing season

shortens, and the number of frost-free days lessen. The same trends also occur as one moves from south to north.

But these are general trends. There are significant local variations because of the many mountains and valleys in the ecoregion. On mountain slopes and summits, winters are generally colder and the growing season is shorter than in the protected valleys. Mountain slopes also tend to receive more precipitation than low-lying valleys.

The large size of the Corner Brook subregion also contributes to a high degree of climatic variation. Its sheltered valleys have long growing seasons and are some of the warmest on the Island, with average summer temperatures that may exceed those of the Central Newfoundland Forest.

The Corner Brook subregion is characterized by forested, rolling hills, and an underlying limestone geology. This limestone, together with the favourable climate, has resulted in rich soils and lush forests. Limestone has also produced a number of exquisitely coloured blue ponds; in fact, Blue Pond, located about a half hour south of Corner Brook on the Trans Canada, is an excellent example of this effect.

Focus on Glaciers: This region has been greatly affected by the advance and retreat of glaciers over the past 20,000 years. The flat-bottomed and U-shaped slopes of Humber Arm are evidence of scouring by glacial ice 12,500 years ago. For a period of time after this glaciation, sea level was higher than it is today because the land had not yet rebounded from the weight of the ice. Deer Lake was then part of the sea. Deltas and beaches that formed at this time around this "lake" were later eroded into terraces as the sea level dropped. These terraces can be found today throughout the Humber valley.

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

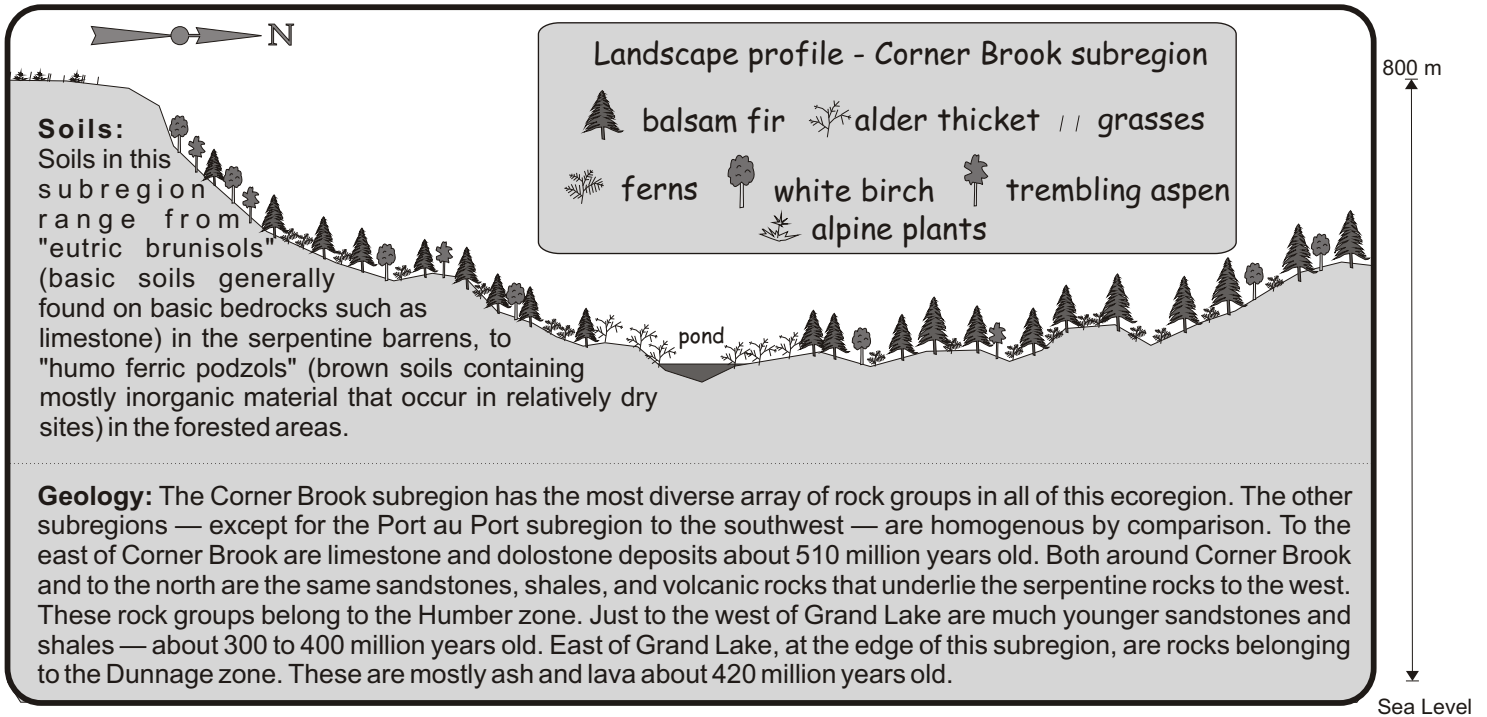
other by their plant communities, landscapes, geology, and other features. These characteristics, in turn, influence the kinds of wildlife that can find suitable habitat within each ecoregion. Subregions

occur when distinctive variations within ecoregions are on a smaller scale than between ecoregions. The Western Newfoundland Forest is broken down into six subregions.

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.

ECOREGION
Forest
Barren
Tundra
Bog





Vegetation Profile

Forests found in the Corner Brook subregion consist mostly of balsam fir with a floor covering of wood ferns. Balsam fir forests with just a feathermoss floor covering (common in central Newfoundland) are restricted to rocky slopes. The presence of primarily fern-dominated forests in this ecoregion helps distinguish it from the forests of the Central Newfoundland Forest, which are primarily moss-dominated.

Black spruce occurs mostly on poorly drained locations, or in areas with exposed bedrock. Since forest fires are rare, fire stands of black spruce are not common. Fire stands are groups of trees well adapted to colonizing burnt areas.

Two types of alder swamps occur nowhere else on the Island but in this ecoregion: golden rod/alder and bracken fern/alder swamps. Both are found in areas where the soil is water-logged or poorly drained, making these areas high in

nutrients and giving them a rich layer of herbs. In some of these places maple thickets also form, which are unique to the western portion of the Island.

Yellow birch, common throughout the Western Newfoundland Forest, reaches its northern limit in this ecoregion. The

northern limit of white pine, red maple, and trembling aspen on the Island also occurs here.

For the most part, mayflower, showy lady's slipper, Carolina spring beauty, and stands of black ash are only found in the Western Newfoundland Forest ecoregion of the Island.



Photo: Glen Ryan

Photo: George Draskoy

Species in Focus: Balsam fir (*Abies balsamea*) is the most common tree species on the Island. It is adapted to a wide range of climates and soil conditions. It generally replaces other tree species on nutrient-rich soils and makes up over 50 percent of the forest cover in Western Newfoundland Forests.

Wildlife Profile

Wildlife in the Western Newfoundland Forest ecoregion is among the most diverse on the Island. Moose, mink, snowshoe hare, lynx, black bear, red fox, beaver, muskrat, and otter inhabit this region. Part of the range of the largest remaining population of the endangered Newfoundland pine marten is located in this subregion in the old-growth forests just west of Grand Lake. Other mammals can be seen in the area as well, such as little brown bat, eastern chipmunk, masked shrew, and red squirrel.

Birds found in the forests of this subregion include a variety of finches (such as purple finch and pine siskin) and warblers (such as black-and-white warbler, magnolia warbler, American redstart, and Tennessee warbler). Yellow-bellied flycatcher, tree swallow, solitary vireo, and thrushes (Swainson's thrush and veery, for example) also occur.

In shrublands, marshes, bogs, and other open areas song sparrow, mourning warbler, and Lincoln's sparrow are found. Aquatic birds include green-winged teal, black duck, northern pintail, red-breasted merganser, spotted sandpiper, and common tern. Belted kingfishers also occur in the vicinity of water.

The rivers and ponds host nine-spine stickleback, three-spine stickleback, black-spotted stickleback, arctic char, Atlantic salmon, brook trout, rainbow smelt, American eel, mummichog, and banded killifish. The banded killifish has been designated vulnerable in Newfoundland, meaning it is at risk because of low numbers.

The green frog, an introduced species, inhabits small quiet ponds and marshes, but it is

not widespread and populations are small. The American toad, wood frog, striped chorus frog, and northern leopard frog (all introduced to the Island) have been recorded in

extremely low numbers, and mostly in the Corner Brook area. No reptiles have been recorded for this subregion. 🦎

Species in Focus: The solitary lynx is a medium-sized cat found in dense boreal forests. A buffy grey ruff with black stripes surrounds the face. The ears are pointed and tipped with black hairs. Lynx hunt at night, when they prowl silently through the forests on their large furry feet. Their primary food source in Newfoundland is the snowshoe hare.



Photo: Parks and Natural Areas Division

The thick forest cover of the Corner Brook area is the result of the most favourable growing conditions for forest vegetation on the Island. Trees here are larger and the canopies generally thicker than elsewhere in Newfoundland.

Photo: Ned Pratt

Protected Areas Profile

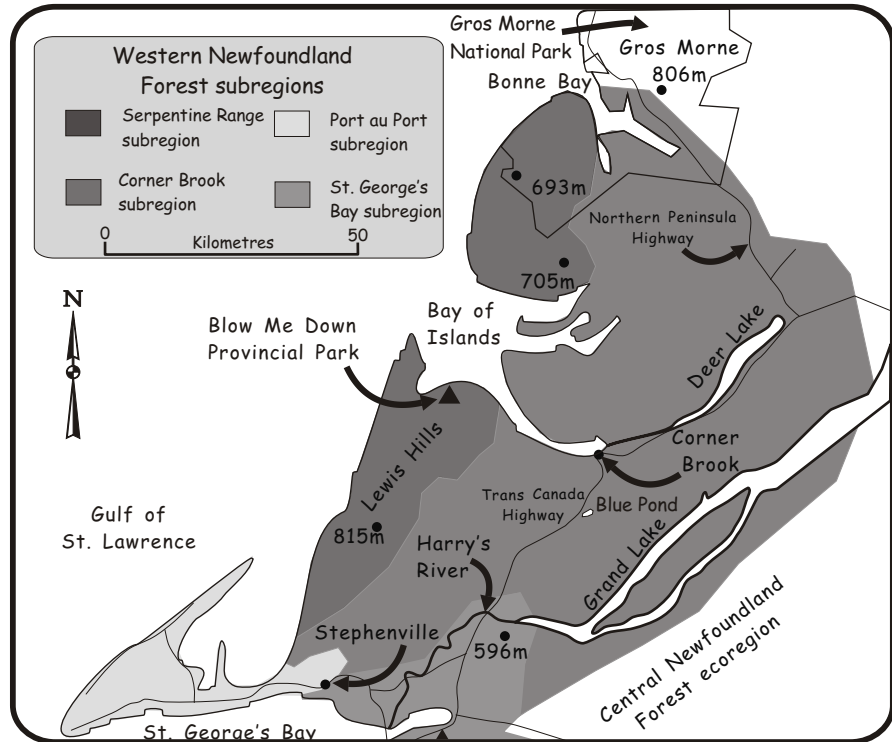
Gros Morne National Park takes in the northwestern section of the Corner Brook subregion — a relatively low, flat area — and provides partial representation of this subregion.

Gros Morne, which embraces portions of three ecoregions, boasts spectacular scenery with hiking trails, scenic lookouts, and more than 300 campsites. Its unique geology has made it internationally famous, and the park was made an UNESCO (United Nations Educational, Scientific, and Cultural Organization) World Heritage Site in 1987.

Within the portion of the park encompassing the Corner Brook subregion, thick forests dominated by balsam fir occur. It is here that yellow birch, trembling aspen, white pine, and red maple reach their northern limit on the island of Newfoundland. Also found here are stands of black ash, a species of tree rare on the Island.

Three reserves that include land bordering Little Grand Lake have been established. They protect not only forests representative of the Western Newfoundland Forest, but valuable pine marten habitat as well. The process of establishing

protected areas is a long and complicated one. All stakeholders must be given appropriate input and consideration before lands can be set aside for protection. Activities allowed within protected areas must be a compromise between all interested parties, yet not defeat the purpose of the protected area. The rewards are great, however, as we strive to ensure that our special places are preserved for future generations. 🌲



Climate

This subregion, with its western location, has a humid climate. Generally, the area has some of the most favourable growing conditions on the Island. The Western Newfoundland Forest ecoregion has the warmest valleys and longest growing season on the Island, and it typically experiences warm summers and cold winters.



Annual rainfall
1200 mm



Annual snowfall
2-4 m



Mean daily temperatures
February -5°C to -8°C
July +14°C to +16°C



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