

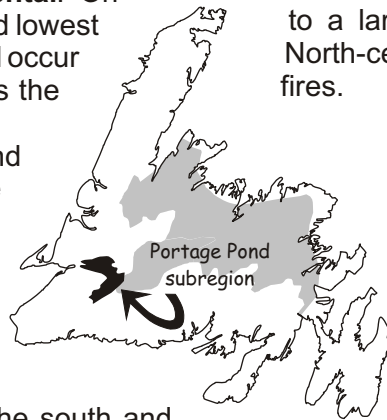
Central Newfoundland Forest

Portage Pond subregion



The Central Newfoundland Forest ecoregion covers about 28,000 km² of the central and northeastern third of the island of Newfoundland. The Central Newfoundland Forest has the most typically **boreal** forests of all the Island's ecoregions, and its climate is the most **continental**. On average, the highest summer and lowest winter temperatures on the Island occur in this ecoregion, which also has the least amount of wind and fog.

The mountain forests and bogs that make up the Portage Pond subregion extend over a small south-western portion of the Central Newfoundland Forest. The moss-dominated forests here give way to fern-dominated forests to the west, and to barrens to the south and north. Located between the southern Long Range Mountains, the Annieopsquotch Mountains, and the Buchans Plateau, the land here has rugged hills that rise as high as 677 metres above sea level. The subregion is distinguished by this mountainous topography, which contrasts with the gentle rolling hills of the rest of the Central Newfoundland Forest. It is named after Portage



Pond, which lies at the heart of the subregion.

Although summer temperatures are higher in this ecoregion than elsewhere on the Island, they are not as high in the Portage Pond subregion as in the North-central subregion. Warm summer temperatures, and its location east of the Long Range Mountains, make this subregion — and all of the ecoregion — one of the driest on the Island. Not surprisingly, this leads to a large number of forest fires. Only the North-central subregion experiences more fires.

Bogs are common in the Portage Pond subregion, and are distinguished from those of the neighbouring Western Newfoundland Forest by the absence of some plants — in particular, dwarf huckleberry and black huckleberry.

Domed bogs are the most common bog type, and in the Central Newfoundland Forest are better developed than elsewhere on the Island. These bogs are striking when viewed from above when the patterns made by standing water become apparent: circular pools in broken, layered rings surrounding the raised portion of the bog. **Basin bogs** also occur here, and are more common than elsewhere in 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 Central Newfoundland Forest is broken down into four subregions.

Boreal forest: The mainly coniferous forest found in northern latitudes, which extends in a band around the globe, covering large portions of the northern temperate zones of North America, Europe, and Asia.

Continental climate: Climate resulting from a geographic location in the interior of a landmass, which lessens the moderating effects of the ocean. This leads to colder winters and warmer summers than areas that have a similar latitude but are close to a large body of water.

Domed bogs: Bogs with convex surfaces that 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.

Basin bogs: Small, flat-surfaced bogs confined to basins and depressions. They do not often feature pools. Basin bogs are commonly found in eastern and southern Newfoundland.

ECOREGION
Forest
Barren
Tundra
Bog

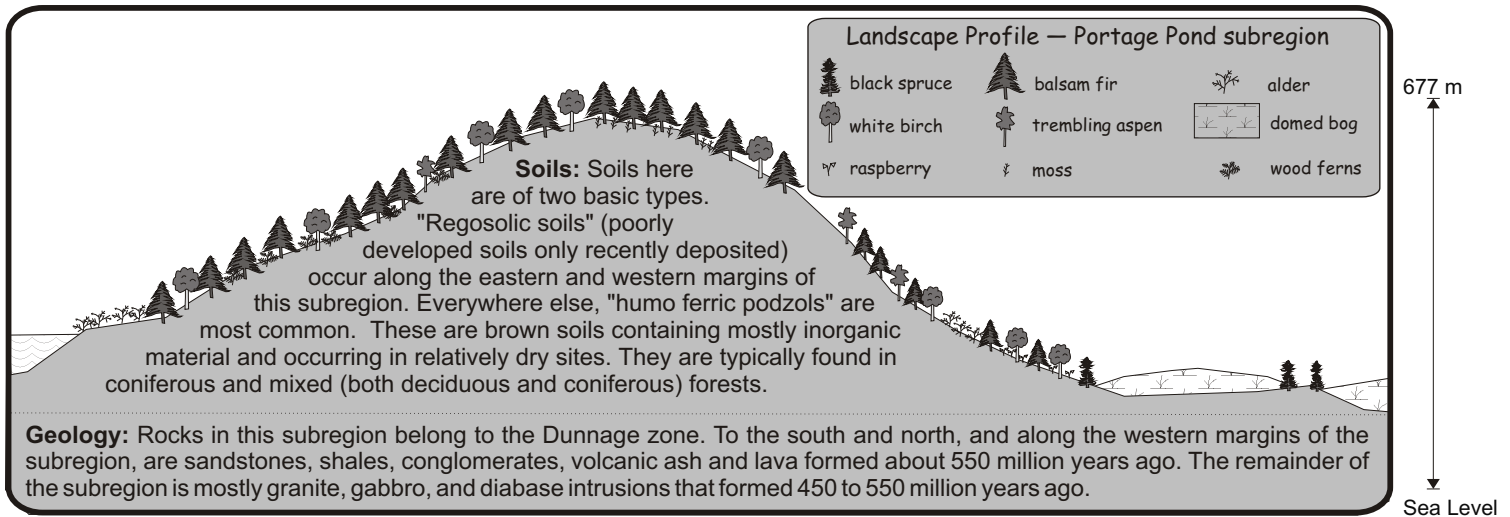
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Check your public library for a full set (36) of these booklets: one introductory document and one for each of the 35 ecoregions and subregions in the province. For more information about the series see page 4.



Vegetation Profile

The influence of frequent forest fires and warm summers on plant life in the Central Newfoundland Forest varies: it is greatest in the north, decreasing as you move southward. Consequently, although fire and summer heat do affect vegetation in the Portage Pond subregion, it is not as pronounced as in the North-central subregion.

Balsam fir forests are the most common here, though black spruce will replace balsam fir on well-drained hilly sites after a fire. The soil in such locations contains some of the lowest levels of humus — or organic material — of anywhere on the Island. Black spruce grows well in dry, nutrient-poor soils like these. In areas where fires have not occurred recently, balsam fir forests with a moss floor covering abound.

Other common forest types are balsam fir with a sheep laurel understory, and balsam fir with Schreber's moss ground cover. In areas of repeated fires or in other highly disturbed sites (such as cut-overs), a dwarf-shrub heath with an abundance of sheep laurel often grows. Another distinguishing combination of all Central Newfoundland Forest subregions occurs here: black spruce forests with an abundance of

ground lichens grow on frequently flooded gravel and sandy areas.

White birch grows here too, in stands or as part of mixed forests where it prefers steep, well-drained slopes. White birch will colonize areas that have been disturbed — so it thrives in this ecoregion because of the high number of forest fires.

Yellow birch is notably absent due to the region's shorter growing season and occasional summer frosts.

Club moss/alder swamps are found in poorly drained, nutrient-rich locations. This is different from what occurs in a neighbouring ecoregion: in the Western Newfoundland Forest, poorly drained wet locations usually have mountain maple thickets.

Although more abundant in the North-central and Red Indian Lake subregions, the red pine can also be found here growing in nutrient-poor, gravelly or sandy soils.

Trembling aspen, a species found in many other areas of the Island, is most abundant in the Central Newfoundland Forest. In fact, this is the only ecoregion where it is found in stands — probably because the warm summer temperatures permit root suckers to form, allowing the plant to take up nutrients from the soil more easily. This more efficient means of nutrient uptake enables the tree to quickly colonize new areas, including recent burn-overs.

Species in Focus: White birch (*Betula papyrifera*) can be found throughout the Red Indian Lake subregion in mixed forests with balsam fir and black spruce. Pure stands of white birch also grow after a fire or cutting. White birch is often used by beavers for construction of their lodges and dams.



Photo: Glen Ryan

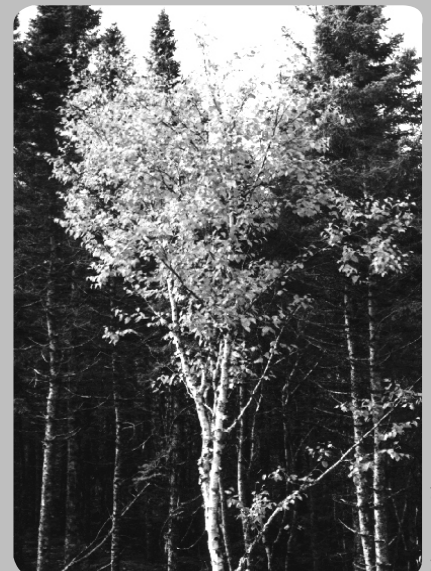


Photo: Glen Ryan

Wildlife Profile

As is typical for a boreal forest region, many animals whose habitat is in the Portage Pond subregion are adapted to long cold winters and short warm summers. Moose, snowshoe hare, muskrat, otter, mink, black bear, beaver, and lynx — species that also live in similar habitat elsewhere on the Island — occur throughout this subregion. Caribou — primarily members of the Buchans herd — also occur here. Significantly, the largest remaining population of the endangered Newfoundland pine marten is located in the subregion, in the old-growth forests surrounding Little Grand Lake.

Birds that typically live in forest habitat occur here, some of which include gray jay, ruffed grouse, spruce grouse, osprey, great horned owl, northern flicker, sharp-shinned hawk, pine siskin, chickadees (boreal and black-capped), fox sparrow, and white-winged crossbill. Common waterfowl are green-winged teal, ring-necked duck, American black duck, and Canada goose.

Many warbler species can be seen throughout this region: Wilson's, black-throated green, black-and-white, and yellow-rumped are just a few of the many that can occur here. The secretive thrushes, in particular the Swainson's and hermit thrushes, are also at home in the dense forests of this region.

At higher elevations, common raven, horned lark, and common redpoll can be found.

There are no reptiles and few amphibians in this subregion. The green frog, an introduced species, inhabits small quiet ponds and marshes, but it is not widespread and its populations are small.

The region's many lakes and



Photo: Lem Mayo

Species in Focus: Threatened in Newfoundland, the pine marten lives in old-growth forests around Little Grand Lake. Fewer than 300 of these bushy-tailed predators exist on the Island today. A shy cousin of the mink, pine martens can weigh up to 3 pounds and are 21 to 27 inches long. They need lots of standing dead trees, fallen logs, and woody debris with overhead cover, which provides protection from hawks and owls. These conditions are only found in old-growth forests.

rivers support a variety of fish, however, including Atlantic salmon and brook trout, which are both important species for recreational

fisheries. Other fish include arctic char, three-spine and nine-spine sticklebacks, rainbow smelt, and American eel. **M**





Photo: Ian Goudie


The King George IV Ecological Reserve provides a rich and diverse array of habitats, including an extensive river delta that is an important stop for migratory birds.

Climate

This subregion experiences the most continental climate on the island of Newfoundland. The growing season ranges from 140 to 160 days, although night frosts can occur during summer.

 Annual rainfall
1600 mm

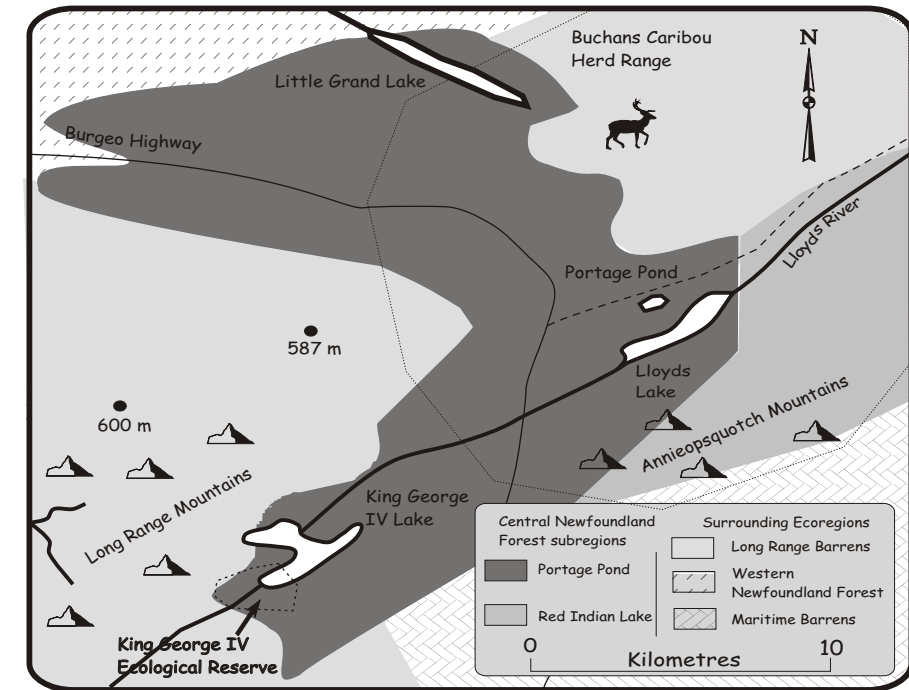
 Annual snowfall
3-3.5 cm

 Mean daily temperatures
February -4°C to -8°C
July +15°C to +16°C

Protected Areas Profile

The King George IV Ecological Reserve, covering 19 km², is located in the southern section of the Portage Pond subregion, around the southern arm of King George IV Lake. The reserve was established to protect a special feature of western Newfoundland: the grasslands of the Lloyds River delta, one of the largest undisturbed delta sites on the Island. A large variety of wildlife use the area, including many waterfowl species (Canada goose, ring-necked duck, American black duck, and green-winged teal) that molt, breed, and use the region as a staging area during migration.

The habitat within the reserve has five distinct vegetation zones, all characterized by luxuriant growth. Most notable is



the **flood plain**, where the rich delta sediment is covered by a thick growth of grasses, sedges, herbaceous plants, and shrubs.

King George IV Lake itself has many **islands** containing plant life that varies from balsam fir forest cover to grass meadows.


In the reserve's **aquatic** zone, plants can be found that live both in the water and on dry land. These include species like *Sanguisorba carex*, which is related to the common bottlebrush.

A fourth, **wetland** zone is typified by water-logged soils and frequent flooding — it fosters the growth of mats of sphagnum moss, which often grow above the water-table in association with plants like

leatherleaf.

The fifth vegetative zone covers most of the area surrounding the lake. Primarily **forest**, its plant life is the most typical of the Portage Pond subregion.

Although the King George IV Ecological Reserve protects this unique delta system and a part of the subregion's forest, it is not big enough to provide full subregion representation.

Another important area is included in the three reserves surrounding Little Grand Lake. The old-growth forests here are home to the largest remaining population of Newfoundland pine marten. 



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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