

# Western Newfoundland Forest

## St. George's Bay subregion



One of the largest ecoregions on the island of Newfoundland, the Western Newfoundland Forest covers more than one

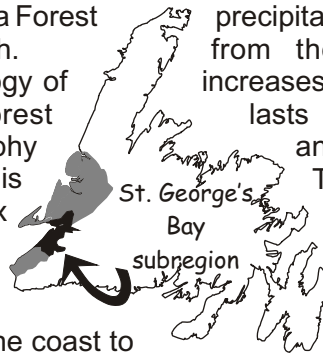
million hectares in the western portion of the Island. It stretches from the Codroy Valley in the south to Bonne Bay in the north and extends from the west coast inland, including much of the Long Range Mountains.

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 St. George's Bay subregion covers the area east and south of Stephenville, taking in 1,521 km<sup>2</sup>. It extends inland from the coast to the borders of the Central Newfoundland Forest and the Southern Long Range Barrens.

This portion of the Western Newfoundland Forest is marked by terrain that is flat to rolling. Forested, lower slopes of the Long Range Mountains in the east flatten out towards the coast into extensive **plateau bogs**, sometimes covering up to 10 km<sup>2</sup>. In heavily forested areas deep, rich soils formed from glacial deposits and runoff occur. Near the coast, soils are more coarse and nutrient-poor, and result in forests that are not as full and have smaller trees.

All of the Western Newfoundland Forest



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

Topography and location within the Western Newfoundland Forest also affect precipitation and growing season. 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, and in the St. George's Bay subregion these are due to the many hills and valleys. Farther inland, on mountain slopes at the eastern edge of the subregion, winters are generally colder and the growing season is shorter than along the coastal plain. West-facing mountain slopes also tend to receive more precipitation than low-lying areas.

The St. George's Bay subregion lies as an intermediate within the Western Newfoundland Forest. It is located midway in the north - south gradient and therefore experiences cooler, shorter summers than the Codroy subregion, but longer and warmer summers than the other more northern subregions.

**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.

**Plateau bogs:** A type of bog that forms in coastal areas, where a build-up of sphagnum mosses 2 to 10 metres deep forms a plateau-like raised surface. Often this surface is scattered with large pools.

ECOREGION  
Forest  
Barren  
Tundra  
Bog

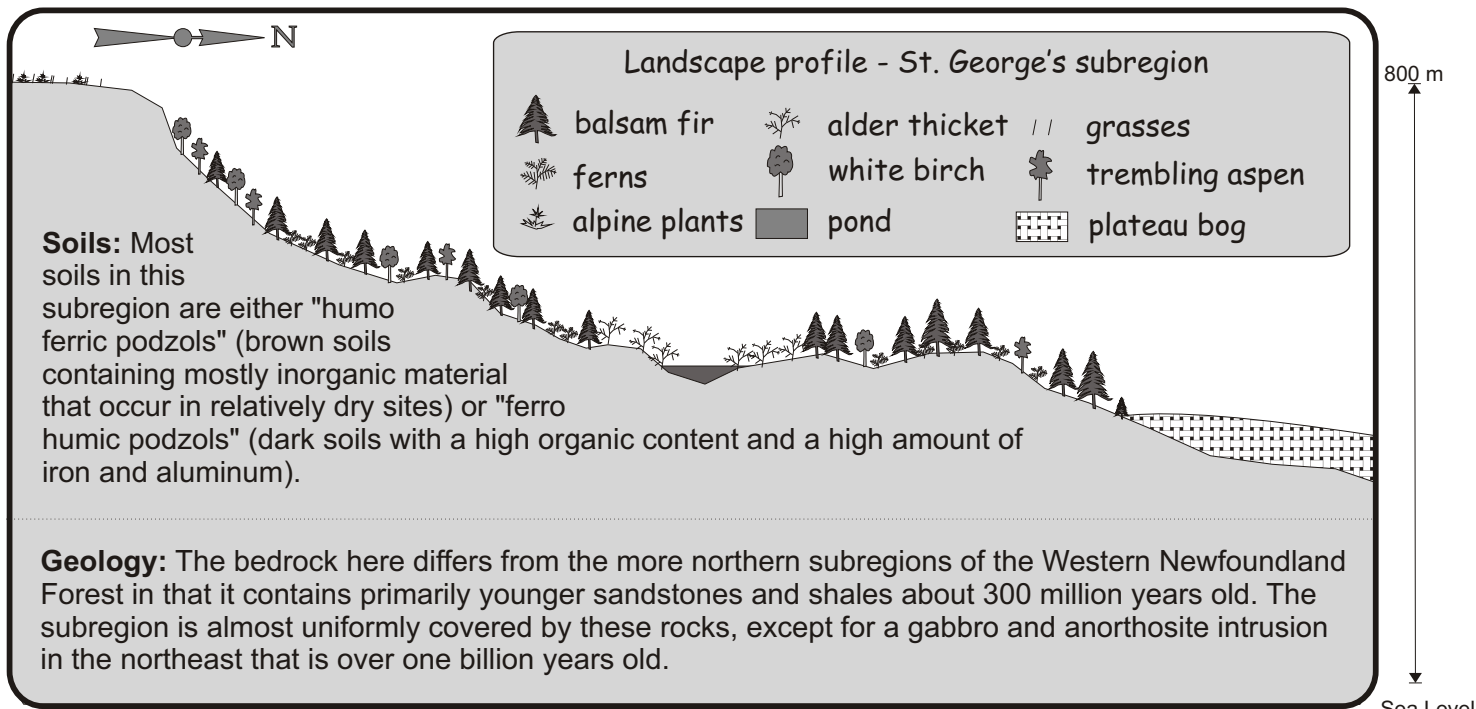
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Check your public library for a full set (36) of these booklets: one introductory document and one for each of the 35 ecoregions and subregions in the province. For more information about the series see page 4.



## Vegetation Profile

The St. George's Bay subregion is characterized by forests of balsam fir with an understory of mostly 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 most of this ecoregion helps distinguish it from the forests of the Central Newfoundland Forest, which are primarily moss-dominated.

Black spruce occur 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 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 areas 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 subregion. The northern limit of white pine, red

maple, and trembling aspen on the Island also occurs here.


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



Photo: Brenda Rowe

**Species in Focus:** The uncommon black ash (*Fraxinus nigra*) grows along the shores of brooks and ponds. It is a small deciduous tree with a slender trunk and dark green leaves containing 7 to 11 leaflets. Restricted primarily to the west coast of the Island, its northern limits are within the Western Newfoundland Forest. Learn more about black ash by visiting Barachois Pond Provincial Park.

## 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 all occur. Other mammals can be seen in the area, as well, such as little brown bat, eastern chipmunk, masked shrew, short-tailed weasel, and red squirrel.

Birds occurring in forested areas include osprey, yellow-bellied and alder flycatchers, finches, a wide variety of woodpeckers, and several species of thrushes, such as Swainson's thrush and veery. This is also a good area for warblers, including yellow, magnolia, yellow-rumped, and black-throated green. In shrublands, marshes, and bogs American bittern, song sparrow, bobolink, and Lincoln's sparrow can be found.

Aquatic birds found in this subregion include American widgeon, black duck, and green-winged teal. Scoters, particularly white-winged, are sometimes abundant in shallow nearshore areas, as are other seaducks, such as oldsquaw and common eider.

Shorebirds nesting here include greater yellowlegs, common snipe, spotted sandpiper, plus the only known location of nesting willets in the province is on Flat Island. In addition, the endangered piping plover has been known to nest in low numbers (one to two pairs) in this subregion. Large concentrations of migrating shorebirds can also be observed on these tidal flats in fall.

Flat Island is home to a seabird colony containing common terns, arctic terns, ring-billed gulls and black-backed gulls.

The rivers and ponds of St. George's Bay subregion host nine-spine stickleback, three-spine

stickleback, black-spotted stickleback, arctic char, Atlantic salmon, brook trout, rainbow smelt, American eel, mummichog, and banded killifish, which is designated special concern in Newfoundland.

There are no reptiles recorded for this subregion. The green frog, one of a number of introduced amphibians, inhabits small quiet ponds and marshes in low numbers. 🐸



Photo: B. Pinsent

**Species in Focus:** The short-tailed weasel is a small predator that inhabits the forests of Newfoundland. Its coat changes colour with the seasons — from white in winter to brown and white in summer. This gives it the advantage of surprise when hunting prey — mostly other small mammals.



Photo: Brenda Rowe

The forested western slopes of the southern Long Range Mountains cover much of this subregion. Closer to the coast, bogs are common.

### Climate

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

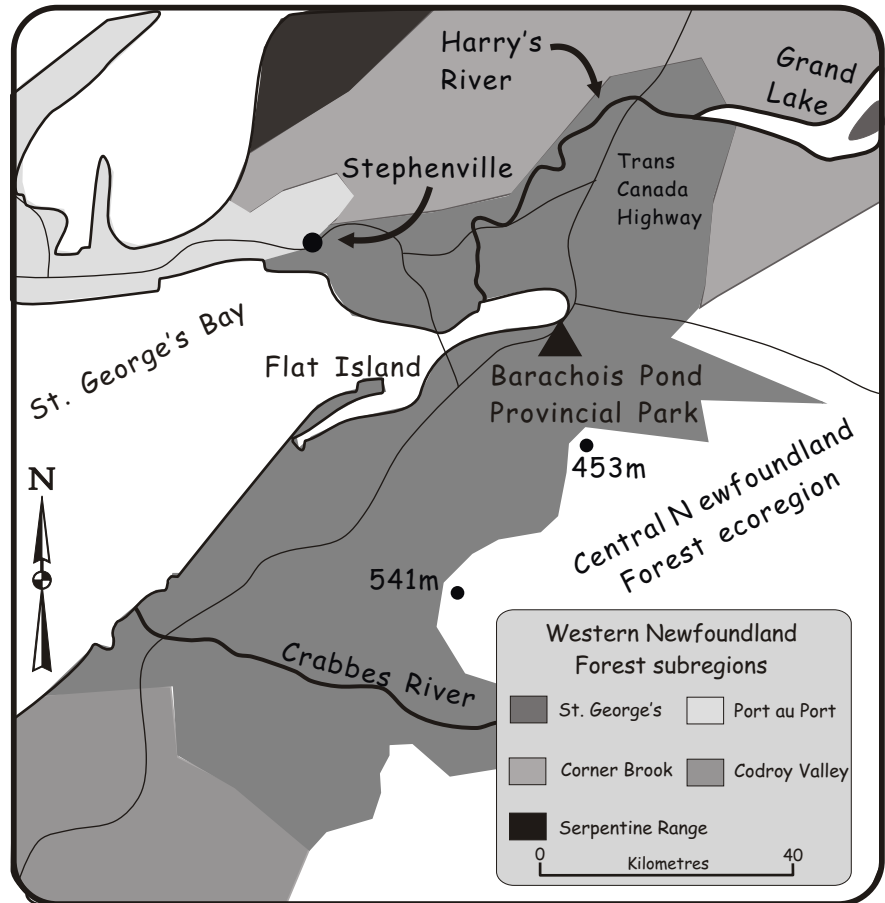


Mean daily temperatures  
February -5°C to -8°C  
July +14°C to +16°C

**Focus on Seabirds:** Within the past few decades Newfoundland has been the site of immigration by several European seabirds, such as the Manx shearwater and northern fulmar. The common black-headed gull is another seabird that only recently began nesting in North America. While the bulk of its population continues to breed in Iceland and Europe, the last two decades have witnessed a range expansion of this small gull to our continent. The first evidence of black-headed gulls nesting in Newfoundland was in this subregion, at Stephenville Crossing, in 1977. Since that time, small colonies of about a half dozen pairs have been recorded nesting in a few coastal areas of the Island.

## Protected Areas Profile

**B**arachois Pond Provincial Park is just east of Stephenville. The park encompasses 35 km<sup>2</sup>, most of which



is forest. Balsam fir is the dominant tree species, and is commonly found with an understory of ferns and mosses. As well, black spruce, white pine, yellow birch, white birch, red maple, juniper, and black ash are all found within the park boundaries.

The lookout at Erin's Mountain, located in the heart of the park, provides a panoramic view of the entire subregion. To the east loom the Long Range Mountains, while to the south and west you can see the

sloping landscape as it descends to St. George's Bay.

Barachois Pond Provincial Park protects 1.6% of the subregion. Not all essential features (such as various plant communities and wetlands) of this subregion are found within the park. As a result, it provides only partial representation. 17



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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