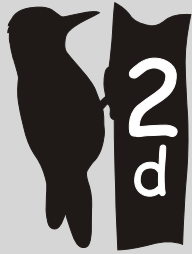


# Central Newfoundland Forest Twillick Steady subregion

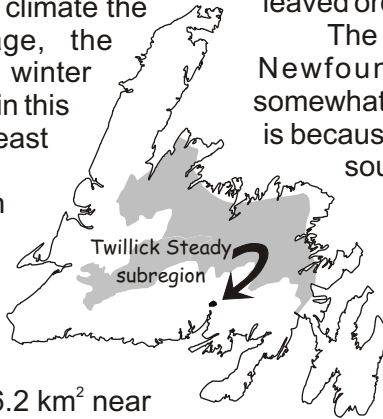


The Central Newfoundland Forest ecoregion covers about 28,000 km<sup>2</sup> in the central and northeastern third of

the island of Newfoundland. The second largest of the nine ecoregions on the Island, its forests are the most typically **boreal**, and its climate the most **continental**. On average, the highest summer and lowest winter temperatures on the Island occur in this ecoregion, as well as the least amount of wind and fog.

Twillick Steady is an outlier subregion — that is, it is separated from the rest of the Central Newfoundland Forest ecoregion, but belongs to it because of similar climate and plant life. It covers an area of 186.2 km<sup>2</sup> near the northern arm of the Bay d'Espoir River. It is, in fact, defined by this sheltered river valley, which is enclosed by gently rolling hills that rise about 180 metres above sea level at their tallest. Plant groups here are similar to those in the Central Newfoundland Forest, but differ from those in the surrounding Maritime Barrens ecoregion.

The Twillick Steady subregion is easily recognized as you travel south along the Bay d'Espoir Highway through the Maritime Barrens — a landscape containing mostly open barrens



and peatlands — and approach the turn-off for St. Alban's and Milltown. Here the land suddenly becomes more heavily forested.

In addition to its geographical separation from the rest of the Central Newfoundland Forest, the Twillick Steady subregion is distinguished from the other subregions by the absence of trembling aspen and the presence of round-leaved orchids.

The climate characteristics of the Central Newfoundland Forest are moderated somewhat in the Twillick Steady subregion. This is because of the maritime influences along the south coast. As a result, the climate conditions in this subregion are the least typical of the Central Newfoundland Forest subregions.

Bogs are common in the Twillick Steady 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 more completely 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.

**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.

**Representivity Targets:** A percentage of an ecoregion, that needs protection to conserve an example of the ecoregion's distinctive vegetation, soil and landscape.

ECOREGION  
Forest  
Barren  
Tundra  
Bog

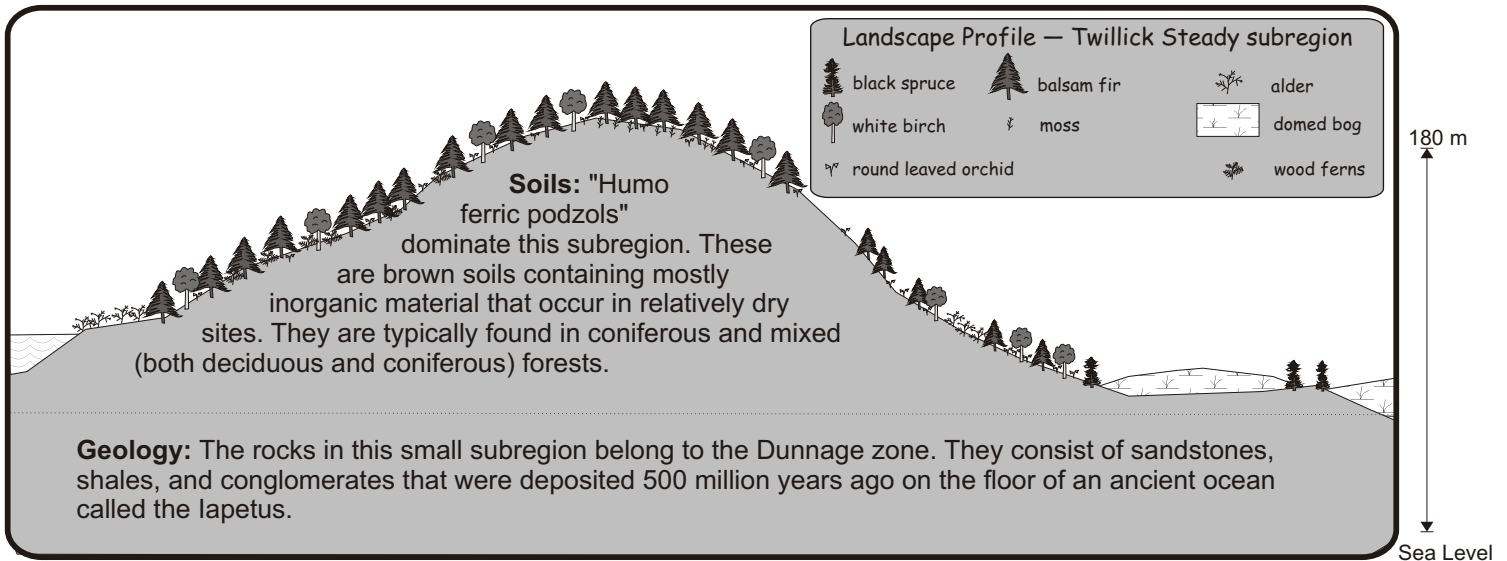
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Check your public library for a full set (36) of these booklets: one introductory document and one for each of the 35 ecoregions and subregions in the province. For more information about the series see page 4.



## Vegetation Profile

Like the rest of the ecoregion, forests of balsam fir 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 — anywhere on the Island. Black spruce thrives in dry, nutrient-poor soils like these. In areas where fires have not recently occurred, balsam fir with a forest floor covering of feathermoss is common.

Other forest types include balsam fir with a sheep laurel understory, and balsam fir with Schreber's moss ground covering. In areas of repeated fires or in other highly disturbed sites, a dwarf-shrub heath with an abundance of sheep laurel often grows. Another unique combination occurs here (and in the other three subregions of the Central Newfoundland Forest): black spruce forests with an abundance of ground lichens are found on frequently flooded gravel and sandy areas.

White birch, which prefers steep, well-drained slopes, also grows here, either in stands or as

part of mixed forests. White birch will colonize areas that have been disturbed, such as by cutting or fire. A closely related species, yellow birch, is notably absent from all subregions of the Central Newfoundland Forest. This is because of the 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 the neighbouring Western Newfoundland Forest ecoregion where poorly drained wet locations are usually home to mountain maple thickets.

An important characteristic distinguishing this subregion from the rest of the ecoregion is the absence of trembling aspen stands. Due to its proximity to the Island's south coast, summers are not as

warm in the Twillick Steady subregion as they are in the rest of the ecoregion. This prevents the growth of trembling aspen.

Another distinctive and interesting feature of this subregion is the presence of the round-leaved orchid, a delicate flowering plant that flourishes in the mossy undergrowth of the subregion's forested areas. It helps to distinguish the Twillick Steady subregion from the rest of the Central Newfoundland Forest.

**Species in Focus:** The round-leaved orchid (*Habenaria orbiculata*) is found throughout the Twillick Steady subregion. These tiny, brightly coloured flowers carpet the forest floor of this subregion and distinguish it from the rest of the Central Newfoundland Forest. Orchids have adapted to many different habitats around the world. A wide variety of orchid species grow throughout Newfoundland.



Photo: Glen Ryan

## Wildlife Profile

As is typical for a boreal forest region, many animals whose habitat is in the Central Newfoundland Forest 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 belonging to the Middle Ridge herd, whose primary range is just west of this area within or near the Bay du Nord Wilderness Reserve, can be seen here occasionally. Sometimes animals from the Sandy Lake/Gray River herd, which mainly roams throughout sections of the Maritime Barrens farther to the west, also appear in this subregion.

Birds that typically live in forest habitat can be found here, including 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 thrush and hermit thrush, are also at home in the dense forests of this region.


There are no reptiles or amphibians in this subregion. The region's ponds and rivers support a variety of fish, including Atlantic salmon and brook trout, which are both important species for recreational fisheries. 



Photo: Bruce Mactavish

**Species in Focus:** The fox sparrow is a large, sturdy sparrow that gets its name from its “fox-like” red colour. It can be found throughout the Island in forests and thickets where it forages for seeds and insects by noisily scratching at the ground.



Photo: Glen Ryan

River valleys and deep bays on the south coast of the Island produce localized climates and plant life that are different from the surrounding lands. Here, protection from the harsh and persistent winds that blow in from the open Atlantic Ocean affect the climate locally and create changes in vegetation patterns. The Twillick Steady subregion and the neighbouring Bay d'Espoir subregion of the Western Newfoundland Forest are the best examples of this phenomenon. Others exist throughout the south coast, such as within the Bay du Nord River and La Poile Bay areas. These “pockets” significantly add to the habitat diversity of the south coast barrens.



## Protected Areas Profile

Jipujikuei Kuespem Provincial Park Reserve contains a 6.7 km<sup>2</sup> area, covering a portion of this subregion and the neighbouring Central Newfoundland Forest. This unique area protects 1.5% of the subregion. Though representative of some of the qualities of the subregion, this protected area alone does not meet representivity targets.

The private part of the park is operated as a camping and day-use

area by the Mi'kmaw people. The adjacent area is protected as a provincial park reserve. Here you can find an unspoiled example of the south coast forests that make up this subregion. The park also protects a significant population of the rare arboreal lichen, *Erioderma pedicellatum*.

## Focus on Outliers

Outliers are small areas that are separated from the rest of an ecoregion, yet belong to it because of similar climate and plant life. The Twillick Steady portion of the Central Newfoundland Forest ecoregion occurs along the south coast of Newfoundland. Here the climate and terrain have resulted in barrens, forest, and wetland vegetation similar to that usually found farther north.

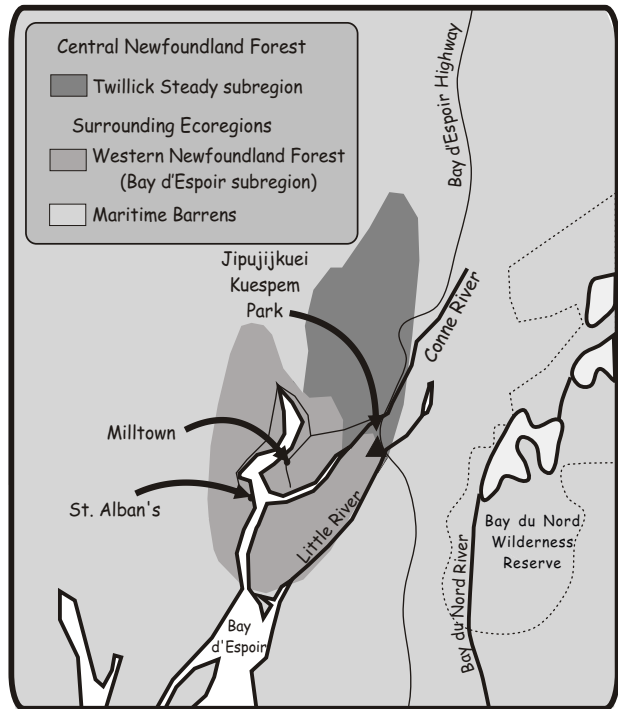
Many localized pockets along the south coast of the Island provide protection from the scouring effects of wind, resulting in small — but important — changes in climate. Plant distribution is closely related to climate. Small changes in climate can result in the establishment of a whole new group of plants in a particular area.

The Bay d'Espoir outlier of the Western Newfoundland Forest and the Twillick Steady outlier of the

Central Newfoundland Forest are two examples. Both are found in the northern portion of Bay d'Espoir near the Conne and Little rivers. Another such area is located along the Bay du Nord River system. However, this area — and many others along river valleys and long extended bays — are too small to warrant the creation of a new subregion.




The bays and rivers that cut into the Bay d'Espoir and Twillick Steady subregions have created a pronounced valley system. Here vegetation is protected from storms and persistent winds. This has resulted in a warmer climate and longer growing season than in the surrounding, higher and more exposed terrain. As a result, plants here are different from those just a short distance away on the exposed barrens. In the Bay d'Espoir area, for

example, forests are similar to the Western Newfoundland Forest. In the Twillick Steady area, forests are similar to the Central Newfoundland Forest farther north — yellow birch is absent and forest floors contain mostly moss.



### Climate

This subregion experiences less fog and longer, warmer summers than the surrounding Maritime Barrens. The growing season often lasts beyond 140 days.

	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



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