



# North Shore Forest

This ecoregion is made up of a long narrow zone about 20 km wide along the very northeastern edge of the island of Newfoundland. It includes the coastal area of the Baie Verte Peninsula, Notre Dame Bay, most of the "straight shore" (the area of shoreline along the northeast coast, which has fewer inlets and bays than the surrounding coastline and so is "straighter"), and the western edge of the Bonavista Peninsula. One of the smallest ecoregions on the island, the North Shore Forest covers about 5,400 km<sup>2</sup>.

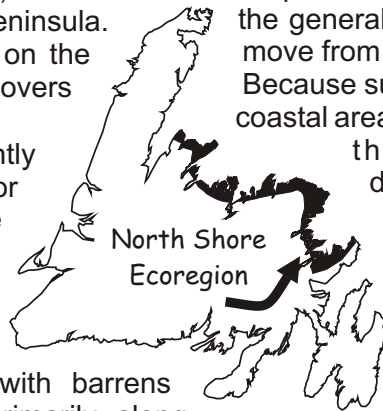
The landscape here is gently rolling with small hills. Except for the Baie Verte Peninsula, where the terrain is more rugged and can reach 315 metres above sea level, elevations are generally less than 130 metres. The area is largely forested, with barrens occurring here and there — primarily along exposed coastal areas.

Most of this ecoregion is in direct contact with the North Atlantic Ocean. An irregular coastline with numerous bays and islands extends the influence of the sea far inland. This results in greater exposure to wind, which in turn, results in a decrease in the quality and height of the forests. As you move inland and away from these winds, trees become straighter and taller.

The North Shore Forest is intermediate between the Central Newfoundland Forest, which lies to the south and includes much of the

interior of the Island, and the Eastern Hyperoceanic Barrens, which covers the very northern tip of the straight shore near Lumsden and the northeastern tip of the Bonavista Peninsula. The North Shore Forest subregion has forests similar to the forests found in the Central Newfoundland Forest ecoregion, yet has barrens and coastal heathlands much like those in the Eastern Hyperoceanic Barrens.

This area is the driest on the Island, despite its closeness to the ocean. This follows the general rule that dryness increases as you move from the interior of the Island northwards. Because summers here are the warmest of any coastal area in Newfoundland, and rainfall is less than other regions, moisture deficiencies — rare on the Island — can result. This means that more water evaporates from the soil than is replaced by precipitation or other sources. This usually happens only at the end of summer and results in a lower water-table.



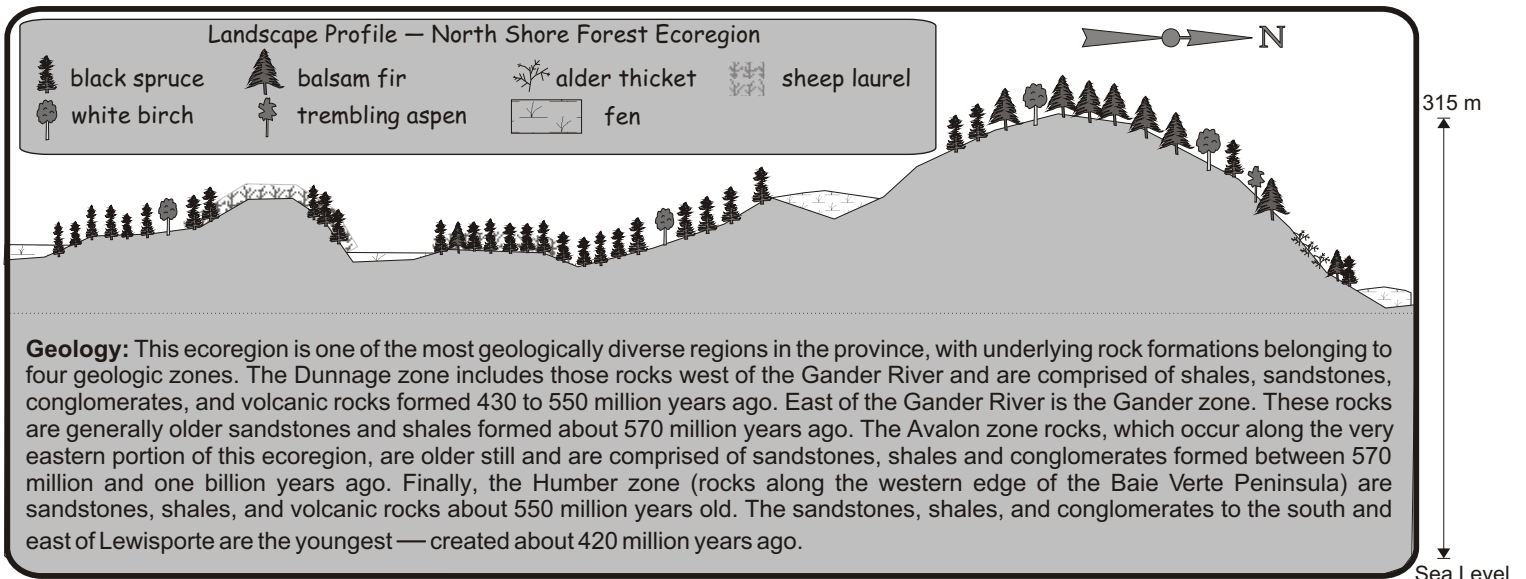
**Soils:** We find three basic kinds of soils in this ecoregion. Surrounding Bonavista Bay are "humo ferric podzols." These are brown soils containing mostly inorganic material that occur in relatively dry sites. North of Glenwood and Gander are areas of "organic fibrisols" (soils that occur in peatlands and are composed mostly of organic matter), while along the northeast we find "ferro humic podzols" (dark soils with a high organic content). Areas adjacent to Notre Dame Bay are characterized by exposed bedrock with little soil development.

**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.

**Fire stands:** Groups of trees well adapted to conditions following forest fire and as a result are the first to colonize burnt areas.

**Arctic-alpine plants:** A descriptive term for plants that cannot grow where there are hot summer temperatures. Arctic-alpine plants are generally found farther north than the treeline (by latitude), or above the treeline elevation on mountains.



## Vegetation Profile

There are several important factors that separate the vegetation patterns found here from neighbouring ecoregions. The first is low moisture levels. As you travel northward from the interior of the Island, the land becomes increasingly drier. This puts the North Shore Forest ecoregion at the most northern — and driest — end of the moisture gradient. Because of this, forest fires occur regularly and are often extensive. Black spruce **fire stands** are common; in fact, they are more common here than in the Central Newfoundland Forest. In those areas that have escaped recent fires, balsam fir forests with an understory of sheep laurel or feathermoss occur.

The ocean is another influence on plant growth. This influence becomes obvious as you move closer to the shoreline. Here, trees are smaller and less vigorous due to fiercer wind conditions.

The vegetation of the North Shore Forest is very similar to that of the neighbouring Central Newfoundland Forest ecoregion, with widespread balsam fir and black spruce forests. However, due to its slightly more northerly location

and increased exposure to wind, there are several important differences. One is that white spruce is more common here than in the Central Newfoundland Forest. Also, trembling aspen, which forms stands in much of the Central Newfoundland Forest, is found only in the southern part of the Bonavista Peninsula, and it does not form stands.

Another difference is that alder swamps contain mostly mountain alder, replacing the speckled alder found farther south. This is because summers are colder and shorter here than to the south, and mountain alder is better

adapted to these conditions. Alder swamps are well adapted to wooded areas that experience frequent flooding and have waterlogged soils.

However, compared to other coastal areas, the North Shore Forest has higher summer temperatures. This results in the absence of several **arctic-alpine plants** (such as diapensia) normally found in coastal areas. The region is home to many common coastal species such as alpine bilberry, and both Swedish bunchberry (*Cornus suecica*) and bunchberry (*C. canadensis*). 🌲

**Species in Focus:** Black spruce (*Picea mariana*) is an important species in the process of succession because it is adapted to colonizing recently disturbed sites such as burn-overs. This remarkable tree grows well in damp soils and can be found in this ecoregion along the edges of bogs and other wetlands or in areas where drainage is poor.




Photo: Parks and Natural Areas Division

## Wildlife Profile

This ecoregion is home to several seabird colonies. The largest is Little Fogo Island, where 38,000 pairs of Leach's storm-petrels breed. Slightly smaller than a robin, this sooty-brown bird lays a single white egg at the end of a burrow. While their mates feed at sea during the day, incubating adults (both males and females share this task) do not stir from their burrows. When night arrives, birds return to the colony and the air fills with their shadowy, fluttering flight and soft, twittering calls.

Other seabirds breeding in this ecoregion include herring gulls, ring-billed gulls, common terns, arctic terns, black-legged kittiwakes, great black-backed gulls, and Atlantic puffins. The many islands and the extensive coastline provide seabirds with ideal nesting locations.

Common eiders historically nested in this ecoregion, but around the turn of the century numbers were severely reduced due to hunting for both meat and feathers. Since then, populations have experienced a steady, if slow, increase, with reports that some eiders are now nesting on offshore islands in this ecoregion.

Other birds occurring in the North Shore Forest are typical of those found elsewhere on the Island, including the bald eagle, boreal owl, osprey, blackpoll warbler, gray-cheeked thrush, yellow warbler, Wilson's warbler, and common redpoll.

Mammals commonly found elsewhere on the Island can be seen here as well. These include moose, snowshoe hare, mink, red fox, black bear, meadow vole, otter, beaver, and the little brown bat. The red squirrel, lynx, and muskrat can also occur.

The region's many lakes and



Photo: Doug Phelan

**Species in Focus:** A characteristic breeding bird of this ecoregion, the common tern is grey above and white below, with a black cap. Both the legs and bill are reddish. It nests on the open edges of sandy and gravelly beaches, mostly on islands, and forages over inshore coastal waters. Common terns primarily eat small fish, which they capture by folding their wings and plunging into the water, sometimes appearing to submerge completely below the surface.

rivers support a variety of fish 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.

The green frog, which was introduced to the Island, occurs in ponds and marshes in low numbers.



Photo: A Glen Ryan

Forests here often grow right up to the shoreline. Trees closest to the shore are usually the most stunted by wind and can have unusual shapes due to this weathering.

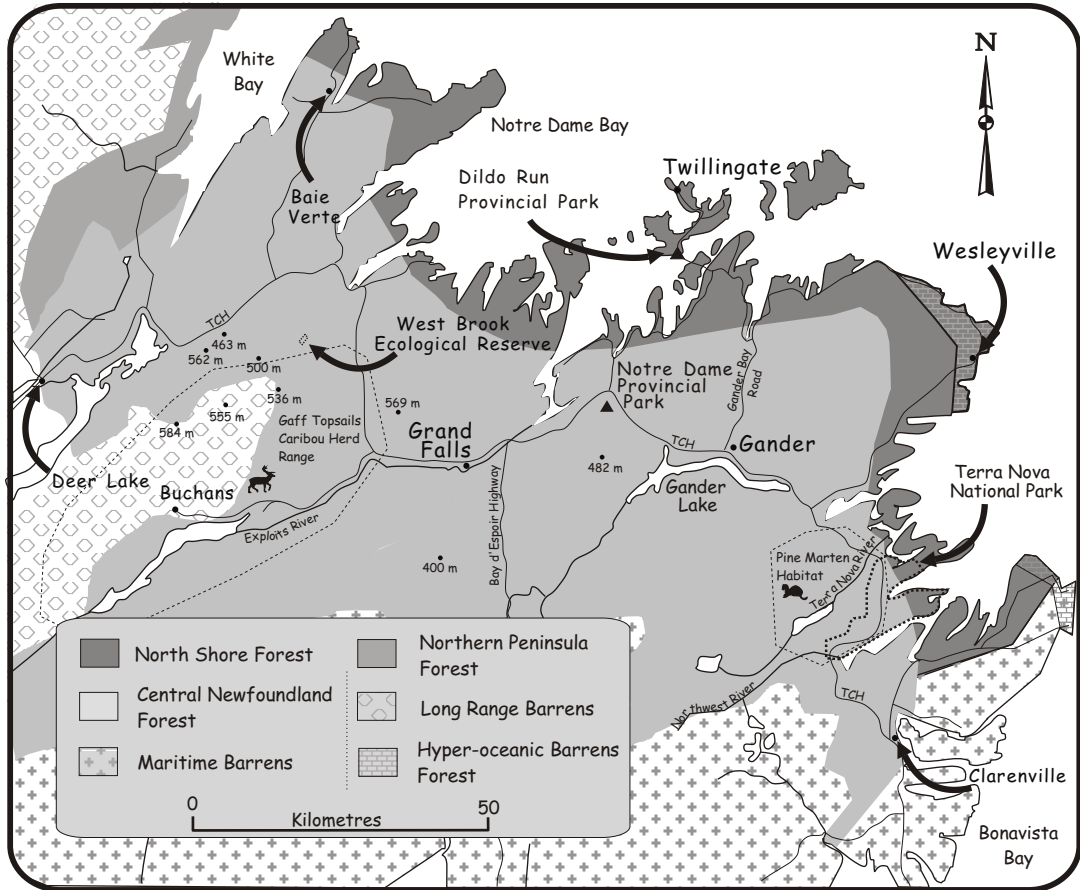


## Protected Areas Profile

Portions of this ecoregion are protected by Terra Nova National Park and Dildo Run Provincial Park.




Terra Nova National Park includes almost 20,000 hectares of the North Shore Forest, with the remainder falling within the Central Newfoundland Forest. The park, which includes the scenic estuary of Newman Sound, represents the southern, inner coastal features of this ecoregion. However, it does not include salt marshes, or the northern coastal features of this ecoregion.

Dildo Run Provincial Park is located just south of Twillingate. It includes boreal forest and a sheltered coastal area, and offers a spectacular view of the coves and islands of Notre Dame Bay. However, it is too small (327 hectares) to provide adequate ecoregion representation.



## Climate

The warmest summers of any coastal area in Newfoundland occur here. It is also the driest ecoregion on the Island, with moisture deficiencies common in summer. The growing season is 150 days. Night frosts may occur in summer.

	Annual rainfall 1100-1300 mm
	Annual snowfall 2.5-3.5 cm
	Mean daily temperatures February -5°C to -7°C July +15 C to +16C



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