



## Ecodistrict Profile

### Ecological Landscape Analysis Summary Ecodistrict 750: **Rossignol**

An objective of ecosystem-based management is to manage landscapes in as close to a natural state as possible. The intent of this approach is to promote biodiversity, sustain ecological processes and support the long-term production of goods and services. Each of the province's 38 ecodistricts is an ecological landscape with distinctive patterns of physical features. (Definitions of underlined terms are included in the print and electronic glossary.)

This Ecological Landscape Analysis (ELA) provides detailed information on the forest and timber resources of the various landscape components of Rossignol Ecodistrict 750. The ELA also provides brief summaries of other land values, such as minerals, energy and geology, water resources, parks and protected areas, wildlife and wildlife habitat.

The Rossignol Ecodistrict is one of eight ecodistricts in the Western Ecoregion. This ecodistrict, with a total area of 1,179 square kilometres, is bounded by LaHave Drumlins Ecodistrict on the north and east, Sable and South Mountain ecodistricts on the west, and the South Shore Ecodistrict on the south.

Rossignol is mostly made up of low hills, along with drumlins and flutes, which are mounds, small hills, or ridges of glacial till.

There is an abundance of waterways in the ecodistrict. The Mersey and Medway rivers are the major river systems. Lake Rossignol, the largest freshwater lake in Nova Scotia, is also an impoundment to generate power.



White pine forest along the shores of Lake Rossignol, Nova Scotia's largest inland body of freshwater. Hydroelectricity dams along the Mersey River have increased the size of the original lake.

At least one of the forested islands in Lake Rossignol is used by nesting great blue herons. Wetlands, most often bogs and fens, are scattered through the ecodistrict. The Shelburne River was designated a Canadian Heritage River in 1977.

The ecodistrict contains several species at risk or of conservation concern. These include American marten, Canada warbler, Blanding's turtle, eastern ribbonsnake, Atlantic salmon, monarch butterfly, Carolina redroot, goldencrest, coastal plain Joe-pye-weed, large St. John's wort, Long's bulrush, and southern twayblade.

About 71% of the land is forested. The forest cover consists of about 53% softwood trees, 40% Mixedwood, and 7% hardwood. Red spruce and white pine are common softwoods, along with lesser amounts of black spruce and hemlock. Mixedwoods often contain red spruce or pine with red maple, or with tolerant hardwoods of sugar maple, beech, and ash.

The Lake Rossignol Wilderness Area, on the northeastern shores of Lake Rossignol, lies largely within the ecodistrict. *In 2012, under the Wilderness Areas Protection Act, about 225 hectares of provincial Crown land at Maclean Lake, Queens County, was added to the Lake Rossignol Wilderness Area.*

The ecodistrict contains large peat deposits, some of which reach fuel grade and could be an important energy source in the future. There are also two gold districts.

The majority of area of the Rossignol Ecodistrict, nearly 64%, or 75,398 hectares, is in private land ownership. A total of 14,743 hectares is under provincial management, which considers multiple values through an Integrated Resource Management (IRM) approach.

Landscapes are large areas that function as ecological systems and respond to a variety of influences. Landscapes are composed of smaller ecosystems, known as elements. These elements are described by their physical features – such as soil and landform – and ecological features – such as climax forest type. These characteristics help determine vegetation development.

Element descriptions promote an understanding of historical vegetation patterns and the effects of current disturbances. This landscape analysis identified and mapped seven key landscape elements – one dominant matrix element, five smaller patch elements, and a corridor element – in Rossignol.

**Spruce Hemlock Pine Hummocks and Hills** is the matrix element comprising a little more than half of the ecodistrict. This element supports a tolerant softwood climax community of red spruce, hemlock, and white pine. This forest is still abundant in the ecodistrict.

The two largest patches – **Spruce Pine Flats** and **Spruce Pine Hummocks** – cover about one-quarter of the ecodistrict, with climax communities of black spruce and white pine.

The **Wetlands** patch element includes large areas near Lake Rossignol and smaller areas scattered throughout the ecodistrict. **Tolerant Mixedwood Drumlins** is the only element in Rossignol with a tolerant mixedwood climax community of red spruce, white pine, hemlock, sugar maple, yellow birch, and beech. The tiny **Floodplain** element along the Medway River near Mill Village has seen more than one-third of this patch element with a climax forest of red spruce, white pine, and hemlock converted to other uses.

**Valley Corridors**, a linear element associated with the major watercourses in the ecodistrict, is usually well-forested with mature or multi-aged softwood.



Red spruce, white pine and hemlock are among the climax species in the ecodistrict.