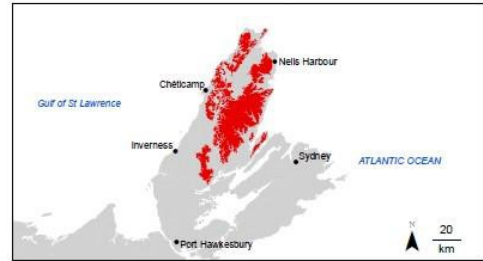


## Ecodistrict Profile

### Ecological Landscape Analysis Summary Ecodistrict 210: **Cape Breton Highlands**



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 Cape Breton Highlands Ecodistrict 210. 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.

Cape Breton Highlands is the forested region of northern Cape Breton Island and generally includes the plateau and its rolling topography of hummocks and hills. Total area is 185,101 hectares.

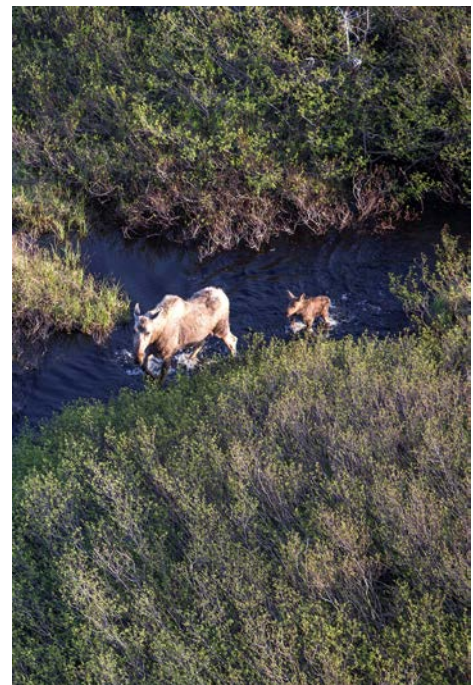
The ecodistrict is covered by an almost unbroken forest of balsam fir, spruce, and white birch. Cape Breton Highlands also includes the shoulder of the plateau where hardwood forests on steep slopes meet the balsam fir forests of the plateau. Barrens and wetlands are dispersed throughout and the headwaters of the island's major rivers – such as the Margaree, Aspy, and Baddeck – start their descent down the escarpment through steep ravines.

The ecodistrict has cold, late springs, heavy snowfalls and parts of the highlands receive some of the highest winds in the province.

The most predominant physical feature occurring within the ecodistrict is the Aspy Fault which is easily seen in satellite imagery. The location of this fault is defined by a straight escarpment that crosses Cape Breton Highlands and influences the position of the Aspy and Margaree river valleys. The oldest rocks in Nova Scotia are found in the northwestern area of the ecodistrict.

The Cape Breton Highlands Ecodistrict includes 73,143 hectares of designated provincial and federal protected areas, or nearly 40% of the ecodistrict. Provincial protected areas, representing 38,851 hectares, include all or portions of several wilderness areas and Cape Smokey Provincial Park.

Federal protected areas of 34,292 hectares include a major part of the Cape Breton Highlands National Park.



Moose populations have significantly increased since the spruce budworm epidemic in the late 1970's. Young regenerating balsam fir has been their main food source.

The Cape Breton population of the American marten and Canada lynx, both listed as at risk and endangered in Nova Scotia, can be found in low numbers in some parts of the ecodistrict.

The most common disturbance agents associated with Cape Breton Highlands are insects – particularly the spruce budworm – and wind storms. Fire has also played a role within the Cape Breton Highlands National Park.



Following the spruce budworm epidemic, extensive even-aged forests of balsam fir have re-established on the rolling topography of the Cape Breton Highlands.

One of the unusual aspects of the ecodistrict is that it has the largest percentage of land base as protected area in the province. Provincial Crown or federal ownership together account for 94% of the ecodistrict. Private landowners occupy only 4% with the remaining lands in other uses.

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 six key landscape elements – one dominant matrix element, four smaller patch elements, and a corridor element– in Cape Breton Highlands.

**Highland Fir Spruce**, representing 77% of the ecodistrict area, is the matrix element. This is primarily a boreal softwood forest dominated by balsam fir, with scattered black spruce and white spruce. The element also includes a transitional mixedwood forest of yellow birch and balsam fir, which occurs where the hardwood forests of the slopes meet the softwood forests of the plateau.

This ecodistrict includes an unusual patch element, known as **Rockland**, consisting of extensive areas of exposed bedrock, mainly on the eastern side of the ecodistrict. The main tree species here are slow-growing balsam fir, black spruce, larch, and white birch.

The other patch elements are **Highland Mixedwood**, a mixedwood forest of balsam fir and white birch with scattered white spruce and red maple, **Highland Barrens**, which commonly comprises stunted forests along with heath barrens, and **Wetlands**, usually located near headwaters of brooks and rivers.

**Valley Corridors** is a linear element associated with major watercourses in the ecodistrict.