



Ecodistrict Profile

Ecological Landscape Analysis Summary Ecodistrict 550: **Cumberland Marshes**

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 Cumberland Marshes Ecodistrict 550. 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.

Cumberland Marshes, the smallest and one of the most distinctive ecodistricts in the province, provides a natural boundary between Nova Scotia and New Brunswick at the Chignecto Isthmus.

Wetland accounts for 28% of the ecodistrict, followed by agricultural use at 33%, and forested land at 27%.

The level terrain, much of it underlain by tidal sediments deposited from the Bay of Fundy, has created extensive salt marshes of cordgrass.



The Cumberland Marshes ecodistrict is a lowland complex of treed wetlands, bogs and marshes at the end of the Cumberland Basin.

Acadian settlers, around 1700, constructed dykes to keep out the saltwater and to develop fertile farmland. Dyke construction and maintenance has continued to reduce the area of natural salt marshes.

In the past, the Cumberland Marshes and the Tantramar Marshes in New Brunswick were called the "World's Largest Hayfield." The hay, rich in iodine making it a valuable source of high quality fodder, was shipped to customers along the Eastern Seaboard and Europe as late as the 1930s.

The ecodistrict receives strong winds and experiences cooler than normal temperatures than elsewhere in the ecoregion due to its proximity to Chignecto Bay.

The Fort Lawrence ridge is the only portion of the ecodistrict where a tolerant mixedwood occurs. Areas that occur inland from the dykelands and marshes are dominated by black, red or hybrid spruce, red maple, and tamarack.

Private land ownership accounts for 70% of the Cumberland Marshes Ecodistrict area, which totals about 19,000 hectares. Sixteen percent, or about 3,000 hectares, is provincial Crown land. Almost 5% is under federal ownership. The remaining lands are in transportation corridors and inland waters.

Cumberland Marshes is one of the most important and valuable areas in the province for waterfowl habitat. The abundance of rich marsh soils and location along nearby bays are ideal habitat for a variety of wildlife species.

Eastern white cedar, a species at risk in Nova Scotia, occurs naturally in the Amherst Point Migratory Bird Sanctuary. As a sensitive species, other locations should be reported to DNR.



Coastal marshlands, tidal zones as well as extensive inland wetlands are significant areas for migratory waterfowl. The Chignecto National Wildlife Area and Amherst Point Migratory Bird Sanctuary are in this ecodistrict.

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 Cumberland Marshes.

The matrix element **Marshes and Grasslands**, representing about one-third of the ecodistrict, has been extensively altered by human settlement, agriculture, wildlife management, roads, and utility corridors. From the early- to mid-1700s, Acadian settlers in the area built dykes on the extensive salt marshes to reclaim sediment-rich lands from the Bay of Fundy.

Red and Black Spruce Hummocks is the largest patch element, representing more than one-quarter of the ecodistrict. This patch is the most intact element in the ecodistrict. The other patches, in order of size, are **Wetlands**, **Spruce Pine Flats**, **Tolerant Mixedwood Hills**, and **Red Spruce Hummocks**. Most of the patch elements are under heavy land use pressure. *The small Salt Marsh element, formerly part of the Wetlands element, is also found in the ecodistrict.*

Valley Corridors includes four main river systems – Hébert, Maccan, Missaguash, and LaPlanche – that provide linkages adjoining ecodistricts. The forests in these river corridors have been significantly altered by human land use.