



Ecodistrict Profile

Ecological Landscape Analysis Summary Ecodistrict 510: **Bras d'Or Lowlands**

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 Bras d'Or Lowlands Ecodistrict 510. 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.

This ecodistrict occurs on Cape Breton Island and includes the lowland areas of the Bras d'Or Lake watershed, Sydney coalfield, Boularderie Island, and most of the watersheds of the Salmon and Mira rivers.

Bras d'Or Lake, an inland sea with a mixture of saltwater and freshwater, has an area of nearly 260 square kilometres in the centre of Cape Breton Island. The lake and is the signature natural feature of the ecodistrict. West Bay is a wide extension on the southwest side of the lake and East Bay is a long, tapering extension to the northeast. Bays and channels have been carved mainly from the easily erodible sediments. Thick deposits of gypsum, anhydrite – gypsum without water – and salt occur.



The village of Baddeck is located on the north shore of the Bras d'Or Lakes. The slopes of the Cape Breton Hills are visible in the background with Kidston Island in the foreground.

The Sydney coalfield contains the largest coal resource in eastern Canada. The coalfield includes the coastal area of northeastern Cape Breton and extends far out under the Atlantic Ocean toward Newfoundland.

The Bras d'Or Lowlands Ecodistrict has more nesting eagles than any other ecodistrict in the province, with 216 nesting areas recorded over the years by Department of Natural Resources (DNR) staff. Because eagles feed mostly on fish during the nesting season, most eagle nests are located in close proximity to coastal water, though some inland waterways are also used.



The most nesting eagles of any ecodistrict in Nova Scotia are found in the Bras d'Or Lowlands Ecodistrict.

Private land ownership accounts for 75% of the ecodistrict, which has a total area of 279,300 hectares, with 18% under provincial Crown management and the remainder under other ownership.

The Bras d'Or Lowlands Ecodistrict has an abundance of parks. The DNR manages 24 properties through the provincial parks program that are either entirely or partially within the 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 Bras d'Or Lowlands.

The matrix **Tolerant Hardwood Drumlins and Hummocks** element, representing more than half of the ecodistrict's area, naturally supports shade-tolerant forests of long-lived species, such as sugar maple, yellow birch, and beech. The current forest has been strongly influenced by human settlement, abandonment of marginal agricultural land, considerable forestry activity, and an extensive history of fire. This has resulted in more softwood and mixedwood stands of early to mid-successional species, such as trembling aspen, red maple, grey and white birch.

Spruce Pine Hummocks is the largest patch element, representing more than one-third of the ecodistrict. Black spruce, balsam fire, white spruce, and white pine are the most common species. The other patch elements, in order of size, are **Wetlands, Spruce Pine Flats, Salt Marsh, and Coastal Beach**.

In **Valley Corridors**, a linear element, a total of 13 corridors have been identified, all associated with rivers or smaller stream systems.