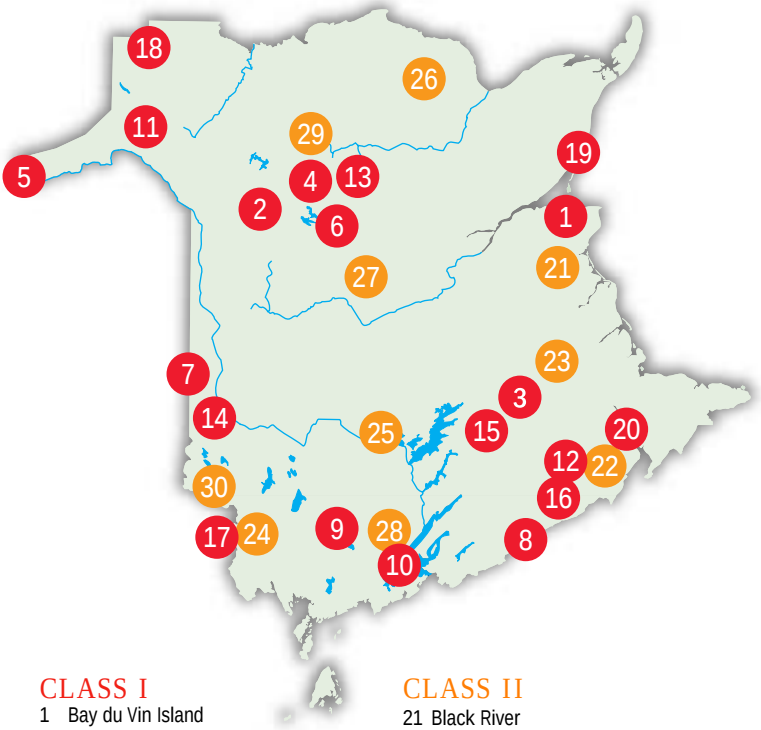
Protected Natural Areas

Our Heritage

New Nouveau Brunswick
CANADA

New Brunswick's Protected Natural Areas

"Protected Natural Areas are a precious heritage for the people of New Brunswick."



CLASS I

1 Bay du Vin Island
2 Blue Mountain
3 Cranberry Lake
4 Freeze Lakes
5 Glazier Lake
6 Gover Mountain
7 Hovey Hill
8 Little Salmon River
9 Little Tomoowa Lake
10 Loch Alva I
11 McCoy Brook
12 McManus Hill
13 Mount Elizabeth
14 Oak Mountain
15 Phillipstown
16 Point Wolfe River Gorge
17 St. Croix River Islands
18 South Kedgwick River
19 Tabusintac
20 Wilson Brook

CLASS II

21 Black River
22 Caledonia Gorge
23 Canaan Bog
24 Canoose Flowage
25 Grand Lake Meadows
26 Jacquet River Gorge
27 Kennedy Lakes
28 Loch Alva II
29 Mount Carleton Park Extension
30 Spednic Lake

ISBN: 1-55236-217-5 2003

New Nouveau Brunswick CANADA

Natural Resources

Grasses bow and twist in the wind that sweeps a lowland meadow ...

Rivers and streams cut gorges through rocky cliffs in their rush to reach the sea ...

Orchids bloom in the rich soil of a hemlock stand, not far from where wood ducks nest.

Nature abounds in New Brunswick. We want to ensure it always will. That is why we are permanently and legally protecting lands and waters that represent our natural heritage. We protect these areas from disturbance by people ... and by industry.

In these Protected Natural Areas, nature can take its course. In the process we will protect:

- Animals, plants, forests, lakes, rivers, streams and all their natural interactions.
- Natural areas for scientific research and education.
- Opportunities for nature-based, sustainable recreation.

We keep our Protected Natural Areas safe from human disturbance. But that does not mean that people cannot go there. New Brunswickers can continue to enjoy the unique rewards of activities like hiking and camping. You can go snowshoeing or skiing ... A Protected Natural Area is a great place to enjoy nature.

Here scientists also have the opportunity to compare Protected Natural Areas with areas that are not protected. This helps us better understand the ways in which human beings influence the natural world.

Protected Natural Areas are a precious heritage for the people of New Brunswick.

THE HISTORY

New Brunswick has been protecting land for a number of years. In 1985, Oak Mountain, the Phillipstown Blue Heron Nesting Site and the Cranberry Lake Red Oak Stand were set aside as ecological reserves.

Our Province signed the National Forest Strategy in 1992 and promised to establish a broad network of Protected Natural Areas by 2000. This renewed commitment to protect the natural environment led to the creation of five more ecological reserves in 1994.

In 1995, a change in legislation placed our Protected Natural Areas under the Crown Lands and Forests Act. Over the next five years, we set aside a total of eight more ecological reserves and five conservation areas (which permit access for recreation).

Ecological reserves and conservation areas are small. Most of them are less than 100 hectares in size. They are dedicated to preserving specific ecosystem types (like forests and bogs), and/or wildlife species.

In 1997, Dr. Louis LaPierre, an ecologist from the Université de Moncton, was commissioned by the Department of Natural Resources and Energy to identify areas that represented all the features of the province's seven natural regions.

Using the best science available, he led a team which developed a Protected Areas Strategy. This strategy would set aside 150,000 hectares of New Brunswick land and water and protect it for all time.

A stakeholder committee reviewed Dr. LaPierre's strategy and recommended changes that reduced its economic and social impacts. In 2001, 10 large representative Protected Natural Areas were announced.

All of these sites were placed under special legislation in 2003. This legislation is known as the Protected Natural Areas Act and Regulations. It reclassified existing ecological reserves and conservations areas as Class I Protected Natural Areas. The 10 large sites were classed as Class II Protected Natural Areas.

THE LAND

New Brunswickers who love the outdoors know that our woodlands and landscapes are not the same across the province. For example, spruce and fir forests are more abundant at high elevations; while maple, beech, and ash forests are more abundant where soils are particularly good for farming. The kinds of land we have – or our 'ecological land classifications' – are based on these types of landscape features, relating to climate, the hilliness of the land, elevation, and soil types that give rise to different collections of plants, animals, and different patterns of ecosystems on the ground. Based on these types of differences, scientists have divided the province into seven 'ecoregions'.

Fundy Coastal Ecoregion

This is a relatively narrow band of coastal hills and islands adjacent to the Bay of Fundy. Here the bay's cold water and massive tides affect climate, which tends to be cool in the summer and mild in the winter. There's lots of precipitation and the forest is composed mostly of spruce, fir, and birch species.

Valley Lowlands Ecoregion

The largest ecoregion in the province, this area includes the woods and farmlands lining the lower reaches of the St. John River Valley and the Kennebecasis Valley, as well as diverse lakes, bogs and rocky areas. It stretches from Edmundston south to Passamaquoddy Bay, and easterly from the U.S. border almost to the Petitcodiac River. About 30 species of trees grow in these relatively mild lowlands. The geology of this ecoregion is diverse. It includes some of the most fertile soils in New Brunswick.

Grand Lake Lowlands Ecoregion

This low-lying area has the highest average temperatures and longest growing season in the province. Grand Lake stores heat during the summer and releases it in the fall, thereby extending the frost-free season. In the spring, parts of the St. John and Oromocto rivers flood and leave rich soil on their shores. The combination of a long growing season, rich soils and extensive annual floods gives rise to a natural environment and biodiversity that is unique in New Brunswick.

Highlands Ecoregion

This ecoregion covers two separate high elevation areas. One is a rugged highland situated northwest of the village of Kedgwick, where several rivers descend rapidly on their journeys to join with the Restigouche River. The other area includes Mount Carleton (the highest peak in the Maritimes), and the headwaters of the Tobique and Nepisiguit rivers. These areas are colder than other parts of the province and get a lot of rain and snow. Balsam fir is the most abundant tree species here.

Northern Uplands Ecoregion

The Upsalquitch, Jacquet, Tetagouche and Big Sevogle rivers are among several that flow through these northern mountains, hills and flats. High elevation mountains and plateaus and valleys throughout the region are dominated by balsam fir and spruce. At lower elevations, stands of maple, yellow birch and beech cap the ridge tops. Eastern white cedar grows in wet areas. The climate is cool and relatively dry.

Eastern Lowlands Ecoregion

This is a vast flat-to-gently-rolling terrain sweeping along the entire eastern side of the province -- from Bathurst in the north, to Sackville in the southeast. Several rivers, including the Big Tracadie, the Kouchibouguacis and the Richibucto, flow toward the Northumberland Strait and the Gulf of St. Lawrence; while the Canaan and Salmon rivers flow toward the St. John River drainage, and the Cains River drains into the Southwest Miramichi. It has a relatively warm and dry climate and acidic, often poorly-drained soil. On its broad, flat plateaus, the softwood forest is mostly pine and black spruce, and large peat bogs are common. Stands of white pine, eastern hemlock and red spruce mix with hardwoods on the lands that slope toward the major river valleys.

Central Uplands Ecoregion

This ecoregion is composed of two geographically-separated but similar rolling upland areas. The larger of the two, also known as the Madawaska Uplands, is located in the northern part of the province and abuts the Highlands on their southern border. The smaller portion, also known as the Caledonia Uplands, is located in the south on a plateau raised above the Bay of Fundy. These areas form the headwaters for numerous New Brunswick rivers, and host some wetlands. Maple, yellow birch, and beech generally cap the hills, while spruce and fir grow in the valleys and on flats. There are fewer tree species here than in the three lowland ecoregions. Several species among the flora and fauna are known to favour the cool and moist climate.

PROTECTED NATURAL AREAS

Although their purposes differ in some ways, all of New Brunswick's Protected Natural Areas have one thing in common: they're the places where Mother Nature is in charge. All Protected Natural Areas provide a refuge for one or more of the following:

- Rare plants and/or animals in their natural habitat.
- Unusual combinations of plants and/or animals.
- Old forest stands.
- An example of the hills, valleys, waterways, wetlands and soils that are typical of one of the province's seven ecoregions.

Two classes of Protected Natural Areas have replaced the former protected area classifications: ecological reserves and conservation areas.

Class I Protected Natural Areas do not allow public access. These sites total 2,900 hectares. They require complete protection because human activity could damage the features being protected. Human activity could also affect scientific experiments and monitoring programs conducted in these areas.

Class II Protected Natural Areas allow public access. These areas cover 143,000 hectares and may be:

- Good examples of natural ecosystems or landscapes.

Or

- Examples of ecosystems that have been modified by human activity and therefore offer an opportunity to study the recovery of natural ecosystems.

CLASS I PROTECTED NATURAL AREAS:

While a typical Class I Protected Natural Area covers only a small area compared to a Class II Protected Natural Area, it does protect significant pieces of natural heritage. We have 20 Class I Protected Natural Areas.

Bay du Vin Island (Eastern Lowlands Ecoregion)

- Covers 214 hectares.
- Salt marsh, windswept sand dunes.
- Forest of stunted spruce, pine and red oak.
- Typical Northumberland Strait island harbours an assortment of rare plants.
- Ground species include: sweet gale, wild raisin, rose-twisted stalk and beggarticks.
- One of the province's largest nesting sites for great blue heron and osprey.
- Shorebird nesting, feeding and staging area.

Blue Mountain (Valley Lowlands Ecoregion)

- Covers 72 hectares.
- Untouched forest stand located in the Tobique River valley.
- Stand is comprised of large red pines, which probably originated after the Great Miramichi fire of 1825.
- This rather isolated mountainside is made from talus (rock debris lying over bedrock) and drumlins (small hills of rock shaped by a glacier).
- Ground species include: bunchberry, Schreber's moss, blueberry, lambkill, creeping snowberry, lichens, wood sorrel, mountain fern, dwarf raspberry, sheep laurel, bracken fern and ground pine.

Cranberry Lake (Eastern Lowlands Ecoregion)

- Covers 41 hectares.
- Forested flat plain in the central part of the province.
- An unusual stand of red oak mixed with red maple.
- Individual trees are impressive in size.
- Large acorn crops are important for wildlife.
- Blueberry, beaked hazelnut and sphagnum moss.

Freeze Lakes (Highlands Ecoregion)

- Covers 330 hectares.
- Two freshwater lakes located in northcentral New Brunswick: one surrounded by a freshwater marsh, and the other surrounded by a rocky shoreline.
- Even-aged, undisturbed balsam fir forest typical of the area.
- Dense tree cover blocks the sun and only mosses can grow on the forest floor.

Glazier Lake (Central Uplands Ecoregion)

- Covers 45 hectares.
- Near the New Brunswick – Quebec border, this steep hill is home to a rich mix of trees.
- Forest canopy is comprised mainly of sugar maples.
- Birches, largetooth aspen, balsam fir, black spruce and white pine scattered throughout.
- Understory has red, striped and mountain maples.
- An impressive variety of smaller plants.
- Part of an ideal and important wintering area for white-tailed deer.

Gover Mountain (Highlands Ecoregion)

- Covers 66 hectares.
- Low ridge, embedded in a high-elevation plateau.
- Old-growth stand of sugar maple and yellow birch in an area known for balsam fir.
- Wide variety of smaller plants grow on the forest floor.

Hovey Hill {Hal Hinds Forest} (Valley Lowlands Ecoregion)

- Covers 33 hectares.
- Rich stand of tolerant hardwood including beech, sugar maple, basswood, ironwood and butternut.
- Hosts plants rare or uncommon in Atlantic Canada, including three species of snakeroot.
- Site was named in 2000 in honour of Harold R. Hinds, one of New Brunswick's foremost naturalists and author of the first comprehensive manual of New Brunswick flora.

Little Salmon River (Fundy Coastal Ecoregion)

- Covers 706 hectares.
- Typical of the Bay of Fundy coast between Saint John and Alma.
- Steep-sided gorge that goes deep into the bedrock and plunges down a series of waterfalls to the bay.
- Many plants thrive in the estuary created by the combination of fresh and saltwater.

Little Tomoowa Lake (Valley Lowlands Ecoregion)

- Covers 118 hectares.
- Expanding peatland surrounding, and filling in, a shallow lake in southern New Brunswick.
- Surrounding terrain is rough with knolls, hills, and impressive esker (a long narrow ridge of sand and gravel deposited thousands of years ago by a river running through a glacier).
- Tree growth is good on the esker, but elsewhere on poorly drained soils, growth is slow.

Loch Alva I (Fundy Coastal Ecoregion)

- Covers 38 hectares.
- An ancient stand of red spruce located west of the city of Saint John.
- Many of the large red spruce are roughly two centuries old.
- Spruce trees are greater than 50 centimetres in diameter.
- White-tailed deer and moose are common.
- Ground species include: hay-scented fern, wood fern, ground pine, false lily-of-the-valley, goldthread, long beech fern, New York fern, violets, wood sorrel, liverworts, mosses and lichens.

McCoy Brook (Central Uplands Ecoregion)

- Covers 60 hectares.
- Rich hardwood ridge located in northwestern New Brunswick.
- Forest canopy is made up of mature trees such as: sugar maples, beech and yellow birch.
- Ground species include: shining clubmoss, hobblebush, and Indian cucumber-root in this shady understory.

McManus Hill (Valley Lowlands Ecoregion)

- Covers 158 hectares.
- Rich and relatively undisturbed remnant of a tolerant hardwood forest.
- Forest canopy comprised of sugar maple, yellow birch and beech.
- Ground species include: variety of smaller plants growing among the rocky outcrops and wet areas.

Mount Elizabeth (Highlands Ecoregion)

- Covers 93 hectares.
- Undisturbed 641-metre mountaintop typical of many aging peaks that make up the northern tip of the Appalachian Mountain Range.
- Located near the upper reaches of the Nepisiguit River.
- Exposed bedrock and talus (rock debris) slopes.
- Open black spruce forest thrives on the gently-sloping northeast face.
- Growth is stunted and scattered on steeper slopes.

Oak Mountain (Valley Lowlands Ecoregion)

- Covers 97 hectares.
- Rolling-to-steep fertile ridge.
- Tolerant hardwood - sugar maple, beech, white ash and ironwood.
- Basswood and striped maple also grow on this rich soil.

Phillipstown (Grand Lake Lowlands Ecoregion)

- Covers 4 hectares.
- Once supported a large nesting colony of great blue heron.
- Forest stand composed of jack pine, black spruce and red spruce.
- Soft sphagnum moss covers the ground.

Point Wolfe River Gorge (Central Uplands and Fundy Coastal Ecoregions)

- Covers 704 hectares.
- Borders on Fundy National Park, where East Branch and Point Wolfe rivers meet.
- Steep cliffs, deep ravines.
- Several impressive waterfalls.
- Rare plants including smooth Woodsia fern and fir clubmoss grow near the waterfalls and on the cliffs.

St. Croix River Islands (Valley Lowlands Ecoregion)

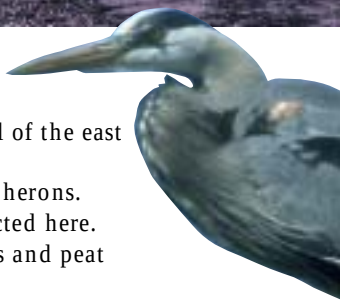
- Covers 5 hectares.
- Series of forested and grassy islands.
- Freshwater marshes.
- Forest canopy harbours eastern hemlock.
- Supports a great variety of birds and other wildlife.

South Kedgwick River (Highlands Ecoregion)

- Covers 54 hectares.
- Old growth black spruce stand in far northwestern New Bruswick - one of the last of its kind.
- Present on the South Kedgwick River's gently sloping hills.
- Exceptional example of a rich and flourishing boreal (northern) forest.
- Ground species include: wood fern, bracken fern, bristly clubmoss, bunchberry, creeping snowberry, woodsorrel, false lily-of-the-valley, clintonia, broom moss and Schreber's moss.

Tabusintac (Eastern Lowlands Ecoregion)

- Covers 108 hectares.
- Open black spruce and jack pine forest typical of the east coast of New Brunswick.
- Popular nesting site for osprey and great blue herons.
- Ecologically important salt marshes are protected here.
- Deep, organic soils present in the salt marshes and peat bogs are typical of this coastal area.
- Sphagnum mosses and plants of the heath family blanket the ground.



Wilson Brook (Central Uplands and Valley Lowlands Ecoregions)

- Covers 76 hectares.
- Remnant of the ecosystem type common here after the ice age - supports rare arctic plants.
- Gypsum cliffs maintain the cool temperatures and unique soil conditions that allow arctic plants to persist.
- Balsam fir and yellow birch grow at the crest of the cliffs.
- Hundreds of bats hibernate in the vicinity.

CLASS II PROTECTED NATURAL AREAS:

From mountaintops to valley bottoms, from headwater streams to rushing rivers, from wetlands to sand dunes, our Class II Protected Natural Areas protect places to enjoy the beauty of our landscape and to study its development through time. The following 10 Class II Protected Natural Areas designated in 2001 effectively safeguard over 143,000 hectares of New Brunswick's seven ecoregions.

Black River (Eastern Lowlands Ecoregion)

- Covers 4,000 hectares.
- Adjacent to Kouchibouguac National Park.
- Rich peat bogs, bush and barrens.
- Stands of stunted black spruce and tamarack.
- Some red, white and jack pine.

Caledonia Gorge (Southern Uplands Ecoregion) (represents the southern part of this ecoregion)

- Covers 3,000 hectares.
- Peak elevation about 400 metres.
- Includes steeply-sloping Crooked Creek Gorge and its tributaries.
- Mainly hardwood forest (sugar maple, yellow birch, ash and beech).
- Some softwood (spruce and balsam fir).

Canaan Bog (Eastern Lowlands Ecoregion)
- Covers 21,000 hectares.
- Largely flat.
- Poor drainage.
- Mostly bog and fen habitat dotted with forested pockets of softwood (black spruce, jack pine and cedar) and hardwood (white birch, poplar and red maple).

Canoose Flowage (Valley Lowlands Ecoregion)
- Covers 4,000 hectares.
- Shallow ponds.
- Hemlock and cedar forest.
- Orchids.
- Waterfowl breeding and nesting area.

Grand Lake Meadows (Grand Lake Basin Ecoregion)
- Covers 12,000 hectares.
- More than 20 individual parcels comprised of upland forest, bogs and bottomland dominated by silver maple.
- A broad, flat floodplain.
- The largest wetland area in the province.

Jacquet River Gorge (Northern Uplands Ecoregion)
- Covers 26,000 hectares.
- Hills, cliffs, and gorges on lime-rich soils.
- Softwood forest on wet flats (mostly balsam fir, cedar, spruce and some white pine).
- Some hardwood (sugar maple, yellow birch, poplar and red maple).

Kennedy Lakes (Southern Uplands and Valley Lowlands Ecoregions)

- Covers 21,000 hectares.
- Mountainous and rugged in central and western reaches.
- Gentle ridges and valleys in the east.
- Hardwood on the hilltops (beech, sugar maple and yellow birch).
- Mixture of softwoods and hardwood in lower regions (balsam fir, spruce, white birch, poplar and red maple).
- Central lakes area rocky with a field of large boulders and pines.
- Swamp forest areas with black spruce and cedar.

Loch Alva II (Fundy Coastal and Valley Lowlands Ecoregions)

- Covers 22,000 hectares.
- Dry rocky hills with few trees along the coast.
- Wet and sometimes boggy in the low-lying areas.
- Forest is hardwood (white and grey birch, and red maple) and softwood (black and red spruce, and cedar).

Mount Carleton Park Extension (Highlands Ecoregion)

- Covers 12,000 hectares.
- Rugged mountain terrain of high elevations.
- Headwaters of the Nepisiguit River.
- Dense softwood forest (balsam fir, spruce, white pine and cedar).
- Hardwood ridges (birch, poplar, and red maple).

Spednic Lake (Valley Lowlands Ecoregion)

- Covers 26,000 hectares.
- Islands and part of the St. Croix River, a Canadian Heritage River.
- Contains a large portion of Spednic Lake.
- Poorly drained and rocky soil with scattered huge granite boulders.
- Hardwood ridges, softwood valleys, and wetlands with diverse flora.

NEW LEGISLATION

In 2003, the Ecological Reserves Act was repealed and the Protected Natural Areas Act was established to support the Protected Areas Strategy. This act allows for the creation of:

- Local, provincial and scientific advisory committees.
- Management plans.
- Regulations controlling access and use.
- Penalties for area use violations.
- A trust fund.

THE COMMITTEES:

Three different types of working groups safeguard the future of New Brunswick's Protected Natural Areas.

Local Advisory Committees: Committees of local interested residents and interest groups for each of the 10 Class II Protected Natural Areas. Function: To advise the Minister of Natural Resources on the management of individual Protected Natural Areas. Committee members are appointed by the Minister.

Scientific Advisory Committee: A committee of scientists whose areas of expertise cover a range of subjects and who are associated with universities, colleges, the private sector, museums, and government agencies. Function: To provide advice to the Minister of Natural Resources on scientific issues related to the Protected Natural Areas Strategy. Committee members are appointed by the Minister.

Provincial Advisory Committee: Committee composed of provincial interest groups that could include representatives from the conservation or environmental community, the forestry, mining and tourism sectors, the recreation sector, fish and wildlife groups, the Scientific Advisory Committee, the Local Advisory Committees, First Nations, and the Department of Natural Resources. It will provide advice to the Minister of Natural Resources on all aspects of the Protected Natural Areas Strategy. The committee members will be appointed by the Minister.

To find out more about New Brunswick's Protected Natural Areas, contact:

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