

Atlas of Nova Scotia's Nature Reserves and Sites of Ecological Significance




NOVA SCOTIA

Environment and Labour
Environmental and Natural Areas Management Division
Protected Areas Branch

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Introduction

The 81 sites in this Atlas include Nature Reserves and Sites of Ecological Significance. Descriptions of these two different types of sites are on pages vii and viii. They are ordered in the binder by status (e.g. Nature Reserves, Sites of Ecological Significance), then by county, then by site name (the latter two in alphabetical order). An index at the back of the binder will help locate sites by name.

For each site, there is a brief, one-page report describing its size, location, ownership, ecological significance, and file status. The various file status codes (ranging between 2 - 4) are defined on page xv. There is also a map depicting each site's boundaries, a key map showing its general location in Nova Scotia, and a quick reference to its location in the 2001 and 1992 provincial map atlases. A legend for the various features on the maps is included on page xvii. To help inspectors, field staff and others evaluate applications and proposals for development of SESs, the Protected Areas Branch has prepared an outline of the relevant sections of various acts, regulations, conventions, and restrictions (see pages ix-xiii).

Over time, current Sites of Ecological Significance and additional sites may be proposed as Candidate Nature Reserves. As a result, this is a dynamic document, and will need to be updated and revised every few years.

This Atlas has been prepared by the Protected Areas Branch of Nova Scotia Environment and Labour. Additional information for these sites is available from:

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Definition of Site Types

Nature Reserve

A Nature Reserve is an area of land and/or water designated as an "ecological site" pursuant to the *Special Places Protection Act* (Ch. 438, R.S.N.S., 1989). Nature Reserves are designated to protect important parts of the natural heritage of Nova Scotia, including areas that:

- are suitable for scientific research and educational purposes;
- are representative examples of natural ecosystems within the province;
- serve as examples of ecosystems that have been modified by humans and offer an opportunity to study the natural recovery of ecosystems from such modification;
- contain rare or endangered native plants or animals in their natural habitats; and
- provide educational or research field areas for the long-term study of natural changes and balancing forces in undisturbed ecosystems (Section 2(b)).

Nature Reserves are the Province's most highly protected areas, and are intended to serve as scientific benchmarks against which the impacts of human activity may be measured. Thus, the emphasis in the management and regulation of Nature Reserves is to keep such areas as free of the direct impacts of human activity as possible. Except for persons with valid ecological research permits, no one may "carry on any activity which may alter any part of the terrain or of the vegetation or carry on any acts which may disturb the fauna or flora" within a Nature Reserve (Section 17). This does not mean that people are not allowed to enter Nature Reserves. However, uses are restricted to low-impact, non-consumptive activities associated with nature appreciation, environmental education, and approved scientific research, and do not include more intensive, recreation-oriented activities such as camping, motorized vehicle use, hunting, cutting of trails, or trapping. This limitation on types of permissible recreational uses is the primary difference between Nature Reserves and other types of protected areas, such as Wilderness Areas, Provincial Parks, and National Parks.

Nature Reserves on Crown land are protected from being granted, leased, or otherwise disposed of by the Province. All Nature Reserves are protected from the granting of rights by the Province, including mining rights, fishing and game rights, forestry rights, and water rights, and may not be expropriated without the express authorization of the Minister.

On private land, a Nature Reserve can only be designated with the consent of the owner.

Site of Ecological Significance

A Site of Ecological Significance is an area of land and/or water which has been formally recognized by the Special Places Advisory Committee, appointed pursuant to the *Special Places Protection Act*. This committee, when active, was comprised of government representatives, staff of the Museum of Natural History, as well as outside expertise. Sites of Ecological Significance have significant biological, scientific, or educational values, such as rare old growth forests, offshore seabird nesting colonies, or lakeshore with endangered coastal plain plants.

Sites of Ecological Significance on Crown land are subject to a moratorium on development. Sites on private

land are not, and in some cases have already been somewhat disturbed. Candidate nature reserves are usually selected from among the Sites of Ecological Significance (e.g., Abraham Lake, Black River Bog, Quabbin Meadow).

Many Sites of Ecological Significance were originally proposed as candidate nature reserves by the International Biological Program (IBP) in 1974, and are sometimes still referred to as "IBP Sites". The descriptions in this binder with the citations (IBP, 1974) and (IBP-CT, 1974) refer interchangeably to the report of the IBP Maritime Scientific Advisory Panel, which was completed in 1974.

Relevant Legislation

Environment Act

Under Nova Scotia's *Environment Act*, Nova Scotia Environment and Labour (NSEL) is designated as the lead agency of Government to ensure the health and integrity of aquatic ecosystems, to protect habitats for animals and plants, and to provide for continued recreational benefits (Section 104(d)). Approvals for a proposed activity can be withheld if the activity is not in the public interest (Section 52(1)), or if the proposed activity is deemed to have unacceptable adverse effects (Section 52(2)). Under Section 56(4), the terms and conditions of an approval for proposed activities in environmentally sensitive areas can be more stringent than otherwise provided in NSEL regulations, policies and standards.

Restrictions on Watercourse Alterations on ACPF Lakes in the Tusket and Annis Watersheds

Sections 52 and 56 of the *Environment Act* are currently being used by NSEL, in collaboration with DNR, to restrict shoreline development on 13 lakes in Yarmouth County. The "Restrictions on Watercourse Alterations on Atlantic Coastal Plain Flora Lakes in the Tusket and Annis Watersheds" (October, 2002), available from DNR's Wildlife Division in Kentville, describe the new standards that will apply to applications for wharf construction and shoreline alterations in the Tusket and Annis watersheds. These watersheds are habitat for a variety of endangered and threatened coastal plain plants that are protected by prohibitions defined under Nova Scotia's *Endangered Species Act* (1998).

Approvals Procedure Regulations

Under the *Approvals Procedure Regulations* (pursuant to the *Environment Act*), administrators reviewing an application may request oral information or additional written information from local authorities, government agencies, or any other appropriate source. For the purposes of protecting Sites of Ecological Significance, the most appropriate primary contact is NSEL's Protected Areas Branch. Protected Areas staff can provide further documentation and additional support for protecting SESs. They can also help direct inquiries to other provincial experts, including botanical and zoological experts at both the Museum of Natural History and the Atlantic Canada Conservation Data Centre, university scientists, members of the provincial endangered species advisory groups, and DNR's Wildlife Division.

Wetlands Directive

At least 10 Sites of Ecological Significance are wetlands. Any infilling or alteration of wetlands requires an approval under the *Activities Designation Regulations* of the *Environment Act*. The Province's Wetlands Directive, available from the Water and Wastewater Branch, NSEL (424-2553), is used to guide administrators and enforcement officers in evaluating applications. The Directive recommends assessing the wildlife habitat potential of the wetland using the *NS Wetlands Atlas*, or by contacting the DNR Wildlife Division. It also directs enforcement officers to evaluate wetlands based on their impacts on rare and endangered species, storage of flood waters, and maintenance of stream flows. The Directive encourages officers to seek expert advice from the Museum of Natural History, biologists, hydrogeologists, and others.

Endangered Species Act

Twelve Sites of Ecological Significance have provincially listed species-at-risk protected under the Nova Scotia *Endangered Species Act*. Another 12 have federally listed species-at-risk protected under the federal

Species At Risk Act. The provincial *Act*, administered by DNR, prohibits disturbing or harming species at risk and their residence (Section 13 (1)), requires that recovery plans be developed for all formally recognised species, and that core habitat be identified for the long-term survival and recovery of each listed species. Under Section 16, the Minister may enter into agreements with owners and managers of core habitat, and may designate core habitat on private lands only where the Minister is satisfied that core habitat on public lands is not sufficient to meet the recovery needs of the species. Furthermore, the Minister may make regulations that restrict or prohibit uses and activities in core habitat (Section 16(5)).

The list of endangered, threatened and vulnerable (special concern) species under the Nova Scotia *Endangered Species Act* is updated annually, and can be accessed from the NSDNR's website (www.gov.ns.ca/natr/wildlife/endngrd/specieslist.htm). The evaluation process by which species are added to the provincial list results in substantial delays. Thus, there are several species known to SESs that are listed under the federal *Species At Risk Act* but not included under the provincial *Endangered Species Act*.

Species At Risk Act

The federal *Species At Risk Act* (2003) prohibits harming or capturing threatened and endangered species, and does not allow damage or destruction to their residence. This *Act* applies primarily to federal land. However, there is a provision that the Governor in Council, with the recommendation of the federal Environment Minister, can apply the *Act* to non-federal lands.

General Status Assessment Process

There are many species known or thought to be at risk, or to be sensitive to disturbance, that have not been added to the list of species-at-risk under the provincial *Endangered Species Act*, but have been flagged as a species of concern according to the Province's General Status Ranks of Wild Species in Nova Scotia. Based on the findings of teams of experts, the status of many species in Nova Scotia has been reported on the DNR website (<http://www.gov.ns.ca/natr/wildlife/genstatus/>). The status assessment process is meant to help identify those species most in need of immediate conservation and recovery action, to identify knowledge gaps, and to serve as an early warning system that helps set priorities for species conservation.

Eleven Sites of Ecological Significance have species that have been red-listed by DNR (that are not already listed under the provincial *Endangered Species Act*). Red-listed species are known to be, or thought to be, at risk of extirpation or extinction. Either a formal detailed risk assessment has been completed for red-listed species, or they are candidates for interim conservation action and a detailed risk assessment by the province or by the Committee on the Status Of Endangered Wildlife in Canada (COSEWIC).

Sixteen Sites of Ecological Significance are home to species that have been yellow-listed by DNR. Yellow-listed species are not believed to be at risk of immediate extirpation or extinction, but may require special attention or protection to prevent them from becoming at risk. They are known to be sensitive to human activities or natural events.

The report associated with each site in the binder includes a heading "Species At Risk". Provincially-, federally-, red- and yellow-listed species associated with each site are included under this heading.

This list of species of concern can also be used in land-use planning processes, such as Integrated Resource Management on Crown Lands (IRM) and environmental impact assessments.

Beaches Act

Seven Sites of Ecological Significance are dune systems and barrier beaches. Of these, 5 have been designated as beaches under the Nova Scotia *Beaches Act*. The purpose of the Nova Scotia *Beaches Act*, administered by DNR, is to provide for the protection of beaches and associated dune systems as significant and sensitive environmental resources, and to control recreational and other uses of beaches that may cause undesirable impacts on beach and associated dune systems. The *Beaches Act* prohibits extraction of sand, gravel, stone, or other material from areas recognised as beaches under the *Beaches Act*, and prohibits destruction of natural resources found on or adjacent to beaches.

The remaining 2 sites with beach and dune systems are in provincial parks, but not designated under the *Beaches Act*. Three of the sites with designated beaches are also wholly or partly in provincial parks.

Canada Wildlife Act - National Wildlife Areas

One Site of Ecological Significance is also a federally-administered National Wildlife Area (John Lusby National Wildlife Area) under the *Canada Wildlife Act*. Under this *Act*, general prohibitions are in effect for hunting and fishing; damaging or removal of plants; harming natural objects; disturbing or removing soil, gravel or other materials; or dumping garbage and other wastes. Permits may be issued to carry on the above-listed activities, provided the activity will not interfere with the conservation of wildlife.

Migratory Birds Convention and Wildlife Act

On privately-owned land, the *Migratory Birds Convention* and the provincial *Wildlife Act* allow for the protection of seabird colonies during the breeding season only. Under the *Migratory Birds Convention*, no person can destroy or harm a 'federal' bird or its eggs during breeding season. Outside of that season, however, seabird nesting habitat on privately-owned land is not protected. 'Federal' birds include species that were listed under the *Convention* in 1916, and include migratory birds which were considered either useful or harmless to man. Cormorants, hawks and owls (to name a few) were once considered pests and subsequently left unprotected. These birds have since been protected to the same degree as those listed under the *Convention* by the provincial *Wildlife Act* (Section 50(1)). Like the *Convention*, a landowner can do as they wish with their land outside of the breeding season.

Under the province's *Wildlife Act*, which applies to both Crown and privately-owned lands, no person shall damage, disturb or destroy the den or usual place of habitation of a fur-bearer or a beaver dam without permission from DNR (Section 48(3)). Nor shall they take, hunt, kill or attempt to kill eagle, osprey, falcon, hawk, owl, and other wildlife protected pursuant to this *Act* (Section 50(1)), and destroy, possess, buy or sell any egg or nest of a bird or turtle (Section 51(a)).

Wildlife Management Areas (under the Wildlife Act)

Ten Sites of Ecological Significance are bird nesting colonies. Of these 10, 5 are in the Eastern Shore Islands Wildlife Management Area (WMA), 2 are slated for designation as WMAs (Ciboux I. (one of the Bird Islands) and Tobacco I.), 1 is in a Wilderness Area under the *Wilderness Areas Protection Act*, and 2 are

privately-owned. While regulations vary among WMAs, for bird nesting colonies, entry is prohibited during breeding season, which extends from April 1st to mid-August every year. Outside of breeding season, people can visit, but the habitat remains protected. The 2 SESs slated for designation as WMAs have been identified as important bird colonies by DNR's Integrated Resource Management planning process. In Wilderness Areas, year-round protection is afforded to breeding sites but traditional patterns of hunting are allowed subject to provincial hunting regulations.

Provincial Parks Act

Three Sites of Ecological Significance are located wholly or partly in Provincial Parks designated under the *Provincial Parks Act*. A fourth SES (Pomquet) is in an undesignated but operating Provincial Park and another 2 are undesignated park reserve properties. The latter three are presently under the administrative responsibility of DNR's Parks Division, but are managed under the Crown Lands Act.

Under the *Provincial Parks Act*, the purpose of Provincial Parks is to provide a variety of recreational opportunities, and to preserve unique, rare, representative or otherwise significant elements of the natural environment. Thus Provincial Parks can be anything from small, roadside picnic parks, to large-sized natural environment parks. The *Act* allows for the construction and operation of buildings, roads and other facilities for the convenience of the public, for the operation of a quarry to construct and maintain roads and other facilities within a park, for the disposal of flora and fauna, and for the harvesting of timber provided the harvesting is carried out for the purpose of development or management of the park.

The *Act* also allows the Minister to protect flora and fauna within a Provincial Park, to prohibit or regulate the cutting and removal of forest products, to prohibit hunting and trapping, to prohibit dumping of garbage and other wastes, to prohibit the removal of sand, gravel or other aggregates, to prohibit mineral exploration and mining development (unless such activities were authorized before the Provincial Park Regulations came into effect), and to prohibit the use of off-highway vehicles (except in a designated area, or for use in maintenance or enforcement in the park).

The *Act* also allows a zoning system to distinguish areas for protection from areas suitable for recreational use and associated facility development. 'Environmental protection' and 'resource conservation' zones include highly sensitive areas and significant natural features and landscapes, and can be managed to higher standard of protection.

Wilderness Areas Protection Act

Seven Sites of Ecological Significance are located wholly or partly in Wilderness Areas designated under the *Wilderness Areas Protection Act*. One of the primary purposes of this *Act* is to protect outstanding, unique, rare and vulnerable natural features and phenomena. Within Wilderness Areas, no person shall acquire mineral or petroleum rights, carry out forestry, aquaculture, pipe and transmission line development, or hydroelectric development. Also, except as provided for in the *Act*, no person shall alter the surface of the land, or remove, destroy, or damage any natural object, flora or fauna.

Special Places Protection Act

To date, the Crown portion of one Site of Ecological Significance (Ponhook Lake) has been designated as

a Nature Reserve under the provincial *Special Places Protection Act*. Under this *Act*, no person shall carry out any activity which may disturb the fauna or flora or alter the surface of the land within a designated Nature Reserve. Mining, fishing, hunting and forestry are among the activities prohibited in Nature Reserves.

National Parks Act

Six Sites of Ecological Significance are located within National Parks designated under the *National Parks Act*. Under this *Act*, the first priority of management is the maintenance or restoration of ecological integrity through the protection of natural resources and natural processes. Management objectives for park resources are met through a process of zoning. The zoning classification categorizes all Park lands into one of five possible zones. 'Special preservation' areas have the highest level of protection, followed by 'wilderness' areas. For both of these zones, protection of ecosystems and natural features is paramount.

Five Sites of Ecological Significance are located within the Cape Breton Highlands National Park. Four of these sites are in special preservation or wilderness zones. One site is zoned as an 'Environmentally Sensitive Site'. Another Site of Ecological Significance in Kejimikujik National Park is zoned primarily as a special preservation zone, with the remainder a wilderness area.










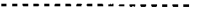


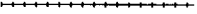



Fisheries Act

In a more general sense, the federal *Fisheries Act* applies to all Sites of Ecological Significance that have waters frequented by fish. Pursuant to the federal *Fisheries Act*, and subject to approval under various regulations, no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat (Section 35(1)). "Fish habitat" is defined as spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes. The *Act* also states that no person shall deposit a deleterious substance of any type in water frequented by fish (Section 36(3)).

Key to the "File Status" Codes

File Status	Status description
4	Designated Nature Reserve
3.5	Recognized Site of Ecological Significance in a National Park
2.5	Recognized Site of Ecological Significance that is partly or wholly on provincial or federal Crown land having some form of conservation designation (e.g., provincial park, national wildlife area, wilderness area)
2	Recognized Site of Ecological Significance

Legend

	Town, Village, or Community		County Boundary
	Privately Owned Land		Watercourse, shoreline
	Provincial Crown Land		100 Series Highways
	Designated Areas: Wilderness Areas, National & Provincial Parks, Park Reserves, Wildlife Management Areas, etc.		All Other Hard Surface Roads
	Nature Reserves and Sites of Ecological Significance		All Loose Surface Roads
			Trail
			Railroad
			Abandoned Railroad
			Powerline
			Water Pipeline
			Gas Pipeline

Map Notes

Produced by the Protected Areas Branch of Nova Scotia Environment and Labour, August 2004. For more information contact the Protected Areas Branch, 5151 Terminal Rd., 5th Floor, PO Box 697, Halifax, NS. B3J 2T8.

www.gov.ns.ca/enla/pareas

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Geo-referencing

Datum: Average Terrestrial System 1977.

Projection: Modified 3° Transverse Mercator, zone 4, or zone 5.

Data Sources

Base Data: Forest Inventory Database, 2002. The Nova Scotia Department of Natural Resources.

Protected Areas: Restricted and Limited Use Lands Database, 2003. The Nova Scotia Department of Natural Resources.

Sites of Interest: Various sources. The Nova Scotia Department of Natural Resources..

Key Map Data: Nova Scotia Atlas Database, 2001. Service Nova Scotia & Municipal Relations, Nova Scotia Geomatics Centre.