

**Attachment C**

**Information on Biological Aspects in Vicinity of  
Project and Work Area  
(Copy of Response to August 4, 2015 TRC Comment  
re: EIA File 4561-3-1228)**



December 17, 2015

MON-00227824-A0

File 4561-3-1228

New Brunswick Department of Environment and Local Government  
P.O. Box 6000  
Fredericton, NB  
E3B 5H1

Attention: Pierre Doucet, Project Assessment (EIA)

**RE: Memramcook Water System – Village of Memramcook (NBENV File 4561-3-1228);  
Response to TRC August 4, 2015 Review Comments**

Further to your August 4, 2015 letter to Mr. Eric Mallet (Village of Memramcook) which summarized the NBDELG TRC comments regarding information submitted June 26, 2015 by **exp** Services Inc. on behalf of the Village, we provide the following.

1. **NBDELG Comment/ Question** - *Regarding item # 4 of the June 26, 2015 response, while it is indicated that the new transmission and distribution lines will be installed essentially within existing right of ways, some sections of these lines are going through regulated wetlands and/or their 30 m buffers. Please provide more details regarding these sections. Will there be any activity within the wetlands themselves? If so, what construction methods will be used? Also, what mitigative measures will be used to minimize impacts to wetlands and/or avoid impacts to wetlands in cases where the activity will be limited to the buffer?*

**Response** – It is planned that transmission and distribution pipe will be installed within the existing shoulder along existing roadways; therefore there should be no new area disturbed and there should be no activity within undisturbed natural wetland areas. In the unlikely event that detailed design were to indicate that pipe placement might warrant encroachment within undisturbed wetland areas, application will be made to NBDELG in accordance to applicable permitting requirements.

Regarding mitigative measures, the Village currently has an NBDELG Multiple Permit for Watercourse and Wetlands Alteration Alt 38441d5 effective from June 1, 2015 to December 31, 2016. This permit covers a number of activities under the WAWA regulation and identifies a number of mitigative measures which would be expected to be sufficient (if needed) to address everything that will be done as part of the water system extension project. Field supervisory staff and contractors will be made aware of the requirements (e.g. include a copy of the permit within the Environmental section of tender specifications), and will be required to adhere to the specific conditions associated with each activity, and that NBDELG is notified in advance of any work. As noted, the permit is valid until December 31, 2016 which is expected to cover the construction period for this project.

2. **NBDELG Comment/ Question** - *Furthermore, please clarify whether federal funding or federal authorizations are required for this project. If federal funding is proposed, if the project is located on federal lands, or if federal decisions are related to effects on wetlands, then the Federal Policy on Wetland Conservation (FPWC) would apply to this project. The FPWC was introduced “to promote the conservation of Canada’s wetlands to sustain their ecological and socio-economic functions, now and in the future.” The policy recognizes the importance of wetlands to the environment, the*

economy and human health, and promotes a goal of no-net-loss of wetland functions. In support of this goal, the FPWC and related implementation guidance identify the importance of planning, siting and designing a project in a manner that accommodates a consideration of mitigation options in a hierarchical sequence – avoidance, minimization, and as a last resort, compensation. For those wetlands where avoidance is not possible, a detailed description of the reasons why avoidance and minimization of impacts were determined to not be possible should be provided.

**Response** – Acknowledged. At this time there are no plans to disturb wetland areas, and no-net-loss of wetland habitat or function is anticipated.

3. **NBDELG Comment/ Question** - In addition to use of the project area by migratory birds during the breeding season, wetlands in the Memramcook area are also known to be used by large numbers of birds (e.g., waterfowl, shorebirds) in migration. However, measures that will be taken to avoid adverse effects to wildlife, including migratory birds, have not been identified. When providing information in an environmental assessment document, particular, but not exclusive, consideration should be given to birds or habitats that meet one of the following criteria:

- Species listed under the federal Species at Risk Act (SARA) and/or the provincial Species at Risk Act; designated, under review, or identified as candidate species by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC); and/or with rarity ranks assigned by the province and/or the Atlantic Canada Conservation Data Centre (ACCDC);
- Areas of concentration of migratory birds, such as breeding areas, colonies, spring and fall staging areas, and wintering areas;
- Breeding and nesting areas of species low in number and high in the food chain; and
- Species that are identified as a priority in the relevant Bird Conservation Region Strategy ([www.ec.gc.ca/mbc-com/default.asp?lang=En&n=1D15657A-1](http://www.ec.gc.ca/mbc-com/default.asp?lang=En&n=1D15657A-1)).

In the absence of such data, it is not possible to adequately evaluate potential effects of the project on birds, including avian species at risk and species of conservation concern, and their habitats. As a first step, information on species at risk and species of conservation concern potentially occurring in the area, including downstream habitats potentially affected by the project, should be obtained from the ACCDC, provincial wildlife biologists, and local naturalists. Data should also be obtained from Nature Counts ([www.birdscanada.org/birdmon/default/searchquery.jsp](http://www.birdscanada.org/birdmon/default/searchquery.jsp)), which provides location data for certain bird species at risk and colonial nesters, collected during field work for the 2<sup>nd</sup> Maritimes Breeding Bird Atlas (MBBA). It should be noted that this more specific data is not yet directly available on the website of the MBBA ([www.mba-aom.ca](http://www.mba-aom.ca)), and that not all MBBA species at risk data is yet available from the ACCDC, so it must be ordered from Nature Counts. By contacting Nature Counts, it might be possible to obtain data that is much more site-specific than the more general information in the MBBA square if data was collected from their project area during the field work of the MBBA.

This desktop information might then need to be supplemented by field surveys by professional biologists (with expertise at conducting the types of surveys required) at the appropriate time of year if habitats potentially harbouring species at risk and species of conservation concern are located in the project area. It should be noted that the fact that a species has not been confirmed in an area does not necessarily mean that it does not occur there, especially if habitat appropriate for that species is available. The results of the desktop review, any required field surveys (including field survey methodology), as well as a description of wildlife use of the project area, should be

*provided for review. These can then be used to evaluate the potential effects (including potential cumulative effects) of the proposed project on birds, and to develop appropriate mitigation measures, with special emphasis on avoidance of impacts?*

**Response** – Information within the footprint of the project area was obtained from ACCDC. In addition, an avian biologist (Mr. Alain Clavette) and a terrestrial/ fish biologist (Mr. Rod Currie) were retained to review this data and to complete a walkthrough (on November 9, 2015) along the proposed watermain alignments. A copy of the report on this activity prepared by Mr. Currie which includes comments on potential mitigation measures is provided in Attachment A. The ACCDC information is provided in Attachment B.

It is acknowledged that the site walkover was completed outside the bird nesting and migratory bird window (e.g. May 1 to August 31). If warranted, supplemental field surveys can be completed along sections of the pipe alignment that may disturb potential nest area. (In this regard, it is reiterated that pipe is intended to be placed in existing roadway shoulders which generally would not be expected to contain bird habitat). If nests are found, work can be delayed until repeat survey confirms that nest areas have been vacated. Regarding the potential for impacts on avian habitat/ nesting, it is noted that in general the proposed pipe alignment can be divided into two main areas in terms of habitat:

- 1) An eastern section of general forested area from the wellhead at ME12-01 to the TCH. In this section, pipe will be installed along existing access roadway or woods trail, i.e. only minimal (if any) additional area would require tree cutting or disturbance. Pending EIA approval to proceed it is anticipated that site work to prepare this area of pipe alignment could be completed before May 1 to avoid bird nesting habitat; and
  - 2) The area of existing paved roadways where the pipe is planned to be installed along the existing shoulder. It is likely this work would progress through spring into fall. Therefore, it is possible that site specific bird nest screening may be needed (for example if for isolated sections the pipe alignment required temporary routing off the shoulder into vegetated ditch area). If warranted, prescreening will be completed before disturbing such areas and locations of suspected or identified nests will be avoided until cleared by an avian biologist.
4. **NBDELG Comment/ Question** - *Migratory birds protected by the Migratory Birds Convention Act and associated regulations (MBCA) include all seabirds except cormorants and pelicans, all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles).*

*Under Section 6 of the Migratory Birds Regulations (MBR), no person shall disturb, destroy or take a nest or egg of a migratory bird, or be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities. Furthermore, Section 5.1 of the MBCA describes prohibitions related to the deposit of substances harmful to migratory birds:*

*“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.*

*(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance – in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area – that is harmful to migratory birds.”*

*It is the responsibility of the proponent to ensure that activities comply with the MBCA and associated regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:*

- *Information regarding regional nesting periods can be found at [www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=4F39A78F-1](http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=4F39A78F-1). Some species protected under the MBCA may nest outside these timeframes.*
- *Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures, or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Pheobe) may build their nests on structures such as bridges, ledges, or gutters.*

*One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain activities, such as clearing, during the nesting period for migratory birds in the region. The risk of impacting active nests or birds caring for pre-fledged chicks discovered during project activities outside the regional nesting period can be minimized by measures such as the establishment of vegetated buffer zones around nests and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA.*

*Further information can be found at [www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=C51C415F-1](http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=C51C415F-1).*

**Response** – See response to item 3, above. The intent is to avoid potential nest areas by completing work outside the nesting period where possible, and avoiding encroachment into vegetated areas (i.e. installing pipe in the roadway shoulder). Where this is not possible, an avian biologist will be used to assist in prescreening areas and developing mitigative measures until such time as potential nesting is complete.

5. **NBDELG Comment/ Question** - *Furthermore, please be aware that the prohibitions under the federal Species at Risk Act (SARA) are now in force. The complete text of SARA, including prohibitions, is available at [www.sararegistry.ca](http://www.sararegistry.ca)*

**Response** . Acknowledged.

6. **NBDELG Comment/ Question** - *A variety of species of plants native to the general project area should be used in any revegetation efforts. Should seed mixes for herbaceous native species for the area not be available, it should be ensured that any plants used in revegetation efforts are not known to be invasive.*

**Response** – Acknowledged.

7. **NBDELG Comment/ Question** - *Furthermore, measures to diminish the risk of introducing invasive species should be developed and implemented during all project phases. These measures could include cleaning and inspecting construction equipment prior to transport from elsewhere to ensure that no matter is attached to the machinery (e.g., use of pressure water hose to clean vehicles prior to transport), and regularly inspecting equipment prior to, during, and immediately following construction in areas found to support Purple Loosestrife to ensure that vegetative matter is not transported from one construction area to another.*

**Response** – Acknowledged. These measures can be included in the project specific environmental mitigation requirements for contractor equipment.

**8. NBDELG Comment/ Question** - *Since even small spills of oil can have very serious effects on migratory birds, every effort should be taken to ensure that no oil spills occur. The proponent should ensure that all precautions are taken by the contractors and/or staff to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared.*

**Response** – Acknowledged; spill prevention and contingency measures will be put in place.

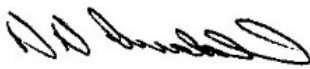
**9. NBDELG Comment/ Question** - *Fueling and servicing of equipment should not take place within 30 m of environmentally sensitive areas (including watercourses and wetlands).*

**Response** – Acknowledged.

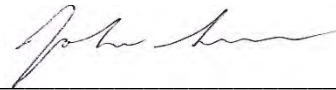
**10. NBDELG Comment/ Question** - *Regarding item # 5 of the June 26, 2015 response, all projects that undergo an environmental impact assessment (EIA) review must at least follow the minimum public notification and involvement standards that are described in Appendix C of the Guide to EIA in New Brunswick (available online at the following address: <http://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/EIA-EIE/GuideEnvironmentalImpactAssessment.pdf>). This includes direct written notification of residents and landowners who could potentially be affected by the project (including the water line component). However, if it is felt that the activities already undertaken have met the minimum standards, more details should be given about these activities (e.g., the information that was shared with the public, when it was shared, how the public was made aware of the project and/or any public meetings about the project, etc.), as well as the response from the public and how the municipality addressed any concerns raised by the public.*

**Response** – Acknowledged. It is planned that additional public consultation (e.g. open house)/ notification measures (e.g. mailouts to residents along the pipe alignment) will be taken and public concerns documented. A report on these activities will be provided to NBDELG.

Sincerely,



David Crandall  
Vice President – exp



John Sims, M.Sc., P.Eng., P.Geo.  
Senior Hydrogeologist - exp

cc: Eric Mallet - Village of Memramcook

Attachments

**Attachment A**

**Biological Screening Report (prepared by R. Currie, Biologist)**

Memramcook Water Project  
(Prepared by R.A. Currie, Biologist)

Project Description:

The proposed project involves the upgrade of the Memramcook municipal water supply and distribution system. Specifically, the project involves connecting a new production well in East Memramcook to the existing water distribution system within the Village of Memramcook, and expanding that distribution system to currently un-serviced areas.

The project will involve excavating sections of trench to bury the water line below the frost line, then backfilling the trench and restoring the surface of the ground to its pre-project state.

Site Description:

The project is centered in and around the Village of Memramcook. The new production well is located in a forested area on the east side of the Trans Canada Highway (TCH). The forests in this area show a history of logging and currently contain young to middle aged trees typical of mixed forest stands. A power transmission line with a wide, cleared right-of-way (ROW) occurs in this area and runs parallel to the TCH. The proposed route of the water line will follow existing roads and trails so that there will be limited, if any, requirement to cut trees.

On the west side of the TCH, the water line will follow the road/street network of the Village of Memramcook. The water line alignment will encounter the Memramcook River, several small tributaries to the river, as well as tributaries to Memramcook Lake, a significant aquatic feature in the center of the Village.

Method of Construction:

The proposed water supply line will connect the new production well in East Memramcook to the existing water supply distribution system, as well as expand the water delivery system into selected areas of the Village that currently do not have that service. The water line will be placed in an excavated trench to a depth of approximately 1.3 m to avoid the potential of frost and freezing. The trench system will follow existing forest roads/trails to minimize vegetation clearing. Once the water line is installed, the trench will be backfilled with the same material that was originally excavated. The surface of the ground will then be contoured and the exposed soil will be planted with an approved seed mix (e.g. highway seed mix) and stabilized with hay/straw mulch to prevent soil erosion until the planted vegetation establishes.

It is proposed the water line will pass under the TCH by means of directional drilling to avoid disrupting traffic.

On the western side of the TCH, the water line will mainly be embedded in the shoulders of the existing street/road network. This process will involve excavating the trench to the required depth, placing the water line, backfilling the trench and patching any disturbed asphalt. It is anticipated that installation of the water line will be completed in short, discrete sections that are



immediately backfilled to minimize any hazard to wildlife and people as a result of open trench sections, as well as to facilitate traffic flow. Although the process described above describes water line installation in most of the project area on the west side of the TCH, there are several discrete locations where this process will be more complicated. These locations involve the crossing for the Memramcook River, as well as several culvert crossings. The crossing of the Memramcook River may be completed through directional drilling, while there are a couple of options for passing the water line under/around shallow culvert structures.

### Sensitive Species:

To assist in screening potential environmental impacts of the proposed project, a field survey of the planned footprint of the project was conducted on 9 November, 2015. The field truthing was conducted by Mr. Rod Currie (biologist) and Mr. Alain Clavette (avian biologist). The field survey covered the area of the new production well, as well as the related water main transmission and proposed new distribution sections.

The survey determined the forest habitat on the east side of the TCH to represent second growth stands of tree species that are typical of the Acadian forest (white birch, red maple, balsam fir, red spruce) as well as some early successional, pioneer species (gray birch, pin cherry).

With respect to birds that inhabit this area, the field survey confirmed black-capped chickadee and golden-crowned kinglet were observed. These are common bird species for this area and habitat type. Additionally, two red-tailed hawks were observed hunting along the power transmission line in the vicinity of the TCH. However, it is important to note, the field visit occurred late in the year and many species that migrate had already left the area. If the field survey was conducted during the summer, undoubtedly many more bird species would have been identified. Similarly, the late timing of the field survey made it difficult for the positive identification of herbaceous plant species due to the lack of flowers and dieback of leaves due to frost.

On the western side of the TCH, the route of the proposed water line was followed by vehicle. During this aspect of the field survey, several robins, crows and starlings were observed. These also represent common species for this area.

To acquire a more complete record of sensitive species in the area, the Atlantic Canada Conservation Data Centre (ACCDC) was contracted to provide records of rare plant and animal species, as well as sensitive habitats within 5 km of the approximate central point of the Village. This 5 km radius encompasses all of the project footprint, as well as considerable area beyond the project footprint.

### Flora

The results of the ACCDC data search found 3 records of rare plants within the 5 km search radius. These species include 1 rare nonvascular plant, a moss (*Pseudotaxiphillum distichacrum*), as well as 2 rare vascular plant species. The common names of these plants are;

arching dewberry  
river bulrush

The moss record is for a location near Memramcook Road East, and is more than 500 m from any project activity. The location for the arching dewberry is for a location along Royal Road and could be in the immediate vicinity of project activities. The remaining rare plant record is for the river bulrush and its location appears to be along the margin of Memramcook Lake, a safe distance from any physical disturbance of the project.

### Fauna

The 5 km search radius around the project site resulted in 3 records of two rare invertebrate species. The common names of these insects are;

transverse lady beetle  
monarch butterfly

The data search also identified 107 records of 30 vertebrate species. Only 1 record is for a rare mammal, the remaining records are for 29 species of rare or threatened birds. The common names of these 30 species is as follows;

eastern cougar  
common nighthawk  
barn swallow  
bank swallow  
cliff swallow  
olive-sided flycatcher  
bobolink  
red-necked phalarope  
eastern wood pewee  
buff-breasted sandpiper  
common tern  
house wren  
ruddy duck  
northern shoveler  
gadwall  
solitary sandpiper  
long-eared owl  
willet  
northern pintail  
American wigeon  
turkey vulture  
killdeer  
northern mockingbird  
brown-headed cowbird  
red-breasted merganser

American golden-plover  
black scoter  
bufflehead  
evening grosbeak  
northern gannet

In addition to the above, the ACCDC information also lists the eastern wood turtle, a provincially threatened species, as occurring within 5 km of the project site.

### Special Areas:

The term Special Areas generally refers to ecologically and/or socially significant areas that may, or may not, have some form of legal protection.

The ACCDC GIS data scan indicated the presence of 1 Environmentally Significant Area within the 5 km search radius. That feature is identified as Memramcook Lake and it is recognized for its biological diversity.

The GIS scan also identified 1 Managed Area within the search radius. That feature is identified as Monument-Lefebvre which is located near the center of the village. Managed areas are afforded legislated protection.

### Possible Impacts:

As it is planned, the project will involve the temporary creation of trench network, the burying of the new water line, the backfilling of the trench and final reclamation of the ground surface.

Based on these activities, the proposed project could potentially result in impacts through several means. Those impacts are as follows:

With respect to migratory birds, the proposed project could impact migratory birds if nests and/or young are destroyed.

Other possible impacts could involve wildlife falling into open trenches which could cause injury. Additionally, species that have restricted mobility, particularly the wood turtle, could tumble into open trenches from which they are unable to escape.

The one Managed Area that was identified in the data scan, Monument Lefebvre, will be avoided and therefore will not be affected by the proposed project.

Memramcook Lake has been identified as a Sensitive Ecological Area due to its biological diversity. Since the proposed water line system is located in close proximity to this feature, and crosses several tributaries to this water body, there is a risk that siltation could impact some environmental/biological components of this site. Additionally, Memramcook Lake represents

fish habitat and water quality, as well as fish habitat, and could possibly be impacted by silt in contravention of the federal Fisheries Act, as well as the provincial Clean Water Act.

### Mitigation:

Migratory birds, as well as their nests, eggs and young, are afforded protection through the Migratory Bird Convention Act. Since these species are important, strategies have been developed to reduce, or eliminate, possible impacts of the project to migratory birds.

Habitat loss is a serious impact to migratory bird populations. However, it is important to note that there will be no permanent habitat loss as a result of this project. For the most part, the project involves burying a pipeline underground in the shoulder of existing roadways, then reclaiming that ground surface to its former state. Much of the project involves burying the pipe beneath, or in the shoulder area, of existing streets and roads which does not represent natural wildlife habitat. The small section of pipe line on the east side of the TCH does involve forest lands. However, in this area there will be minimal tree and shrub clearing since the proposed water line route follows existing woods roads, as well as the cleared area under the existing transmission line right-of-way. Construction activities will be short term in duration, and once the water line is buried, the surface of the ground will be reclaimed and vegetated. Although trees will not be permitted to reclaim the site since their roots might damage the water line, grass and shrub vegetation similar to what already occupies these old trails will be allowed to reoccupy the site.

By their nature, birds are very mobile and can avoid dangers and easily travel to adjacent habitat if they are disturbed. However, it is recognized that the eggs and young of birds represent a vulnerable life stage that is unable to avoid dangers. If nests with eggs or young are destroyed early in the breeding season, it is possible that the parents may select another site and attempt to raise another brood, but this strategy doesn't occur with all species. With respect to migratory birds, for the most part, the project involves burying the water pipe line along the shoulder area of existing streets and will completely avoid the nesting habitat of migratory birds. The portion of the project on the east side of the TCH does involve areas of tree, shrub and grass vegetation. It is accepted that if tree/shrub vegetation is cleared outside of the nesting period (May 1 to August 31), impacts to most species of migratory birds can be avoided. If vegetation clearing cannot be completed outside of the recommended time frame, these particular work areas can be pre-screened by an avian biologist for the presence of active nests. Any occupied nests that are found through this process will be flagged and construction in that location will be delayed to permit those nestlings sufficient time to fledge.

With respect to mitigating impacts to Memramcook Lake, there is sufficient setback so that the project does not physically impact this water body. To avoid impacting water quality of the Lake and its tributaries, the Village has received a multiple permit for Watercourse and Wetlands Alterations (WAWA number ALT 38441'15). This permit is valid until 31 December, 2016, and will cover the duration of the project. There are 225 conditions attached to this permit which address every conceivable concern with respect to the aquatic habitat and health of Memramcook Lake and its tributaries.

The eastern wood turtle has been recorded in the vicinity of the project site. This species has been listed as being highly to moderately vulnerable throughout its range in eastern Canada. To minimize potential project impacts, construction crews will be made aware of the possible presence of this species. If a turtle (any species of turtle) is found in close proximity of the project, it will be captured and relocated to a safe location where it will be released unharmed. Additionally, since turtles could potentially fall into an open trench and hide beneath the water line it will become standard practice to carefully inspect open trench sections immediately prior to backfilling to ensure turtles are not buried. Any turtles found in this process will be similarly relocated to a safe location and released.

#### Assessment of Impacts:

The construction and operation of the enhanced potable water distribution system for the Village of Memramcook is not expected to result in significant environmental impacts. The construction will be temporary in duration and at the end of construction, the ground will be reclaimed to its former state. Although a number of sensitive species have been identified as occurring, or at one time being reported, in the vicinity of the project, the anticipated impacts to those species are thought to be minimal. This assumption is based on the temporary nature of the construction project as well as the fact there will be no reduction of wildlife habitat as a result of the project. Additionally, the careful timing of various project activities, and pre screening of work areas for the presence of bird nests should construction occur within the May 1 to August 31 nesting period, will minimize possible impacts to migratory birds, as well as to the aquatic environment. In the case of the wood turtle, the suggested mitigation measures should be sufficient to minimize possible project impacts to this sensitive species.

**exp** Services Inc.

*Village of Memramcook  
Response to August 4, 2015 TRC Review Comments  
MON-00227824-A0  
December 17, 2015*

**Attachment B**

**ACCDC Database Information for Project Area**



## DATA REPORT 5482: Memramcook, NB

Prepared 26 November 2015  
by J. Churchill, Data Manager

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Map 1. A 100 km buffer around the study area

## 1.0 PREFACE

The Atlantic Canada Conservation Data Centre (ACCDC) is part of a network of NatureServe data centres and heritage programs serving 50 states in the U.S.A, 10 provinces and 1 territory in Canada, plus several Central and South American countries. The NatureServe network is more than 30 years old and shares a common conservation data methodology. The ACCDC was founded in 1997, and maintains data for the jurisdictions of New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. Although a non-governmental agency, the ACCDC is supported by 6 federal agencies and 4 provincial governments, as well as through outside grants and data processing fees. URL: [www.ACCDC.com](http://www.ACCDC.com).

Upon request and for a fee, the ACCDC queries its database and produces customized reports of the rare and endangered flora and fauna known to occur in or near a specified study area. As a supplement to that data, the ACCDC includes locations of managed areas with some level of protection, and known sites of ecological interest or sensitivity.

### 1.1 DATA LIST

Included datasets:

Filename	Contents
MemramcookNB_5482ob.xls	All Rare and legally protected <i>Flora and Fauna</i> within 5 km of your study area
MemramcookNB_5482ob100km.xls	A list of Rare and legally protected <i>Flora and Fauna</i> within 100 km of your study area
MemramcookNB_5482ma.xls	All <i>Managed Areas</i> in your study area
MemramcookNB_5482sa.xls	All <i>Significant Natural Areas</i> in your study area

## 1.2 RESTRICTIONS

The ACCDC makes a strong effort to verify the accuracy of all the data that it manages, but it shall not be held responsible for any inaccuracies in data that it provides. By accepting ACCDC data, recipients assent to the following limits of use:

- a) Data is restricted to use by trained personnel who are sensitive to landowner interests and to potential threats to rare and/or endangered flora and fauna posed by the information provided.
- b) Data is restricted to use by the specified Data User; any third party requiring data must make its own data request.
- c) The ACCDC requires Data Users to cease using and delete data 12 months after receipt, and to make a new request for updated data if necessary at that time.
- d) ACCDC data responses are restricted to the data in our Data System at the time of the data request.
- e) Each record has an estimate of locational uncertainty, which must be referenced in order to understand the record's relevance to a particular location. Please see attached Data Dictionary for details.
- f) ACCDC data responses are not to be construed as exhaustive inventories of taxa in an area.
- g) The absence of a taxon cannot be inferred by its absence in an ACCDC data response.

## 1.3 ADDITIONAL INFORMATION

The attached file DataDictionary 2.1.pdf provides metadata for the data provided.

Please direct any additional questions about ACCDC data to the following individuals:

### Plants, Lichens, Ranking Methods, All other Inquiries

Sean Blaney, Senior Scientist, Executive Director

Tel: (506) 364-2658

[sblaney@mta.ca](mailto:sblaney@mta.ca)

### Animals (Fauna)

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### Plant Communities

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### Data Management, GIS

James Churchill, Data Manager

Tel: (902) 679-6146

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### Billing

Jean Breau

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[jrbreau@mta.ca](mailto:jrbreau@mta.ca)

Questions on the biology of Federal Species at Risk can be directed to ACCDC: (506) 364-2658, with questions on Species at Risk regulations to: Samara Eaton, Canadian Wildlife Service (NB and PE): (506) 364-5060 or Julie McKnight, Canadian Wildlife Service (NS): (902) 426-4196.

For provincial information about rare taxa and protected areas, or information about game animals, deer yards, old growth forests, archeological sites, fish habitat etc., in New Brunswick, please contact Stewart Lusk, Natural Resources: (506) 453-7110.

For provincial information about rare taxa and protected areas, or information about game animals, deer yards, old growth forests, archeological sites, fish habitat etc., in Nova Scotia, please contact Sherman Boates, NSDNR: (902) 679-6146. To determine if location-sensitive species (section 4.3) occur near your study site please contact a NSDNR Regional Biologist:

**Western:** Duncan Bayne

(902) 648-3536

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**Eastern:** Donald Anderson

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For provincial information about rare taxa and protected areas, or information about game animals, fish habitat etc., in Prince Edward Island, please contact Garry Gregory, PEI Dept. of Communities, Land and Environment: (902) 569-7595.





### 3.0 SPECIAL AREAS

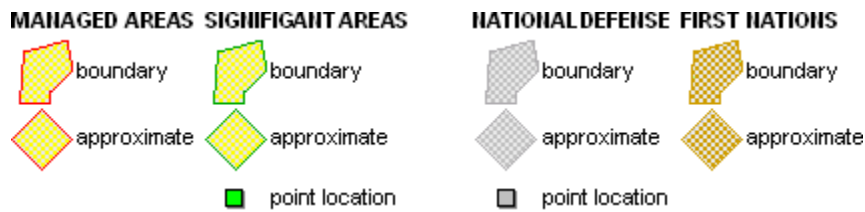
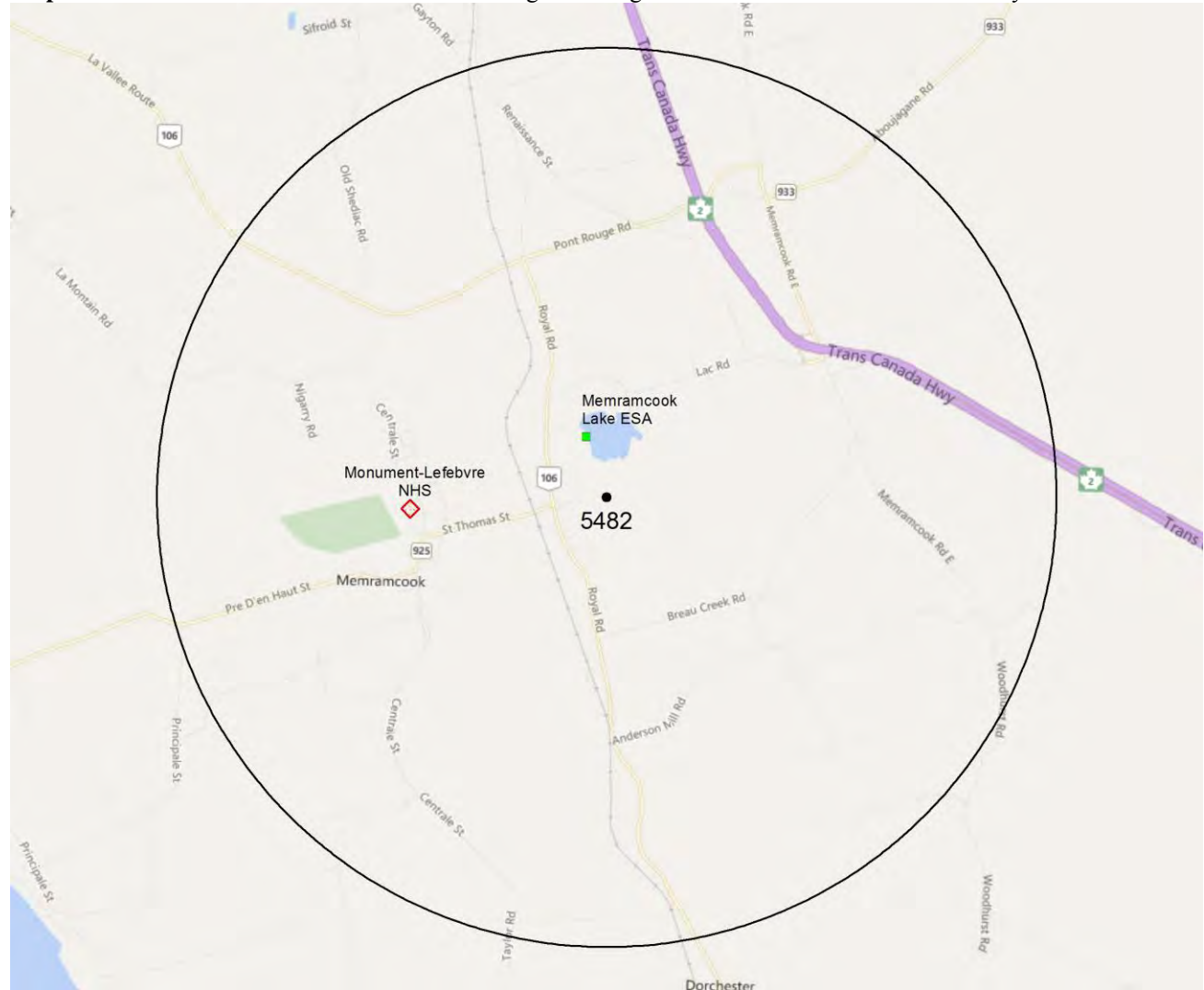
#### 3.1 MANAGED AREAS

The GIS scan identified 1 managed area in the vicinity of the study area (Map 3 and attached file: \*ma\*.xls)

#### 3.2 SIGNIFICANT AREAS

The GIS scan identified 1 biologically significant site in the vicinity of the study area (Map 3 and attached file: \*sa\*.xls)

**Map 3:** Boundaries and/or locations of known Managed and Significant Areas within 5 km of the study area.



## 4.0 RARE SPECIES LISTS

Rare and/or endangered taxa (excluding “location-sensitive” species, section 4.3) within the 5 km-buffered area listed in order of concern, beginning with legally listed taxa, with the number of observations per taxon and the distance in kilometers from study area centroid to the closest observation ( $\pm$  the precision, in km, of the record). [P] = vascular plant, [N] = nonvascular plant, [A] = vertebrate animal, [I] = invertebrate animal, [C] = community.

### 4.1 FLORA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
N	<i>Pseudotaxiphyllum distichaceum</i>	a Moss				S1	2 May Be At Risk	1	2.5 $\pm$ 1.0
P	<i>Rubus recurvicaulis</i>	Arching Dewberry				S2?	4 Secure	1	2.3 $\pm$ 1.0
P	<i>Schoenoplectus fluviatilis</i>	River Bulrush				S3	3 Sensitive	2	0.8 $\pm$ 1.0

### 4.2 FAUNA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
A	<i>Chordeiles minor</i>	Common Nighthawk	Threatened	Threatened	Threatened	S3B	1 At Risk	1	4.6 $\pm$ 7.0
A	<i>Hirundo rustica</i>	Barn Swallow	Threatened		Threatened	S3B	3 Sensitive	4	4.5 $\pm$ 48.0
A	<i>Riparia riparia</i>	Bank Swallow	Threatened			S3B	3 Sensitive	14	0.6 $\pm$ 0.0
A	<i>Contopus cooperi</i>	Olive-sided Flycatcher	Threatened	Threatened	Threatened	S3S4B	1 At Risk	2	4.6 $\pm$ 7.0
A	<i>Dolichonyx oryzivorus</i>	Bobolink	Threatened		Threatened	S3S4B	3 Sensitive	9	1.6 $\pm$ 0.0
A	<i>Phalaropus lobatus</i>	Red-necked Phalarope	Special Concern			S3M	3 Sensitive	1	1.8 $\pm$ 0.0
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern		Special Concern	S4B	4 Secure	1	1.9 $\pm$ 5.0
A	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper	Special Concern			SNA	8 Accidental	3	1.6 $\pm$ 0.0
A	<i>Sterna hirundo</i>	Common Tern	Not At Risk			S3B	3 Sensitive	1	4.5 $\pm$ 48.0
A	<i>Puma concolor pop. 1</i>	Cougar - Eastern pop.	Data Deficient		Endangered	SU,SH	5 Undetermined	1	4.4 $\pm$ 1.0
A	<i>Troglodytes aedon</i>	House Wren				S1B	5 Undetermined	4	4.6 $\pm$ 7.0
A	<i>Oxyura jamaicensis</i>	Ruddy Duck				S1B,S4N	4 Secure	15	1.6 $\pm$ 0.0
A	<i>Anas clypeata</i>	Northern Shoveler				S2B	4 Secure	5	1.6 $\pm$ 0.0
A	<i>Anas strepera</i>	Gadwall				S2B	4 Secure	1	1.7 $\pm$ 44.0
A	<i>Tringa solitaria</i>	Solitary Sandpiper				S2B,S5M	4 Secure	1	1.6 $\pm$ 0.0
A	<i>Asio otus</i>	Long-eared Owl				S2S3	5 Undetermined	1	0.9 $\pm$ 0.0
A	<i>Tringa semipalmata</i>	Willet				S2S3B	3 Sensitive	1	4.5 $\pm$ 48.0
A	<i>Anas acuta</i>	Northern Pintail				S3B	3 Sensitive	4	1.6 $\pm$ 0.0
A	<i>Anas americana</i>	American Wigeon				S3B	4 Secure	5	1.9 $\pm$ 5.0
A	<i>Cathartes aura</i>	Turkey Vulture				S3B	4 Secure	4	4.6 $\pm$ 7.0
A	<i>Charadrius vociferus</i>	Killdeer				S3B	3 Sensitive	6	0.6 $\pm$ 0.0
A	<i>Mimus polyglottos</i>	Northern Mockingbird				S3B	3 Sensitive	2	2.7 $\pm$ 0.0
A	<i>Molothrus ater</i>	Brown-headed Cowbird				S3B	2 May Be At Risk	1	4.6 $\pm$ 7.0
A	<i>Mergus serrator</i>	Red-breasted Merganser				S3B,S4S5N	4 Secure	1	4.5 $\pm$ 48.0
A	<i>Pluvialis dominica</i>	American Golden-Plover				S3M	3 Sensitive	6	1.6 $\pm$ 0.0
A	<i>Melanitta nigra</i>	Black Scoter				S3M,S2S3N	3 Sensitive	1	1.8 $\pm$ 0.0
A	<i>Bucephala albeola</i>	Bufflehead				S3N	3 Sensitive	1	4.5 $\pm$ 48.0
A	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow				S3S4B	3 Sensitive	9	2.9 $\pm$ 0.0
A	<i>Coccythraustes vespertinus</i>	Evening Grosbeak				S3S4B,S4S5N	3 Sensitive	1	4.6 $\pm$ 7.0
A	<i>Morus bassanus</i>	Northern Gannet				SHB,S5M,S5N	4 Secure	1	1.7 $\pm$ 44.0
I	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle				S1S2	2 May Be At Risk	1	3.5 $\pm$ 1.0
I	<i>Danaus plexippus</i>	Monarch	Special Concern	Special Concern	Special Concern	S3B	3 Sensitive	2	0.8 $\pm$ 0.0

### 4.3 LOCATION SENSITIVE SPECIES

The Department of Natural Resources in each Maritimes province considers a number of species “location sensitive”. Concern about exploitation of location-sensitive species precludes inclusion of precise coordinates in this report. Those intersecting a 5 km buffer of your study area are indicated below with “YES”.

#### New Brunswick

Scientific Name	Common Name	SARA	Prov Legal Prot	Known within 5 km of Study Site?
<i>Chrysemys picta picta</i>	Eastern Painted Turtle			No
<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	No
<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	YES
<i>Haliaeetus leucocephalus</i>	Bald Eagle		Endangered	YES
<i>Falco peregrinus pop. 1</i>	Peregrine Falcon - anatum/tundrius pop.	Special Concern	Endangered	No
<i>Cicindela marginipennis</i>	Cobblestone Tiger Beetle	Endangered	Endangered	No
<i>Coenonympha nipisiquit</i>	Maritime Ringlet	Endangered	Endangered	No
<i>Bat Hibernaculum</i>		[Endangered] <sup>1</sup>	[Endangered] <sup>1</sup>	No

<sup>1</sup> *Myotis lucifugus* (Little Brown Myotis), *Myotis septentrionalis* (Long-eared Myotis), and *Perimyotis subflavus* (Tri-colored Bat or Eastern Pipistrelle) are all Endangered under the Federal Species at Risk Act and the NB Species at Risk Act.

### 4.4 SOURCE BIBLIOGRAPHY

The recipient of these data shall acknowledge the ACCDC and the data sources listed below in any documents, reports, publications or presentations, in which this dataset makes a significant contribution.

# recs	CITATION
50	eBird. 2014. eBird Basic Dataset. Version: EBD_relNov-2014. Ithaca, New York. Nov 2014. Cornell Lab of Ornithology, 25036 recs.
48	Lepage, D. 2014. Maritime Breeding Bird Atlas Database. Bird Studies Canada, Sackville NB, 407,838 recs.
6	Erskine, A.J. 1992. Maritime Breeding Bird Atlas Database. NS Museum & Nimbus Publ., Halifax, 82,125 recs.
2	Doucet, D.A. 2007. Lepidopteran Records, 1988-2006. Doucet, 700 recs.
2	Hinds, H.R. 1986. Notes on New Brunswick plant collections. Connell Memorial Herbarium, unpubl, 739 recs.
1	Bagnell, B.A. 2001. New Brunswick Bryophyte Occurrences. B&B Botanical, Sussex, 478 recs.
1	Clayden, S.R. 1998. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, 19759 recs.
1	Erskine, A.J. 1999. Maritime Nest Records Scheme (MNRS) 1937-1999. Canadian Wildlife Service, Sackville, 313 recs.
1	Majka, C. 2009. Université de Moncton Insect Collection: Carabidae, Cerambycidae, Coccinellidae. Université de Moncton, 540 recs.
1	Morrison, Guy. 2011. Maritime Shorebird Survey (MSS) database. Canadian Wildlife Service, Ottawa, 15939 surveys. 86171 recs.
1	Parks Canada, GeoNames websites
1	Scott, Fred W. 1998. Updated Status Report on the Cougar ( <i>Puma Concolor cougar</i> ) [ Eastern population]. Committee on the Status of Endangered Wildlife in Canada, 298 recs.
1	Tims, J. & Craig, N. 1995. Environmentally Significant Areas in New Brunswick (NBESA). NB Dept of Environment & Nature Trust of New Brunswick Inc.

## 5.0 RARE SPECIES WITHIN 100 KM

A 100 km buffer around the study area contains 17799 records of 114 vertebrate and 615 records of 44 invertebrate fauna; 3695 records of 271 vascular, 651 records of 175 nonvascular flora (attached: \*ob100km.xls).

Taxa within 100 km of the study site that are rare and/or endangered in the province in which the study site occurs. All ranks correspond to the province in which the study site falls, even for out-of-province records. Taxa are listed in order of concern, beginning with legally listed taxa, with the number of observations per taxon and the distance in kilometers from study area centroid to the closest observation ( $\pm$  the precision, in km, of the record).

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
A	<i>Myotis lucifugus</i>	Little Brown Myotis	Endangered	Endangered	Endangered	S1	1 At Risk	29	10.0 $\pm$ 1.0	NB
A	<i>Myotis septentrionalis</i>	Northern Long-eared Myotis	Endangered	Endangered	Endangered	S1	1 At Risk	16	10.0 $\pm$ 1.0	NB
A	<i>Perimyotis subflavus</i>	Eastern Pipistrelle	Endangered	Endangered	Endangered	S1	1 At Risk	18	14.3 $\pm$ 0.0	NB
A	<i>Sterna dougallii</i>	Roseate Tern	Endangered	Endangered	Endangered	S1B	1 At Risk	1	84.7 $\pm$ 0.0	NS
A	<i>Dermodochelys coriacea</i> (Atlantic pop.)	Leatherback Sea Turtle - Atlantic pop.	Endangered	Endangered	Endangered	S1S2N	1 At Risk	3	34.2 $\pm$ 1.0	NB
A	<i>Morone saxatilis</i>	Striped Bass	Endangered			S2	2 May Be At Risk	39	37.9 $\pm$ 0.0	NB
A	<i>Salmo salar</i> pop. 1	Atlantic Salmon - Inner Bay of Fundy pop.	Endangered	Endangered	Endangered	S2	2 May Be At Risk	49	28.1 $\pm$ 0.0	NS
A	<i>Charadrius melodus melodus</i>	Piping Plover melodus ssp	Endangered	Endangered	Endangered	S2B	1 At Risk	1146	26.2 $\pm$ 7.0	NB
A	<i>Calidris canutus rufa</i>	Red Knot rufa ssp	Endangered		Endangered	S3M	1 At Risk	646	12.1 $\pm$ 0.0	NB
A	<i>Rangifer tarandus</i> pop. 2	Woodland Caribou (Atlantic-Gasp +rsie pop.)	Endangered	Endangered	Extirpated	SX	0.1 Extirpated	2	50.5 $\pm$ 1.0	NB
A	<i>Charadrius melodus</i>	Piping Plover	Endangered	Endangered				40	18.3 $\pm$ 3.0	NB
A	<i>Ixobrychus exilis</i>	Least Bittern	Threatened	Threatened				14	16.3 $\pm$ 0.0	NB
A	<i>Hylocichla mustelina</i>	Wood Thrush	Threatened		Threatened	S1S2B	1 At Risk	64	9.1 $\pm$ 7.0	NB
A	<i>Sturnella magna</i>	Eastern Meadowlark	Threatened		Threatened	S1S2B	2 May Be At Risk	44	9.1 $\pm$ 7.0	NB
A	<i>Caprimulgus vociferus</i>	Whip-Poor-Will	Threatened	Threatened	Threatened	S2B	1 At Risk	18	19.8 $\pm$ 7.0	NB
A	<i>Chaetura pelagica</i>	Chimney Swift	Threatened	Threatened	Threatened	S2S3B	1 At Risk	155	6.1 $\pm$ 7.0	NB
A	<i>Catharus bicknelli</i>	Bicknell's Thrush	Threatened	Special Concern	Threatened	S2S3B	1 At Risk	11	26.0 $\pm$ 2.0	NB
A	<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	Threatened		Threatened	S3	4 Secure	3	37.9 $\pm$ 1.0	NB
A	<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	Threatened	S3	1 At Risk	508	2.4 $\pm$ 0.0	NB
A	<i>Chordeiles minor</i>	Common Nighthawk	Threatened	Threatened	Threatened	S3B	1 At Risk	200	4.6 $\pm$ 7.0	NB
A	<i>Hirundo rustica</i>	Barn Swallow	Threatened		Threatened	S3B	3 Sensitive	1142	4.5 $\pm$ 48.0	NB
A	<i>Riparia riparia</i>	Bank Swallow	Threatened		Threatened	S3B	3 Sensitive	720	0.6 $\pm$ 0.0	NB
A	<i>Contopus cooperi</i>	Olive-sided Flycatcher	Threatened	Threatened	Threatened	S3S4B	1 At Risk	467	4.6 $\pm$ 7.0	NB
A	<i>Wilsonia canadensis</i>	Canada Warbler	Threatened	Threatened	Threatened	S3S4B	1 At Risk	518	9.1 $\pm$ 7.0	NB
A	<i>Dolichonyx oryzivorus</i>	Bobolink	Threatened		Threatened	S3S4B	3 Sensitive	1094	1.6 $\pm$ 0.0	NB
A	<i>Anguilla rostrata</i>	American Eel	Threatened		Threatened	S5	4 Secure	79	18.7 $\pm$ 0.0	NB
A	<i>Coturnicops noveboracensis</i>	Yellow Rail	Special Concern	Special Concern	Special Concern	S1?B	2 May Be At Risk	5	15.9 $\pm$ 0.0	NB
A	<i>Falco peregrinus</i> pop. 1	Peregrine Falcon - anatum/tundrius	Special Concern	Special Concern	Endangered	S1B	1 At Risk	218	9.9 $\pm$ 7.0	NB
A	<i>Bucephala islandica</i> (Eastern pop.)	Barrow's Goldeneye - Eastern pop.	Special Concern	Special Concern	Special Concern	S2N	3 Sensitive	104	15.2 $\pm$ 2.0	NB
A	<i>Balaenoptera physalus</i>	Fin Whale - Atlantic pop.	Special Concern	Special Concern	Special Concern	S2S3		1	45.2 $\pm$ 1.0	NB
A	<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	Special Concern	S3	3 Sensitive	1	86.5 $\pm$ 0.0	NS
A	<i>Asio flammeus</i>	Short-eared Owl	Special Concern	Special Concern	Special Concern	S3B	3 Sensitive	44	6.1 $\pm$ 7.0	NB
A	<i>Euphagus carolinus</i>	Rusty Blackbird	Special Concern	Special Concern	Special Concern	S3B	2 May Be At Risk	84	15.6 $\pm$ 0.0	NB
A	<i>Phalaropus lobatus</i>	Red-necked Phalarope	Special Concern			S3M	3 Sensitive	18	1.8 $\pm$ 0.0	NB
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern		Special Concern	S4B	4 Secure	590	1.9 $\pm$ 5.0	NB
A	<i>Falco peregrinus</i>	Peregrine Falcon	Special Concern					109	1.7 $\pm$ 44.0	NB
A	<i>Lynx canadensis</i>	Canadian Lynx	Not At Risk		Endangered	S1	1 At Risk	12	14.6 $\pm$ 10.0	NB
A	<i>Sorex dispar</i>	Long-tailed Shrew	Not At Risk	Special Concern		S1	3 Sensitive	5	26.7 $\pm$ 1.0	NB
A	<i>Hemidactylium scutatum</i>	Four-toed Salamander	Not At Risk			S1?	5 Undetermined	4	62.5 $\pm$ 0.0	NB
A	<i>Cistothorus platensis</i>	Sedge Wren	Not At Risk			S1B	5 Undetermined	5	16.0 $\pm$ 7.0	NB
A	<i>Falco rusticolus</i>	Gyrfalcon	Not At Risk			S1N	5 Undetermined	1	56.5 $\pm$ 0.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
A	<i>Accipiter cooperii</i>	Cooper's Hawk	Not At Risk			S1S2B	2 May Be At Risk	4	31.8 ± 0.0	NB
A	<i>Aegolius funereus</i>	Boreal Owl	Not At Risk			S1S2B	2 May Be At Risk	12	18.8 ± 0.0	NB
A	<i>Buteo lineatus</i>	Red-shouldered Hawk	Not At Risk	Special Concern		S2B	2 May Be At Risk	19	7.6 ± 0.0	NB
A	<i>Fulica americana</i>	American Coot	Not At Risk			S2B	3 Sensitive	57	9.9 ± 7.0	NB
A	<i>Chlidonias niger</i>	Black Tern	Not At Risk			S2B	3 Sensitive	44	14.3 ± 7.0	NB
A	<i>Desmognathus fuscus</i> (QC/NB pop.)	Northern Dusky Salamander - QC/NB pop.	Not At Risk			S3	3 Sensitive	1	56.3 ± 0.0	NB
A	<i>Haliaeetus leucocephalus</i>	Bald Eagle	Not At Risk		Endangered	S3B	1 At Risk	1155	1.8 ± 0.0	NB
A	<i>Sterna hirundo</i>	Common Tern	Not At Risk			S3B	3 Sensitive	550	4.5 ± 48.0	NB
A	<i>Podiceps grisegena</i>	Red-necked Grebe	Not At Risk			S3M,S2N	3 Sensitive	49	28.4 ± 1.0	NB
A	<i>Lagenorhynchus acutus</i>	Atlantic White-sided Dolphin	Not At Risk			S3S4		2	14.5 ± 1.0	NB
A	<i>Canis lupus</i>	Gray Wolf	Not At Risk		Extirpated	SX	0.1 Extirpated	2	80.1 ± 1.0	NB
A	<i>Puma concolor pop. 1</i>	Cougar - Eastern pop.	Data Deficient		Endangered	SU,SH	5 Undetermined	118	4.4 ± 1.0	NB
A	<i>Salvelinus alpinus</i>	Arctic Char				S1	3 Sensitive	3	72.7 ± 1.0	NB
A	<i>Bartramia longicauda</i>	Upland Sandpiper				S1B	3 Sensitive	44	13.3 ± 7.0	NB
A	<i>Phalaropus tricolor</i>	Wilson's Phalarope				S1B	3 Sensitive	28	8.0 ± 0.0	NB
A	<i>Leucophaeus atricilla</i>	Laughing Gull				S1B	3 Sensitive	9	15.2 ± 0.0	NB
A	<i>Sterna paradisaea</i>	Arctic Tern				S1B	2 May Be At Risk	25	15.9 ± 0.0	NB
A	<i>Troglodytes aedon</i>	House Wren				S1B	5 Undetermined	11	4.6 ± 7.0	NB
A	<i>Aythya marila</i>	Greater Scaup				S1B,S2N	4 Secure	10	28.4 ± 1.0	NB
A	<i>Oxyura jamaicensis</i>	Ruddy Duck				S1B,S4N	4 Secure	103	1.6 ± 0.0	NB
A	<i>Rissa tridactyla</i>	Black-legged Kittiwake				S1B,S4N	4 Secure	2	48.4 ± 0.0	NB
A	<i>Butorides virescens</i>	Green Heron				S1S2B	3 Sensitive	5	15.9 ± 0.0	NB
A	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron				S1S2B	3 Sensitive	5	18.3 ± 3.0	NB
A	<i>Gallinula chloropus</i>	Common Moorhen				S1S2B	3 Sensitive	33	9.9 ± 7.0	NB
A	<i>Fratercula arctica</i>	Atlantic Puffin				S1S2B	3 Sensitive	3	54.7 ± 11.0	NB
A	<i>Empidonax traillii</i>	Willow Flycatcher				S1S2B	3 Sensitive	61	14.4 ± 7.0	NB
A	<i>Progne subis</i>	Purple Martin				S1S2B	2 May Be At Risk	98	9.7 ± 7.0	NB
A	<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow				S1S2B	2 May Be At Risk	4	52.2 ± 0.0	NS
A	<i>Salmo salar</i>	Atlantic Salmon				S2	2 May Be At Risk	61	16.4 ± 0.0	NB
A	<i>Eptesicus fuscus</i>	Big Brown Bat				S2?	3 Sensitive	6	16.2 ± 10.0	NB
A	<i>Lasiurus cinereus</i>	Hoary Bat				S2?	5 Undetermined	8	85.8 ± 0.0	NB
A	<i>Oceanodroma leucorhoa</i>	Leach's Storm-Petrel				S2B	3 Sensitive	1	29.6 ± 0.0	NB
A	<i>Anas clypeata</i>	Northern Shoveler				S2B	4 Secure	266	1.6 ± 0.0	NB
A	<i>Anas strepera</i>	Gadwall				S2B	4 Secure	220	1.7 ± 44.0	NB
A	<i>Eremophila alpestris</i>	Horned Lark				S2B	2 May Be At Risk	65	15.3 ± 7.0	NB
A	<i>Cistothorus palustris</i>	Marsh Wren				S2B	3 Sensitive	43	15.9 ± 0.0	NB
A	<i>Toxostoma rufum</i>	Brown Thrasher				S2B	3 Sensitive	28	12.7 ± 7.0	NB
A	<i>Poocetes gramineus</i>	Vesper Sparrow				S2B	2 May Be At Risk	109	8.5 ± 0.0	NB
A	<i>Tringa solitaria</i>	Solitary Sandpiper				S2B,S5M	4 Secure	142	1.6 ± 0.0	NB
A	<i>Chroicocephalus ridibundus</i>	Black-headed Gull				S2M,S1N	3 Sensitive	12	21.9 ± 0.0	NB
A	<i>Somateria spectabilis</i>	King Eider				S2N	4 Secure	4	28.8 ± 0.0	NB
A	<i>Asio otus</i>	Long-eared Owl				S2S3	5 Undetermined	28	0.9 ± 0.0	NB
A	<i>Tringa semipalmata</i>	Willet				S2S3B	3 Sensitive	866	4.5 ± 48.0	NB
A	<i>Pinicola enucleator</i>	Pine Grosbeak				S2S3B,S4S5N	3 Sensitive	31	17.3 ± 7.0	NB
A	<i>Branta bernicla</i>	Brant				S2S3M,S2S3N	4 Secure	34	23.2 ± 0.0	NB
A	<i>Cephus grylle</i>	Black Guillemot				S3	4 Secure	47	30.0 ± 5.0	NB
A	<i>Loxia curvirostra</i>	Red Crossbill				S3	4 Secure	114	16.3 ± 7.0	NB
A	<i>Sorex maritimensis</i>	Maritime Shrew				S3	4 Secure	117	19.9 ± 1.0	NB
A	<i>Synaptomys cooperi</i>	Southern Bog Lemming				S3	4 Secure	82	33.4 ± 1.0	NB
A	<i>Picoides dorsalis</i>	American Three-toed Woodpecker				S3?	3 Sensitive	14	47.3 ± 7.0	NB
A	<i>Anas acuta</i>	Northern Pintail				S3B	3 Sensitive	126	1.6 ± 0.0	NB
A	<i>Anas americana</i>	American Wigeon				S3B	4 Secure	499	1.9 ± 5.0	NB
A	<i>Cathartes aura</i>	Turkey Vulture				S3B	4 Secure	135	4.6 ± 7.0	NB
A	<i>Rallus limicola</i>	Virginia Rail				S3B	3 Sensitive	90	6.1 ± 7.0	NB
A	<i>Charadrius vociferus</i>	Killdeer				S3B	3 Sensitive	854	0.6 ± 0.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
A	<i>Larus delawarensis</i>	Ring-billed Gull				S3B	4 Secure	253	16.1 ± 0.0	NB
A	<i>Myiarchus crinitus</i>	Great Crested Flycatcher				S3B	3 Sensitive	43	19.0 ± 7.0	NB
A	<i>Mimus polyglottos</i>	Northern Mockingbird				S3B	3 Sensitive	141	2.7 ± 0.0	NB
A	<i>Passerina cyanea</i>	Indigo Bunting				S3B	4 Secure	29	9.9 ± 7.0	NB
A	<i>Molothrus ater</i>	Brown-headed Cowbird				S3B	2 May Be At Risk	267	4.6 ± 7.0	NB
A	<i>Mergus serrator</i>	Red-breasted Merganser				S3B,S4S5N	4 Secure	265	4.5 ± 48.0	NB
A	<i>Pluvialis dominica</i>	American Golden-Plover				S3M	3 Sensitive	214	1.6 ± 0.0	NB
A	<i>Phalaropus fulicarius</i>	Red Phalarope				S3M	3 Sensitive	4	29.8 ± 0.0	NB
A	<i>Melanitta nigra</i>	Black Scoter				S3M,S2S3N	3 Sensitive	234	1.8 ± 0.0	NB
A	<i>Calidris maritima</i>	Purple Sandpiper				S3M,S3N	4 Secure	66	21.4 ± 0.0	NB
A	<i>Bucephala albeola</i>	Bufflehead				S3N	3 Sensitive	106	4.5 ± 48.0	NB
A	<i>Tyrannus tyrannus</i>	Eastern Kingbird				S3S4B	3 Sensitive	488	9.9 ± 7.0	NB
A	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow				S3S4B	3 Sensitive	464	2.9 ± 0.0	NB
A	<i>Piranga olivacea</i>	Scarlet Tanager				S3S4B	4 Secure	54	14.3 ± 0.0	NB
A	<i>Coccothraustes vespertinus</i>	Evening Grosbeak				S3S4B,S4S5N	3 Sensitive	269	4.6 ± 7.0	NB
A	<i>Podiceps auritus</i>	Horned Grebe			Special Concern	S4M,S4N	4 Secure	50	28.6 ± 5.0	NB
A	<i>Morus bassanus</i>	Northern Gannet				SHB,S5M,S5N	4 Secure	165	1.7 ± 44.0	NB
A	<i>Lanius ludovicianus</i>	Loggerhead Shrike				SXB,SNAN	1 At Risk	1	27.5 ± 0.0	NB
I	<i>Gomphus ventricosus</i>	Skillet Clubtail	Endangered		Endangered	S1	2 May Be At Risk	1	77.7 ± 0.0	NB
I	<i>Alasmidonta varicosa</i>	Brook Floater	Special Concern		Special Concern	S1S2	3 Sensitive	32	11.8 ± 1.0	NB
I	<i>Lampsilis cariosa</i>	Yellow Lampmussel	Special Concern	Special Concern	Special Concern	S2	3 Sensitive	17	86.7 ± 0.0	NB
I	<i>Danaus plexippus</i>	Monarch	Special Concern	Special Concern	Special Concern	S3B	3 Sensitive	75	0.8 ± 0.0	NB
I	<i>Erora laeta</i>	Early Hairstreak				S1	2 May Be At Risk	2	31.5 ± 1.0	NB
I	<i>Leucorrhinia patricia</i>	Canada Whiteface				S1	2 May Be At Risk	7	96.4 ± 1.0	NB
I	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle				S1S2	2 May Be At Risk	27	3.5 ± 1.0	NB
I	<i>Callophrys henrici</i>	Henry's Elfin				S2	4 Secure	8	31.2 ± 0.0	NB
I	<i>Strymon melinus</i>	Grey Hairstreak				S2	4 Secure	1	42.6 ± 1.0	NB
I	<i>Cupido comyntas</i>	Eastern Tailed Blue				S2	4 Secure	1	32.0 ± 0.0	NB
I	<i>Somatochlora brevicincta</i>	Quebec Emerald				S2	5 Undetermined	2	39.5 ± 1.0	NS
I	<i>Somatochlora tenebrosa</i>	Clamp-Tipped Emerald				S2	5 Undetermined	5	33.0 ± 1.0	NB
I	<i>Ladona exusta</i>	White Corporal				S2	5 Undetermined	2	82.9 ± 0.0	NB
I	<i>Alasmidonta undulata</i>	Triangle Floater				S2	3 Sensitive	45	37.4 ± 1.0	NB
I	<i>Cicindela hirticollis</i>	Hairy-necked Tiger Beetle				S2S3	4 Secure	4	30.3 ± 0.0	NB
I	<i>Gomphus abbreviatus</i>	Spine-crowned Clubtail				S2S3	4 Secure	2	87.9 ± 0.0	NB
I	<i>Lestes vigilax</i>	Swamp Spreadwing				S2S3	3 Sensitive	1	83.4 ± 0.0	NS
I	<i>Hesperia sassacus</i>	Indian Skipper				S3	4 Secure	1	94.6 ± 5.0	NB
I	<i>Euphyes bimacula</i>	Two-spotted Skipper				S3	4 Secure	6	24.4 ± 1.0	NB
I	<i>Papilio brevicauda</i>	Short-tailed Swallowtail				S3	4 Secure	5	61.7 ± 0.0	NB
I	<i>Papilio brevicauda bretonensis</i>	Short-tailed Swallowtail				S3	4 Secure	5	29.3 ± 0.0	NB
I	<i>Lycaena hyllus</i>	Bronze Copper				S3	3 Sensitive	74	10.4 ± 0.0	NB
I	<i>Lycaena dospassosi</i>	Salt Marsh Copper				S3	4 Secure	85	28.2 ± 0.0	NB
I	<i>Satyrrium acadica</i>	Acadian Hairstreak				S3	4 Secure	18	13.7 ± 1.0	NB
I	<i>Callophrys polios</i>	Hoary Elfin				S3	4 Secure	9	31.3 ± 0.0	NB
I	<i>Plebejus idas</i>	Northern Blue				S3	4 Secure	16	22.3 ± 0.0	NB
I	<i>Plebejus idas empetri</i>	Crowberry Blue				S3	4 Secure	1	43.5 ± 0.0	NB
I	<i>Plebejus saepiolus</i>	Greenish Blue				S3	4 Secure	1	48.9 ± 1.0	NB
I	<i>Speyeria aphrodite</i>	Aphrodite Fritillary				S3	4 Secure	12	24.6 ± 0.0	NB
I	<i>Boloria chariclea</i>	Arctic Fritillary				S3	4 Secure	10	9.1 ± 1.0	NB
I	<i>Chlosyne nycteis</i>	Silvery Checkerspot				S3	4 Secure	10	24.4 ± 1.0	NB
I	<i>Polygonia gracilis</i>	Hoary Comma				S3	4 Secure	1	93.8 ± 0.0	NB
I	<i>Nymphalis l-album</i>	Compton Tortoiseshell				S3	4 Secure	5	25.3 ± 10.0	NB
I	<i>Oeneis jutta</i>	Jutta Arctic				S3	4 Secure	27	33.8 ± 0.0	NS
I	<i>Dorocordulia lepida</i>	Petite Emerald				S3	4 Secure	3	64.5 ± 1.0	NB

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I	<i>Somatochlora cingulata</i>	Lake Emerald				S3	4 Secure	3	53.5 ± 1.0	NB
I	<i>Somatochlora forcipata</i>	Forcipate Emerald				S3	4 Secure	5	50.8 ± 0.0	NB
I	<i>Williamsonia fletcheri</i>	Ebony Boghaunter				S3	4 Secure	15	20.9 ± 1.0	NB
I	<i>Lestes eurinus</i>	Amber-Winged Spreadwing				S3	4 Secure	13	39.3 ± 0.0	NS
I	<i>Stylurus scudderii</i>	Zebra Clubtail				S3	4 Secure	8	24.5 ± 0.0	NB
I	<i>Leptodea ochracea</i>	Tidewater Mucket				S3	4 Secure	24	14.4 ± 1.0	NB
I	<i>Pantala hymenaea</i>	Spot-Winged Glider				S3B	4 Secure	3	38.0 ± 0.0	NB
I	<i>Satyrium liparops</i>	Striped Hairstreak				S3S4	4 Secure	12	15.3 ± 0.0	NB
I	<i>Satyrium liparops strigosum</i>	Striped Hairstreak				S3S4	4 Secure	11	24.5 ± 0.0	NB
N	<i>Erioderma mollissimum</i>	Graceful Felt Lichen	Endangered		Endangered	S1	2 May Be At Risk	1	63.7 ± 1.0	NB
N	<i>Erioderma pedicellatum</i> (Atlantic pop.)	Boreal Felt Lichen - Atlantic pop.	Endangered	Endangered	Endangered	SH	1 At Risk	2	72.6 ± 0.0	NS
N	<i>Peltigera hydrothyria</i>	Eastern Waterfan	Threatened			S1	5 Undetermined	7	22.8 ± 1.0	NB
N	<i>Degelia plumbea</i>	Blue Felt Lichen	Special Concern	Special Concern	Special Concern	S1	2 May Be At Risk	2	72.5 ± 0.0	NS
N	<i>Pseudevernia cladonia</i>	Ghost Antler Lichen	Not At Risk			S3	5 Undetermined	6	55.4 ± 0.0	NB
N	<i>Aloina rigida</i>	Aloe-Like Rigid Screw Moss				S1	2 May Be At Risk	2	25.7 ± 0.0	NB
N	<i>Anomodon minor</i>	Blunt-leaved Anomodon Moss				S1	2 May Be At Risk	1	60.3 ± 1.0	NB
N	<i>Anomodon viticulosus</i>	a Moss				S1	2 May Be At Risk	3	60.2 ± 10.0	NB
N	<i>Atrichum angustatum</i>	Lesser Smoothcap Moss				S1	2 May Be At Risk	1	83.4 ± 5.0	NS
N	<i>Aulacomnium heterostichum</i>	One-sided Groove Moss				S1	2 May Be At Risk	1	76.7 ± 1.0	NS
N	<i>Bartramia ithyphylla</i>	Straight-leaved Apple Moss				S1	2 May Be At Risk	2	54.6 ± 1.0	NB
N	<i>Bryum salinum</i>	a Moss				S1	2 May Be At Risk	1	60.3 ± 1.0	NB
N	<i>Dicranoweisia crispula</i>	Mountain Thatch Moss				S1	2 May Be At Risk	1	53.8 ± 0.0	NB
N	<i>Dicranum bonjeanii</i>	Bonjean's Broom Moss				S1	2 May Be At Risk	1	83.0 ± 0.0	NS
N	<i>Dicranum condensatum</i>	Condensed Broom Moss				S1	2 May Be At Risk	1	53.9 ± 0.0	NB
N	<i>Didymodon rigidulus</i> var. <i>gracilis</i>	a moss				S1	2 May Be At Risk	1	60.9 ± 1.0	NB
N	<i>Distichum inclinatum</i>	Inclined Iris Moss				S1	2 May Be At Risk	5	60.9 ± 1.0	NB
N	<i>Ditrichum pallidum</i>	Pale Cow-hair Moss				S1	2 May Be At Risk	1	71.7 ± 1.0	NB
N	<i>Entodon brevisetus</i>	a Moss				S1	2 May Be At Risk	1	78.6 ± 10.0	NB
N	<i>Eurhynchium hians</i>	Light Beaked Moss				S1	2 May Be At Risk	1	78.9 ± 0.0	NB
N	<i>Homomallium adnatum</i>	Adnate Hairy-gray Moss				S1	2 May Be At Risk	3	55.8 ± 1.0	NB
N	<i>Plagiothecium latebricola</i>	Alder Silk Moss				S1	2 May Be At Risk	2	60.3 ± 1.0	NB
N	<i>Rhytidiadelphus loreus</i>	Lanky Moss				S1	2 May Be At Risk	1	60.9 ± 1.0	NB
N	<i>Rhytidium rugosum</i>	Wrinkle-leaved Moss				S1	2 May Be At Risk	2	60.8 ± 1.0	NB
N	<i>Seligeria recurvata</i>	a Moss				S1	2 May Be At Risk	3	53.6 ± 15.0	NB
N	<i>Sphagnum strictum</i>	Atlantic Peat Moss				S1	2 May Be At Risk	3	43.6 ± 1.0	NB
N	<i>Timmia megapolitana</i>	Metropolitan Timmia Moss				S1	2 May Be At Risk	3	74.6 ± 1.0	NS
N	<i>Timmia norvegica</i>	a moss				S1	2 May Be At Risk	3	61.1 ± 0.0	NB
N	<i>Tortella humilis</i>	Small Crisp Moss				S1	2 May Be At Risk	7	55.5 ± 1.0	NB
N	<i>Syntrichia ruralis</i>	a Moss				S1	2 May Be At Risk	1	77.4 ± 0.0	NB
N	<i>Pseudotaxiphyllum distichaceum</i>	a Moss				S1	2 May Be At Risk	1	2.5 ± 1.0	NB
N	<i>Cladonia metacorallifera</i>	Reptilian Pixie-cup Lichen				S1	5 Undetermined	5	48.2 ± 1.0	NB
N	<i>Fuscopannaria ahlneri</i>	Corrugated Shingles Lichen				S1	2 May Be At Risk	3	72.5 ± 0.0	NS
N	<i>Coccocarpia palmicola</i>	Salted Shell Lichen				S1	2 May Be At Risk	1	48.2 ± 1.0	NB
N	<i>Peltigera malacea</i>	Veinless Pelt Lichen				S1	5 Undetermined	1	61.2 ± 1.0	NB
N	<i>Bryoria bicolor</i>	Electrified Horsehair Lichen				S1	2 May Be At Risk	1	61.2 ± 1.0	NB
N	<i>Pohlia filum</i>	a Moss				S1?	5 Undetermined	2	53.6 ± 15.0	NB
N	<i>Anomobryum filiforme</i>	a moss				S1?	5 Undetermined	4	60.9 ± 1.0	NB
N	<i>Anacamptodon splachnoides</i>	a Moss				S1S2	3 Sensitive	2	67.1 ± 3.0	NS
N	<i>Andreaea rothii</i>	a Moss				S1S2	3 Sensitive	4	51.7 ± 1.0	NB
N	<i>Bryum pallescens</i>	Pale Bryum Moss				S1S2	5 Undetermined	1	89.8 ± 100.0	NB
N	<i>Dichelyma capillaceum</i>	Hairlike Dichelyma Moss				S1S2	3 Sensitive	1	78.6 ± 3.0	NB



Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
N	<i>Dicranum spurium</i>	Spurred Broom Moss				S1S2	3 Sensitive	1	96.6 ± 0.0	PE
N	<i>Anomodon tristis</i>	a Moss				S1S2	2 May Be At Risk	9	55.8 ± 0.0	NB
N	<i>Hygrohypnum bestii</i>	Best's Brook Moss				S1S2	3 Sensitive	5	53.0 ± 1.0	NB
N	<i>Hygrohypnum montanum</i>	a Moss				S1S2	3 Sensitive	2	53.1 ± 1.0	NB
N	<i>Seligeria diversifolia</i>	a Moss				S1S2	3 Sensitive	1	95.9 ± 0.0	NB
N	<i>Sphagnum angermanicum</i>	a Peatmoss				S1S2	3 Sensitive	1	79.0 ± 10.0	NB
N	<i>Tetradontium brownianum</i>	Little Georgia				S1S2	3 Sensitive	7	53.8 ± 0.0	NB
N	<i>Tortula mucronifolia</i>	Mucronate Screw Moss				S1S2	3 Sensitive	1	79.7 ± 3.0	NS
N	<i>Trichodon cylindricus</i>	Cylindric Hairy-teeth Moss				S1S2	3 Sensitive	3	53.6 ± 15.0	NB
N	<i>Plagiomnium rostratum</i>	Long-beaked Leafy Moss				S1S2	3 Sensitive	6	60.4 ± 0.0	NB
N	<i>Peltigera scabrosa</i>	Greater Toad Pelt Lichen				S1S2	2 May Be At Risk	4	46.9 ± 1.0	NB
N	<i>Cephaloziella spinigera</i>	Spiny Threadwort				S1S3	6 Not Assessed	2	77.5 ± 0.0	NB
N	<i>Cladopodiella francisci</i>	Holt's Notchwort				S1S3	6 Not Assessed	4	45.9 ± 0.0	NB
N	<i>Harpanthus flotovianus</i>	Great Mountain Flapwort				S1S3	6 Not Assessed	2	49.9 ± 1.0	NB
N	<i>Hygrobriella laxifolia</i>	Lax Notchwort				S1S3	6 Not Assessed	1	62.9 ± 1.0	NB
N	<i>Jungermannia obovata</i>	Egg Flapwort				S1S3	6 Not Assessed	1	55.2 ± 0.0	NB
N	<i>Lophozia ascendens</i>	Small Notchwort				S1S3	6 Not Assessed	2	50.4 ± 1.0	NB
N	<i>Radula tenax</i>	Tenacious Scalewort				S1S3	6 Not Assessed	1	55.2 ± 0.0	NB
N	<i>Scapania gymnostomophila</i>	Narrow-lobed Earwort				S1S3	6 Not Assessed	1	60.4 ± 1.0	NB
N	<i>Tritomaria scitula</i>	Mountain Notchwort				S1S3	6 Not Assessed	1	51.5 ± 1.0	NB
N	<i>Amphidium mougeotii</i>	a Moss				S2	3 Sensitive	13	52.0 ± 0.0	NB
N	<i>Bryum uliginosum</i>	a Moss				S2	3 Sensitive	1	61.1 ± 0.0	NB
N	<i>Buxbaumia aphylla</i>	Brown Shield Moss				S2	3 Sensitive	1	96.6 ± 0.0	PE
N	<i>Campylium polygamum</i>	a Moss				S2	3 Sensitive	1	58.1 ± 0.0	NB
N	<i>Cirriphyllum piliferum</i>	Hair-pointed Moss				S2	3 Sensitive	4	51.1 ± 1.0	NB
N	<i>Dicranella palustris</i>	Drooping-Leaved Fork Moss				S2	3 Sensitive	7	49.9 ± 1.0	NB
N	<i>Isopterygiopsis pulchella</i>	Neat Silk Moss				S2	3 Sensitive	8	53.3 ± 1.0	NB
N	<i>Orthotrichum speciosum</i>	Showy Bristle Moss				S2	4 Secure	3	80.4 ± 4.0	NB
N	<i>Physcomitrium pyriforme</i>	Pear-shaped Urn Moss				S2	3 Sensitive	1	81.3 ± 0.0	NB
N	<i>Platydictya jungermannioides</i>	False Willow Moss				S2	3 Sensitive	4	53.6 ± 15.0	NB
N	<i>Pohlia elongata</i>	Long-necked Nodding Moss				S2	3 Sensitive	10	54.3 ± 0.0	NB
N	<i>Pohlia prolifera</i>	Cottony Nodding Moss				S2	3 Sensitive	8	53.6 ± 15.0	NB
N	<i>Pohlia sphagnicola</i>	a moss				S2	3 Sensitive	1	97.1 ± 0.0	NB
N	<i>Racomitrium fasciculare</i>	a Moss				S2	3 Sensitive	3	53.8 ± 0.0	NB
N	<i>Racomitrium affine</i>	a Moss				S2	3 Sensitive	1	50.8 ± 1.0	NB
N	<i>Saetania glaucescens</i>	Blue Dew Moss				S2	3 Sensitive	2	53.8 ± 0.0	NB
N	<i>Seligeria calcarea</i>	Chalk Brittle Moss				S2	3 Sensitive	2	49.9 ± 0.0	NB
N	<i>Sphagnum centrale</i>	Central Peat Moss				S2	3 Sensitive	7	50.0 ± 1.0	NB
N	<i>Sphagnum flexuosum</i>	Flexuous Peatmoss				S2	3 Sensitive	3	53.5 ± 0.0	NB
N	<i>Taxiphyllum deplanatum</i>	Imbricate Yew-leaved Moss				S2	3 Sensitive	2	55.5 ± 1.0	NB
N	<i>Tayloria serrata</i>	Serrate Trumpet Moss				S2	3 Sensitive	7	33.6 ± 100.0	NB
N	<i>Thamnobryum alleghaniense</i>	a Moss				S2	3 Sensitive	8	26.3 ± 1.0	NB
N	<i>Ulota phyllantha</i>	a Moss				S2	3 Sensitive	4	61.1 ± 0.0	NB
N	<i>Zygodon viridissimus</i>	a Moss				S2	2 May Be At Risk	2	55.5 ± 1.0	NB
N	<i>Schistidium agassizii</i>	Elf Bloom Moss				S2	3 Sensitive	3	50.8 ± 1.0	NB
N	<i>Loeskeobryum brevirostre</i>	a Moss				S2	3 Sensitive	18	52.0 ± 0.0	NB
N	<i>Ramalina pollinaria</i>	Chalky Ramalina Lichen				S2	5 Undetermined	1	57.5 ± 1.0	NB
N	<i>Umbilicaria vellea</i>	Grizzled Rocktripe Lichen				S2	5 Undetermined	1	60.6 ± 1.0	NB
N	<i>Cladonia macrophylla</i>	Fig-leaved Lichen				S2	5 Undetermined	3	54.0 ± 1.0	NB
N	<i>Nephroma arcticum</i>	Arctic Kidney Lichen				S2	3 Sensitive	1	59.8 ± 1.0	NB
N	<i>Calliergonella cuspidata</i>	Common Large Wetland Moss				S2S3	3 Sensitive	5	64.8 ± 5.0	NB
N	<i>Didymodon rigidulus</i>	Rigid Screw Moss				S2S3	3 Sensitive	8	56.7 ± 2.0	NB
N	<i>Didymodon fallax</i>	False Beard Moss				S2S3	3 Sensitive	3	61.1 ± 0.0	NB
N	<i>Ephemerum serratum</i>	a Moss				S2S3	3 Sensitive	5	76.2 ± 0.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
N	<i>Cyrtomnium hymenophylloides</i>	Short-pointed Lantern Moss				S2S3	3 Sensitive	6	50.0 ± 0.0	NB
N	<i>Nephroma bellum</i>	Naked Kidney Lichen				S2S3	4 Secure	3	53.1 ± 1.0	NB
N	<i>Sphaerophorus globosus</i>	Northern Coral Lichen				S2S3	3 Sensitive	5	60.6 ± 1.0	NB
N	<i>Cladonia sulphurina</i>	Greater Sulphur-cup Lichen				S2S3?	5 Undetermined	1	46.0 ± 1.0	NB
N	<i>Bazzania tricrenata</i>	Three-toothed Whipwort				S2S4		1	48.2 ± 1.0	NB
N	<i>Cephaloziella divaricata</i>	Common Threadwort				S2S4	6 Not Assessed	2	59.9 ± 0.0	NB
N	<i>Riccia fluitans</i>	Floating Crystalwort				S2S4	6 Not Assessed	1	77.2 ± 0.0	NS
N	<i>Anomodon rugelii</i>	Rugel's Anomodon Moss				S3	3 Sensitive	2	81.5 ± 0.0	NS
N	<i>Aulacomnium androgynum</i>	Little Groove Moss				S3	4 Secure	7	53.6 ± 15.0	NB
N	<i>Dicranella cerviculata</i>	a Moss				S3	3 Sensitive	4	45.9 ± 0.0	NS
N	<i>Dicranum majus</i>	Greater Broom Moss				S3	4 Secure	21	50.0 ± 0.0	NB
N	<i>Encalypta ciliata</i>	Fringed Extinguisher Moss				S3	3 Sensitive	3	60.7 ± 0.0	NB
N	<i>Heterocladium dimorphum</i>	Dimorphous Tangle Moss				S3	4 Secure	5	52.0 ± 0.0	NB
N	<i>Hypnum curvifolium</i>	Curved-leaved Plait Moss				S3	3 Sensitive	16	52.0 ± 0.0	NB
N	<i>Pleuroidium subulatum</i>	a Moss				S3	3 Sensitive	5	15.0 ± 1.0	NB
N	<i>Pogonatum dentatum</i>	Mountain Hair Moss				S3	4 Secure	4	45.9 ± 0.0	NS
N	<i>Sphagnum compactum</i>	Compact Peat Moss				S3	4 Secure	1	75.3 ± 1.0	PE
N	<i>Sphagnum torreyanum</i>	a Peatmoss				S3	4 Secure	2	77.0 ± 0.0	NB
N	<i>Sphagnum austinii</i>	Austin's Peat Moss				S3	4 Secure	1	30.0 ± 0.0	NS
N	<i>Tetraphis geniculata</i>	Geniculate Four-tooth Moss				S3	4 Secure	14	50.8 ± 1.0	NB
N	<i>Tortella fragilis</i>	Fragile Twisted Moss				S3	3 Sensitive	1	61.1 ± 0.0	NB
N	<i>Weissia controversa</i>	Green-Cushioned Weissia				S3	4 Secure	2	61.5 ± 1.0	NB
N	<i>Trichostomum tenuirostre</i>	Acid-Soil Moss				S3	4 Secure	6	53.8 ± 0.0	NB
N	<i>Schistidium maritimum</i>	a Moss				S3	4 Secure	6	56.3 ± 0.0	NB
N	<i>Hymenostylium recurvirostre</i>	Hymenostylium Moss				S3	3 Sensitive	5	61.5 ± 1.0	NB
N	<i>Rauvella scita</i>	Smaller Fern Moss				S3	3 Sensitive	1	96.4 ± 0.0	NB
N	<i>Anzia colpodes</i>	Black-foam Lichen				S3	5 Undetermined	2	50.9 ± 1.0	NB
N	<i>Collema nigrescens</i>	Blistered Tarpaper Lichen				S3	3 Sensitive	1	68.6 ± 0.0	NS
N	<i>Solorina saccata</i>	Woodland Owl Lichen				S3	5 Undetermined	6	60.6 ± 1.0	NB
N	<i>Ahtiana aurescens</i>	Eastern Candlewax Lichen				S3	5 Undetermined	1	98.0 ± 0.0	NB
N	<i>Leptogium lichenoides</i>	Tattered Jellyskin Lichen				S3	5 Undetermined	6	60.6 ± 1.0	NB
N	<i>Protopannaria pezizoides</i>	Brown-gray Moss-shingle Lichen				S3	4 Secure	10	60.6 ± 1.0	NB
N	<i>Usnea strigosa</i>	Bushy Beard Lichen				S3	5 Undetermined	1	54.5 ± 1.0	NB
N	<i>Leptogium laceroides</i>	Short-bearded Jellyskin Lichen				S3	3 Sensitive	2	50.9 ± 1.0	NB
N	<i>Peltigera membranacea</i>	Membranous Pelt Lichen				S3	5 Undetermined	6	60.6 ± 1.0	NB
N	<i>Dicranella rufescens</i>	Red Forklet Moss				S3?	5 Undetermined	1	61.1 ± 0.0	NB
N	<i>Sphagnum lescurii</i>	a Peatmoss				S3?	5 Undetermined	3	30.0 ± 0.0	NS
N	<i>Cladonia farinacea</i>	Farinose Pixie Lichen				S3?	5 Undetermined	5	53.0 ± 1.0	NB
N	<i>Cladonia carneola</i>	Crowned Pixie-cup Lichen				S3?	5 Undetermined	1	55.4 ± 1.0	NB
N	<i>Dermatocarpon luridum</i>	Brookside Stippleback Lichen				S3?S4?	4 Secure	5	46.0 ± 1.0	NB
N	<i>Atrichum tenellum</i>	Slender Smoothcap Moss				S3S4	4 Secure	2	36.7 ± 2.0	NB
N	<i>Barbula convoluta</i>	Lesser Bird's-claw Beard Moss				S3S4	4 Secure	1	76.9 ± 15.0	NB
N	<i>Blindia acuta</i>	a Moss				S3S4	4 Secure	17	50.0 ± 0.0	NB
N	<i>Brachythecium campestre</i>	Field Ragged Moss				S3S4	4 Secure	1	55.5 ± 1.0	NB
N	<i>Brachythecium velutinum</i>	Velvet Ragged Moss				S3S4	4 Secure	3	59.4 ± 1.0	NB
N	<i>Dicranella subulata</i>	Awl-leaved Forklet Moss				S3S4	4 Secure	8	56.3 ± 0.0	NB
N	<i>Dicranella varia</i>	a Moss				S3S4	4 Secure	1	91.8 ± 3.0	NS
N	<i>Dicranum leioneuron</i>	a Dicranum Moss				S3S4	4 Secure	2	20.3 ± 0.0	NB
N	<i>Distichium capillaceum</i>	Erect-fruited Iris Moss				S3S4	4 Secure	12	50.0 ± 0.0	NB
N	<i>Fissidens bryoides</i>	Lesser Pocket Moss				S3S4	4 Secure	6	56.3 ± 0.0	NB
N	<i>Hypnum fauriei</i>	a Moss				S3S4	4 Secure	7	53.3 ± 1.0	NB
N	<i>Isopterygiopsis muelleriana</i>	a Moss				S3S4	4 Secure	20	50.0 ± 0.0	NB
N	<i>Myurella julacea</i>	Small Mouse-tail Moss				S3S4	4 Secure	2	61.1 ± 0.0	NB
N	<i>Pohlia annotina</i>	a Moss				S3S4	4 Secure	11	45.9 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
N	<i>Pohlia andalusica</i>	a Moss				S3S4	4 Secure	1	60.7 ± 0.0	NB
N	<i>Tortula truncata</i>	a Moss				S3S4	4 Secure	2	77.2 ± 0.0	NB
N	<i>Racomitrium canescens</i>	Grey Rock Moss				S3S4	4 Secure	2	49.3 ± 1.0	NB
N	<i>Sphagnum majus</i>	Olive Peat Moss				S3S4	4 Secure	1	80.7 ± 3.0	NB
N	<i>Sphagnum quinquefarium</i>	Five-ranked Peat Moss				S3S4	4 Secure	1	56.8 ± 0.0	NB
N	<i>Tetraplodon angustatus</i>	Toothed-leaved Nitrogen Moss				S3S4	4 Secure	1	69.6 ± 0.0	NS
N	<i>Abietinella abietina</i>	Wiry Fern Moss				S3S4	4 Secure	2	61.1 ± 0.0	NB
N	<i>Hylocomiastrum pyrenaicum</i>	a Feather Moss				S3S4	4 Secure	2	37.1 ± 3.0	NS
N	<i>Pannaria rubiginosa</i>	Brown-eyed Shingle Lichen				S3S4	3 Sensitive	2	61.4 ± 1.0	NB
N	<i>Ramalina thrausta</i>	Angelhair Ramalina Lichen				S3S4	5 Undetermined	11	46.9 ± 1.0	NB
N	<i>Melanelia panniformis</i>	Shingled Camouflage Lichen				S3S4	5 Undetermined	4	49.0 ± 1.0	NB
N	<i>Nephroma parile</i>	Powdery Kidney Lichen				S3S4	4 Secure	6	48.2 ± 1.0	NB
N	<i>Peltigera degenii</i>	Lustrous Pelt Lichen				S3S4	5 Undetermined	3	57.1 ± 1.0	NB
N	<i>Pseudocyphellaria perpetua</i>	Gilded Specklebelly Lichen				S3S4	3 Sensitive	5	48.2 ± 1.0	NB
N	<i>Stereocaulon paschale</i>	Easter Foam Lichen				S3S4	5 Undetermined	1	16.4 ± 1.0	NB
N	<i>Stereocaulon subcoralloides</i>	Coralloid Foam Lichen				S3S4	5 Undetermined	1	57.5 ± 1.0	NB
N	<i>Anaptychia palmulata</i>	Shaggy Fringed Lichen				S3S4	3 Sensitive	3	50.9 ± 1.0	NB
N	<i>Peltigera neopolydactyla</i>	Undulating Pelt Lichen				S3S4	5 Undetermined	8	48.2 ± 1.0	NB
N	<i>Cladonia cariosa</i>	Lesser Ribbed Pixie Lichen				S3S4	4 Secure	3	55.3 ± 1.0	NB
N	<i>Cladonia floerkeana</i>	Gritty British Soldiers Lichen				S3S4?	4 Secure	3	60.2 ± 1.0	NB
N	<i>Phaeophyscia sciastra</i>	Dark Shadow Lichen				S3S4?	5 Undetermined	2	60.6 ± 1.0	NB
N	<i>Cladonia deformis</i>	Lesser Sulphur-cup Lichen				S3S4?	4 Secure	5	54.0 ± 1.0	NB
N	<i>Leucodon brachypus</i>	a Moss				SH	2 May Be At Risk	9	51.2 ± 1.0	NB
N	<i>Splachnum luteum</i>	Yellow Collar Moss				SH	5 Undetermined	1	89.8 ± 100.0	NB
N	<i>Cyrtio-hypnum minutulum</i>	Tiny Cedar Moss				SH	2 May Be At Risk	3	83.6 ± 10.0	NB
P	<i>Juglans cinerea</i>	Butternut	Endangered	Endangered	Endangered	S1	1 At Risk	14	59.5 ± 1.0	NB
P	<i>Symphotrichum laurentianum</i>	Gulf of St Lawrence Aster	Threatened	Threatened	Endangered	S1	1 At Risk	3	92.0 ± 0.0	NB
P	<i>Symphotrichum subulatum (Bathurst pop)</i>	Bathurst Aster - Bathurst pop.	Special Concern	Special Concern	Endangered	S2	1 At Risk	20	76.4 ± 0.0	NB
P	<i>Isoetes prototypus</i>	Prototype Quillwort	Special Concern	Special Concern	Endangered	S2	1 At Risk	13	69.1 ± 0.0	NS
P	<i>Lechea maritima var. subcylindrica</i>	Beach Pinweed	Special Concern			S2	3 Sensitive	433	53.8 ± 0.0	NB
P	<i>Cryptotaenia canadensis</i>	Canada Honewort				S1	2 May Be At Risk	1	81.0 ± 1.0	NB
P	<i>Antennaria howellii ssp. petaloidea</i>	Pussy-Toes				S1	2 May Be At Risk	3	76.5 ± 0.0	NS
P	<i>Symphotrichum subulatum (non-Bathurst pop)</i>	Annual Saltmarsh Aster				S1	2 May Be At Risk	12	58.5 ± 0.0	NB
P	<i>Pseudognaphalium obtusifolium</i>	Eastern Cudweed				S1	2 May Be At Risk	13	46.8 ± 1.0	NB
P	<i>Hieracium paniculatum</i>	Panicled Hawkweed				S1	2 May Be At Risk	1	86.6 ± 1.0	NS
P	<i>Hieracium robinsonii</i>	Robinson's Hawkweed				S1	3 Sensitive	5	51.1 ± 0.0	NB
P	<i>Solidago multiradiata</i>	Multi-rayed Goldenrod				S1	2 May Be At Risk	10	16.6 ± 0.0	NB
P	<i>Cardamine parviflora var. arenicola</i>	Small-flowered Bittercress				S1	2 May Be At Risk	6	78.1 ± 1.0	NS
P	<i>Draba arabisans</i>	Rock Whitlow-Grass				S1	2 May Be At Risk	22	46.6 ± 0.0	NB
P	<i>Draba glabella</i>	Rock Whitlow-Grass				S1	2 May Be At Risk	7	60.9 ± 0.0	NB
P	<i>Stellaria crassifolia</i>	Fleshy Stitchwort				S1	2 May Be At Risk	3	27.3 ± 5.0	NB
P	<i>Chenopodium simplex</i>	Maple-leaved Goosefoot				S1	2 May Be At Risk	6	41.2 ± 1.0	NB
P	<i>Suaeda rolandii</i>	Roland's Sea-Blite				S1	3 Sensitive	4	20.8 ± 0.0	NB
P	<i>Triadenum virginicum</i>	Virginia St John's-wort				S1	2 May Be At Risk	1	78.8 ± 3.0	NS
P	<i>Corema conradii</i>	Broom Crowberry				S1	2 May Be At Risk	7	90.7 ± 0.0	PE
P	<i>Vaccinium boreale</i>	Northern Blueberry				S1	2 May Be At Risk	5	15.1 ± 1.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
P	<i>Chamaesyce polygonifolia</i>	Seaside Spurge				S1	2 May Be At Risk	11	49.3 ± 0.0	NB
P	<i>Desmodium glutinosum</i>	Large Tick-Trefoil				S1	2 May Be At Risk	2	98.1 ± 7.0	NS
P	<i>Proserpinaca pectinata</i>	Comb-leaved Mermaidweed				S1	2 May Be At Risk	2	54.1 ± 5.0	NS
P	<i>Primula laurentiana</i>	Laurentian Primrose				S1	2 May Be At Risk	31	61.2 ± 0.0	NB
P	<i>Amelanchier fernaldii</i>	Fernald's Serviceberry				S1	2 May Be At Risk	2	23.1 ± 1.0	NB
P	<i>Crataegus jonesiae</i>	Jones' Hawthorn				S1	2 May Be At Risk	1	97.9 ± 1.0	NB
P	<i>Dryas integrifolia</i>	Entire-leaved Mountain Avens				S1	2 May Be At Risk	11	15.5 ± 3.0	NB
P	<i>Waldsteinia fragarioides</i>	Barren Strawberry				S1	2 May Be At Risk	1	18.9 ± 1.0	NB
P	<i>Salix myrtillofolia</i>	Blueberry Willow				S1	2 May Be At Risk	24	16.0 ± 0.0	NB
P	<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>	White Mountain Saxifrage				S1	2 May Be At Risk	21	60.2 ± 0.0	NB
P	<i>Agalinis tenuifolia</i>	Slender Agalinis				S1	2 May Be At Risk	7	42.4 ± 0.0	NS
P	<i>Viola sagittata</i> var. <i>ovata</i>	Arrow-Leaved Violet				S1	2 May Be At Risk	2	77.6 ± 2.0	NS
P	<i>Carex annectens</i>	Yellow-Fruited Sedge				S1	2 May Be At Risk	3	27.1 ± 0.0	NB
P	<i>Carex atlantica</i> ssp. <i>atlantica</i>	Atlantic Sedge				S1	2 May Be At Risk	6	38.5 ± 1.0	NS
P	<i>Carex backii</i>	Rocky Mountain Sedge				S1	2 May Be At Risk	3	40.7 ± 0.0	NB
P	<i>Carex comosa</i>	Bearded Sedge				S1	2 May Be At Risk	7	23.0 ± 0.0	NB
P	<i>Carex merritt-feraldii</i>	Merritt Fernald's Sedge				S1	2 May Be At Risk	1	41.2 ± 0.0	NB
P	<i>Carex sterilis</i>	Sterile Sedge				S1	2 May Be At Risk	1	60.3 ± 2.0	NB
P	<i>Carex grisea</i>	Inflated Narrow-leaved Sedge				S1	2 May Be At Risk	1	82.2 ± 5.0	NB
P	<i>Scirpus pendulus</i>	Hanging Bulrush				S1	2 May Be At Risk	6	57.6 ± 0.0	NB
P	<i>Sisyrinchium angustifolium</i>	Narrow-leaved Blue-eyed-grass				S1	2 May Be At Risk	3	40.9 ± 5.0	NS
P	<i>Juncus greenei</i>	Greene's Rush				S1	2 May Be At Risk	10	23.1 ± 0.0	NB
P	<i>Juncus stygius</i> ssp. <i>americanus</i>	Moor Rush				S1	2 May Be At Risk	15	27.3 ± 5.0	NB
P	<i>Goodyera pubescens</i>	Downy Rattlesnake-Plantain				S1	2 May Be At Risk	5	42.3 ± 0.0	NB
P	<i>Malaxis brachypoda</i>	White Adder's-Mouth				S1	2 May Be At Risk	5	73.4 ± 1.0	NS
P	<i>Platanthera macrophylla</i>	Large Round-Leaved Orchid				S1	2 May Be At Risk	6	5.8 ± 0.0	NB
P	<i>Spiranthes ochroleuca</i>	Yellow Ladies'-tresses				S1	2 May Be At Risk	7	10.9 ± 0.0	NB
P	<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	Slim-stemmed Reed Grass				S1	2 May Be At Risk	2	22.6 ± 1.0	NB
P	<i>Danthonia compressa</i>	Flattened Oat Grass				S1	2 May Be At Risk	14	38.1 ± 0.0	NS
P	<i>Elymus wiegandii</i>	Wiegand's Wild Rye				S1	2 May Be At Risk	8	59.0 ± 0.0	NS
P	<i>Festuca subverticillata</i>	Nodding Fescue				S1	2 May Be At Risk	10	64.4 ± 0.0	NS
P	<i>Puccinellia ambigua</i>	Dwarf Alkali Grass				S1	5 Undetermined	1	99.8 ± 5.0	PE
P	<i>Potamogeton friesii</i>	Fries' Pondweed				S1	2 May Be At Risk	14	29.8 ± 0.0	NS
P	<i>Cystopteris laurentiana</i>	Laurentian Bladder Fern				S1	2 May Be At Risk	1	76.7 ± 1.0	NB
P	<i>Dryopteris filix-mas</i>	Male Fern				S1	2 May Be At Risk	2	28.9 ± 1.0	NB
P	<i>Huperzia selago</i>	Northern Firmoss				S1	2 May Be At Risk	5	76.2 ± 7.0	NS
P	<i>Schizaea pusilla</i>	Little Curlygrass Fern				S1	2 May Be At Risk	9	57.1 ± 0.0	NB
P	<i>Cuscuta cephalanthi</i>	Buttonbush Dodder				S1?	2 May Be At Risk	4	31.9 ± 0.0	NB
P	<i>Humulus lupulus</i> var. <i>lupuloides</i>	Common Hop				S1S2	3 Sensitive	6	76.8 ± 5.0	NB
P	<i>Carex rostrata</i>	Narrow-leaved Beaked Sedge				S1S2	3 Sensitive	2	58.9 ± 0.0	NB
P	<i>Selaginella rupestris</i>	Rock Spikemoss				S1S2	2 May Be At Risk	7	70.2 ± 1.0	NB
P	<i>Listera australis</i>	Southern Twayblade			Endangered	S2	1 At Risk	14	19.6 ± 0.0	NB
P	<i>Pseudognaphalium macounii</i>	Macoun's Cudweed				S2	3 Sensitive	41	41.2 ± 0.0	NS
P	<i>Solidago altissima</i>	Tall Goldenrod				S2	4 Secure	1	30.1 ± 0.0	NB
P	<i>Ionactis linariifolius</i>	Stiff Aster				S2	3 Sensitive	1	90.7 ± 5.0	NB
P	<i>Impatiens pallida</i>	Pale Jewelweed				S2	2 May Be At Risk	5	69.3 ± 0.0	NS
P	<i>Arabis drummondii</i>	Drummond's Rockcress				S2	3 Sensitive	16	40.4 ± 0.0	NB
P	<i>Sagina nodosa</i>	Knotted Pearlwort				S2	3 Sensitive	2	94.5 ± 0.0	PE
P	<i>Sagina nodosa</i> ssp. <i>borealis</i>	Knotted Pearlwort				S2	3 Sensitive	2	93.1 ± 0.0	PE
P	<i>Stellaria longifolia</i>	Long-leaved Starwort				S2	3 Sensitive	7	35.4 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
P	<i>Atriplex franktonii</i>	Frankton's Saltbush				S2	4 Secure	6	40.0 ± 0.0	NB
P	<i>Chenopodium rubrum</i>	Red Pigweed				S2	3 Sensitive	8	45.2 ± 1.0	NB
P	<i>Callitriche hermaphroditica</i>	Northern Water-starwort				S2	4 Secure	8	18.4 ± 0.0	NB
P	<i>Hypericum dissimulatum</i>	Disguised St John's-wort				S2	3 Sensitive	4	49.7 ± 0.0	NS
P	<i>Shepherdia canadensis</i>	Soapberry				S2	3 Sensitive	5	13.2 ± 1.0	NB
P	<i>Oxytropis campestris</i> var. <i>johannensis</i>	Field Locoweed				S2	3 Sensitive	12	77.4 ± 1.0	NS
P	<i>Gentiana linearis</i>	Narrow-Leaved Gentian				S2	3 Sensitive	1	74.4 ± 50.0	NB
P	<i>Myriophyllum humile</i>	Low Water Milfoil				S2	3 Sensitive	1	57.1 ± 1.0	NB
P	<i>Hedeoma pulegioides</i>	American False Pennyroyal				S2	4 Secure	10	52.3 ± 1.0	NS
P	<i>Nuphar lutea</i> ssp. <i>rubrodiscalis</i>	Red-disked Yellow Pond-lily				S2	3 Sensitive	10	17.3 ± 1.0	NB
P	<i>Polygala paucifolia</i>	Fringed Milkwort				S2	3 Sensitive	5	83.3 ± 1.0	NB
P	<i>Polygala sanguinea</i>	Blood Milkwort				S2	3 Sensitive	12	29.3 ± 0.0	NB
P	<i>Polygonum careyi</i>	Carey's Smartweed				S2	3 Sensitive	2	44.7 ± 1.0	NB
P	<i>Anemone parviflora</i>	Small-flowered Anemone				S2	3 Sensitive	8	16.1 ± 0.0	NB
P	<i>Hepatica nobilis</i> var. <i>obtusata</i>	Round-lobed Hepatica				S2	3 Sensitive	4	85.4 ± 0.0	NS
P	<i>Crataegus scabrifolia</i>	Rough Hawthorn				S2	3 Sensitive	4	36.4 ± 1.0	NB
P	<i>Crataegus succulenta</i>	Fleshy Hawthorn				S2	3 Sensitive	2	68.6 ± 0.0	PE
P	<i>Sanguisorba canadensis</i>	Canada Burnet				S2	4 Secure	15	53.4 ± 0.0	NB
P	<i>Euphrasia randii</i>	Rand's Eyebright				S2	2 May Be At Risk	4	69.4 ± 0.0	PE
P	<i>Scrophularia lanceolata</i>	Lance-leaved Figwort				S2	3 Sensitive	2	76.7 ± 1.0	NB
P	<i>Dirca palustris</i>	Eastern Leatherwood				S2	2 May Be At Risk	1	11.6 ± 1.0	NB
P	<i>Sagittaria calycina</i> var. <i>spongiosa</i>	Long-lobed Arrowhead				S2	4 Secure	53	68.1 ± 0.0	NB
P	<i>Symplocarpus foetidus</i>	Eastern Skunk Cabbage				S2	3 Sensitive	99	29.9 ± 1.0	NS
P	<i>Carex granularis</i>	Limestone Meadow Sedge				S2	3 Sensitive	9	27.1 ± 0.0	NB
P	<i>Carex gynocrates</i>	Northern Bog Sedge				S2	3 Sensitive	1	76.7 ± 1.0	NB
P	<i>Carex hirtifolia</i>	Pubescent Sedge				S2	3 Sensitive	12	49.8 ± 5.0	NB
P	<i>Carex livida</i> var. <i>radiculis</i>	Livid Sedge				S2	3 Sensitive	4	30.0 ± 0.0	NS
P	<i>Carex prairea</i>	Prairie Sedge				S2	3 Sensitive	2	94.2 ± 1.0	NS
P	<i>Carex sprengelii</i>	Longbeak Sedge				S2	3 Sensitive	2	85.5 ± 0.0	NB
P	<i>Carex tenuiflora</i>	Sparse-Flowered Sedge				S2	2 May Be At Risk	7	51.7 ± 10.0	NB
P	<i>Carex albicans</i> var. <i>emmonsii</i>	White-tinged Sedge				S2	3 Sensitive	11	13.3 ± 0.0	NB
P	<i>Carex vacillans</i>	Estuarine Sedge				S2	3 Sensitive	1	24.8 ± 0.0	NB
P	<i>Eriophorum gracile</i>	Slender Cottongrass				S2	2 May Be At Risk	34	21.2 ± 0.0	NB
P	<i>Blysmus rufus</i>	Red Bulrush				S2	3 Sensitive	10	68.6 ± 0.0	PE
P	<i>Juncus vaseyi</i>	Vasey Rush				S2	3 Sensitive	10	22.5 ± 0.0	NB
P	<i>Lemna trisulca</i>	Star Duckweed				S2	4 Secure	13	15.6 ± 0.0	NB
P	<i>Allium tricoccum</i>	Wild Leek				S2	2 May Be At Risk	18	44.6 ± 1.0	NS
P	<i>Calypso bulbosa</i> var. <i>americana</i>	Calypso				S2	2 May Be At Risk	2	49.2 ± 5.0	NB
P	<i>Coeloglossum viride</i> var. <i>virescens</i>	Long-bracted Frog Orchid				S2	2 May Be At Risk	5	28.2 ± 10.0	NB
P	<i>Cypripedium parviflorum</i> var. <i>makasin</i>	Small Yellow Lady's-Slipper				S2	2 May Be At Risk	3	88.1 ± 7.0	NS
P	<i>Goodyera oblongifolia</i>	Menzies' Rattlesnake-plantain				S2	3 Sensitive	1	80.5 ± 0.0	PE
P	<i>Spiranthes cernua</i>	Nodding Ladies'-Tresses				S2	3 Sensitive	14	6.3 ± 0.0	NB
P	<i>Spiranthes lucida</i>	Shining Ladies'-Tresses				S2	3 Sensitive	2	49.8 ± 1.0	NB
P	<i>Dichanthelium linearifolium</i>	Narrow-leaved Panic Grass				S2	3 Sensitive	1	88.2 ± 0.0	NB
P	<i>Elymus canadensis</i>	Canada Wild Rye				S2	2 May Be At Risk	1	32.4 ± 1.0	NB
P	<i>Piptatherum canadense</i>	Canada Rice Grass				S2	3 Sensitive	3	43.1 ± 10.0	NB
P	<i>Puccinellia laurentiana</i>	Nootka Alkali Grass				S2	3 Sensitive	1	98.5 ± 10.0	NB
P	<i>Puccinellia phryganodes</i>	Creeping Alkali Grass				S2	3 Sensitive	2	33.6 ± 1.0	NB
P	<i>Zizania aquatica</i> var.	Indian Wild Rice				S2	5 Undetermined	4	61.4 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
P	<i>aquatica</i>									
P	<i>Piptatherum pungens</i>	Slender Rice Grass				S2	2 May Be At Risk	5	40.5 ± 0.0	NB
P	<i>Stuckenia filiformis ssp. alpina</i>	Thread-leaved Pondweed				S2	3 Sensitive	2	36.8 ± 1.0	NB
P	<i>Potamogeton richardsonii</i>	Richardson's Pondweed				S2	3 Sensitive	1	92.5 ± 1.0	NS
P	<i>Potamogeton vaseyi</i>	Vasey's Pondweed				S2	3 Sensitive	1	65.3 ± 0.0	PE
P	<i>Asplenium trichomanes</i>	Maidenhair Spleenwort				S2	3 Sensitive	12	35.2 ± 0.0	NB
P	<i>Woodwardia virginica</i>	Virginia Chain Fern				S2	3 Sensitive	7	73.4 ± 5.0	PE
P	<i>Woodsia alpina</i>	Alpine Cliff Fern				S2	3 Sensitive	2	49.6 ± 0.0	NB
P	<i>Lycopodium sitchense</i>	Sitka Clubmoss				S2	3 Sensitive	5	7.1 ± 0.0	NB
P	<i>Selaginella selaginoides</i>	Low Spikemoss				S2	3 Sensitive	7	60.6 ± 0.0	NB
P	<i>Toxicodendron radicans</i>	Poison Ivy				S2?	3 Sensitive	6	46.0 ± 5.0	NB
P	<i>Osmorhiza longistylis</i>	Smooth Sweet Cicely				S2?	3 Sensitive	8	49.5 ± 1.0	NS
P	<i>Symphytotrichum novibelgii var. crenifolium</i>	New York Aster				S2?	5 Undetermined	3	36.2 ± 0.0	NB
P	<i>Proserpinaca palustris var. crebra</i>	Marsh Mermaidweed				S2?	3 Sensitive	1	83.9 ± 0.0	NS
P	<i>Epilobium coloratum</i>	Purple-veined Willowherb				S2?	3 Sensitive	7	27.5 ± 1.0	NB
P	<i>Rubus pensilvanicus</i>	Pennsylvania Blackberry				S2?	4 Secure	22	16.1 ± 0.0	NB
P	<i>Rubus recurvicaulis</i>	Arching Dewberry				S2?	4 Secure	4	2.3 ± 1.0	NB
P	<i>Galium obtusum</i>	Blunt-leaved Bedstraw				S2?	4 Secure	7	50.6 ± 10.0	NB
P	<i>Salix myricoides</i>	Bayberry Willow				S2?	3 Sensitive	1	16.1 ± 1.0	NB
P	<i>Platanthera huronensis</i>	Fragrant Green Orchid				S2?	5 Undetermined	1	72.8 ± 10.0	NS
P	<i>Eragrostis pectinacea</i>	Tufted Love Grass				S2?	4 Secure	6	23.7 ± 0.0	NB
P	<i>Ceratophyllum echinatum</i>	Prickly Hornwort				S2S3	3 Sensitive	24	14.3 ± 0.0	NB
P	<i>Elatine americana</i>	American Waterwort				S2S3	3 Sensitive	6	22.5 ± 0.0	NB
P	<i>Bartonia paniculata</i>	Branched Bartonia				S2S3	3 Sensitive	1	38.1 ± 0.0	NS
P	<i>Bartonia paniculata ssp. iodandra</i>	Branched Bartonia				S2S3	3 Sensitive	22	54.7 ± 0.0	NB
P	<i>Geranium robertianum</i>	Herb Robert				S2S3	4 Secure	75	40.7 ± 0.0	NB
P	<i>Rumex maritimus var. persicarioides</i>	Peach-leaved Dock				S2S3	5 Undetermined	1	90.1 ± 5.0	PE
P	<i>Rumex pallidus</i>	Seabeach Dock				S2S3	3 Sensitive	5	72.6 ± 0.0	NB
P	<i>Galium labradoricum</i>	Labrador Bedstraw				S2S3	3 Sensitive	9	47.3 ± 0.0	NB
P	<i>Valeriana uliginosa</i>	Swamp Valerian				S2S3	3 Sensitive	1	69.0 ± 0.0	PE
P	<i>Carex adusta</i>	Lesser Brown Sedge				S2S3	4 Secure	8	23.6 ± 10.0	NB
P	<i>Corallorhiza maculata var. occidentalis</i>	Spotted Coralroot				S2S3	3 Sensitive	6	27.7 ± 0.0	NB
P	<i>Listera auriculata</i>	Auricled Twayblade				S2S3	3 Sensitive	1	62.2 ± 0.0	NB
P	<i>Potamogeton praelongus</i>	White-stemmed Pondweed				S2S3	4 Secure	10	28.3 ± 0.0	NS
P	<i>Isoetes acadensis</i>	Acadian Quillwort				S2S3	3 Sensitive	1	91.3 ± 1.0	NS
P	<i>Ophioglossum pusillum</i>	Northern Adder's-tongue				S2S3	3 Sensitive	5	30.0 ± 0.0	NS
P	<i>Panax trifolius</i>	Dwarf Ginseng				S3	3 Sensitive	24	15.3 ± 0.0	NB
P	<i>Artemisia campestris</i>	Field Wormwood				S3	4 Secure	1	74.5 ± 0.0	NB
P	<i>Artemisia campestris ssp. caudata</i>	Field Wormwood				S3	4 Secure	5	66.0 ± 10.0	NB
P	<i>Bidens hyperborea</i>	Estuary Beggarticks				S3	4 Secure	17	50.7 ± 0.0	NB
P	<i>Bidens hyperborea var. hyperborea</i>	Estuary Beggarticks				S3	4 Secure	3	50.5 ± 1.0	NB
P	<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane				S3	4 Secure	36	14.3 ± 1.0	NB
P	<i>Symphytotrichum boreale</i>	Boreal Aster				S3	3 Sensitive	8	47.2 ± 0.0	NB
P	<i>Betula pumila</i>	Bog Birch				S3	4 Secure	26	45.7 ± 0.0	NB
P	<i>Arabis glabra</i>	Tower Mustard				S3	5 Undetermined	1	74.4 ± 0.0	NB
P	<i>Arabis hirsuta var. pycnocarpa</i>	Western Hairy Rockcress				S3	4 Secure	11	30.6 ± 0.0	NB
P	<i>Cardamine maxima</i>	Large Toothwort				S3	4 Secure	7	73.4 ± 0.0	NS
P	<i>Subularia aquatica var.</i>	Water Awlwort				S3	4 Secure	2	58.6 ± 0.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
	<i>americana</i>									
P	<i>Stellaria humifusa</i>	Saltmarsh Starwort				S3	4 Secure	19	27.5 ± 5.0	NB
P	<i>Hudsonia tomentosa</i>	Woolly Beach-heath				S3	4 Secure	148	33.3 ± 0.0	NB
P	<i>Crassula aquatica</i>	Water Pygmyweed				S3	4 Secure	5	73.8 ± 0.0	NB
P	<i>Rhodiola rosea</i>	Roseroot				S3	4 Secure	21	46.5 ± 0.0	NB
P	<i>Penthorum sedoides</i>	Ditch Stonecrop				S3	4 Secure	1	97.7 ± 1.0	NB
P	<i>Elatine minima</i>	Small Waterwort				S3	4 Secure	1	58.9 ± 0.0	NB
P	<i>Halenia deflexa</i>	Spurred Gentian				S3	4 Secure	2	74.5 ± 0.0	NB
P	<i>Geranium bicknellii</i>	Bicknell's Crane's-bill				S3	4 Secure	15	23.9 ± 0.0	NB
P	<i>Myriophyllum farwellii</i>	Farwell's Water Milfoil				S3	4 Secure	9	23.4 ± 1.0	NB
P	<i>Myriophyllum verticillatum</i>	Whorled Water Milfoil				S3	4 Secure	13	23.9 ± 1.0	NB
P	<i>Myriophyllum sibiricum</i>	Siberian Water Milfoil				S3	4 Secure	3	84.4 ± 0.0	PE
P	<i>Teucrium canadense</i>	Canada Germander				S3	3 Sensitive	77	32.9 ± 0.0	NB
P	<i>Nuphar lutea ssp. pumila</i>	Small Yellow Pond-lily				S3	4 Secure	7	17.4 ± 0.0	NB
P	<i>Epilobium hornemannii</i>	Hornemann's Willowherb				S3	4 Secure	2	60.5 ± 1.0	NB
P	<i>Epilobium hornemannii ssp. hornemannii</i>	Hornemann's Willowherb				S3	4 Secure	1	60.8 ± 0.0	NB
P	<i>Epilobium strictum</i>	Downy Willowherb				S3	4 Secure	19	21.7 ± 5.0	NB
P	<i>Polygonum arifolium</i>	Halberd-leaved Tearthumb				S3	4 Secure	39	15.6 ± 0.0	NB
P	<i>Polygonum punctatum</i>	Dotted Smartweed				S3	4 Secure	4	16.1 ± 5.0	NB
P	<i>Polygonum punctatum var. confertiflorum</i>	Dotted Smartweed				S3	4 Secure	16	24.2 ± 1.0	NB
P	<i>Polygonum scandens</i>	Climbing False Buckwheat				S3	4 Secure	24	44.7 ± 1.0	NB
P	<i>Samolus valerandi</i>	Seaside Brookweed				S3	4 Secure	1	89.7 ± 0.0	NB
P	<i>Samolus valerandi ssp. parviflorus</i>	Seaside Brookweed				S3	4 Secure	80	32.4 ± 0.0	NB
P	<i>Pyrola minor</i>	Lesser Pyrola				S3	4 Secure	6	31.6 ± 0.0	NS
P	<i>Clematis occidentalis</i>	Purple Clematis				S3	4 Secure	7	29.4 ± 0.0	NS
P	<i>Ranunculus gmelinii</i>	Gmelin's Water Buttercup				S3	4 Secure	27	23.0 ± 0.0	NB
P	<i>Thalictrum venulosum</i>	Northern Meadow-rue				S3	4 Secure	1	98.2 ± 1.0	PE
P	<i>Agrimonia gryposepala</i>	Hooked Agrimony				S3	4 Secure	27	32.0 ± 0.0	NS
P	<i>Amelanchier canadensis</i>	Canada Serviceberry				S3	4 Secure	17	11.7 ± 1.0	NB
P	<i>Rosa palustris</i>	Swamp Rose				S3	4 Secure	3	22.7 ± 0.0	NB
P	<i>Rubus chamaemorus</i>	Cloudberry				S3	4 Secure	20	22.9 ± 1.0	NB
P	<i>Salix interior</i>	Sandbar Willow				S3	4 Secure	1	19.9 ± 1.0	NB
P	<i>Salix nigra</i>	Black Willow				S3	3 Sensitive	3	97.3 ± 50.0	NB
P	<i>Salix pedicellaris</i>	Bog Willow				S3	4 Secure	6	29.9 ± 0.0	NS
P	<i>Comandra umbellata</i>	Bastard's Toadflax				S3	4 Secure	49	29.4 ± 0.0	NB
P	<i>Geocaulon lividum</i>	Northern Comandra				S3	4 Secure	29	44.7 ± 1.0	NB
P	<i>Limosella australis</i>	Southern Mudwort				S3	4 Secure	63	31.9 ± 1.0	NB
P	<i>Veronica serpyllifolia ssp. humifusa</i>	Thyme-Leaved Speedwell				S3	4 Secure	7	52.2 ± 0.0	NB
P	<i>Pilea pumila</i>	Dwarf Clearweed				S3	4 Secure	20	60.3 ± 0.0	NB
P	<i>Viola adunca</i>	Hooked Violet				S3	4 Secure	5	40.9 ± 0.0	NB
P	<i>Viola labradorica</i>	Labrador Violet				S3	4 Secure	24	16.0 ± 1.0	NB
P	<i>Viola nephrophylla</i>	Northern Bog Violet				S3	4 Secure	3	79.7 ± 0.0	PE
P	<i>Carex arcta</i>	Northern Clustered Sedge				S3	4 Secure	3	37.0 ± 20.0	NB
P	<i>Carex atratiformis</i>	Scabrous Black Sedge				S3	4 Secure	3	64.6 ± 0.0	NS
P	<i>Carex capillaris</i>	Hairlike Sedge				S3	4 Secure	14	37.0 ± 0.0	NS
P	<i>Carex chordorrhiza</i>	Creeping Sedge				S3	4 Secure	45	19.7 ± 0.0	NB
P	<i>Carex conoidea</i>	Field Sedge				S3	4 Secure	7	27.1 ± 0.0	NB
P	<i>Carex eburnea</i>	Bristle-leaved Sedge				S3	4 Secure	2	33.6 ± 100.0	NB
P	<i>Carex exilis</i>	Coastal Sedge				S3	4 Secure	6	48.2 ± 0.0	NS
P	<i>Carex garberi</i>	Garber's Sedge				S3	3 Sensitive	1	35.7 ± 0.0	NB
P	<i>Carex haydenii</i>	Hayden's Sedge				S3	4 Secure	2	49.2 ± 50.0	NS
P	<i>Carex lupulina</i>	Hop Sedge				S3	4 Secure	7	53.7 ± 3.0	NS
P	<i>Carex michauxiana</i>	Michaux's Sedge				S3	4 Secure	9	18.4 ± 1.0	NB

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
P	<i>Carex ormostachya</i>	Necklace Spike Sedge				S3	4 Secure	5	45.8 ± 1.0	NB
P	<i>Carex rosea</i>	Rosy Sedge				S3	4 Secure	14	64.4 ± 1.0	NS
P	<i>Carex tenera</i>	Tender Sedge				S3	4 Secure	8	7.1 ± 0.0	NB
P	<i>Carex tuckermanii</i>	Tuckerman's Sedge				S3	4 Secure	16	41.3 ± 0.0	NS
P	<i>Carex wiegandii</i>	Wiegand's Sedge				S3	4 Secure	97	17.7 ± 0.0	NB
P	<i>Carex recta</i>	Estuary Sedge				S3	4 Secure	12	35.4 ± 0.0	NB
P	<i>Cyperus dentatus</i>	Toothed Flatsedge				S3	4 Secure	1	71.8 ± 1.0	NB
P	<i>Cyperus esculentus</i>	Perennial Yellow Nutsedge				S3	4 Secure	4	60.3 ± 0.0	NB
P	<i>Eleocharis intermedia</i>	Matted Spikerush				S3	4 Secure	1	65.6 ± 0.0	NB
P	<i>Eriophorum chamissonis</i>	Russet Cotton-Grass				S3	4 Secure	115	17.8 ± 0.0	NB
P	<i>Rhynchospora capitellata</i>	Small-headed Beakrush				S3	4 Secure	1	77.1 ± 0.0	NB
P	<i>Rhynchospora fusca</i>	Brown Beakrush				S3	4 Secure	8	29.7 ± 0.0	NS
P	<i>Trichophorum clintonii</i>	Clinton's Clubrush				S3	4 Secure	15	59.5 ± 0.0	NB
P	<i>Schoenoplectus fluviatilis</i>	River Bulrush				S3	3 Sensitive	4	0.8 ± 1.0	NB
P	<i>Schoenoplectus torreyi</i>	Torrey's Bulrush				S3	4 Secure	1	25.0 ± 0.0	NB
P	<i>Triglochin gaspensis</i>	Gasp  – Arrowgrass				S3	4 Secure	36	20.8 ± 1.0	NB
P	<i>Cypripedium reginae</i>	Showy Lady's-Slipper				S3	3 Sensitive	26	37.3 ± 1.0	NS
P	<i>Liparis loeselii</i>	Loesel's Twayblade				S3	4 Secure	20	32.4 ± 0.0	NS
P	<i>Platanthera blephariglottis</i>	White Fringed Orchid				S3	4 Secure	35	17.8 ± 0.0	NB
P	<i>Platanthera grandiflora</i>	Large Purple Fringed Orchid				S3	3 Sensitive	36	18.4 ± 0.0	NB
P	<i>Bromus latiglumis</i>	Broad-Glumed Brome				S3	3 Sensitive	4	51.0 ± 0.0	NB
P	<i>Calamagrostis pickeringii</i>	Pickering's Reed Grass				S3	4 Secure	6	58.7 ± 0.0	NB
P	<i>Dichanthelium depauperatum</i>	Starved Panic Grass				S3	4 Secure	5	53.2 ± 0.0	NS
P	<i>Potamogeton obtusifolius</i>	Blunt-leaved Pondweed				S3	4 Secure	29	13.8 ± 0.0	NB
P	<i>Xyris montana</i>	Northern Yellow-Eyed-Grass				S3	4 Secure	27	17.4 ± 0.0	NB
P	<i>Zannichellia palustris</i>	Horned Pondweed				S3	4 Secure	28	15.9 ± 0.0	NB
P	<i>Adiantum pedatum</i>	Northern Maidenhair Fern				S3	4 Secure	1	98.5 ± 1.0	NB
P	<i>Cryptogramma stelleri</i>	Steller's Rockbrake				S3	4 Secure	2	79.3 ± 0.0	NS
P	<i>Asplenium trichomanes-ramosum</i>	Green Spleenwort				S3	4 Secure	10	40.8 ± 1.0	NB
P	<i>Dryopteris fragrans var. remotiuscula</i>	Fragrant Wood Fern				S3	4 Secure	33	47.8 ± 0.0	NB
P	<i>Woodsia glabella</i>	Smooth Cliff Fern				S3	4 Secure	24	47.8 ± 0.0	NB
P	<i>Isoetes tuckermanii</i>	Tuckerman's Quillwort				S3	4 Secure	4	54.7 ± 0.0	NB
P	<i>Lycopodium sabinifolium</i>	Ground-Fir				S3	4 Secure	16	5.5 ± 0.0	NB
P	<i>Huperzia appalachiana</i>	Appalachian Fir-Clubmoss				S3	3 Sensitive	22	59.5 ± 1.0	NS
P	<i>Botrychium dissectum</i>	Cut-leaved Moonwort				S3	4 Secure	9	17.4 ± 1.0	NB
P	<i>Botrychium lanceolatum var. angustisegmentum</i>	Lance-Leaf Grape-Fern				S3	3 Sensitive	12	7.2 ± 0.0	NB
P	<i>Botrychium simplex</i>	Least Moonwort				S3	4 Secure	6	15.4 ± 0.0	NB
P	<i>Polypodium appalachianum</i>	Appalachian Polypody				S3	4 Secure	16	21.0 ± 1.0	NB
P	<i>Crataegus submollis</i>	Quebec Hawthorn				S3?	3 Sensitive	2	79.4 ± 7.0	NS
P	<i>Suaeda calceoliformis</i>	Horned Sea-blite				S3S4	4 Secure	33	18.8 ± 1.0	NB
P	<i>Utricularia gibba</i>	Humped Bladderwort				S3S4	4 Secure	2	30.0 ± 0.0	NS
P	<i>Rumex maritimus</i>	Sea-Side Dock				S3S4	4 Secure	43	16.3 ± 0.0	NB
P	<i>Rumex maritimus var. fueginus</i>	Tierra del Fuego Dock				S3S4	4 Secure	3	21.8 ± 0.0	NB
P	<i>Cladium mariscoides</i>	Smooth Twigrush				S3S4	4 Secure	7	21.1 ± 0.0	NB
P	<i>Spirodela polyrrhiza</i>	Great Duckweed				S3S4	4 Secure	13	19.7 ± 0.0	NB
P	<i>Corallorhiza maculata</i>	Spotted Coralroot				S3S4	3 Sensitive	22	10.0 ± 5.0	NB
P	<i>Distichlis spicata</i>	Salt Grass				S3S4	4 Secure	64	26.7 ± 5.0	NB
P	<i>Potamogeton oakesianus</i>	Oakes' Pondweed				S3S4	4 Secure	13	10.3 ± 0.0	NB
P	<i>Stuckenia pectinata</i>	Sago Pondweed				S3S4	4 Secure	23	40.2 ± 0.0	NB
P	<i>Montia fontana</i>	Water Blinks				SH	2 May Be At Risk	4	26.2 ± 1.0	NB
P	<i>Agalinis maritima</i>	Saltmarsh Agalinis				SX	0.1 Extirpated	2	87.2 ± 50.0	NB



Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)	Prov
P	<i>Carex swanii</i>	Swan's Sedge				SX	0.1 Extirpated	1	100.0 ± 2.0	NS

### 5.1 SOURCE BIBLIOGRAPHY (100 km)

The recipient of these data shall acknowledge the ACCDC and the data sources listed below in any documents, reports, publications or presentations, in which this dataset makes a significant contribution.

# recs	CITATION
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4210	eBird. 2014. eBird Basic Dataset. Version: EBD_relNov-2014. Ithaca, New York. Nov 2014. Cornell Lab of Ornithology, 25036 recs.
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1810	Morrison, Guy. 2011. Maritime Shorebird Survey (MSS) database. Canadian Wildlife Service, Ottawa, 15939 surveys. 86171 recs.
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204	Beaudet, A. 2007. Piping Plover Records in Kouchibouguac NP, 1982-2005. Kouchibouguac National Park, 435 recs.
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162	Epworth, W. 2012. Species at Risk records, 2009-11. Fort Folly Habitat Recovery Program, 162 recs.
143	Newell, R.E. 2000. E.C. Smith Herbarium Database. Acadia University, Wolfville NS, 7139 recs.
137	Clayden, S.R. 1998. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, 19759 recs.
135	Tims, J. & Craig, N. 1995. Environmentally Significant Areas in New Brunswick (NBESA). NB Dept of Environment & Nature Trust of New Brunswick Inc, 6042 recs.
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128	Parks Canada. 2010. Specimens in or near National Parks in Atlantic Canada. Canadian National Museum, 3925 recs.
125	Wilhelm, S.I. et al. 2011. Colonial Waterbird Database. Canadian Wildlife Service, Sackville, 2698 sites, 9718 recs (8192 obs).
121	Benedict, B. Connell Herbarium Specimens (Data) . University New Brunswick, Fredericton. 2003.
117	McAlpine, D.F. 1998. NBM Science Collections databases to 1998. New Brunswick Museum, Saint John NB, 241 recs.
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112	Klymko, J.J.D. 2014. Maritimes Butterfly Atlas, 2012 submissions. Atlantic Canada Conservation Data Centre, 8552 records.
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108	Amirault, D.L. & McKnight, J. 2003. Piping Plover Database 1991-2003. Canadian Wildlife Service, Sackville, unpublished data. 7 recs.
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82	Benjamin, L.K. (compiler). 2007. Significant Habitat & Species Database. Nova Scotia Dept Natural Resources, 8439 recs.
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46	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2013.
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44	MacDonald, M. 2008. PEI Power Corridor Floral Surveys, 2004-08. Jacques Whitford Ltd, 2238 recs (979 rare).
41	Wissink, R. 2006. Fundy National Park Digital Database. Parks Canada, 41 recs.
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26	Curley, F.R. 2005. PEF&W Collection 2003-04. PEI Fish & Wildlife Div., 716 recs.
26	Majka, C. 2009. Université de Moncton Insect Collection: Carabidae, Cerambycidae, Coccinellidae. Université de Moncton, 540 recs.
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24	Coursol, F. 2005. Dataset from New Brunswick fieldwork for <i>Eriocaulon parkeri</i> COSEWIC report. Coursol, Pers. comm. to C.S. Blaney, Aug 26. 110 recs.
24	Roland, A.E. & Smith, E.C. 1969. The Flora of Nova Scotia, 1st Ed. Nova Scotia Museum, Halifax, 743pp.
22	Hinds, H.R. 1999. Connell Herbarium Database. University New Brunswick, Fredericton, 131 recs.
21	Bryson, I. 2013. Nova Scotia rare plant records. CBCL Ltd., 180 records.
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17	Mazerolle, D. 2003. Assessment of Seaside Pinweed ( <i>Lechea maritima</i> var. <i>subcylindrica</i> ) in Southeastern New Brunswick. Irving Eco-centre, la Dune du Bouctouche, 18 recs.
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15	Pike, E., Tingley, S. & Christie, D.S. 2000. Nature NB Listserve. University of New Brunswick, <a href="mailto:listserv.unb.ca/archives/naturenb">listserv.unb.ca/archives/naturenb</a> . 68 recs.
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13	Wissink, R. 2000. Rare Plants of Fundy: maps. Parks Canada, 20 recs.
12	Hall, R.A. 2003. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 189 recs.
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12	Oldham, M.J. 2000. Oldham database records from Maritime provinces. Oldham, M.J.; ONHIC, 487 recs.
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11	Goltz, J.P. & Bishop, G. 2005. Confidential supplement to Status Report on Prototype Quillwort ( <i>Isoetes prototypus</i> ). Committee on the Status of Endangered Wildlife in Canada, 111 recs.
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10	Clayden, S.R. 2007. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, download Mar. 2007, 6914 recs.
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9	Belland, R.J. 2012. PEI moss records from Devonian Botanical Garden. DBG Cryptogam Database, Web site: <a href="https://secure.devonian.ualberta.ca/bryo_search.php">https://secure.devonian.ualberta.ca/bryo_search.php</a> 748 recs.
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9	Doucet, D.A. 2009. Census of Globally Rare, Endemic Butterflies of Nova Scotia Gulf of St Lawrence Salt Marshes. Nova Scotia Dept of Natural Resources, Species at Risk, 155 recs.

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8	Blaney, C.S. Miscellaneous specimens received by ACCDC (botany). Various persons. 2001-08.
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8	Gagnon, J. 2004. Specimen data from 2002 visit to Prince Edward Island. , 104 recs.
8	Hinds, H.R. 1992. Rare Vascular Plants of Fundy National Park. , 10 recs.
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8	Popma, T.M. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre. Sackville NB, 113 recs.
7	Amirault, D.L. 2000. Piping Plover Surveys, 1983-2000. Canadian Wildlife Service, Sackville, unpublished data. 70 recs.
7	Basquill, S.P. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre, Sackville NB, 69 recs.
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7	Curley, F.R. 2007. PEF&W Collection. PEI Fish & Wildlife Div., 199 recs.
7	Erskine, D. 1960. The plants of Prince Edward Island, 1st Ed. Research Branch, Agriculture Canada, Ottawa., Publication 1088. 1238 recs.
7	Klymko, J.J.D.; Robinson, S.L. 2014. 2013 field data. Atlantic Canada Conservation Data Centre.
7	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2014.
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7	Sabine, D.L. 2013. Dwaine Sabine butterfly records, 2009 and earlier.
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6	Benjamin, L.K. (compiler). 2001. Significant Habitat & Species Database. Nova Scotia Dept of Natural Resources, 15 spp, 224 recs.
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6	Downes, C. 1998-2000. Breeding Bird Survey Data. Canadian Wildlife Service, Ottawa, 111 recs.
6	Godbout, V. 2002. SAR Inventory: Birds in Fort Beauséjour NHS. Parks Canada, Atlantic, SARINV02-01. 202 recs.
6	Harris, P. 2004. Plant records from 1997-2003. Island Nature Trust, Charlottetown PE, 71 recs.
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5	Chaput, G. 2002. Atlantic Salmon: Maritime Provinces Overview for 2001. Dept of Fisheries & Oceans, Atlantic Region, Science Stock Status Report D3-14. 39 recs.
5	Clayden, S.R. 2005. Confidential supplement to Status Report on Ghost Antler Lichen ( <i>Pseudevernia cladonia</i> ). Committee on the Status of Endangered Wildlife in Canada, 27 recs.
5	Doucet, D.A. & Edsall, J.; Brunelle, P.-M. 2007. Miramichi Watershed Rare Odonata Survey. New Brunswick ETF & WTF Report, 1211 recs.
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5	Sollows, M.C. 2008. NBM Science Collections databases: herpetiles. New Brunswick Museum, Saint John NB, download Jan. 2008, 8636 recs.
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4	Dept of Fisheries & Oceans. 1999. Status of Wild Striped Bass, & Interaction between Wild & Cultured Striped Bass in the Maritime Provinces. , Science Stock Status Report D3-22. 13 recs.
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3	Gronin, P. & Blouin, J.-L., Bouchard, D.; et al. 1981. Description et cartographie de la vegetation du cordon littoral. Parc National de Kouchibouguac. Le Groupe Dryade, 57 pp.
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2	Bagnell, B.A. 2003. Update to New Brunswick Rare Bryophyte Occurrences. B&B Botanical, Sussex, 5 recs.
2	Basquill, S.P. 2011 vascular plant field data. Nova Scotia Department of Natural Resources, 37 recs.
2	Belland, R.J. 2012. PEI moss records from New York Botanical Garden. NYBG Virtual Herbarium, Web site: <a href="http://sciweb.nybg.org/science2/vii2.asp">http://sciweb.nybg.org/science2/vii2.asp</a> 135 recs.
2	Belliveau, A.G. 2014. Plant Records from Southern and Central Nova Scotia. Atlantic Canada Conservation Data Centre, 919 recs.

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2	Klymko, J.J.D. 2010. Miscellaneous observations reported to ACCDC (zoology). Pers. comm. from various persons, 3 recs.
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2	O'Neil, S. 1998. Atlantic Salmon: Northumberland Strait Nova Scotia part of SFA 18. Dept of Fisheries & Oceans, Atlantic Region, Science. Stock Status Report D3-08. 9 recs.
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1	Bredin, K.A. 2000. NB & NS Bog Project, fieldwork. Atlantic Canada Conservation Data Centre, Sackville, 1 rec.
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1	Clayden, S.R. 2012. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, 57 recs.
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MCODE	ELCODE	SUBNAT	SCINAME	COMNAME
ASIOotus	ABNSB13010	NB	<i>Asio otus</i>	Long-eared Owl
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
RUBUrecu	PDROS1K6H0	NB	<i>Rubus recurvicaulis</i>	Arching Dewberry
PSEUdist	NBMUS82010	NB	<i>Pseudotaxiphyllum distichaceum</i>	a Moss
SCHOfIuv	PMCYP0Q0P0	NB	<i>Schoenoplectus fluviatilis</i>	River Bulrush
PUMAcopo	AMAJH04012	NB	<i>Puma concolor pop. 1</i>	Cougar - Eastern pop.
SCHOfIuv	PMCYP0Q0P0	NB	<i>Schoenoplectus fluviatilis</i>	River Bulrush
DANAplex	IILEPP2010	NB	<i>Danaus plexippus</i>	Monarch
DANAplex	IILEPP2010	NB	<i>Danaus plexippus</i>	Monarch
COCCtrri	IICOL223RI	NB	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
CONTcoop	ABPAE32010	NB	<i>Contopus cooperi</i>	Olive-sided Flycatcher
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
MIMUpoly	ABPBK03010	NB	<i>Mimus polyglottos</i>	Northern Mockingbird
MOLOater	ABPBXB7030	NB	<i>Molothrus ater</i>	Brown-headed Cowbird
CONTcoop	ABPAE32010	NB	<i>Contopus cooperi</i>	Olive-sided Flycatcher
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
COCCvesp	ABPBY09020	NB	<i>Coccythraustes vespertinus</i>	Evening Grosbeak
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
CHORmino	ABNTA02020	NB	<i>Chordeiles minor</i>	Common Nighthawk
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
MIMUpoly	ABPBK03010	NB	<i>Mimus polyglottos</i>	Northern Mockingbird
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
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RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
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RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow

NOMCOMMUN	IUCN	GRANK	NPROT	NPROTSAR	SPROT	SRANK
Hibou moyen-duc	LC	G5				S2S3
Hirondelle de rivage	LC	G5	T			S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Ronce à tige recourbée		G4?				S2?
		G4G5				S1
Scirpe fluviatile		G5				S3
	CR	G5THQ	DD		Endangered	SU,SH
Scirpe fluviatile		G5				S3
Monarque		G5	SC	SC	Special Concern	S3B
Monarque		G5	SC	SC	Special Concern	S3B
Coccinelle à bande transverse						S1S2
Pluvier kildir	LC	G5				S3B
Moucherolle à côtés olive	NT	G4	T	T	Threatened	S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Pluvier kildir	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Moqueur polyglotte	LC	G5				S3B
Vacher à tête brune	LC	G5				S3B
Moucherolle à côtés olive	NT	G4	T	T	Threatened	S3S4B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Gros-bec errant	LC	G5				S3S4B,S4S5N
Canard d'Amérique	LC	G5				S3B
Pluvier kildir	LC	G5				S3B
Canard d'Amérique	LC	G5				S3B
Pluvier kildir	LC	G5				S3B
Engoulevent d'Amérique	LC	G5	T	T	Threatened	S3B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Urubu à tête rouge	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle de rivage	LC	G5	T			S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Canard d'Amérique	LC	G5				S3B
Troglodyte familial	LC	G5				S1B
Canard pilet	LC	G5				S3B
Canard souchet	LC	G5				S2B
Canard d'Amérique	LC	G5				S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Pluvier kildir	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Moqueur polyglotte	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B







DIRECTIONS	OBDATE
W side of lake	1970 07 01
BBA Region 13 (Border), square LF89	1988 07 XX
BBA Region 13 (Border), square LF89	1990 07 26
	1964 09 18
Near Breau Creek, on the Woodhurst Road	1976 07 16
	1931 08 21
within 4km of	1973-1997
	1931 08 21
along train track at bridge	2006 07 14
	2006 07 25
	1979 09 20
BBA Region 13 (Border), square LF89	1988 06 25
BBA Region 13 (Border), square LF89	1989 07 26
BBA Region 13 (Border), square LF89	1988 07 00
BBA Region 13 (Border), square LF89	1988 07 00
Marais Cormierville	1976 08 01
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2006 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2009 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
point count 10 in Dorchester UTM atlas square (20LR88)	2007 06 03
point count 10 in Dorchester UTM atlas square (20LR88)	2007 06 03
point count 2 in Hillsborough UTM atlas square (20LR78)	2009 06 27
point count 8 in Hillsborough UTM atlas square (20LR78)	2009 06 27
point count 8 in Hillsborough UTM atlas square (20LR78)	2009 06 27
Within Saint-Joseph UTM atlas square (20LR79)	2006 05 30
Within Saint-Joseph UTM atlas square (20LR79)	2006 06 24
Within Memramcook East UTM atlas square (20LR89)	2007 06 08
Within Memramcook East UTM atlas square (20LR89)	2007 06 17
Within Memramcook East UTM atlas square (20LR89)	2007 07 15
Within Memramcook East UTM atlas square (20LR89)	2010 06 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 13
Within Memramcook East UTM atlas square (20LR89)	2010 04 23
Within Memramcook East UTM atlas square (20LR89)	2010 05 10
Within Memramcook East UTM atlas square (20LR89)	2010 06 07
Within Memramcook East UTM atlas square (20LR89)	2010 06 07
Within Memramcook East UTM atlas square (20LR89)	2010 06 08
Within Memramcook East UTM atlas square (20LR89)	2010 05 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 16
Within Memramcook East UTM atlas square (20LR89)	2010 06 21
Within Memramcook East UTM atlas square (20LR89)	2010 06 29
Within Memramcook East UTM atlas square (20LR89)	2010 07 20
Within Memramcook East UTM atlas square (20LR89)	2010 06 08



## OBDATA

Count: 5 young.

Activity: Confirmed breeding: nest-building, carrying material.

Activity: Confirmed breeding: adult attending young.

Pheno.: larva. Activity: feeding.

Pheno.: larva. Descr.: many caterpillars of various ages on milkweeds in her yard. Activity: feeding.

Count: 1.

Activity: Probable breeding: agitated, indicating nesting.

Activity: Probable breeding: agitated, indicating nesting.

Activity: Probable breeding: pair observed (sexes similar).

Activity: Confirmed breeding: adult occupying nest.

Count: 1.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: juvenile. Activity: Confirmed Breeding: Recently fledged and/or dependent young.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Count: 1. Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Count: 4. Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 2. Pheno.: adult. Activity: Probable Breeding: Courtship or display.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 53. Pheno.: adult. Activity: Confirmed Breeding: Nest-building or carrying nest material.

Count: 10. Pheno.: adult. Activity: Confirmed Breeding: Nest-building or carrying nest material.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Count: 8. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 4. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 2. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

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Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

**GENDESC**

Habitat: low woods (poplar & alder). Ecol: Nesting area. Soil: NB130186.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Habitat: Overgrown field. Soil: NB130186.

Habitat: Near base of cool, shaded siliceous rocks in mature Red Spruce-Red Maple forest. Soil: NB130185.

Habitat: rivage maritime. Soil: NB130186.

Soil: NB130185.

Habitat: rivage maritime. Soil: NB130186.

Ecol: Adult foraging area.

Ecol: Adult foraging area.

Soil: NB130186.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Soil: NB130185.

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Soil: NB130185.

Soil: NB130186.

Soil: NB130186.

Soil: NB130187.

Soil: NB130186.

Soil: NB130186.

Soil: NB130185.

Soil: NB130185.

Soil: NB130185.

Soil: NB130185.

Soil: NB130185.

Soil: NB130185.

Soil: NB130440.

Soil: NB130440.

Soil: NB130440.

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Soil: NB130185.





IDNUM	EDITION
33712	MVD 2001 05 31
45292	SHG 2009 04 22
92242	SHG 2009 04 22
136924	SHG 2001 01 11
167398	SHG 2003 06 30
176777	SHG 2004 02 23
222326	SHG 2005 06
226689	TMP 2004 02 09
321682	SHG 2007 11 08
321684	SHG 2007 11 08
389446	SHG 2009 03 18
22778	SHG 2010 01 29
39519	SHG 2010 01 29
46241	SHG 2010 01 29
47415	SHG 2010 01 29
677814	SHG 2012 02 21
1109990	JLC 2014 03 01
1109998	JLC 2014 03 01
1110002	JLC 2014 03 01
1110003	JLC 2014 03 01
1110019	JLC 2014 03 01
1110028	JLC 2014 03 01
1110038	JLC 2014 03 01
1110039	JLC 2014 03 01
1169209	JLC 2014 03 01
1239233	JLC 2014 03 01
1267461	JLC 2014 03 01
1285032	JLC 2014 03 01
1285034	JLC 2014 03 01
1285035	JLC 2014 03 01
1285039	JLC 2014 03 01
1285080	JLC 2014 03 01
1285087	JLC 2014 03 01
1285097	JLC 2014 03 01
1285098	JLC 2014 03 01
1285101	JLC 2014 03 01
1343207	JLC 2014 03 01
1343209	JLC 2014 03 01
1383260	JLC 2014 03 01
1398881	JLC 2014 03 01
1398886	JLC 2014 03 01
1471397	JLC 2014 03 02
1471398	JLC 2014 03 02
1472021	JLC 2014 03 02
1472022	JLC 2014 03 02
1473039	JLC 2014 03 02
1478134	JLC 2014 03 02
1478135	JLC 2014 03 02
1478136	JLC 2014 03 02
1478140	JLC 2014 03 02
1478141	JLC 2014 03 02
1478142	JLC 2014 03 02
1478143	JLC 2014 03 02
1478144	JLC 2014 03 02
1478145	JLC 2014 03 02
1478238	JLC 2014 03 02
1478239	JLC 2014 03 02
1478240	JLC 2014 03 02
1478241	JLC 2014 03 02
1478242	JLC 2014 03 02



PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRINsoli	ABNNF01070	NB	<i>Tringa solitaria</i>	Solitary Sandpiper
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
BUCEalbe	ABNJB18030	NB	<i>Bucephala albeola</i>	Bufflehead
MERGserr	ABNJB21020	NB	<i>Mergus serrator</i>	Red-breasted Merganser
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
TRINsemi	ABNNF02010	NB	<i>Tringa semipalmata</i>	Willet
STERhiru	ABNNM08070	NB	<i>Sterna hirundo</i>	Common Tern
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASstre	ABNJB10160	NB	<i>Anas strepera</i>	Gadwall
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
MORUbass	ABNFB02010	NB	<i>Morus bassanus</i>	Northern Gannet
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
PHALloba	ABNNF20020	NB	<i>Phalaropus lobatus</i>	Red-necked Phalarope
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
MELAnigr	ABNJB17010	NB	<i>Melanitta nigra</i>	Black Scoter
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
CONTvire	ABPAE32060	NB	<i>Contopus virens</i>	Eastern Wood-Pewee
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink

Hirondelle à front blanc	LC	G5			S3S4B
Troglodyte familier	LC	G5			S1B
Troglodyte familier	LC	G5			S1B
Troglodyte familier	LC	G5			S1B
Pluvier bronzé	LC	G5			S3M
Pluvier bronzé	LC	G5			S3M
Chevalier solitaire	LC	G5			S2B,S5M
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Pluvier bronzé	LC	G5			S3M
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Érismature rousse	LC	G5			S1B,S4N
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Érismature rousse	LC	G5			S1B,S4N
Canard souchet	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Canard pilet	LC	G5			S3B
Canard souchet	LC	G5			S2B
Canard pilet	LC	G5			S3B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Petit Garrot	LC	G5			S3N
Harle huppé	LC	G5			S3B,S4S5N
Érismature rousse	LC	G5			S1B,S4N
Pluvier kildir	LC	G5			S3B
Chevalier semipalmé	LC	G5			S2S3B
Sterne pierregarin	LC	G5	NAR		S3B
Hirondelle de rivage	LC	G5	T		S3B
Hirondelle rustique	LC	G5	T	Threatened	S3B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Canard d'Amérique	LC	G5			S3B
Érismature rousse	LC	G5			S1B,S4N
Canard souchet	LC	G5			S2B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Érismature rousse	LC	G5			S1B,S4N
Canard pilet	LC	G5			S3B
Canard souchet	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Canard chipeau	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Fou de Bassan	LC	G5			SHB,S5M,S5N
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Phalarope à bec étroit	LC	G4G5	SC		S3M
Érismature rousse	LC	G5			S1B,S4N
Goglu des prés	LC	G5	T	Threatened	S3S4B
Macreuse noire	LC	G5			S3M,S2S3N
Érismature rousse	LC	G5			S1B,S4N
Pioui de l'Est	LC	G5	SC	Special Concern	S4B
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Goglu des prés	LC	G5	T	Threatened	S3S4B

3 Sensitive	83	2	150	-64.501763	45.984017	383682	5093368	2.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561126	45.983679	379083	5093419	1.7 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
3 Sensitive	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561215	45.983631	379076	5093414	1.7 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.549942	45.93877	379853	5088412	4.7 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.552339	46.0044	379809	5095708	2.8 ± 5.0	NBWEST
4 Secure	83	3	1000	-64.5295063	45.9429777	381446	5088849	4.3 ± 1.0	NBWEST
3 Sensitive	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST

21 H15 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph sewage Lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 CA-NB-Acadian Birder's yard - 1247 Taylor Rd  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook  
 21 I02 Memramcook  
 21 H15 Sackville/Memramcook  
 21 H15 Memramcook



Atlasser ID: 3365  
Atlasser ID: 3365  
Atlasser ID: 3365  
Atlasser ID: 3365  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Alain Clavette  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Gilbert Bouchard  
Gilbert Bouchard  
Gilbert Bouchard  
Gilbert Bouchard  
Stuart Tingley  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Stuart Tingley  
Alain Clavette  
Gilles Belliveau  
Gilles Belliveau  
Gilles Belliveau  
Alain Clavette  
Gilles Belliveau  
Gilles Belliveau  
Karine Gautreau  
Jean-Sebastien Guenette  
James Hirtle  
Roger Burrows

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1.

Count: 1.

Count: 1.

Count: 15.

Count: 1.

Count: 20.

Count: 15.

Count: 1.

Count: 22.

Count: 13.

Count: 1.

Count: 2.

Count: 4.

Count: 4.

Count: 1.

Count: 18.

Count: 4.

Count: 4.

Count: 5.

Count: 4.

Count: 4.

Count: 1.

Count: 3.

Count: 2.

Count: 4.

Count: 7.

Count: 2.

Count: 1.

Count: 3.

Count: 1.

Count: 2.

Count: 2.

Count: 7.

Count: 6.

Count: 41.

Count: 1.

Count: 46.

Count: 2.

Count: 41.

Count: 24.

Count: 42.

Count: 1.

Count: 4.

Count: 18.

Count: 1.

Count: 22.

Count: 2.

Count: 6.

Count: 1.









1478243 JLC 2014 03 02  
1478246 JLC 2014 03 02  
1478247 JLC 2014 03 02  
1478248 JLC 2014 03 02  
1680079 JLC 2015 03 29  
1680084 JLC 2015 03 29  
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1680128 JLC 2015 03 29  
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1689584 JLC 2015 03 29  
1689733 JLC 2015 03 29  
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1690140 JLC 2015 03 29  
1692455 JLC 2015 03 29  
1695673 JLC 2015 03 29  
1695674 JLC 2015 03 29  
1696546 JLC 2015 03 29  
1696554 JLC 2015 03 29  
1697011 JLC 2015 03 29  
1697447 JLC 2015 03 29

Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot
A <i>Myotis lucifugus</i>	Little Brown Myotis	Endangered	Endangered	Endangered
A <i>Myotis septentrionalis</i>	Northern Long-eared Myotis	Endangered	Endangered	Endangered
A <i>Perimyotis subflavus</i>	Eastern Pipistrelle	Endangered	Endangered	Endangered
A <i>Sterna dougallii</i>	Roseate Tern	Endangered	Endangered	Endangered
A <i>Dermodochelys coriacea</i> (Atlantic pop.)	Leatherback Sea Turtle - Atlantic pop.	Endangered	Endangered	Endangered
A <i>Morone saxatilis</i>	Striped Bass	Endangered		
A <i>Salmo salar</i> pop. 1	Atlantic Salmon - Inner Bay of Fundy pop.	Endangered	Endangered	Endangered
A <i>Charadrius melodus melodus</i>	Piping Plover melodus ssp	Endangered	Endangered	Endangered
A <i>Calidris canutus rufa</i>	Red Knot rufa ssp	Endangered		Endangered
A <i>Rangifer tarandus</i> pop. 2	Woodland Caribou (Atlantic-Gasp sie pop.)	Endangered	Endangered	Extirpated
A <i>Charadrius melodus</i>	Piping Plover	Endangered	Endangered	
A <i>Ixobrychus exilis</i>	Least Bittern	Threatened	Threatened	Threatened
A <i>Hylocichla mustelina</i>	Wood Thrush	Threatened		Threatened
A <i>Sturnella magna</i>	Eastern Meadowlark	Threatened		Threatened
A <i>Caprimulgus vociferus</i>	Whip-Poor-Will	Threatened	Threatened	Threatened
A <i>Chaetura pelagica</i>	Chimney Swift	Threatened	Threatened	Threatened
A <i>Catharus bicknelli</i>	Bicknell's Thrush	Threatened	Special Concern	Threatened
A <i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	Threatened		Threatened
A <i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	Threatened
A <i>Chordeiles minor</i>	Common Nighthawk	Threatened	Threatened	Threatened
A <i>Hirundo rustica</i>	Barn Swallow	Threatened		Threatened
A <i>Riparia riparia</i>	Bank Swallow	Threatened		
A <i>Contopus cooperi</i>	Olive-sided Flycatcher	Threatened	Threatened	Threatened
A <i>Wilsonia canadensis</i>	Canada Warbler	Threatened	Threatened	Threatened
A <i>Dolichonyx oryzivorus</i>	Bobolink	Threatened		Threatened
A <i>Anguilla rostrata</i>	American Eel	Threatened		Threatened
A <i>Coturnicops noveboracensis</i>	Yellow Rail	Special Concern	Special Concern	Special Concern
A <i>Falco peregrinus</i> pop. 1	Peregrine Falcon - anatum/tundrius	Special Concern	Special Concern	Endangered
A <i>Bucephala islandica</i> (Eastern pop.)	Barrow's Goldeneye - Eastern pop.	Special Concern	Special Concern	Special Concern
A <i>Balaenoptera physalus</i>	Fin Whale - Atlantic pop.	Special Concern	Special Concern	Special Concern
A <i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	Special Concern
A <i>Asio flammeus</i>	Short-eared Owl	Special Concern	Special Concern	Special Concern
A <i>Euphagus carolinus</i>	Rusty Blackbird	Special Concern	Special Concern	Special Concern
A <i>Phalaropus lobatus</i>	Red-necked Phalarope	Special Concern		
A <i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern		Special Concern
A <i>Falco peregrinus</i>	Peregrine Falcon	Special Concern		
A <i>Lynx canadensis</i>	Canadian Lynx	Not At Risk		Endangered
A <i>Sorex dispar</i>	Long-tailed Shrew	Not At Risk	Special Concern	
A <i>Hemidactylium scutatum</i>	Four-toed Salamander	Not At Risk		
A <i>Cistothorus platensis</i>	Sedge Wren	Not At Risk		
A <i>Falco rusticolus</i>	Gyrfalcon	Not At Risk		
A <i>Accipiter cooperii</i>	Cooper's Hawk	Not At Risk		
A <i>Aegolius funereus</i>	Boreal Owl	Not At Risk		
A <i>Buteo lineatus</i>	Red-shouldered Hawk	Not At Risk	Special Concern	
A <i>Fulica americana</i>	American Coot	Not At Risk		
A <i>Chlidonias niger</i>	Black Tern	Not At Risk		
A <i>Desmognathus fuscus</i> (QC/NB pop.)	Northern Dusky Salamander - QC/NB pop.	Not At Risk		
A <i>Haliaeetus leucocephalus</i>	Bald Eagle	Not At Risk		Endangered
A <i>Sterna hirundo</i>	Common Tern	Not At Risk		
A <i>Podiceps grisegena</i>	Red-necked Grebe	Not At Risk		
A <i>Lagenorhynchus acutus</i>	Atlantic White-sided Dolphin	Not At Risk		
A <i>Canis lupus</i>	Gray Wolf	Not At Risk		Extirpated
A <i>Puma concolor</i> pop. 1	Cougar - Eastern pop.	Data Deficient		Endangered
A <i>Salvelinus alpinus</i>	Arctic Char			
A <i>Bartramia longicauda</i>	Upland Sandpiper			
A <i>Phalaropus tricolor</i>	Wilson's Phalarope			
A <i>Leucophaeus atricilla</i>	Laughing Gull			
A <i>Sterna paradisaea</i>	Arctic Tern			
A <i>Troglodytes aedon</i>	House Wren			
A <i>Aythya marila</i>	Greater Scaup			
A <i>Oxyura jamaicensis</i>	Ruddy Duck			
A <i>Rissa tridactyla</i>	Black-legged Kittiwake			
A <i>Butorides virescens</i>	Green Heron			
A <i>Nycticorax nycticorax</i>	Black-crowned Night-heron			
A <i>Gallinula chloropus</i>	Common Moorhen			
A <i>Fratercula arctica</i>	Atlantic Puffin			
A <i>Empidonax traillii</i>	Willow Flycatcher			
A <i>Progne subis</i>	Purple Martin			
A <i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow			
A <i>Salmo salar</i>	Atlantic Salmon			
A <i>Eptesicus fuscus</i>	Big Brown Bat			
A <i>Lasiurus cinereus</i>	Hoary Bat			
A <i>Oceanodroma leucorhoa</i>	Leach's Storm-Petrel			
A <i>Anas clypeata</i>	Northern Shoveler			
A <i>Anas strepera</i>	Gadwall			
A <i>Eremophila alpestris</i>	Horned Lark			
A <i>Cistothorus palustris</i>	Marsh Wren			
A <i>Toxostoma rufum</i>	Brown Thrasher			

A	<i>Poocetes gramineus</i>	Vesper Sparrow		
A	<i>Tringa solitaria</i>	Solitary Sandpiper		
A	<i>Chroicocephalus ridibundus</i>	Black-headed Gull		
A	<i>Somateria spectabilis</i>	King Eider		
A	<i>Asio otus</i>	Long-eared Owl		
A	<i>Tringa semipalmata</i>	Willet		
A	<i>Pinicola enucleator</i>	Pine Grosbeak		
A	<i>Branta bernicla</i>	Brant		
A	<i>Cepphus grylle</i>	Black Guillemot		
A	<i>Loxia curvirostra</i>	Red Crossbill		
A	<i>Sorex maritimensis</i>	Maritime Shrew		
A	<i>Synaptomys cooperi</i>	Southern Bog Lemming		
A	<i>Picoides dorsalis</i>	American Three-toed Woodpecker		
A	<i>Anas acuta</i>	Northern Pintail		
A	<i>Anas americana</i>	American Wigeon		
A	<i>Cathartes aura</i>	Turkey Vulture		
A	<i>Rallus limicola</i>	Virginia Rail		
A	<i>Charadrius vociferus</i>	Killdeer		
A	<i>Larus delawarensis</i>	Ring-billed Gull		
A	<i>Myiarchus crinitus</i>	Great Crested Flycatcher		
A	<i>Mimus polyglottos</i>	Northern Mockingbird		
A	<i>Passerina cyanea</i>	Indigo Bunting		
A	<i>Molothrus ater</i>	Brown-headed Cowbird		
A	<i>Mergus serrator</i>	Red-breasted Merganser		
A	<i>Pluvialis dominica</i>	American Golden-Plover		
A	<i>Phalaropus fulicarius</i>	Red Phalarope		
A	<i>Melanitta nigra</i>	Black Scoter		
A	<i>Calidris maritima</i>	Purple Sandpiper		
A	<i>Bucephala albeola</i>	Bufflehead		
A	<i>Tyrannus tyrannus</i>	Eastern Kingbird		
A	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow		
A	<i>Piranga olivacea</i>	Scarlet Tanager		
A	<i>Coccothraustes vespertinus</i>	Evening Grosbeak		
A	<i>Podiceps auritus</i>	Horned Grebe		Special Concern
A	<i>Morus bassanus</i>	Northern Gannet		
A	<i>Lanius ludovicianus</i>	Loggerhead Shrike		
I	<i>Gomphus ventricosus</i>	Skillet Clubtail	Endangered	Endangered
I	<i>Alasmidonta varicosa</i>	Brook Floater	Special Concern	Special Concern
I	<i>Lampsilis cariosa</i>	Yellow Lampmussel	Special Concern	Special Concern
I	<i>Danaus plexippus</i>	Monarch	Special Concern	Special Concern
I	<i>Erora laeta</i>	Early Hairstreak	Special Concern	Special Concern
I	<i>Leucorrhinia patricia</i>	Canada Whiteface		
I	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle		
I	<i>Callophrys henrici</i>	Henry's Elfin		
I	<i>Strymon melinus</i>	Grey Hairstreak		
I	<i>Cupido comyntas</i>	Eastern Tailed Blue		
I	<i>Somatochlora brevicincta</i>	Quebec Emerald		
I	<i>Somatochlora tenebrosa</i>	Clamp-Tipped Emerald		
I	<i>Ladona exusta</i>	White Corporal		
I	<i>Alasmidonta undulata</i>	Triangle Floater		
I	<i>Cicindela hirticollis</i>	Hairy-necked Tiger Beetle		
I	<i>Gomphus abbreviatus</i>	Spine-crowned Clubtail		
I	<i>Lestes vigilax</i>	Swamp Spreadwing		
I	<i>Hesperia sassacus</i>	Indian Skipper		
I	<i>Euphyes bimacula</i>	Two-spotted Skipper		
I	<i>Papilio brevicauda</i>	Short-tailed Swallowtail		
I	<i>Papilio brevicauda bretonensis</i>	Short-tailed Swallowtail		
I	<i>Lycaena hyllus</i>	Bronze Copper		
I	<i>Lycaena dospassosi</i>	Salt Marsh Copper		
I	<i>Satyrrium acadica</i>	Acadian Hairstreak		
I	<i>Callophrys polios</i>	Hoary Elfin		
I	<i>Plebejus idas</i>	Northern Blue		
I	<i>Plebejus idas empetri</i>	Crowberry Blue		
I	<i>Plebejus saepiolus</i>	Greenish Blue		
I	<i>Speyeria aphrodite</i>	Aphrodite Fritillary		
I	<i>Boloria chariclea</i>	Arctic Fritillary		
I	<i>Chlosyne nycteis</i>	Silvery Checkerspot		
I	<i>Polygonia gracilis</i>	Hoary Comma		
I	<i>Nymphalis l-album</i>	Compton Tortoiseshell		
I	<i>Oeneis jutta</i>	Jutta Arctic		
I	<i>Dorocordulia lepida</i>	Petite Emerald		
I	<i>Somatochlora cingulata</i>	Lake Emerald		
I	<i>Somatochlora forcipata</i>	Forcipate Emerald		
I	<i>Williamsonia fletcheri</i>	Ebony Boghaunter		
I	<i>Lestes eurinus</i>	Amber-Winged Spreadwing		
I	<i>Stylurus scudderi</i>	Zebra Clubtail		
I	<i>Leptodea ochracea</i>	Tidewater Mucket		
I	<i>Pantala hymenaea</i>	Spot-Winged Glider		
I	<i>Satyrrium liparops</i>	Striped Hairstreak		

I	<i>Satyrium liparops strigosum</i>	Striped Hairstreak			
N	<i>Erioderma mollissimum</i>	Graceful Felt Lichen	Endangered		Endangered
N	<i>Erioderma pedicellatum (Atlantic pop.)</i>	Boreal Felt Lichen - Atlantic pop.	Endangered	Endangered	Endangered
N	<i>Peltigera hydrothyria</i>	Eastern Waterfan	Threatened		
N	<i>Degelia plumbea</i>	Blue Felt Lichen	Special Concern	Special Concern	Special Concern
N	<i>Pseudevernia cladonia</i>	Ghost Antler Lichen	Not At Risk		
N	<i>Aloina rigida</i>	Aloe-Like Rigid Screw Moss			
N	<i>Anomodon minor</i>	Blunt-leaved Anomodon Moss			
N	<i>Anomodon viticulosus</i>	a Moss			
N	<i>Atrichum angustatum</i>	Lesser Smoothcap Moss			
N	<i>Aulacomnium heterostichum</i>	One-sided Groove Moss			
N	<i>Bartramia ithyphylla</i>	Straight-leaved Apple Moss			
N	<i>Bryum salinum</i>	a Moss			
N	<i>Dicranoweisia crispula</i>	Mountain Thatch Moss			
N	<i>Dicranum bonjeanii</i>	Bonjean's Broom Moss			
N	<i>Dicranum condensatum</i>	Condensed Broom Moss			
N	<i>Didymodon rigidulus var. gracilis</i>	a moss			
N	<i>Distichium inclinatum</i>	Inclined Iris Moss			
N	<i>Ditrichum pallidum</i>	Pale Cow-hair Moss			
N	<i>Entodon brevisetus</i>	a Moss			
N	<i>Eurhynchium hians</i>	Light Beaked Moss			
N	<i>Homomallium adnatum</i>	Adnate Hairy-gray Moss			
N	<i>Plagiothecium latebricola</i>	Alder Silk Moss			
N	<i>Rhytidiadelphus loreus</i>	Lanky Moss			
N	<i>Rhytidium rugosum</i>	Wrinkle-leaved Moss			
N	<i>Seligeria recurvata</i>	a Moss			
N	<i>Sphagnum strictum</i>	Atlantic Peat Moss			
N	<i>Timmia megapolitana</i>	Metropolitan Timmia Moss			
N	<i>Timmia norvegica</i>	a moss			
N	<i>Tortella humilis</i>	Small Crisp Moss			
N	<i>Syntrichia ruralis</i>	a Moss			
N	<i>Pseudotaxiphyllum distichaceum</i>	a Moss			
N	<i>Cladonia metacorallifera</i>	Reptilian Pixie-cup Lichen			
N	<i>Fuscopannaria ahlneri</i>	Corrugated Shingles Lichen			
N	<i>Coccocarpia palmicola</i>	Salted Shell Lichen			
N	<i>Peltigera malacea</i>	Veinless Pelt Lichen			
N	<i>Bryoria bicolor</i>	Electrified Horsehair Lichen			
N	<i>Pohlia filum</i>	a Moss			
N	<i>Anomobryum filiforme</i>	a moss			
N	<i>Anacamptodon splachnoides</i>	a Moss			
N	<i>Andreaea rothii</i>	a Moss			
N	<i>Bryum pallescens</i>	Pale Bryum Moss			
N	<i>Dichelyma capillaceum</i>	Hairlike Dichelyma Moss			
N	<i>Dicranum spurium</i>	Spurred Broom Moss			
N	<i>Anomodon tristis</i>	a Moss			
N	<i>Hygrohypnum bestii</i>	Best's Brook Moss			
N	<i>Hygrohypnum montanum</i>	a Moss			
N	<i>Seligeria diversifolia</i>	a Moss			
N	<i>Sphagnum angermanicum</i>	a Peatmoss			
N	<i>Tetradontium brownianum</i>	Little Georgia			
N	<i>Tortula mucronifolia</i>	Mucronate Screw Moss			
N	<i>Trichodon cylindricus</i>	Cylindric Hairy-teeth Moss			
N	<i>Plagiommium rostratum</i>	Long-beaked Leafy Moss			
N	<i>Peltigera scabrosa</i>	Greater Toad Pelt Lichen			
N	<i>Cephaloziella spinigera</i>	Spiny Threadwort			
N	<i>Cladopodiella francisci</i>	Holt's Notchwort			
N	<i>Harpanthus flotovianus</i>	Great Mountain Flapwort			
N	<i>Hygrobiella laxifolia</i>	Lax Notchwort			
N	<i>Jungermannia obovata</i>	Egg Flapwort			
N	<i>Lophozia ascendens</i>	Small Notchwort			
N	<i>Radula tenax</i>	Tenacious Scalewort			
N	<i>Scapania gymnostomophila</i>	Narrow-lobed Earwort			
N	<i>Tritomaria scitula</i>	Mountain Notchwort			
N	<i>Amphidium mougeotii</i>	a Moss			
N	<i>Bryum uliginosum</i>	a Moss			
N	<i>Buxbaumia aphylla</i>	Brown Shield Moss			
N	<i>Campylium polygamum</i>	a Moss			
N	<i>Cirriphyllum piliferum</i>	Hair-pointed Moss			
N	<i>Dicranella palustris</i>	Drooping-Leaved Fork Moss			
N	<i>Isopterygiopsis pulchella</i>	Neat Silk Moss			
N	<i>Orthotrichum speciosum</i>	Showy Bristle Moss			
N	<i>Physcomitrium pyriforme</i>	Pear-shaped Urn Moss			
N	<i>Platydictya jungermannioides</i>	False Willow Moss			
N	<i>Pohlia elongata</i>	Long-necked Nodding Moss			
N	<i>Pohlia prolifera</i>	Cottony Nodding Moss			
N	<i>Pohlia sphagnicola</i>	a moss			
N	<i>Racomitrium fasciculare</i>	a Moss			
N	<i>Racomitrium affine</i>	a Moss			
N	<i>Saelania glaucescens</i>	Blue Dew Moss			

N <i>Seligeria calcarea</i>	Chalk Brittle Moss
N <i>Sphagnum centrale</i>	Central Peat Moss
N <i>Sphagnum flexuosum</i>	Flexuous Peatmoss
N <i>Taxiphyllum deplanatum</i>	Imbricate Yew-leaved Moss
N <i>Tayloria serrata</i>	Serrate Trumpet Moss
N <i>Thamnobryum alleghaniense</i>	a Moss
N <i>Ulota phyllantha</i>	a Moss
N <i>Zygodon viridissimus</i>	a Moss
N <i>Schistidium agassizii</i>	Elf Bloom Moss
N <i>Loeskeobryum brevirostre</i>	a Moss
N <i>Ramalina pollinaria</i>	Chalky Ramalina Lichen
N <i>Umbilicaria vellea</i>	Grizzled Rocktripe Lichen
N <i>Cladonia macrophylla</i>	Fig-leaved Lichen
N <i>Nephroma arcticum</i>	Arctic Kidney Lichen
N <i>Calliergonella cuspidata</i>	Common Large Wetland Moss
N <i>Didymodon rigidulus</i>	Rigid Screw Moss
N <i>Didymodon fallax</i>	False Beard Moss
N <i>Ephemerum serratum</i>	a Moss
N <i>Cyrtomnium hymenophylloides</i>	Short-pointed Lantern Moss
N <i>Nephroma bellum</i>	Naked Kidney Lichen
N <i>Sphaerophorus globosus</i>	Northern Coral Lichen
N <i>Cladonia sulphurina</i>	Greater Sulphur-cup Lichen
N <i>Bazzania tricrenata</i>	Three-toothed Whipwort
N <i>Cephaloziella divaricata</i>	Common Threadwort
N <i>Riccia fluitans</i>	Floating Crystalwort
N <i>Anomodon rugelii</i>	Rugel's Anomodon Moss
N <i>Aulacomnium androgynum</i>	Little Groove Moss
N <i>Dicranella cerviculata</i>	a Moss
N <i>Dicranum majus</i>	Greater Broom Moss
N <i>Encalypta ciliata</i>	Fringed Extinguisher Moss
N <i>Heterocladium dimorphum</i>	Dimorphous Tangle Moss
N <i>Hypnum curvifolium</i>	Curved-leaved Plait Moss
N <i>Pleuroidium subulatum</i>	a Moss
N <i>Pogonatum dentatum</i>	Mountain Hair Moss
N <i>Sphagnum compactum</i>	Compact Peat Moss
N <i>Sphagnum torreyanum</i>	a Peatmoss
N <i>Sphagnum austinii</i>	Austin's Peat Moss
N <i>Tetraphis geniculata</i>	Geniculate Four-tooth Moss
N <i>Tortella fragilis</i>	Fragile Twisted Moss
N <i>Weissia controversa</i>	Green-Cushioned Weissia
N <i>Trichostomum tenuirostre</i>	Acid-Soil Moss
N <i>Schistidium maritimum</i>	a Moss
N <i>Hymenostylium recurvirostre</i>	Hymenostylium Moss
N <i>Rauvella scita</i>	Smaller Fern Moss
N <i>Anzia colpodes</i>	Black-foam Lichen
N <i>Collema nigrescens</i>	Blistered Tarpaper Lichen
N <i>Solorina saccata</i>	Woodland Owl Lichen
N <i>Ahtiana aurescens</i>	Eastern Candlewax Lichen
N <i>Leptogium lichenoides</i>	Tattered Jellyskin Lichen
N <i>Protopannaria pezizoides</i>	Brown-gray Moss-shingle Lichen
N <i>Usnea strigosa</i>	Bushy Beard Lichen
N <i>Leptogium laceroides</i>	Short-bearded Jellyskin Lichen
N <i>Peltigera membranacea</i>	Membranous Pelt Lichen
N <i>Dicranella rufescens</i>	Red Forklet Moss
N <i>Sphagnum lescurii</i>	a Peatmoss
N <i>Cladonia farinacea</i>	Farinose Pixie Lichen
N <i>Cladonia carneola</i>	Crowned Pixie-cup Lichen
N <i>Dermatocarpon luridum</i>	Brookside Stippleback Lichen
N <i>Atrichum tenellum</i>	Slender Smoothcap Moss
N <i>Barbula convoluta</i>	Lesser Bird's-claw Beard Moss
N <i>Blindia acuta</i>	a Moss
N <i>Brachythecium campestre</i>	Field Ragged Moss
N <i>Brachythecium velutinum</i>	Velvet Ragged Moss
N <i>Dicranella subulata</i>	Awl-leaved Forklet Moss
N <i>Dicranella varia</i>	a Moss
N <i>Dicranum leioneuron</i>	a Dicranum Moss
N <i>Distichium capillaceum</i>	Erect-fruited Iris Moss
N <i>Fissidens bryoides</i>	Lesser Pocket Moss
N <i>Hypnum fauriei</i>	a Moss
N <i>Isopterygiopsis muelleriana</i>	a Moss
N <i>Myurella julacea</i>	Small Mouse-tail Moss
N <i>Pohlia annotina</i>	a Moss
N <i>Pohlia andalusica</i>	a Moss
N <i>Tortula truncata</i>	a Moss
N <i>Racomitrium canescens</i>	Grey Rock Moss
N <i>Sphagnum majus</i>	Olive Peat Moss
N <i>Sphagnum quinquefarium</i>	Five-ranked Peat Moss
N <i>Tetraplodon angustatus</i>	Toothed-leaved Nitrogen Moss
N <i>Abietinella abietina</i>	Wiry Fern Moss

N	<i>Hylocomiastrum pyrenaicum</i>	a Feather Moss			
N	<i>Pannaria rubiginosa</i>	Brown-eyed Shingle Lichen			
N	<i>Ramalina thrausta</i>	Angelhair Ramalina Lichen			
N	<i>Melanelia panniformis</i>	Shingled Camouflage Lichen			
N	<i>Nephroma parile</i>	Powdery Kidney Lichen			
N	<i>Peltigera degenii</i>	Lustrous Pelt Lichen			
N	<i>Pseudocyphellaria perpetua</i>	Gilded Specklebelly Lichen			
N	<i>Stereocaulon paschale</i>	Easter Foam Lichen			
N	<i>Stereocaulon subcoralloides</i>	Coralloid Foam Lichen			
N	<i>Anaptychia palmulata</i>	Shaggy Fringed Lichen			
N	<i>Peltigera neopolydactyla</i>	Undulating Pelt Lichen			
N	<i>Cladonia cariosa</i>	Lesser Ribbed Pixie Lichen			
N	<i>Cladonia floerkeana</i>	Gritty British Soldiers Lichen			
N	<i>Phaeophyscia sciastra</i>	Dark Shadow Lichen			
N	<i>Cladonia deformis</i>	Lesser Sulphur-cup Lichen			
N	<i>Leucodon brachypus</i>	a Moss			
N	<i>Splachnum luteum</i>	Yellow Collar Moss			
N	<i>Cyrtio-hypnum minutulum</i>	Tiny Cedar Moss			
P	<i>Juglans cinerea</i>	Butternut	Endangered	Endangered	Endangered
P	<i>Symphotrichum laurentianum</i>	Gulf of St Lawrence Aster	Threatened	Threatened	Endangered
P	<i>Symphotrichum subulatum (Bathurst pop)</i>	Bathurst Aster - Bathurst pop.	Special Concern	Special Concern	Endangered
P	<i>Isoetes prototypus</i>	Prototype Quillwort	Special Concern	Special Concern	Endangered
P	<i>Lechea maritima var. subcylindrica</i>	Beach Pinweed	Special Concern		
P	<i>Cryptotaenia canadensis</i>	Canada Honewort			
P	<i>Antennaria howellii ssp. petaloidea</i>	Pussy-Toes			
P	<i>Symphotrichum subulatum (non-Bathurst pop)</i>	Annual Saltmarsh Aster			
P	<i>Pseudognaphalium obtusifolium</i>	Eastern Cudweed			
P	<i>Hieracium paniculatum</i>	Panicled Hawkweed			
P	<i>Hieracium robinsonii</i>	Robinson's Hawkweed			
P	<i>Solidago multiradiata</i>	Multi-rayed Goldenrod			
P	<i>Cardamine parviflora var. arenicola</i>	Small-flowered Bittercress			
P	<i>Draba arabisans</i>	Rock Whitlow-Grass			
P	<i>Draba glabella</i>	Rock Whitlow-Grass			
P	<i>Stellaria crassifolia</i>	Fleshy Stitchwort			
P	<i>Chenopodium simplex</i>	Maple-leaved Goosefoot			
P	<i>Suaeda rolandii</i>	Roland's Sea-Blite			
P	<i>Triadenum virginicum</i>	Virginia St John's-wort			
P	<i>Corema conradii</i>	Broom Crowberry			
P	<i>Vaccinium boreale</i>	Northern Blueberry			
P	<i>Chamaesyce polygonifolia</i>	Seaside Spurge			
P	<i>Desmodium glutinosum</i>	Large Tick-Trefoil			
P	<i>Proserpinaca pectinata</i>	Comb-leaved Mermaidweed			
P	<i>Primula laurentiana</i>	Laurentian Primrose			
P	<i>Amelanchier fernaldii</i>	Fernald's Serviceberry			
P	<i>Crataegus jonesiae</i>	Jones' Hawthorn			
P	<i>Dryas integrifolia</i>	Entire-leaved Mountain Avens			
P	<i>Waldsteinia fragarioides</i>	Barren Strawberry			
P	<i>Salix myrtilifolia</i>	Blueberry Willow			
P	<i>Saxifraga paniculata ssp. neogaea</i>	White Mountain Saxifrage			
P	<i>Agalinis tenuifolia</i>	Slender Agalinis			
P	<i>Viola sagittata var. ovata</i>	Arrow-Leaved Violet			
P	<i>Carex annectens</i>	Yellow-Fruited Sedge			
P	<i>Carex atlantica ssp. atlantica</i>	Atlantic Sedge			
P	<i>Carex backii</i>	Rocky Mountain Sedge			
P	<i>Carex comosa</i>	Bearded Sedge			
P	<i>Carex merritt-feraldii</i>	Merritt Fernald's Sedge			
P	<i>Carex sterilis</i>	Sterile Sedge			
P	<i>Carex grisea</i>	Inflated Narrow-leaved Sedge			
P	<i>Scirpus pendulus</i>	Hanging Bulrush			
P	<i>Sisyrinchium angustifolium</i>	Narrow-leaved Blue-eyed-grass			
P	<i>Juncus greenei</i>	Greene's Rush			
P	<i>Juncus stygius ssp. americanus</i>	Moor Rush			
P	<i>Goodyera pubescens</i>	Downy Rattlesnake-Plantain			
P	<i>Malaxis brachypoda</i>	White Adder's-Mouth			
P	<i>Platanthera macrophylla</i>	Large Round-Leaved Orchid			
P	<i>Spiranthes ochroleuca</i>	Yellow Ladies'-tresses			
P	<i>Calamagrostis stricta ssp. inexpansa</i>	Slim-stemmed Reed Grass			
P	<i>Danthonia compressa</i>	Flattened Oat Grass			
P	<i>Elymus wiegandii</i>	Wiegand's Wild Rye			
P	<i>Festuca subverticillata</i>	Nodding Fescue			
P	<i>Puccinellia ambigua</i>	Dwarf Alkali Grass			
P	<i>Potamogeton friesii</i>	Fries' Pondweed			
P	<i>Cystopteris laurentiana</i>	Laurentian Bladder Fern			
P	<i>Dryopteris filix-mas</i>	Male Fern			
P	<i>Huperzia selago</i>	Northern Firmoss			
P	<i>Schizaea pusilla</i>	Little Curlygrass Fern			
P	<i>Cuscuta cephalanthi</i>	Buttonbush Dodder			
P	<i>Humulus lupulus var. lupuloides</i>	Common Hop			
P	<i>Carex rostrata</i>	Narrow-leaved Beaked Sedge			



P	<i>Selaginella rupestris</i>	Rock Spikemoss	
P	<i>Listera australis</i>	Southern Twayblade	Endangered
P	<i>Pseudognaphalium macounii</i>	Macoun's Cudweed	
P	<i>Solidago altissima</i>	Tall Goldenrod	
P	<i>Ionactis linariifolius</i>	Stiff Aster	
P	<i>Impatiens pallida</i>	Pale Jewelweed	
P	<i>Arabis drummondii</i>	Drummond's Rockcross	
P	<i>Sagina nodosa</i>	Knotted Pearlwort	
P	<i>Sagina nodosa ssp. borealis</i>	Knotted Pearlwort	
P	<i>Stellaria longifolia</i>	Long-leaved Starwort	
P	<i>Atriplex franktonii</i>	Frankton's Saltbush	
P	<i>Chenopodium rubrum</i>	Red Pigweed	
P	<i>Callitriche hermaphroditica</i>	Northern Water-starwort	
P	<i>Hypericum dissimulatum</i>	Disguised St John's-wort	
P	<i>Shepherdia canadensis</i>	Soapberry	
P	<i>Oxytropis campestris var. johannensis</i>	Field Locoweed	
P	<i>Gentiana linearis</i>	Narrow-Leaved Gentian	
P	<i>Myriophyllum humile</i>	Low Water Milfoil	
P	<i>Hedeoma pulegioides</i>	American False Pennyroyal	
P	<i>Nuphar lutea ssp. rubrodisca</i>	Red-disked Yellow Pond-lily	
P	<i>Polygala paucifolia</i>	Fringed Milkwort	
P	<i>Polygala sanguinea</i>	Blood Milkwort	
P	<i>Polygonum careyi</i>	Carey's Smartweed	
P	<i>Anemone parviflora</i>	Small-flowered Anemone	
P	<i>Hepatica nobilis var. obtusa</i>	Round-lobed Hepatica	
P	<i>Crataegus scabrada</i>	Rough Hawthorn	
P	<i>Crataegus succulenta</i>	Fleshy Hawthorn	
P	<i>Sanguisorba canadensis</i>	Canada Burnet	
P	<i>Euphrasia randii</i>	Rand's Eyebright	
P	<i>Scrophularia lanceolata</i>	Lance-leaved Figwort	
P	<i>Dirca palustris</i>	Eastern Leatherwood	
P	<i>Sagittaria calycina var. spongiosa</i>	Long-lobed Arrowhead	
P	<i>Symplocarpus foetidus</i>	Eastern Skunk Cabbage	
P	<i>Carex granularis</i>	Limestone Meadow Sedge	
P	<i>Carex gynocrates</i>	Northern Bog Sedge	
P	<i>Carex hirtifolia</i>	Pubescent Sedge	
P	<i>Carex livida var. radicaulis</i>	Livid Sedge	
P	<i>Carex prairea</i>	Prairie Sedge	
P	<i>Carex sprengeii</i>	Longbeak Sedge	
P	<i>Carex tenuiflora</i>	Sparse-Flowered Sedge	
P	<i>Carex albicans var. emmonsii</i>	White-tinged Sedge	
P	<i>Carex vacillans</i>	Estuarine Sedge	
P	<i>Eriophorum gracile</i>	Slender Cottongrass	
P	<i>Blysmus rufus</i>	Red Bulrush	
P	<i>Juncus vaseyi</i>	Vasey Rush	
P	<i>Lemna trisulca</i>	Star Duckweed	
P	<i>Allium tricoccum</i>	Wild Leek	
P	<i>Calypso bulbosa var. americana</i>	Calypso	
P	<i>Coeloglossum viride var. virescens</i>	Long-bracted Frog Orchid	
P	<i>Cypripedium parviflorum var. makasin</i>	Small Yellow Lady's-Slipper	
P	<i>Goodyera oblongifolia</i>	Menzies' Rattlesnake-plantain	
P	<i>Spiranthes cernua</i>	Nodding Ladies'-Tresses	
P	<i>Spiranthes lucida</i>	Shining Ladies'-Tresses	
P	<i>Dichantheium linearifolium</i>	Narrow-leaved Panic Grass	
P	<i>Elymus canadensis</i>	Canada Wild Rye	
P	<i>Piptatherum canadense</i>	Canada Rice Grass	
P	<i>Puccinellia laurentiana</i>	Nootka Alkali Grass	
P	<i>Puccinellia phryganodes</i>	Creeping Alkali Grass	
P	<i>Zizania aquatica var. aquatica</i>	Indian Wild Rice	
P	<i>Piptatherum pungens</i>	Slender Rice Grass	
P	<i>Stuckenia filiformis ssp. alpina</i>	Thread-leaved Pondweed	
P	<i>Potamogeton richardsonii</i>	Richardson's Pondweed	
P	<i>Potamogeton vaseyi</i>	Vasey's Pondweed	
P	<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	
P	<i>Woodwardia virginica</i>	Virginia Chain Fern	
P	<i>Woodsia alpina</i>	Alpine Cliff Fern	
P	<i>Lycopodium sitchense</i>	Sitka Clubmoss	
P	<i>Selaginella selaginoides</i>	Low Spikemoss	
P	<i>Toxicodendron radicans</i>	Poison Ivy	
P	<i>Osmorhiza longistylis</i>	Smooth Sweet Cicely	
P	<i>Symphyotrichum novi-belgii var. crenifolium</i>	New York Aster	
P	<i>Proserpinaca palustris var. crebra</i>	Marsh Mermaidweed	
P	<i>Epilobium coloratum</i>	Purple-veined Willowherb	
P	<i>Rubus pensilvanicus</i>	Pennsylvania Blackberry	
P	<i>Rubus recurvicaulis</i>	Arching Dewberry	
P	<i>Galium obtusum</i>	Blunt-leaved Bedstraw	
P	<i>Salix myricoides</i>	Bayberry Willow	
P	<i>Platanthera huronensis</i>	Fragrant Green Orchid	
P	<i>Eragrostis pectinacea</i>	Tufted Love Grass	

P	<i>Ceratophyllum echinatum</i>	Prickly Hornwort
P	<i>Elatine americana</i>	American Waterwort
P	<i>Bartonia paniculata</i>	Branched Bartonia
P	<i>Bartonia paniculata</i> ssp. <i>iodandra</i>	Branched Bartonia
P	<i>Geranium robertianum</i>	Herb Robert
P	<i>Rumex maritimus</i> var. <i>persicarioides</i>	Peach-leaved Dock
P	<i>Rumex pallidus</i>	Seabeach Dock
P	<i>Galium labradoricum</i>	Labrador Bedstraw
P	<i>Valeriana uliginosa</i>	Swamp Valerian
P	<i>Carex adusta</i>	Lesser Brown Sedge
P	<i>Corallorhiza maculata</i> var. <i>occidentalis</i>	Spotted Coralroot
P	<i>Listera auriculata</i>	Auricled Twayblade
P	<i>Potamogeton praelongus</i>	White-stemmed Pondweed
P	<i>Isoetes acadensis</i>	Acadian Quillwort
P	<i>Ophioglossum pusillum</i>	Northern Adder's-tongue
P	<i>Panax trifolius</i>	Dwarf Ginseng
P	<i>Artemisia campestris</i>	Field Wormwood
P	<i>Artemisia campestris</i> ssp. <i>caudata</i>	Field Wormwood
P	<i>Bidens hyperborea</i>	Estuary Beggarticks
P	<i>Bidens hyperborea</i> var. <i>hyperborea</i>	Estuary Beggarticks
P	<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane
P	<i>Symphotrichum boreale</i>	Boreal Aster
P	<i>Betula pumila</i>	Bog Birch
P	<i>Arabis glabra</i>	Tower Mustard
P	<i>Arabis hirsuta</i> var. <i>pycnocarpa</i>	Western Hairy Rockcress
P	<i>Cardamine maxima</i>	Large Toothwort
P	<i>Subularia aquatica</i> var. <i>americana</i>	Water Awlwort
P	<i>Stellaria humifusa</i>	Saltmarsh Starwort
P	<i>Hudsonia tomentosa</i>	Woolly Beach-heath
P	<i>Crassula aquatica</i>	Water Pygmyweed
P	<i>Rhodiola rosea</i>	Roseroot
P	<i>Penthorum sedoides</i>	Ditch Stonecrop
P	<i>Elatine minima</i>	Small Waterwort
P	<i>Halenia deflexa</i>	Spurred Gentian
P	<i>Geranium bicknellii</i>	Bicknell's Crane's-bill
P	<i>Myriophyllum farwellii</i>	Farwell's Water Milfoil
P	<i>Myriophyllum verticillatum</i>	Whorled Water Milfoil
P	<i>Myriophyllum sibiricum</i>	Siberian Water Milfoil
P	<i>Teucrium canadense</i>	Canada Germander
P	<i>Nuphar lutea</i> ssp. <i>pumila</i>	Small Yellow Pond-lily
P	<i>Epilobium hornemannii</i>	Hornemann's Willowherb
P	<i>Epilobium hornemannii</i> ssp. <i>hornemannii</i>	Hornemann's Willowherb
P	<i>Epilobium strictum</i>	Downy Willowherb
P	<i>Polygonum arifolium</i>	Halberd-leaved Tearthumb
P	<i>Polygonum punctatum</i>	Dotted Smartweed
P	<i>Polygonum punctatum</i> var. <i>confertiflorum</i>	Dotted Smartweed
P	<i>Polygonum scandens</i>	Climbing False Buckwheat
P	<i>Samolus valerandi</i>	Seaside Brookweed
P	<i>Samolus valerandi</i> ssp. <i>parviflorus</i>	Seaside Brookweed
P	<i>Pyrola minor</i>	Lesser Pyrola
P	<i>Clematis occidentalis</i>	Purple Clematis
P	<i>Ranunculus gmelinii</i>	Gmelin's Water Buttercup
P	<i>Thalictrum venulosum</i>	Northern Meadow-rue
P	<i>Agrimonia gryposepala</i>	Hooked Agrimony
P	<i>Amelanchier canadensis</i>	Canada Serviceberry
P	<i>Rosa palustris</i>	Swamp Rose
P	<i>Rubus chamaemorus</i>	Cloudberry
P	<i>Salix interior</i>	Sandbar Willow
P	<i>Salix nigra</i>	Black Willow
P	<i>Salix pedicellaris</i>	Bog Willow
P	<i>Comandra umbellata</i>	Bastard's Toadflax
P	<i>Geocaulon lividum</i>	Northern Comandra
P	<i>Limosella australis</i>	Southern Mudwort
P	<i>Veronica serpyllifolia</i> ssp. <i>humifusa</i>	Thyme-Leaved Speedwell
P	<i>Pilea pumila</i>	Dwarf Clearweed
P	<i>Viola adunca</i>	Hooked Violet
P	<i>Viola labradorica</i>	Labrador Violet
P	<i>Viola nephrophylla</i>	Northern Bog Violet
P	<i>Carex arcta</i>	Northern Clustered Sedge
P	<i>Carex atratiformis</i>	Scabrous Black Sedge
P	<i>Carex capillaris</i>	Hairlike Sedge
P	<i>Carex chordorrhiza</i>	Creeping Sedge
P	<i>Carex conoidea</i>	Field Sedge
P	<i>Carex eburnea</i>	Bristle-leaved Sedge
P	<i>Carex exilis</i>	Coastal Sedge
P	<i>Carex garberi</i>	Garber's Sedge
P	<i>Carex haydenii</i>	Hayden's Sedge
P	<i>Carex lupulina</i>	Hop Sedge
P	<i>Carex michauxiana</i>	Michaux's Sedge

P <i>Carex ormostachya</i>	Necklace Spike Sedge
P <i>Carex rosea</i>	Rosy Sedge
P <i>Carex tenera</i>	Tender Sedge
P <i>Carex tuckermanii</i>	Tuckerman's Sedge
P <i>Carex wiegandii</i>	Wiegand's Sedge
P <i>Carex recta</i>	Estuary Sedge
P <i>Cyperus dentatus</i>	Toothed Flatsedge
P <i>Cyperus esculentus</i>	Perennial Yellow Nutsedge
P <i>Eleocharis intermedia</i>	Matted Spikerush
P <i>Eriophorum chamissonis</i>	Russet Cotton-Grass
P <i>Rhynchospora capitellata</i>	Small-headed Beakrush
P <i>Rhynchospora fusca</i>	Brown Beakrush
P <i>Trichophorum clintonii</i>	Clinton's Clubrush
P <i>Schoenoplectus fluviatilis</i>	River Bulrush
P <i>Schoenoplectus torreyi</i>	Torrey's Bulrush
P <i>Triglochin gaspensis</i>	Gasp Arrowgrass
P <i>Cypripedium reginae</i>	Showy Lady's-Slipper
P <i>Liparis loeselii</i>	Loesel's Twayblade
P <i>Platanthera blephariglottis</i>	White Fringed Orchid
P <i>Platanthera grandiflora</i>	Large Purple Fringed Orchid
P <i>Bromus latiglumis</i>	Broad-Glumed Brome
P <i>Calamagrostis pickeringii</i>	Pickering's Reed Grass
P <i>Dichanthelium depauperatum</i>	Starved Panic Grass
P <i>Potamogeton obtusifolius</i>	Blunt-leaved Pondweed
P <i>Xyris montana</i>	Northern Yellow-Eyed-Grass
P <i>Zannichellia palustris</i>	Horned Pondweed
P <i>Adiantum pedatum</i>	Northern Maidenhair Fern
P <i>Cryptogramma stelleri</i>	Steller's Rockbrake
P <i>Asplenium trichomanes-ramosum</i>	Green Spleenwort
P <i>Dryopteris fragrans</i> var. <i>remotiuscula</i>	Fragrant Wood Fern
P <i>Woodsia glabella</i>	Smooth Cliff Fern
P <i>Isoetes tuckermanii</i>	Tuckerman's Quillwort
P <i>Lycopodium sabiniifolium</i>	Ground-Fir
P <i>Huperzia appalachiana</i>	Appalachian Fir-Clubmoss
P <i>Botrychium dissectum</i>	Cut-leaved Moonwort
P <i>Botrychium lanceolatum</i> var. <i>angustisegmentum</i>	Lance-Leaf Grape-Fern
P <i>Botrychium simplex</i>	Least Moonwort
P <i>Polypodium appalachianum</i>	Appalachian Polypody
P <i>Crataegus submollis</i>	Quebec Hawthorn
P <i>Suaeda calceoliformis</i>	Horned Sea-blite
P <i>Utricularia gibba</i>	Humped Bladderwort
P <i>Rumex maritimus</i>	Sea-Side Dock
P <i>Rumex maritimus</i> var. <i>fueginus</i>	Tierra del Fuego Dock
P <i>Cladium mariscoides</i>	Smooth Twigrush
P <i>Spirodela polyrrhiza</i>	Great Duckweed
P <i>Corallorhiza maculata</i>	Spotted Coralroot
P <i>Distichlis spicata</i>	Salt Grass
P <i>Potamogeton oakesianus</i>	Oakes' Pondweed
P <i>Stuckenia pectinata</i>	Sago Pondweed
P <i>Montia fontana</i>	Water Blinks
P <i>Agalinis maritima</i>	Saltmarsh Agalinis
P <i>Carex swanii</i>	Swan's Sedge

Prov Rarity Rank	Prov GS Rank	# recs	DISTkm	Prov
S1	1 At Risk	29	10.0 ± 1.0	NB
S1	1 At Risk	16	10.0 ± 1.0	NB
S1	1 At Risk	18	14.3 ± 0.0	NB
S1B	1 At Risk	1	84.7 ± 0.0	NS
S1S2N	1 At Risk	3	34.2 ± 1.0	NB
S2	2 May Be At Risk	39	37.9 ± 0.0	NB
S2	2 May Be At Risk	49	28.1 ± 0.0	NS
S2B	1 At Risk	1146	26.2 ± 7.0	NB
S3M	1 At Risk	646	12.1 ± 0.0	NB
SX	0.1 Extirpated	2	50.5 ± 1.0	NB
		40	18.3 ± 3.0	NB
S1S2B	1 At Risk	14	16.3 ± 0.0	NB
S1S2B	2 May Be At Risk	64	9.1 ± 7.0	NB
S1S2B	2 May Be At Risk	44	9.1 ± 7.0	NB
S2B	1 At Risk	18	19.8 ± 7.0	NB
S2S3B	1 At Risk	155	6.1 ± 7.0	NB
S2S3B	1 At Risk	11	26.0 ± 2.0	NB
S3	4 Secure	3	37.9 ± 1.0	NB
S3	1 At Risk	508	2.4 ± 0.0	NB
S3B	1 At Risk	200	4.6 ± 7.0	NB
S3B	3 Sensitive	1142	4.5 ± 48.0	NB
S3B	3 Sensitive	720	0.6 ± 0.0	NB
S3S4B	1 At Risk	467	4.6 ± 7.0	NB
S3S4B	1 At Risk	518	9.1 ± 7.0	NB
S3S4B	3 Sensitive	1094	1.6 ± 0.0	NB
S5	4 Secure	79	18.7 ± 0.0	NB
S1?B	2 May Be At Risk	5	15.9 ± 0.0	NB
S1B	1 At Risk	218	9.9 ± 7.0	NB
S2N	3 Sensitive	104	15.2 ± 2.0	NB
S2S3		1	45.2 ± 1.0	NB
S3	3 Sensitive	1	86.5 ± 0.0	NS
S3B	3 Sensitive	44	6.1 ± 7.0	NB
S3B	2 May Be At Risk	84	15.6 ± 0.0	NB
S3M	3 Sensitive	18	1.8 ± 0.0	NB
S4B	4 Secure	590	1.9 ± 5.0	NB
		109	1.7 ± 44.0	NB
S1	1 At Risk	12	14.6 ± 10.0	NB
S1	3 Sensitive	5	26.7 ± 1.0	NB
S1?	5 Undetermined	4	62.5 ± 0.0	NB
S1B	5 Undetermined	5	16.0 ± 7.0	NB
S1N	5 Undetermined	1	56.5 ± 0.0	NB
S1S2B	2 May Be At Risk	4	31.8 ± 0.0	NB
S1S2B	2 May Be At Risk	12	18.8 ± 0.0	NB
S2B	2 May Be At Risk	19	7.6 ± 0.0	NB
S2B	3 Sensitive	57	9.9 ± 7.0	NB
S2B	3 Sensitive	44	14.3 ± 7.0	NB
S3	3 Sensitive	1	56.3 ± 0.0	NB
S3B	1 At Risk	1155	1.8 ± 0.0	NB
S3B	3 Sensitive	550	4.5 ± 48.0	NB
S3M,S2N	3 Sensitive	49	28.4 ± 1.0	NB
S3S4		2	14.5 ± 1.0	NB
SX	0.1 Extirpated	2	80.1 ± 1.0	NB
SU,SH	5 Undetermined	118	4.4 ± 1.0	NB
S1	3 Sensitive	3	72.7 ± 1.0	NB
S1B	3 Sensitive	44	13.3 ± 7.0	NB
S1B	3 Sensitive	28	8.0 ± 0.0	NB
S1B	3 Sensitive	9	15.2 ± 0.0	NB
S1B	2 May Be At Risk	25	15.9 ± 0.0	NB
S1B	5 Undetermined	11	4.6 ± 7.0	NB
S1B,S2N	4 Secure	10	28.4 ± 1.0	NB
S1B,S4N	4 Secure	103	1.6 ± 0.0	NB
S1B,S4N	4 Secure	2	48.4 ± 0.0	NB
S1S2B	3 Sensitive	5	15.9 ± 0.0	NB
S1S2B	3 Sensitive	5	18.3 ± 3.0	NB
S1S2B	3 Sensitive	33	9.9 ± 7.0	NB
S1S2B	3 Sensitive	3	54.7 ± 11.0	NB
S1S2B	3 Sensitive	61	14.4 ± 7.0	NB
S1S2B	2 May Be At Risk	98	9.7 ± 7.0	NB
S1S2B	2 May Be At Risk	4	52.2 ± 0.0	NS
S2	2 May Be At Risk	61	16.4 ± 0.0	NB
S2?	3 Sensitive	6	16.2 ± 10.0	NB
S2?	5 Undetermined	8	85.8 ± 0.0	NB
S2B	3 Sensitive	1	29.6 ± 0.0	NB
S2B	4 Secure	266	1.6 ± 0.0	NB
S2B	4 Secure	220	1.7 ± 44.0	NB
S2B	2 May Be At Risk	65	15.3 ± 7.0	NB
S2B	3 Sensitive	43	15.9 ± 0.0	NB
S2B	3 Sensitive	28	12.7 ± 7.0	NB

S2B	2 May Be At Risk	109	8.5 ± 0.0	NB
S2B,S5M	4 Secure	142	1.6 ± 0.0	NB
S2M,S1N	3 Sensitive	12	21.9 ± 0.0	NB
S2N	4 Secure	4	28.8 ± 0.0	NB
S2S3	5 Undetermined	28	0.9 ± 0.0	NB
S2S3B	3 Sensitive	866	4.5 ± 48.0	NB
S2S3B,S4S5N	3 Sensitive	31	17.3 ± 7.0	NB
S2S3M,S2S3N	4 Secure	34	23.2 ± 0.0	NB
S3	4 Secure	47	30.0 ± 5.0	NB
S3	4 Secure	114	16.3 ± 7.0	NB
S3	4 Secure	117	19.9 ± 1.0	NB
S3	4 Secure	82	33.4 ± 1.0	NB
S3?	3 Sensitive	14	47.3 ± 7.0	NB
S3B	3 Sensitive	126	1.6 ± 0.0	NB
S3B	4 Secure	499	1.9 ± 5.0	NB
S3B	4 Secure	135	4.6 ± 7.0	NB
S3B	3 Sensitive	90	6.1 ± 7.0	NB
S3B	3 Sensitive	854	0.6 ± 0.0	NB
S3B	4 Secure	253	16.1 ± 0.0	NB
S3B	3 Sensitive	43	19.0 ± 7.0	NB
S3B	3 Sensitive	141	2.7 ± 0.0	NB
S3B	4 Secure	29	9.9 ± 7.0	NB
S3B	2 May Be At Risk	267	4.6 ± 7.0	NB
S3B,S4S5N	4 Secure	265	4.5 ± 48.0	NB
S3M	3 Sensitive	214	1.6 ± 0.0	NB
S3M	3 Sensitive	4	29.8 ± 0.0	NB
S3M,S2S3N	3 Sensitive	234	1.8 ± 0.0	NB
S3M,S3N	4 Secure	66	21.4 ± 0.0	NB
S3N	3 Sensitive	106	4.5 ± 48.0	NB
S3S4B	3 Sensitive	488	9.9 ± 7.0	NB
S3S4B	3 Sensitive	464	2.9 ± 0.0	NB
S3S4B	4 Secure	54	14.3 ± 0.0	NB
S3S4B,S4S5N	3 Sensitive	269	4.6 ± 7.0	NB
S4M,S4N	4 Secure	50	28.6 ± 5.0	NB
SHB,S5M,S5N	4 Secure	165	1.7 ± 44.0	NB
SXB,SNAN	1 At Risk	1	27.5 ± 0.0	NB
S1	2 May Be At Risk	1	77.7 ± 0.0	NB
S1S2	3 Sensitive	32	11.8 ± 1.0	NB
S2	3 Sensitive	17	86.7 ± 0.0	NB
S3B	3 Sensitive	75	0.8 ± 0.0	NB
S1	2 May Be At Risk	2	31.5 ± 1.0	NB
S1	2 May Be At Risk	7	96.4 ± 1.0	NB
S1S2	2 May Be At Risk	27	3.5 ± 1.0	NB
S2	4 Secure	8	31.2 ± 0.0	NB
S2	4 Secure	1	42.6 ± 1.0	NB
S2	4 Secure	1	32.0 ± 0.0	NB
S2	5 Undetermined	2	39.5 ± 1.0	NS
S2	5 Undetermined	5	33.0 ± 1.0	NB
S2	5 Undetermined	2	82.9 ± 0.0	NB
S2	3 Sensitive	45	37.4 ± 1.0	NB
S2S3	4 Secure	4	30.3 ± 0.0	NB
S2S3	4 Secure	2	87.9 ± 0.0	NB
S2S3	3 Sensitive	1	83.4 ± 0.0	NS
S3	4 Secure	1	94.6 ± 5.0	NB
S3	4 Secure	6	24.4 ± 1.0	NB
S3	4 Secure	5	61.7 ± 0.0	NB
S3	4 Secure	5	29.3 ± 0.0	NB
S3	3 Sensitive	74	10.4 ± 0.0	NB
S3	4 Secure	85	28.2 ± 0.0	NB
S3	4 Secure	18	13.7 ± 1.0	NB
S3	4 Secure	9	31.3 ± 0.0	NB
S3	4 Secure	16	22.3 ± 0.0	NB
S3	4 Secure	1	43.5 ± 0.0	NB
S3	4 Secure	1	48.9 ± 1.0	NB
S3	4 Secure	12	24.6 ± 0.0	NB
S3	4 Secure	10	9.1 ± 1.0	NB
S3	4 Secure	10	24.4 ± 1.0	NB
S3	4 Secure	1	93.8 ± 0.0	NB
S3	4 Secure	5	25.3 ± 10.0	NB
S3	4 Secure	27	33.8 ± 0.0	NS
S3	4 Secure	3	64.5 ± 1.0	NB
S3	4 Secure	3	53.5 ± 1.0	NB
S3	4 Secure	5	50.8 ± 0.0	NB
S3	4 Secure	15	20.9 ± 1.0	NB
S3	4 Secure	13	39.3 ± 0.0	NS
S3	4 Secure	8	24.5 ± 0.0	NB
S3	4 Secure	24	14.4 ± 1.0	NB
S3B	4 Secure	3	38.0 ± 0.0	NB
S3S4	4 Secure	12	15.3 ± 0.0	NB

S3S4	4 Secure	11	24.5 ± 0.0	NB
S1	2 May Be At Risk	1	63.7 ± 1.0	NB
SH	1 At Risk	2	72.6 ± 0.0	NS
S1	5 Undetermined	7	22.8 ± 1.0	NB
S1	2 May Be At Risk	2	72.5 ± 0.0	NS
S3	5 Undetermined	6	55.4 ± 0.0	NB
S1	2 May Be At Risk	2	25.7 ± 0.0	NB
S1	2 May Be At Risk	1	60.3 ± 1.0	NB
S1	2 May Be At Risk	3	60.2 ± 10.0	NB
S1	2 May Be At Risk	1	83.4 ± 5.0	NS
S1	2 May Be At Risk	1	76.7 ± 1.0	NS
S1	2 May Be At Risk	2	54.6 ± 1.0	NB
S1	2 May Be At Risk	1	60.3 ± 1.0	NB
S1	2 May Be At Risk	1	53.8 ± 0.0	NB
S1	2 May Be At Risk	1	83.0 ± 0.0	NS
S1	2 May Be At Risk	1	53.9 ± 0.0	NB
S1	2 May Be At Risk	1	60.9 ± 1.0	NB
S1	2 May Be At Risk	5	60.9 ± 1.0	NB
S1	2 May Be At Risk	1	71.7 ± 1.0	NB
S1	2 May Be At Risk	1	78.6 ± 10.0	NB
S1	2 May Be At Risk	1	78.9 ± 0.0	NB
S1	2 May Be At Risk	3	55.8 ± 1.0	NB
S1	2 May Be At Risk	2	60.3 ± 1.0	NB
S1	2 May Be At Risk	1	60.9 ± 1.0	NB
S1	2 May Be At Risk	2	60.8 ± 1.0	NB
S1	2 May Be At Risk	3	53.6 ± 15.0	NB
S1	2 May Be At Risk	3	43.6 ± 1.0	NB
S1	2 May Be At Risk	3	74.6 ± 1.0	NS
S1	2 May Be At Risk	3	61.1 ± 0.0	NB
S1	2 May Be At Risk	7	55.5 ± 1.0	NB
S1	2 May Be At Risk	1	77.4 ± 0.0	NB
S1	2 May Be At Risk	1	2.5 ± 1.0	NB
S1	5 Undetermined	5	48.2 ± 1.0	NB
S1	2 May Be At Risk	3	72.5 ± 0.0	NS
S1	2 May Be At Risk	1	48.2 ± 1.0	NB
S1	5 Undetermined	1	61.2 ± 1.0	NB
S1	2 May Be At Risk	1	61.2 ± 1.0	NB
S1?	5 Undetermined	2	53.6 ± 15.0	NB
S1?	5 Undetermined	4	60.9 ± 1.0	NB
S1S2	3 Sensitive	2	67.1 ± 3.0	NS
S1S2	3 Sensitive	4	51.7 ± 1.0	NB
S1S2	5 Undetermined	1	89.8 ± 100.0	NB
S1S2	3 Sensitive	1	78.6 ± 3.0	NB
S1S2	3 Sensitive	1	96.6 ± 0.0	PE
S1S2	2 May Be At Risk	9	55.8 ± 0.0	NB
S1S2	3 Sensitive	5	53.0 ± 1.0	NB
S1S2	3 Sensitive	2	53.1 ± 1.0	NB
S1S2	3 Sensitive	1	95.9 ± 0.0	NB
S1S2	3 Sensitive	1	79.0 ± 10.0	NB
S1S2	3 Sensitive	7	53.8 ± 0.0	NB
S1S2	3 Sensitive	1	79.7 ± 3.0	NS
S1S2	3 Sensitive	3	53.6 ± 15.0	NB
S1S2	3 Sensitive	6	60.4 ± 0.0	NB
S1S2	2 May Be At Risk	4	46.9 ± 1.0	NB
S1S3	6 Not Assessed	2	77.5 ± 0.0	NB
S1S3	6 Not Assessed	4	45.9 ± 0.0	NB
S1S3	6 Not Assessed	2	49.9 ± 1.0	NB
S1S3	6 Not Assessed	1	62.9 ± 1.0	NB
S1S3	6 Not Assessed	1	55.2 ± 0.0	NB
S1S3	6 Not Assessed	2	50.4 ± 1.0	NB
S1S3	6 Not Assessed	1	55.2 ± 0.0	NB
S1S3	6 Not Assessed	1	60.4 ± 1.0	NB
S1S3	6 Not Assessed	1	51.5 ± 1.0	NB
S2	3 Sensitive	13	52.0 ± 0.0	NB
S2	3 Sensitive	1	61.1 ± 0.0	NB
S2	3 Sensitive	1	96.6 ± 0.0	PE
S2	3 Sensitive	1	58.1 ± 0.0	NB
S2	3 Sensitive	4	51.1 ± 1.0	NB
S2	3 Sensitive	7	49.9 ± 1.0	NB
S2	3 Sensitive	8	53.3 ± 1.0	NB
S2	4 Secure	3	80.4 ± 4.0	NB
S2	3 Sensitive	1	81.3 ± 0.0	NB
S2	3 Sensitive	4	53.6 ± 15.0	NB
S2	3 Sensitive	10	54.3 ± 0.0	NB
S2	3 Sensitive	8	53.6 ± 15.0	NB
S2	3 Sensitive	1	97.1 ± 0.0	NB
S2	3 Sensitive	3	53.8 ± 0.0	NB
S2	3 Sensitive	1	50.8 ± 1.0	NB
S2	3 Sensitive	2	53.8 ± 0.0	NB

S2	3 Sensitive	2	49.9 ± 0.0	NB
S2	3 Sensitive	7	50.0 ± 1.0	NB
S2	3 Sensitive	3	53.5 ± 0.0	NB
S2	3 Sensitive	2	55.5 ± 1.0	NB
S2	3 Sensitive	7	33.6 ± 100.0	NB
S2	3 Sensitive	8	26.3 ± 1.0	NB
S2	3 Sensitive	4	61.1 ± 0.0	NB
S2	2 May Be At Risk	2	55.5 ± 1.0	NB
S2	3 Sensitive	3	50.8 ± 1.0	NB
S2	3 Sensitive	18	52.0 ± 0.0	NB
S2	5 Undetermined	1	57.5 ± 1.0	NB
S2	5 Undetermined	1	60.6 ± 1.0	NB
S2	5 Undetermined	3	54.0 ± 1.0	NB
S2	3 Sensitive	1	59.8 ± 1.0	NB
S2S3	3 Sensitive	5	64.8 ± 5.0	NB
S2S3	3 Sensitive	8	56.7 ± 2.0	NB
S2S3	3 Sensitive	3	61.1 ± 0.0	NB
S2S3	3 Sensitive	5	76.2 ± 0.0	NB
S2S3	3 Sensitive	6	50.0 ± 0.0	NB
S2S3	4 Secure	3	53.1 ± 1.0	NB
S2S3	3 Sensitive	5	60.6 ± 1.0	NB
S2S3?	5 Undetermined	1	46.0 ± 1.0	NB
S2S4		1	48.2 ± 1.0	NB
S2S4	6 Not Assessed	2	59.9 ± 0.0	NB
S2S4	6 Not Assessed	1	77.2 ± 0.0	NS
S3	3 Sensitive	2	81.5 ± 0.0	NS
S3	4 Secure	7	53.6 ± 15.0	NB
S3	3 Sensitive	4	45.9 ± 0.0	NS
S3	4 Secure	21	50.0 ± 0.0	NB
S3	3 Sensitive	3	60.7 ± 0.0	NB
S3	4 Secure	5	52.0 ± 0.0	NB
S3	3 Sensitive	16	52.0 ± 0.0	NB
S3	3 Sensitive	5	15.0 ± 1.0	NB
S3	4 Secure	4	45.9 ± 0.0	NS
S3	4 Secure	1	75.3 ± 1.0	PE
S3	4 Secure	2	77.0 ± 0.0	NB
S3	4 Secure	1	30.0 ± 0.0	NS
S3	4 Secure	14	50.8 ± 1.0	NB
S3	3 Sensitive	1	61.1 ± 0.0	NB
S3	4 Secure	2	61.5 ± 1.0	NB
S3	4 Secure	6	53.8 ± 0.0	NB
S3	4 Secure	6	56.3 ± 0.0	NB
S3	3 Sensitive	5	61.5 ± 1.0	NB
S3	3 Sensitive	1	96.4 ± 0.0	NB
S3	5 Undetermined	2	50.9 ± 1.0	NB
S3	3 Sensitive	1	68.6 ± 0.0	NS
S3	5 Undetermined	6	60.6 ± 1.0	NB
S3	5 Undetermined	1	98.0 ± 0.0	NB
S3	5 Undetermined	6	60.6 ± 1.0	NB
S3	4 Secure	10	60.6 ± 1.0	NB
S3	5 Undetermined	1	54.5 ± 1.0	NB
S3	3 Sensitive	2	50.9 ± 1.0	NB
S3	5 Undetermined	6	60.6 ± 1.0	NB
S3?	5 Undetermined	1	61.1 ± 0.0	NB
S3?	5 Undetermined	3	30.0 ± 0.0	NS
S3?	5 Undetermined	5	53.0 ± 1.0	NB
S3?	5 Undetermined	1	55.4 ± 1.0	NB
S3?S4?	4 Secure	5	46.0 ± 1.0	NB
S3S4	4 Secure	2	36.7 ± 2.0	NB
S3S4	4 Secure	1	76.9 ± 15.0	NB
S3S4	4 Secure	17	50.0 ± 0.0	NB
S3S4	4 Secure	1	55.5 ± 1.0	NB
S3S4	4 Secure	3	59.4 ± 1.0	NB
S3S4	4 Secure	8	56.3 ± 0.0	NB
S3S4	4 Secure	1	91.8 ± 3.0	NS
S3S4	4 Secure	2	20.3 ± 0.0	NB
S3S4	4 Secure	12	50.0 ± 0.0	NB
S3S4	4 Secure	6	56.3 ± 0.0	NB
S3S4	4 Secure	7	53.3 ± 1.0	NB
S3S4	4 Secure	20	50.0 ± 0.0	NB
S3S4	4 Secure	2	61.1 ± 0.0	NB
S3S4	4 Secure	11	45.9 ± 0.0	NS
S3S4	4 Secure	1	60.7 ± 0.0	NB
S3S4	4 Secure	2	77.2 ± 0.0	NB
S3S4	4 Secure	2	49.3 ± 1.0	NB
S3S4	4 Secure	1	80.7 ± 3.0	NB
S3S4	4 Secure	1	56.8 ± 0.0	NB
S3S4	4 Secure	1	69.6 ± 0.0	NS
S3S4	4 Secure	2	61.1 ± 0.0	NB

S3S4	4 Secure	2	37.1 ± 3.0	NS
S3S4	3 Sensitive	2	61.4 ± 1.0	NB
S3S4	5 Undetermined	11	46.9 ± 1.0	NB
S3S4	5 Undetermined	4	49.0 ± 1.0	NB
S3S4	4 Secure	6	48.2 ± 1.0	NB
S3S4	5 Undetermined	3	57.1 ± 1.0	NB
S3S4	3 Sensitive	5	48.2 ± 1.0	NB
S3S4	5 Undetermined	1	16.4 ± 1.0	NB
S3S4	5 Undetermined	1	57.5 ± 1.0	NB
S3S4	3 Sensitive	3	50.9 ± 1.0	NB
S3S4	5 Undetermined	8	48.2 ± 1.0	NB
S3S4	4 Secure	3	55.3 ± 1.0	NB
S3S4?	4 Secure	3	60.2 ± 1.0	NB
S3S4?	5 Undetermined	2	60.6 ± 1.0	NB
S3S4?	4 Secure	5	54.0 ± 1.0	NB
SH	2 May Be At Risk	9	51.2 ± 1.0	NB
SH	5 Undetermined	1	89.8 ± 100.0	NB
SH	2 May Be At Risk	3	83.6 ± 10.0	NB
S1	1 At Risk	14	59.5 ± 1.0	NB
S1	1 At Risk	3	92.0 ± 0.0	NB
S2	1 At Risk	20	76.4 ± 0.0	NB
S2	1 At Risk	13	69.1 ± 0.0	NS
S2	3 Sensitive	433	53.8 ± 0.0	NB
S1	2 May Be At Risk	1	81.0 ± 1.0	NB
S1	2 May Be At Risk	3	76.5 ± 0.0	NS
S1	2 May Be At Risk	12	58.5 ± 0.0	NB
S1	2 May Be At Risk	13	46.8 ± 1.0	NB
S1	2 May Be At Risk	1	86.6 ± 1.0	NS
S1	3 Sensitive	5	51.1 ± 0.0	NB
S1	2 May Be At Risk	10	16.6 ± 0.0	NB
S1	2 May Be At Risk	6	78.1 ± 1.0	NS
S1	2 May Be At Risk	22	46.6 ± 0.0	NB
S1	2 May Be At Risk	7	60.9 ± 0.0	NB
S1	2 May Be At Risk	3	27.3 ± 5.0	NB
S1	2 May Be At Risk	6	41.2 ± 1.0	NB
S1	3 Sensitive	4	20.8 ± 0.0	NB
S1	2 May Be At Risk	1	78.8 ± 3.0	NS
S1	2 May Be At Risk	7	90.7 ± 0.0	PE
S1	2 May Be At Risk	5	15.1 ± 1.0	NB
S1	2 May Be At Risk	11	49.3 ± 0.0	NB
S1	2 May Be At Risk	2	98.1 ± 7.0	NS
S1	2 May Be At Risk	2	54.1 ± 5.0	NS
S1	2 May Be At Risk	31	61.2 ± 0.0	NB
S1	2 May Be At Risk	2	23.1 ± 1.0	NB
S1	2 May Be At Risk	1	97.9 ± 1.0	NB
S1	2 May Be At Risk	11	15.5 ± 3.0	NB
S1	2 May Be At Risk	1	18.9 ± 1.0	NB
S1	2 May Be At Risk	24	16.0 ± 0.0	NB
S1	2 May Be At Risk	21	60.2 ± 0.0	NB
S1	2 May Be At Risk	7	42.4 ± 0.0	NS
S1	2 May Be At Risk	2	77.6 ± 2.0	NS
S1	2 May Be At Risk	3	27.1 ± 0.0	NB
S1	2 May Be At Risk	6	38.5 ± 1.0	NS
S1	2 May Be At Risk	3	40.7 ± 0.0	NB
S1	2 May Be At Risk	7	23.0 ± 0.0	NB
S1	2 May Be At Risk	1	41.2 ± 0.0	NB
S1	2 May Be At Risk	1	60.3 ± 2.0	NB
S1	2 May Be At Risk	1	82.2 ± 5.0	NB
S1	2 May Be At Risk	6	57.6 ± 0.0	NB
S1	2 May Be At Risk	3	40.9 ± 5.0	NS
S1	2 May Be At Risk	10	23.1 ± 0.0	NB
S1	2 May Be At Risk	15	27.3 ± 5.0	NB
S1	2 May Be At Risk	5	42.3 ± 0.0	NB
S1	2 May Be At Risk	5	73.4 ± 1.0	NS
S1	2 May Be At Risk	6	5.8 ± 0.0	NB
S1	2 May Be At Risk	7	10.9 ± 0.0	NB
S1	2 May Be At Risk	2	22.6 ± 1.0	NB
S1	2 May Be At Risk	14	38.1 ± 0.0	NS
S1	2 May Be At Risk	8	59.0 ± 0.0	NS
S1	2 May Be At Risk	10	64.4 ± 0.0	NS
S1	5 Undetermined	1	99.8 ± 5.0	PE
S1	2 May Be At Risk	14	29.8 ± 0.0	NS
S1	2 May Be At Risk	1	76.7 ± 1.0	NB
S1	2 May Be At Risk	2	28.9 ± 1.0	NB
S1	2 May Be At Risk	5	76.2 ± 7.0	NS
S1	2 May Be At Risk	9	57.1 ± 0.0	NB
S1?	2 May Be At Risk	4	31.9 ± 0.0	NB
S1S2	3 Sensitive	6	76.8 ± 5.0	NB
S1S2	3 Sensitive	2	58.9 ± 0.0	NB



S1S2	2 May Be At Risk	7	70.2 ± 1.0	NB
S2	1 At Risk	14	19.6 ± 0.0	NB
S2	3 Sensitive	41	41.2 ± 0.0	NS
S2	4 Secure	1	30.1 ± 0.0	NB
S2	3 Sensitive	1	90.7 ± 5.0	NB
S2	2 May Be At Risk	5	69.3 ± 0.0	NS
S2	3 Sensitive	16	40.4 ± 0.0	NB
S2	3 Sensitive	2	94.5 ± 0.0	PE
S2	3 Sensitive	2	93.1 ± 0.0	PE
S2	3 Sensitive	7	35.4 ± 0.0	NS
S2	4 Secure	6	40.0 ± 0.0	NB
S2	3 Sensitive	8	45.2 ± 1.0	NB
S2	4 Secure	8	18.4 ± 0.0	NB
S2	3 Sensitive	4	49.7 ± 0.0	NS
S2	3 Sensitive	5	13.2 ± 1.0	NB
S2	3 Sensitive	12	77.4 ± 1.0	NS
S2	3 Sensitive	1	74.4 ± 50.0	NB
S2	3 Sensitive	1	57.1 ± 1.0	NB
S2	4 Secure	10	52.3 ± 1.0	NS
S2	3 Sensitive	10	17.3 ± 1.0	NB
S2	3 Sensitive	5	83.3 ± 1.0	NB
S2	3 Sensitive	12	29.3 ± 0.0	NB
S2	3 Sensitive	2	44.7 ± 1.0	NB
S2	3 Sensitive	8	16.1 ± 0.0	NB
S2	3 Sensitive	4	85.4 ± 0.0	NS
S2	3 Sensitive	4	36.4 ± 1.0	NB
S2	3 Sensitive	2	68.6 ± 0.0	PE
S2	4 Secure	15	53.4 ± 0.0	NB
S2	2 May Be At Risk	4	69.4 ± 0.0	PE
S2	3 Sensitive	2	76.7 ± 1.0	NB
S2	2 May Be At Risk	1	11.6 ± 1.0	NB
S2	4 Secure	53	68.1 ± 0.0	NB
S2	3 Sensitive	99	29.9 ± 1.0	NS
S2	3 Sensitive	9	27.1 ± 0.0	NB
S2	3 Sensitive	1	76.7 ± 1.0	NB
S2	3 Sensitive	12	49.8 ± 5.0	NB
S2	3 Sensitive	4	30.0 ± 0.0	NS
S2	3 Sensitive	2	94.2 ± 1.0	NS
S2	3 Sensitive	2	85.5 ± 0.0	NB
S2	2 May Be At Risk	7	51.7 ± 10.0	NB
S2	3 Sensitive	11	13.3 ± 0.0	NB
S2	3 Sensitive	1	24.8 ± 0.0	NB
S2	2 May Be At Risk	34	21.2 ± 0.0	NB
S2	3 Sensitive	10	68.6 ± 0.0	PE
S2	3 Sensitive	10	22.5 ± 0.0	NB
S2	4 Secure	13	15.6 ± 0.0	NB
S2	2 May Be At Risk	18	44.6 ± 1.0	NS
S2	2 May Be At Risk	2	49.2 ± 5.0	NB
S2	2 May Be At Risk	5	28.2 ± 10.0	NB
S2	2 May Be At Risk	3	88.1 ± 7.0	NS
S2	3 Sensitive	1	80.5 ± 0.0	PE
S2	3 Sensitive	14	6.3 ± 0.0	NB
S2	3 Sensitive	2	49.8 ± 1.0	NB
S2	3 Sensitive	1	88.2 ± 0.0	NB
S2	2 May Be At Risk	1	32.4 ± 1.0	NB
S2	3 Sensitive	3	43.1 ± 10.0	NB
S2	3 Sensitive	1	98.5 ± 10.0	NB
S2	3 Sensitive	2	33.6 ± 1.0	NB
S2	5 Undetermined	4	61.4 ± 0.0	NS
S2	2 May Be At Risk	5	40.5 ± 0.0	NB
S2	3 Sensitive	2	36.8 ± 1.0	NB
S2	3 Sensitive	1	92.5 ± 1.0	NS
S2	3 Sensitive	1	65.3 ± 0.0	PE
S2	3 Sensitive	12	35.2 ± 0.0	NB
S2	3 Sensitive	7	73.4 ± 5.0	PE
S2	3 Sensitive	2	49.6 ± 0.0	NB
S2	3 Sensitive	5	7.1 ± 0.0	NB
S2	3 Sensitive	7	60.6 ± 0.0	NB
S2?	3 Sensitive	6	46.0 ± 5.0	NB
S2?	3 Sensitive	8	49.5 ± 1.0	NS
S2?	5 Undetermined	3	36.2 ± 0.0	NB
S2?	3 Sensitive	1	83.9 ± 0.0	NS
S2?	3 Sensitive	7	27.5 ± 1.0	NB
S2?	4 Secure	22	16.1 ± 0.0	NB
S2?	4 Secure	4	2.3 ± 1.0	NB
S2?	4 Secure	7	50.6 ± 10.0	NB
S2?	3 Sensitive	1	16.1 ± 1.0	NB
S2?	5 Undetermined	1	72.8 ± 10.0	NS
S2?	4 Secure	6	23.7 ± 0.0	NB

S2S3	3 Sensitive	24	14.3 ± 0.0	NB
S2S3	3 Sensitive	6	22.5 ± 0.0	NB
S2S3	3 Sensitive	1	38.1 ± 0.0	NS
S2S3	3 Sensitive	22	54.7 ± 0.0	NB
S2S3	4 Secure	75	40.7 ± 0.0	NB
S2S3	5 Undetermined	1	90.1 ± 5.0	PE
S2S3	3 Sensitive	5	72.6 ± 0.0	NB
S2S3	3 Sensitive	9	47.3 ± 0.0	NB
S2S3	3 Sensitive	1	69.0 ± 0.0	PE
S2S3	4 Secure	8	23.6 ± 10.0	NB
S2S3	3 Sensitive	6	27.7 ± 0.0	NB
S2S3	3 Sensitive	1	62.2 ± 0.0	NB
S2S3	4 Secure	10	28.3 ± 0.0	NS
S2S3	3 Sensitive	1	91.3 ± 1.0	NS
S2S3	3 Sensitive	5	30.0 ± 0.0	NS
S3	3 Sensitive	24	15.3 ± 0.0	NB
S3	4 Secure	1	74.5 ± 0.0	NB
S3	4 Secure	5	66.0 ± 10.0	NB
S3	4 Secure	17	50.7 ± 0.0	NB
S3	4 Secure	3	50.5 ± 1.0	NB
S3	4 Secure	36	14.3 ± 1.0	NB
S3	3 Sensitive	8	47.2 ± 0.0	NB
S3	4 Secure	26	45.7 ± 0.0	NB
S3	5 Undetermined	1	74.4 ± 0.0	NB
S3	4 Secure	11	30.6 ± 0.0	NB
S3	4 Secure	7	73.4 ± 0.0	NS
S3	4 Secure	2	58.6 ± 0.0	NB
S3	4 Secure	19	27.5 ± 5.0	NB
S3	4 Secure	148	33.3 ± 0.0	NB
S3	4 Secure	5	73.8 ± 0.0	NB
S3	4 Secure	21	46.5 ± 0.0	NB
S3	4 Secure	1	97.7 ± 1.0	NB
S3	4 Secure	1	58.9 ± 0.0	NB
S3	4 Secure	2	74.5 ± 0.0	NB
S3	4 Secure	15	23.9 ± 0.0	NB
S3	4 Secure	9	23.4 ± 1.0	NB
S3	4 Secure	13	23.9 ± 1.0	NB
S3	4 Secure	3	84.4 ± 0.0	PE
S3	3 Sensitive	77	32.9 ± 0.0	NB
S3	4 Secure	7	17.4 ± 0.0	NB
S3	4 Secure	2	60.5 ± 1.0	NB
S3	4 Secure	1	60.8 ± 0.0	NB
S3	4 Secure	19	21.7 ± 5.0	NB
S3	4 Secure	39	15.6 ± 0.0	NB
S3	4 Secure	4	16.1 ± 5.0	NB
S3	4 Secure	16	24.2 ± 1.0	NB
S3	4 Secure	24	44.7 ± 1.0	NB
S3	4 Secure	1	89.7 ± 0.0	NB
S3	4 Secure	80	32.4 ± 0.0	NB
S3	4 Secure	6	31.6 ± 0.0	NS
S3	4 Secure	7	29.4 ± 0.0	NS
S3	4 Secure	27	23.0 ± 0.0	NB
S3	4 Secure	1	98.2 ± 1.0	PE
S3	4 Secure	27	32.0 ± 0.0	NS
S3	4 Secure	17	11.7 ± 1.0	NB
S3	4 Secure	3	22.7 ± 0.0	NB
S3	4 Secure	20	22.9 ± 1.0	NB
S3	4 Secure	1	19.9 ± 1.0	NB
S3	3 Sensitive	3	97.3 ± 50.0	NB
S3	4 Secure	6	29.9 ± 0.0	NS
S3	4 Secure	49	29.4 ± 0.0	NB
S3	4 Secure	29	44.7 ± 1.0	NB
S3	4 Secure	63	31.9 ± 1.0	NB
S3	4 Secure	7	52.2 ± 0.0	NB
S3	4 Secure	20	60.3 ± 0.0	NB
S3	4 Secure	5	40.9 ± 0.0	NB
S3	4 Secure	24	16.0 ± 1.0	NB
S3	4 Secure	3	79.7 ± 0.0	PE
S3	4 Secure	3	37.0 ± 20.0	NB
S3	4 Secure	3	64.6 ± 0.0	NS
S3	4 Secure	14	37.0 ± 0.0	NS
S3	4 Secure	45	19.7 ± 0.0	NB
S3	4 Secure	7	27.1 ± 0.0	NB
S3	4 Secure	2	33.6 ± 100.0	NB
S3	4 Secure	6	48.2 ± 0.0	NS
S3	3 Sensitive	1	35.7 ± 0.0	NB
S3	4 Secure	2	49.2 ± 50.0	NS
S3	4 Secure	7	53.7 ± 3.0	NS
S3	4 Secure	9	18.4 ± 1.0	NB

S3	4 Secure	5	45.8 ± 1.0	NB
S3	4 Secure	14	64.4 ± 1.0	NS
S3	4 Secure	8	7.1 ± 0.0	NB
S3	4 Secure	16	41.3 ± 0.0	NS
S3	4 Secure	97	17.7 ± 0.0	NB
S3	4 Secure	12	35.4 ± 0.0	NB
S3	4 Secure	1	71.8 ± 1.0	NB
S3	4 Secure	4	60.3 ± 0.0	NB
S3	4 Secure	1	65.6 ± 0.0	NB
S3	4 Secure	115	17.8 ± 0.0	NB
S3	4 Secure	1	77.1 ± 0.0	NB
S3	4 Secure	8	29.7 ± 0.0	NS
S3	4 Secure	15	59.5 ± 0.0	NB
S3	3 Sensitive	4	0.8 ± 1.0	NB
S3	4 Secure	1	25.0 ± 0.0	NB
S3	4 Secure	36	20.8 ± 1.0	NB
S3	3 Sensitive	26	37.3 ± 1.0	NS
S3	4 Secure	20	32.4 ± 0.0	NS
S3	4 Secure	35	17.8 ± 0.0	NB
S3	3 Sensitive	36	18.4 ± 0.0	NB
S3	3 Sensitive	4	51.0 ± 0.0	NB
S3	4 Secure	6	58.7 ± 0.0	NB
S3	4 Secure	5	53.2 ± 0.0	NS
S3	4 Secure	29	13.8 ± 0.0	NB
S3	4 Secure	27	17.4 ± 0.0	NB
S3	4 Secure	28	15.9 ± 0.0	NB
S3	4 Secure	1	98.5 ± 1.0	NB
S3	4 Secure	2	79.3 ± 0.0	NS
S3	4 Secure	10	40.8 ± 1.0	NB
S3	4 Secure	33	47.8 ± 0.0	NB
S3	4 Secure	24	47.8 ± 0.0	NB
S3	4 Secure	4	54.7 ± 0.0	NB
S3	4 Secure	16	5.5 ± 0.0	NB
S3	3 Sensitive	22	59.5 ± 1.0	NS
S3	4 Secure	9	17.4 ± 1.0	NB
S3	3 Sensitive	12	7.2 ± 0.0	NB
S3	4 Secure	6	15.4 ± 0.0	NB
S3	4 Secure	16	21.0 ± 1.0	NB
S3?	3 Sensitive	2	79.4 ± 7.0	NS
S3S4	4 Secure	33	18.8 ± 1.0	NB
S3S4	4 Secure	2	30.0 ± 0.0	NS
S3S4	4 Secure	43	16.3 ± 0.0	NB
S3S4	4 Secure	3	21.8 ± 0.0	NB
S3S4	4 Secure	7	21.1 ± 0.0	NB
S3S4	4 Secure	13	19.7 ± 0.0	NB
S3S4	3 Sensitive	22	10.0 ± 5.0	NB
S3S4	4 Secure	64	26.7 ± 5.0	NB
S3S4	4 Secure	13	10.3 ± 0.0	NB
S3S4	4 Secure	23	40.2 ± 0.0	NB
SH	2 May Be At Risk	4	26.2 ± 1.0	NB
SX	0.1 Extirpated	2	87.2 ± 50.0	NB
SX	0.1 Extirpated	1	100.0 ± 2.0	NS

FID	MANAME	MAALIAS	MACODE	MACODEOLD	MATYPE	MASUBTYPE	TOTHA
777	Monument-Lefebvre	NHS	M.CAACNB006	M.CAACNB024	F	PC NHP	2

SITECODE	IUCNCAT	PREC	PROJ	UTME20	UTMN20	LONDEC	LATDEC	N	S	E	W	COCODE	SUBNAT
PC-NHPAC27	III	3	83	378596	5092927	-64.56729	45.97917	0	0	0	0	NBWEST	NB

QUADCODE	LOCATION	PROPNAME	PID	PROTSTAT	LEGALACT	LEGALDATE	ESTABDATE
21 H/15	Saint-Joseph			limited access	National Parks Act	1930	

LOCALJURIS	OWNERCODE	OWNER	OWNERCOM	DESCRIPT	ADDITTOPIC
Parks Canada		Govt of Canada	Fed		Added for Mawhinney site review

CITATION	SOURCECODE	EDITION
Parks Canada , GeoNames websites	W01NRC00ACCA	SHG 2004 07 08



OBJECTID	SITENAME	SITEALIAS	SACODE	SITECODE	LEVEL1	LEVEL2	IBP	IBPSTATUS
441	Memramcook Lake	ESA		esa650	ESA			

LEGALACT	LEGALDATE	OWNERDATE	OWNERCODE	OWNER	OWNERCOM	LOCALJURIS	SUBNAT
	05/10/1995				Multiple		NB

<b>COCODE</b>	<b>MAPCODE</b>	<b>LOCATION</b>
NBWEST	21 H/15	Adjacent to College-Bridge, east of Route 6 and the Memramcook River.

**DESCRIPTIO**

This lake is about 800m x 600m with marsh on the north end. It is well used by waterfowl (primarily Black Duck, Pintail, Ring-necked

NOTES	PIDS1	PIDS2	AREAAC	AREAHA	MAPOBJHA	MAPOBJ	PREC	PROJ	UTME20	UTMN20
significant for bird			0	0	0 pt		3	83	380553	5093725

<b>LONDEC</b>	<b>LATDEC</b>	<b>SOURCE</b>
-64.54223	45.986688	CRIGHTON/BERUBE

**CITATION**

Tims, J. & Craig, N. 1995. Environmentally Significant Areas in New Brunswick (NBESA). NB Dept of Environment & Nature Trust of

**EDITION**  
DOE 1995 05 10



# DATA DICTIONARY:

revised May 4, 2012

## I. Observation Records

The following fields of data may be included (and may or may not be populated) in occurrence records. Text field lengths given as TXT+ are 255 char max. (and may truncate text).

TAXONOMY	type	definition
MCODE	TXT 8	8 character 'Museum Code' (1 to 4 = genus, 5 to 8 = sp+ssp)
ELCODE	TXT 10-12	Unique Identifier of taxon <sup>1</sup>
SCINAME	TXT+	Global Scientific Name of taxon <sup>1</sup>
COMNAME	TXT+	English Common Name of taxon <sup>1</sup>
NOMCOMMUN	TXT+	French Common Name

### LOCATION

SURVEYSITE	TXT+	General locality of occurrence (not necessarily protected)
DIRECTIONS	TXT+	Specific locality: e.g. bearings and distance from enduring landmark
SUBNAT	TXT 2	Province/State: 2 character ISO code
COCODE	TXT 6	County Code (2 chars for province + 4 chars for county name)
MAPCODE	TXT 7	Map number: NTS identifier in Canada
UTME20	NUM 6	UTM <sup>3</sup> Easting reprojected as Zone 20
UTMN20	NUM 7	UTM <sup>3</sup> Northing reprojected as Zone 20
LONDEC	DEC 12,6	Decimal Longitude (6 decimal places, negative for west of Greenwich)
LATDEC	DEC 12,6	Decimal Latitude (6 decimal places)
LOCUNCM	NUM 5	Precision in meters, i.e. geospatial resolution or lack thereof
PREC	DEC 3,1	Precision in meters by power of 10 (e.g. 3 = 10 to the 3rd = 1000m = 1km)

	<i>prec</i>	<i>common speech</i>	<i>example</i>	<i>unit size</i>	<i>literal range (m)</i>
<b>6.0</b>		within province	province	1000.0km	562.3 - 1778.3
<b>5.7</b>		in part of province	'NW NB'	500.0km	281.2 - 889.1
<b>5.0</b>		within in county	county	100.0km	56.2 - 177.8
<b>4.7</b>		within 50s of kilometers		50.0km	28.1 - 88.9
<b>4.0</b>		within 10s of kilometers	BBA grid	10.0km	5.6 - 17.8
<b>3.7</b>		within 5s of kilometers		5.0km	2.8 - 8.9
<b>3.0</b>		within kilometers	topo grid	1.0km	0.6 - 1.8
<b>2.7</b>		within 500s of meters		500.0m	281.2 - 889.1
<b>2.0</b>		within 100s of meters	ball field	100.0m	56.2 - 177.8
<b>1.7</b>		within 50s of meters		50.0m	28.1 - 88.9
<b>1.0</b>		within 10s of meters	boxcar	10.0m	5.6 - 17.8
<b>0.7</b>		within 5s of meters		5.0m	2.8 - 8.9
<b>0.0</b>		within meters <b>NOT USED</b>	pace	1.0m	0.6 - 1.8
<b>-1.0</b>		within 10s of centimeters	finger nail	0.1m	0.1 - 0.2

### RARITY STATUS

NRANK	TXT 5	National Rarity Rank of taxon (in Canada) <sup>1</sup>
NPROT	TXT+	National Protection Status of taxon (= COSEWIC in Canada)

*code rank and short definition*

<b>X</b>	Extinct in Canada and elsewhere
<b>XT</b>	Extirpated in Canada but surviving elsewhere
<b>E</b>	Endangered in Canada
<b>T</b>	Threatened in Canada
<b>V</b>	Vulnerable in Canada
<b>SC</b>	Special Concern in Canada
<b>DD</b>	Data Deficient: data inadequate for assessment
<b>NAR</b>	Not At Risk in Canada

SRANK**	TXT 5	Subnational (Provincial) Rarity Rank of taxon <sup>1</sup>
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*code rank and short definition*

<b>SX</b>	Extinct or extirpated in province
<b>SH</b>	Historically occurring but currently undetected in province
<b>S1</b>	Extremely rare in province
<b>S2</b>	Rare in province
<b>S3</b>	Uncommon in province
<b>S4</b>	Widespread, common and apparently secure in province
<b>S5</b>	Widespread, abundant and demonstrably secure in province
<b>SE</b>	Exotic in province
<b>SA</b>	Accidental, infrequent and outside of range within province
<b>SNA</b>	Ranking not applicable in province
<b>SNR</b>	Not yet assessed in province

SPROT**	TXT+	Provincial rank/status of taxon; cf provincial websites
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DATASENS    TXT 5    Data sensitivity index; indicates blurred<sup>2</sup> export coordinates  
 IUCN        TXT+    International Union of Conservation Naturalists rarity rank; cf IUCN website  
*code rank and short definition*

<b>EX</b>	Extinct: no individuals remaining
<b>EW</b>	Extinct in the Wild: only captive or naturalised survivors
<b>CR</b>	Critically Endangered: extreme risk of extinction in wild
<b>EN</b>	Endangered: high risk of extinction in wild
<b>VU</b>	Vulnerable: high risk of endangerment in wild
<b>NT</b>	Near Threatened: likely to become endangered soon
<b>LC</b>	Least Concern: lowest risk, widespread and abundant
<b>DD</b>	Data Deficient: data inadequate for assessment
<b>NE</b>	Not Evaluated, not yet assessed against criteria

**OBSERVATION**

OBSERVER    TXT+    Person or persons collecting specimen, in bibliographic form  
 OBDATE     TXT 10    Date of specimen collection as YYYY MM DD  
**OBDATA**    TXT+    Concatenation of fields below, relating to specimen (EODATAEVID, EODATACNT etc)  
 OBEVID     TXT+    Type of evidence (specimen, photo etc)  
 OBCOUNT    TXT+    Number of individuals at location  
 OBABUN     TXT+    Relative rarity of taxon at location, e.g. ‘common’, ‘scattered’  
 OBSIZE     TXT+    Size of specimen  
 SIZE        TXT+    Size of occurrence ‘patch’ (in m2, ha or acres)  
 OBDESC     TXT+    Details of specimen appearance  
 OBPHEN     TXT+    Lifestage of specimen (bud, flowering etc)  
 OBSEX      TXT+    Male/female if relevant  
 OBACTIV    TXT+    Activity of taxon when observed (nesting, crossing road etc)  
 OBASSP     TXT+    Other taxa associated with specimen  
 NOTETAX    TXT+    Identifier’s note on taxonomic issues  
**GENDESC**    TXT+    Concatenation of fields below, relating to site (HABITAT, ECOL etc)  
 HABITAT    TXT+    Habitat characterisation of location  
 ECODIST    NUM 4    National Ecological Framework EcoDistrict identifier  
 WSCODE     TXT 10    Quaternary Watershed identifier  
**GCOM**        TXT+    General Comments: concatenation of Notes (NOTE1, NOTE2, NOTE3)

**COLLECTION**

OWNER        TXT+    Landowner or owner type (Federal, Provincial, Private, etc)  
 ACCNUM      TXT+    Museum/Herbarium Accession number  
 COLLNUM     TXT+    Collectors’ number  
 COLLECTION    TXT+    Herbarium acronym(s) with specimen  
 CITATION     TXT+    Primary source of data

**DATA MANAGEMENT**

IDNUM        TXT+    Field Office Number: Internal ACCDC record reference (not the EONUM)  
 EDITION      TXT 14    Last editor’s initials and date as YYYY MM DD  
 OB            TXT 2    Mapping shape: PN=polygon, BF=buffer, LN=line, PT=point  
 DB            TXT 2    Database, e.g. Ob=observations, Ff=freshwater fish, Bp=birds, pelagic  
 IN            TXT 2    GIS search flag for observation within buffer  
 IX            TXT 2    GIS search flag for observation intersects buffer  
 EONUMLAST    NUM 3    Map labeling flag for most recent taxon observation in area  
 RARENS      NUM 1    Inclusion flag for extraprovincial records in NS 100km GIS scans

**Notes:**

<sup>1</sup> Methodology of NatureServe, Arlington, VA  
<sup>2</sup> Easting and Northing rounded to 5, 10 or 50km grid location.  
<sup>3</sup> Universal Transverse Mercator.  
 \*\* Field name followed by 2-character ISO provincial abbreviation.

## II. Managed or Special Areas

The following fields of data may be included (and may or may not be populated) for Protected Areas and Ecologically Significant Areas.

### IDENTITY

MACODE	TXT 14	Unique identifier for Managed Area <sup>1</sup> with some level of protection
SACODE	TXT 14	Unique identifier for Ecologically Special Area <sup>1</sup> with or without protection
MANAME	TXT+	Name of Protected Area containing occurrence
SANAME	TXT+	Name of Ecologically Special Area containing occurrence
SITECODE	TXT+	External agency site identity code

### JURISDICTION / OWNERSHIP

LOCALJURIS	TXT+	Abbreviation for mandated agency
OWNER	TXT+	Short name or category of title holder
OWNERCOM	TXT+	Short detail of multiparty arrangements
OWNERCODE	TXT+	Canadian Conservation Area DB ownercodes (modified)

<i>group</i>	<i>code</i>	<i>designation</i>
Owner	GN	government, national (federal)
	GS	government, subnational (prov., state)
	GM	government, municipal
	IN	international
	NG	non-governmental organisation
	OR	organisational
	CO	corporate
	PR	private

### CLASSIFICATION

PROTSTAT	TXT+	Activities permitted or restricted (when known)
LEGALACT	TXT+	Short title of enabling legislation
LEGALDATE	TXT+	Year of enabling legislation
ESTABDATE	TXT+	Year of site designation
IBP	TXT+	International Biological Program identity number (Y=unknown)
IBPSTATUS	TXT+	International Biological Program status: proposed or declared
IUCN	TXT+	IUCN protection level, e.g. I very restricted, VI few restrictions
LEVEL1	TXT 3	Canadian Conservation Area DB type
LEVEL2	TXT+	Canadian Conservation Area DB subtype(s)

<i>group</i>	<i>code</i>	<i>designation</i>
Conservation	CEP	Conservation Easement Property
	ESA	Environmentally Sensitive Area
	NAC	Nature Conservancy
	NAT	Natural Area
	NCA	NCC Conservation Land
	PCA	Private Conservation Area
	PRA	Protected Area
	PRB	Protected Beach
	RER	Representative Area Ecological Reserve
	TRA	Nature Trail
Heritage	ARS	Archaeological Site
	HEA	Heritage Area or Park
	HEC	Heritage Canal
	HEP	Heritage Park
	HER	Heritage River
	HIA	Historic Area or Park
	NHP	National Historic Park
	NHS	National Historic Site
	PEP	Provincial Heritage Property
	PHP	Provincial Historic/Heritage Park
	PHS	Provincial Heritage Site
WHS	World Heritage Site	
Parks	CMG	Campground
	CMP	Community Park
	DUP	Day Use Park
	MUP	Municipal Park
	NAP	National Park
	NEP	Natural Environment Park
	NTP	Nature Park
	PKW	Parkway
	PNS	Picnic Site
	PVP	Provincial Park
WAP	Wayside Park	

<i>group</i>	<i>code</i>	<i>designation</i>
Wilderness	ECR	Ecological Reserve
	NTA	Nature Trust Area
	NTR	Nature Reserve
	SES	Significant Ecological Area
	WDA	Wilderness Area
	WDR	Wilderness Reserve
Wildlife	BSR	Bird Sanctuary
	EHJ	Eastern Habitat Joint Venture
	GAS	Game Sanctuary
	MBS	Migratory Bird Sanctuary
	NWA	National Wildlife Area
	PWA	Provincial Wildlife Area
	SBS	Sea Bird Sanctuary
	WHR	Western Hemispheric Shorebird Reserve
	WLP	Wildlife Park
	WLR	Wildlife Reserve
	WLS	Wildlife Sanctuary
	WMA	Wildlife Management Area
	WPA	Wildlife Protection Area
	WRF	Wildlife Refuge
Other	AGF	Agreement Forest
	ASI	Area of Scientific Interest
	DUN	Ducks Unlimited Canada
	EDA	Education Area
	FCP	Federal Community Pasture
	IBP	International Biological Program
	NCC	National Capital Commission
	NSA	Natural Scenic Area
	PLS	Palaeontological Site
	PSL	Public Safety Lands: watershed protection
	RAM	Ramsar Wetland Site
	RTA	Research and Teaching Area
NS SigHab	380	wetland habitat
	381	saltmarsh habitat
	382	deer/moose wintering
	383	other significant habitats

Zoological data developed by NatureServe and its network of natural heritage programs (see [Local Programs](#)) and other contributors and cooperators (see [Sources](#)). Information distributed by the Atlantic Canada Conservation Data Centre, Sackville, New Brunswick.

## WOOD TURTLE

*Glyptemys insculpta* (Le Conte, 1830)

Synonym: *Clemmys insculpta*

Class: Reptilia

Order: Testudines

Family: Emydidae

### DISTRIBUTION

**United States:** CT, DC, IA, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI, WV

**Canada:** NB, NS, ON, QC

**Global Range Comments:** Eastern North America, from Cape Breton Island, Nova Scotia, New Brunswick, and Quebec south to northern Virginia and Eastern Panhandle of West Virginia, west through the Great Lakes region (including southern Ontario) to eastern Minnesota, northeastern Iowa, and western Pennsylvania (Bleakney 1963, Gilhen and Grantmyer 1973, Green and Pauley 1987, Quinn and Tate 1991, Conant and Collins 1991, Harding 1997). Not known from Illinois or Indiana; occurrence in extreme northeastern Ohio was questioned as a possible native population (Conant 1975, Thompson 1953). See 1994 Herpetol. Rev. 25:144-146 for a discussion of occurrence on the coastal plain of Maryland.

### CONSERVATION STATUS

**Global Status Rank:** G3

**Global Status Rank Reasons:** Occurs in the northeastern United States and portions of adjacent southern Canada; apparently declining throughout most of the range; still extant in all 21 states and Canadian provinces from which recorded but rated as apparently secure in only two states; late maturity and very low annual juvenile recruitment make the species vulnerable to declines and limit recovery potential; threatened by over-collection (commonly illegal) and habitat loss and fragmentation; better information is needed on population trends and their relationship to specific threats.

**United States Status Rank:** N3

Connecticut (S3), District of Columbia (SH), Iowa (S1), Maine (S4), Maryland (S4), Massachusetts (S3), Michigan (S2S3), Minnesota (S2), New Hampshire (S3), New Jersey (S2), New York (S3), Ohio (S1), Pennsylvania (S3S4), Rhode Island (S2), Vermont (S3), Virginia (S2), West Virginia (S2), Wisconsin (S2)

**Canada Status Rank:** N3

New Brunswick (S3), Nova Scotia (S3), Ontario (S2), Quebec (S2)

#### Other Statuses:

Canadian Species at Risk Act (SARA) Schedule 1/Annexe 1 Status: Threatened

Committee on the Status of Endangered Wildlife in Canada (COSEWIC): Threatened

International Union for the Conservation of Nature (IUCN): Vulnerable

Convention on International Trade in Endangered Species Protection Status (CITES): Appendix II

## VULNERABILITY AND THREATS

**Intrinsic Vulnerability:** Highly to moderately vulnerable

**Intrinsic Vulnerability Comments:** Population biology (late maturity, very low annual juvenile recruitment) limits recovery potential, and heightens vulnerability to over-collection. Low mobility (relative to birds, e.g.), and tendency to home, reduce probability of recolonization of decimated populations. These characteristics necessitate early response to indications of decline.

**Degree of Threats:** The species has been seriously impacted by illegal collection. Entire populations along some streams have been eliminated. As a result, the distribution is now more discontinuous than it once was, and gene flow has certainly been reduced in some areas. Collection for pet trade (now illegal in most of the range) is the major threat to the survival of Wood Turtles. In the north, where development pressure is not great, collection may be the only serious threat. Collectors can easily clean out an entire population along many miles of stream in only one or two seasons of collecting, by timing collection to coincide with the turtles' emergence from hibernation. Although the level of illegal collecting is undocumented, experts in most states surveyed mentioned collecting as a major threat in their state. Most states and provinces in the range now have laws prohibiting mass collection and commercial use. Nevertheless, it is not illegal to sell Wood Turtles in the rest of the United States, or to export them. They commonly show up in pet stores on the west coast, and they are also shipped to Japan and Europe. Hundreds to thousands of Wood Turtles arrive in Florida for world-wide distribution each spring (Harding, pers. comm.). Levell (2000) discussed commercial exploitation for the live animal trade.

The Wood Turtle was recently listed in Appendix II of the CITES treaty, which will mean that permits will be required for export of the species (Brautigam, A., 1992, in litt. to J. Harding). The summary prepared for this listing (Inclusion of *Glyptemys insculpta* in Appendix 11 United States of America Doc. 8.46: No. 5 1) indicated that "reviewers concur that protective legislation at state and provincial levels in the United States and Canada appears to have done little to curb collection of this species." One reviewer for the CITES listing indicated that specimen price lists only reveal a small fraction of the numbers actually sold, and that sale prices in Europe were reported to exceed US \$ 100 (J. Harding). Another reviewer had been offered \$35 per animal and had found selling prices of US \$35-200 (R. Brooks). In this same document, reviewer J. Kaufmann reported that Canadian collectors had collected (illegally) several hundred specimens from one stream in Pennsylvania over a couple days time. Clearly, the selling price and apparent ease of collection will continue to put pressure on this species until sales are effectively regulated. The Chelonian Advisory Group of the American Association of Zoological Parks and Aquariums has adopted a resolution calling for a cessation of collection of *Glyptemys* spp. from wild populations, and limitation of purchase to specimens proven to be captive-bred.

In contrast to the vulnerability to direct human exploitation, Wood Turtles are fairly tolerant of moderate habitat alterations. For instance, though Wood Turtles are generally associated with wooded streams, they generally feed along the margins of woods, or in openings, where preferred berries grow. Thus, some clearcutting adjacent to streams may not be harmful (Harding 1990). They are also tolerant of moderate development/disturbance, such as shoreline hunting cabins used only a few times a year, timber harvest, light grazing, and low-intensity agriculture (Harding 1997). On the other hand, intense use, such as high-use canoe put-ins and campgrounds generally result in absence of the turtles along such stretches of stream (Harding, pers. comm.). In Connecticut, two formerly stable wood turtle populations declined drastically after a protected drinking water supply area was opened to recreational use (Garber and Burger 1995). Presumably most of the turtles that disappeared were taken by people. In Quebec, "agricultural development may have resulted in reduced predation but also in reduced growth and recruitment, as well as increased adult mortality" (Saumure and Bider 1998).

Habitat destruction and fragmentation due to intense development and accompanying stream alterations are serious problems in the southeastern portion of the wood turtle's range, especially northern Virginia (Mitchell 1994), northwestern New Jersey, southeastern New York and eastern Pennsylvania. Similar problems exist in the Great Lakes region (Harding 1997). "Certain fisheries management practices, such as sand bank stabilization and the digging of sand traps in streams, can eliminate nesting sites and reduce preferred turtle habitat" (Harding 1997). With increasing development, adult mortality due to road traffic also increases (Harding 1997).

Another detrimental aspect of development and intense recreational use is increased egg predation by predators that coexist well with humans. For example, egg predators such as skunks and raccoons commonly increase in

abundance with surrounding development and degradation of natural habitat. Although this turtle is apparently adapted to high egg mortality, predation rates elevated above "natural" rates may reduce reproductive success below critical replacement rates. Raccoons may also increase adult mortality. Farrell and Graham found 16.8% of Wood Turtles captured over a 4-year study to be injured, primarily by raccoons. Harding (1985) provided further information on predation and injuries.

Wood Turtles are also intolerant of all types of water pollution. Wood Turtles showed declines in some areas in the 1950s and 1960s, probably in response to increasing insecticide use.

## MANAGEMENT SUMMARY

**Restoration Potential:** It is possible to breed Wood Turtles in captivity as long as natural conditions, including winter hibernation, are approximated. However, Harding (1990), after more than 20 years studying Wood Turtles, strongly discouraged captive breeding for this species. He stated his arguments this way: "...release of hatchlings is poor compensation for removal of adults from a population, due to high natural mortality of the former. Based on Michigan data, the release of between 50 and 100 hatchlings would be required to balance the removal of one adult from the population. Head-starting of juveniles is an unproven technique; the recapture rate of head-started juveniles (1 year olds) in this study was less than 5%." Recovery of the species to historical levels is highly unlikely, because much habitat has been permanently lost to development. However, if commercial collection were stopped, in much of its range the Wood Turtle would require little active protection or management to remain secure.

Low recruitment rate may make recovery a slow process.

**Preserve Selection & Design Considerations:** Overall, land preservation is currently less important than regulatory protection from commercial collection for the pet trade. In the extreme southeastern portion of its range, land protection is of primary importance. In areas where human use conflicts with Wood Turtle needs, habitat protection should proceed. Preserve design should include protection of wooded stream corridors, nesting, feeding, basking, and overwintering sites, and an upland buffer would be necessary to include in preserve design. The size of the upland buffer would need to be determined from studies of local populations, since Wood Turtles vary considerably in home range size. Alternatively, a preserve could be fenced to prevent turtles from leaving the protected area, if adequate food, basking, nesting and hibernating sites were available within the preserve. Control of excessive nest predation should also be considered in preserve design. Finally, roads should not be placed close to and parallel to the stream, as adult mortality along roads is significant. Garber (unpublished) suggested that populations with a minimum of 50 breeding adult females in a population might be viable.

**Management Requirements:** Because of low natural reproductive success, it is essential to respond to declining populations early. Habitat management could benefit this species in the portions of its range where human use and development are intense. Wood Turtles are fairly tolerant of a variety of adjacent land uses. Any management compatible with maintenance of water quality, nesting and hibernating habitat, a reasonable food supply, and natural mortality levels, will be compatible with Wood Turtles.

Habitat improvement is probably best aimed at nesting, basking, and hibernating sites. Creation of openings in the woods along streams, where herbaceous vegetation and berries can thrive may be a necessary management activity in some areas. Maintenance of natural stream dynamics that create sand bars and islands, natural banks, and open sand shores, and restriction of intense human impact along rivers (restriction of designated campgrounds and access points), are probably the most critical foci of management. Some trout management practices, especially sand traps that remove sand and produce a gravelly stream bed, are counterproductive for Wood Turtles, which prefer sandy substrate.

Education is also an important management tool, especially on rivers that get heavy canoe use. Canoeists should be informed that this species is protected and should not be collected or used as a target for shooting.

In some areas, predator control would be of benefit. Management of habitat characteristics of adjacent uplands should be aimed at achieving a mixture of vegetation including forest-edge habitat without encouraging raccoon and

skunk populations. See Brewster and Brewster (1991) for information on the movements of captive-bred juveniles introduced into a Wood Turtle population in Wisconsin.

**Monitoring Requirements:** It is essential to conduct monitoring censuses at the proper time of the year. A good idea of population size can be obtained by walking or floating a stream when the turtles first emerge from hibernation. Three years of census are recommended to get an accurate estimate of population size (Harding, pers. comm.). Ideally, sites should be revisited during the nesting season to check nesting sites for signs of reproduction. Counting the number of nesting females is another method of estimating population size, since sex ratios are generally 1: 1. However, this method will not account for juveniles. To get a clear picture of a particular population's dynamics, individual turtles should be captured, marked, aged, and sized. This is not practical for most range wide surveys, but would be useful for representative, or critical populations. The overall status of the species is only poorly known at present (see above). A range wide, concerted effort of thorough and repeated censuses over the next 3-5 years would help pinpoint the areas most needing attention, allow an accurate assessment of status, and greatly aid in documenting the impact of commercial collectors.

## LIFE HISTORY

**Basic Description:** a medium-sized aquatic turtle

**General Description:** A medium-sized turtle with a low, broad, gray to brown, usually keeled carapace that is intricately sculptured with concentric growth layers; plastron is yellow, each scute having an irregular dark lateral blotch; adults have orange on neck and limbs and usually are 14-20 cm in carapace length, rarely to 23 cm (Smith and Brodie 1982, Conant and Collins 1991). Hatchlings average 26.6-34 mm carapace length (CL) (Harding and Bloomer 1979, Lovich et al. 1990) and have a tail that may be as long as the carapace.

**Adult Phenology:** Diurnal, Hibernates/aestivates

**Immature Phenology:** Diurnal, Hibernates/aestivates

**Phenology Comments:** Most active diurnally, March or April through October or November (Farrell and Graham 1991, Ernst 2001). Some aquatic movements may occur in winter, especially in the southern part of the range. Activity peaks in morning in summer, in afternoon in spring and fall. Mating and egg laying sometimes continue after dark. Does not estivate (Ernst 1986, Farrell and Graham 1991).

Males tend to be active and easy to find earlier in the spring than are females, whereas females are easier to find during the egg-laying season.

**Adult Food Habits:** Carnivore, Frugivore, Invertivore, Piscivore

**Immature Food Habits:** Carnivore, Frugivore, Invertivore, Piscivore

**Food Comments:** Opportunistic omnivore. Pope (1967) indicated a strong preference for vegetable matter, including fruits, berries, tender leaves, and mushrooms. Harding and Bloomer (1979) listed insects, earthworms, mollusks, tadpoles, dead fish, and newborn mice as foods, with invertebrates and plant matter predominant. Favorite leaves include sandbar willow and strawberries (Harding 1990). Strang (1983) tallied food choices of Wood Turtles in their natural habitat in Pennsylvania and found that they ate fungi and green leaves most frequently (accounting for a total of 68% of all feeding observations), and fruits/flowers and insects about equally (totalling 32% of observations). In Pennsylvania, Ernst (2001) reported a diet of earthworms, leeches, caterpillars, fish (likely carrion), and *Rana clamitans* tadpoles and adults.

**Ecology Comments:** Solitary late spring-summer; may aggregate in or near hibernation sites. Not territorial (Kaufmann 1992, see for a detailed study of social behavior in central Pennsylvania).

Copulates in spring or fall (e.g., Niederberger and Seidel 1999, Ernst 2001); mostly in spring in the north; usually late March-April and October-November in New Jersey (Farrell and Graham 1991); more often in fall than in spring in Virginia and central Pennsylvania (Kaufmann 1992).

Depending on local climate, eggs can be laid anytime from mid-May to early July. In New Jersey, Virginia, and Pennsylvania (Ernst 2001), a single clutch generally is laid in June. Clutch size usually is 4-18 (often 7-14). Clutch



size averaged 11 in Wisconsin (Ross et al. 1991), about 9 in Ontario (Brooks et al. 1992).

Nesting success generally is very low, with egg predators taking a heavy toll. One report conservatively estimated egg and hatchling mortality at 98% (Harding 1990). An Ontario population incurred a high rate of predation on nests and adults (Brooks et al. 1992). Reproductive success depends on a high rate of adult survival, long-lived adults that reproduce many times during their lifetime, and the occasional good season when a nest survives (Harding, pers. comm. 1992).

After eggs are laid, adults in eastern populations often disperse to more upland areas for summer range, where they tend to remain within a fairly defined, though variably sized, area (referred to as "home range" below). In Ontario, one female moved 3.6 km in a fairly straight line between an apparent nesting area and late summer range (Quinn and Tate 1991).

The home range is often elongate because of the tendency to follow streams (Strang 1983). Virtually all turtle locations are within 150-300 m of streams used by the turtles (Harding and Bloomer 1979, Arvisais et al. 2002). Based on the 95% convex polygon method, the largest home ranges have been documented in Quebec and Ontario (averaging about 24-28 ha; largest single-season home range = 132 ha) (Quinn and Tate 1991, Arvisais et al. 2002). Maps in Quinn and Tate (1991) depicted home ranges of up to about 1.9 km in longest dimension; one female moved 3.6 km in a fairly straight line from her apparent nesting site to her late summer range. Home range size documented by others is an order of magnitude smaller (average less than 7 ha) (Strang 1983, Kaufmann 1995, Ross et al. 1991, Tuttle 1996, Tuttle and Carroll 1997, Ernst 2001; see also Arvisais et al. 2002).

Wood Turtles have a reputation of intelligence and agility. They are excellent climbers and easily escape from boxes and enclosures. They are quick to learn mazes, daily routines, and are known to be good at homing (Tinklepaugh 1932, Clement 1958). Carroll and Ehrenfeld (1978) reported that Wood Turtles could often return to the exact spot of capture when released up to 2 kilometers away. Homing ability fell off sharply beyond the 2 km distance, and learning, age, and sex were not found to influence homing ability.

New Jersey populations averaged 12.5 adults/ha, but the turtles were usually concentrated around basking areas or favorite food patches, rather than spread evenly across an area. In New Jersey, population density over several years averaged 10.7/ha of suitable habitat (Farrell and Graham 1991). In Michigan, the populations seem to be more scattered, and density is likely considerably lower. In southern Quebec, density was estimated at 1.2 turtles per 100 m of river (Daigle 1997).

Adults may live for many years, with maximum ages of 32 years (wild caught) and 58 years (captive) reported by Harding and Bloomer (1979). In Pennsylvania, several known-age turtles marked as juveniles were found to live at least 30 to 42 years (Ernst, 1992, personal communication). Given the difficulty of aging turtles over 20 years, the wild caught age is likely conservative.

The combination of late maturity, low reproductive success, and long-lived adults results in a population structure skewed heavily toward adults. Harding's study populations consisted of 80 to 85% adults. Farrell and Graham (1991) reported 3% juveniles (1 to 8 years), 53% subadults (9 to 13 years), and 34% adults (over 13 years) in one New Jersey population; almost half of the population comprised individuals over 14 cm in plastron length. These characteristics combine to delay the detection of population declines, and to reduce the ability of small, declining populations to recover.

**Habitat Comments:** Lives along permanent streams during much of each year, but in summer may roam widely overland and can be found in a variety of terrestrial habitats adjacent to streams, from deciduous woods, cultivated fields, and woodland bogs, to marshy pastures. Use of woodland bogs and marshy fields is most common in the northern part of the range.

Wood Turtles are often associated with the margins of woods. For example, in Wisconsin, Wood Turtles used wet mesic forest in riverbottom and riparian shrub/forest ecotones; most captures were in ecotones between alder thickets and grassy openings (Ross et al. 1991). In western Maine, within activity areas, Wood Turtles selected

nonforested locations close to water with low canopy cover; within a watershed, they selected activity areas close to streams with moderate forest cover and little open water; overall they appeared to select forest edges to balance thermoregulatory and feeding needs (Compton et al. 2002).

Most activity is terrestrial June-August in Pennsylvania, May-October in New Jersey (Farrell and Graham 1991), but turtles commonly enter streams at night (Kaufmann 1992). Individuals occur mainly in streams in spring and fall. Some agricultural operations may be locally beneficial by providing a mixture of different food and cover types near wooded streams (Kaufmann 1992). Western populations are closely associated with water year-round, and eastern populations tend to be more terrestrial in the summer. According to Harding and Bloomer, Michigan Wood Turtles were never found more than 152 m (500 ft) from water, and had leeches (evidence of aquatic habits) at all times of the year. New Jersey Wood Turtles were found farther from water and were free of leeches during summer months. Hatchlings and small juveniles are much more closely associated with water than are adults. In Minnesota, Buech et al. (1990, 1991) found that nesting habitat and stream substrate are the most important habitat determinants. Wood Turtles were never found in water where the bottom substrate was mucky. Harding (1990) reported that in Michigan these turtles are not found in clay-bottomed streams. However, Carl Ernst (1992, pers. comm.) reported that in Virginia and Pennsylvania the turtles can be found in streams with clay substrate. Harding (1990) also reported that Wood Turtles are usually found where openings in the streamside canopy allow growth of herbaceous plants. These openings provide both food and basking sites. As with other turtles, nesting Wood Turtles require loose substrate on fully exposed (unshaded) sites, such as sandy banks or sand-gravel bars in streams. When natural openings are unavailable they may use such man-made disturbances as road grades, railroad grades, sand pits, or plowed fields.

Overwintering occurs in bottoms or banks of streams where water flows all winter, including pools underneath a layer of ice; underwater muskrat burrows, beaver lodges, or over-bank root systems also may be used as winter hibernation (brumation) sites (Ernst 1986).

Reproductive activity (courtship, copulation) is aquatic (Ernst 1986). Eggs are laid in open sunny areas in fairly moist but well-drained, sandy or gravelly soil, commonly in clearings created by humans. Sites are usually near a stream, but females often appear along roads at this time of year, presumably looking for nesting sites in the soft shoulder material. This habit is a significant source of adult mortality. The female digs a hole in the dirt or sand with her hind feet, deposits the eggs and then carefully fills in the soil and tamps it flat (Pallas 1960).

Other turtles often share nest sites with this species. McBreen (1989) reported that *Chelydra serpentina*, *Chrysemys picta*, *Terrapene carolina*, *Pseudemys rubriventris* used the same nest sites as Wood Turtles in Virginia. In Michigan, Wood Turtles shared nesting areas with *Chrysemys picta* and *Chelydra serpentina*. In New Jersey, *Glyptemys muhlenbergi*, *C. guttata*, *Chrysemys picta*, *Chelydra serpentina*, and *Terrapene carolina* commonly share nesting areas with Wood Turtles (Harding and Bloomer 1979). Zoological data developed by The Association for Biodiversity's Central Zoology group, in cooperation with U.S. Natural Heritage Programs and Canadian Conservation Data Centers and other contributors and cooperators.

## RESEARCH

**Management Research Needs:** The biology of Wood Turtles is fairly well studied. The main research needed presently is an assessment of the range wide status (see monitoring requirements, above). Population monitoring and management would be enhanced by population studies, including viability analyses, on a few important populations from across the range. This would give a more complete picture of the status of the species. These studies would also help to identify the population parameters that best indicate population health, so these could be used to improve the value of monitoring efforts.

Research is needed to determine levels of predation that can be tolerated by Wood Turtles without causing population declines. Then, the impact of various human use patterns on predation level should be investigated so that predator controls can be instigated where needed.

Also needed is a better idea of the amount of feeding and summer habitat Wood Turtles use or require in different regions, so that management can be aimed at adequate habitat.

**Biological Research Needs:** Population viability analyses across range; levels of predation that can be tolerated; impact of human use on predation level; amount of feeding and summer habitat required in different regions and habitats.

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FID	MANAME	MAALIAS	MACODE	MACODEOLD	MATYPE	MASUBTYPE	TOTHA
777	Monument-Lefebvre	NHS	M.CAACNB006	M.CAACNB024	F	PC NHP	2

MCODE	ELCODE	SUBNAT	SCINAME	COMNAME
ASIOotus	ABNSB13010	NB	<i>Asio otus</i>	Long-eared Owl
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
RUBUrecu	PDROS1K6H0	NB	<i>Rubus recurvicaulis</i>	Arching Dewberry
PSEUdist	NBMUS82010	NB	<i>Pseudotaxiphyllum distichaceum</i>	a Moss
SCHOfIuv	PMCYP0Q0P0	NB	<i>Schoenoplectus fluviatilis</i>	River Bulrush
PUMAcopo	AMAJH04012	NB	<i>Puma concolor pop. 1</i>	Cougar - Eastern pop.
SCHOfIuv	PMCYP0Q0P0	NB	<i>Schoenoplectus fluviatilis</i>	River Bulrush
DANAplex	IILEPP2010	NB	<i>Danaus plexippus</i>	Monarch
DANAplex	IILEPP2010	NB	<i>Danaus plexippus</i>	Monarch
COCCtrri	IICOL223RI	NB	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
CONTcoop	ABPAE32010	NB	<i>Contopus cooperi</i>	Olive-sided Flycatcher
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
MIMUpoly	ABPBK03010	NB	<i>Mimus polyglottos</i>	Northern Mockingbird
MOLOater	ABPBXB7030	NB	<i>Molothrus ater</i>	Brown-headed Cowbird
CONTcoop	ABPAE32010	NB	<i>Contopus cooperi</i>	Olive-sided Flycatcher
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
COCCvesp	ABPBY09020	NB	<i>Coccythraustes vespertinus</i>	Evening Grosbeak
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
CHORmino	ABNTA02020	NB	<i>Chordeiles minor</i>	Common Nighthawk
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
MIMUpoly	ABPBK03010	NB	<i>Mimus polyglottos</i>	Northern Mockingbird
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
CATHaura	ABNKA02010	NB	<i>Cathartes aura</i>	Turkey Vulture
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow

NOMCOMMUN	IUCN	GRANK	NPROT	NPROTSAR	SPROT	SRANK
Hibou moyen-duc	LC	G5				S2S3
Hirondelle de rivage	LC	G5	T			S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Ronce à tige recourbée		G4?				S2?
		G4G5				S1
Scirpe fluviatile		G5				S3
	CR	G5THQ	DD		Endangered	SU,SH
Scirpe fluviatile		G5				S3
Monarque		G5	SC	SC	Special Concern	S3B
Monarque		G5	SC	SC	Special Concern	S3B
Coccinelle à bande transverse						S1S2
Pluvier kildir	LC	G5				S3B
Moucherolle à côtés olive	NT	G4	T	T	Threatened	S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Pluvier kildir	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Moqueur polyglotte	LC	G5				S3B
Vacher à tête brune	LC	G5				S3B
Moucherolle à côtés olive	NT	G4	T	T	Threatened	S3S4B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Gros-bec errant	LC	G5				S3S4B,S4S5N
Canard d'Amérique	LC	G5				S3B
Pluvier kildir	LC	G5				S3B
Canard d'Amérique	LC	G5				S3B
Pluvier kildir	LC	G5				S3B
Engoulevent d'Amérique	LC	G5	T	T	Threatened	S3B
Hirondelle rustique	LC	G5	T		Threatened	S3B
Urubu à tête rouge	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle de rivage	LC	G5	T			S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Canard d'Amérique	LC	G5				S3B
Troglodyte familial	LC	G5				S1B
Canard pilet	LC	G5				S3B
Canard souchet	LC	G5				S2B
Canard d'Amérique	LC	G5				S3B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Goglu des prés	LC	G5	T		Threatened	S3S4B
Pluvier kildir	LC	G5				S3B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Hirondelle à front blanc	LC	G5				S3S4B
Moqueur polyglotte	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Urubu à tête rouge	LC	G5				S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B
Hirondelle de rivage	LC	G5	T			S3B





DIRECTIONS	OBDATE
W side of lake	1970 07 01
BBA Region 13 (Border), square LF89	1988 07 XX
BBA Region 13 (Border), square LF89	1990 07 26
	1964 09 18
Near Breau Creek, on the Woodhurst Road	1976 07 16
	1931 08 21
within 4km of	1973-1997
	1931 08 21
along train track at bridge	2006 07 14
	2006 07 25
	1979 09 20
BBA Region 13 (Border), square LF89	1988 06 25
BBA Region 13 (Border), square LF89	1989 07 26
BBA Region 13 (Border), square LF89	1988 07 00
BBA Region 13 (Border), square LF89	1988 07 00
Marais Cormierville	1976 08 01
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2007 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2006 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2009 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
within 10 x 10 km Memramcook East UTM atlas square (20LR89)	2010 XX XX
point count 10 in Dorchester UTM atlas square (20LR88)	2007 06 03
point count 10 in Dorchester UTM atlas square (20LR88)	2007 06 03
point count 2 in Hillsborough UTM atlas square (20LR78)	2009 06 27
point count 8 in Hillsborough UTM atlas square (20LR78)	2009 06 27
point count 8 in Hillsborough UTM atlas square (20LR78)	2009 06 27
Within Saint-Joseph UTM atlas square (20LR79)	2006 05 30
Within Saint-Joseph UTM atlas square (20LR79)	2006 06 24
Within Memramcook East UTM atlas square (20LR89)	2007 06 08
Within Memramcook East UTM atlas square (20LR89)	2007 06 17
Within Memramcook East UTM atlas square (20LR89)	2007 07 15
Within Memramcook East UTM atlas square (20LR89)	2010 06 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 13
Within Memramcook East UTM atlas square (20LR89)	2010 04 23
Within Memramcook East UTM atlas square (20LR89)	2010 05 10
Within Memramcook East UTM atlas square (20LR89)	2010 06 07
Within Memramcook East UTM atlas square (20LR89)	2010 06 07
Within Memramcook East UTM atlas square (20LR89)	2010 06 08
Within Memramcook East UTM atlas square (20LR89)	2010 05 11
Within Memramcook East UTM atlas square (20LR89)	2010 06 16
Within Memramcook East UTM atlas square (20LR89)	2010 06 21
Within Memramcook East UTM atlas square (20LR89)	2010 06 29
Within Memramcook East UTM atlas square (20LR89)	2010 07 20
Within Memramcook East UTM atlas square (20LR89)	2010 06 08





## OBDATA

Count: 5 young.

Activity: Confirmed breeding: nest-building, carrying material.

Activity: Confirmed breeding: adult attending young.

Pheno.: larva. Activity: feeding.

Pheno.: larva. Descr.: many caterpillars of various ages on milkweeds in her yard. Activity: feeding.

Count: 1.

Activity: Probable breeding: agitated, indicating nesting.

Activity: Probable breeding: agitated, indicating nesting.

Activity: Probable breeding: pair observed (sexes similar).

Activity: Confirmed breeding: adult occupying nest.

Count: 1.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: juvenile. Activity: Confirmed Breeding: Recently fledged and/or dependent young.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ week apart.

Count: 1. Pheno.: adult. Sex: male, female. Activity: Probable Breeding: Pair in suitable nesting habitat & season.

Count: 4. Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 2. Pheno.: adult. Activity: Probable Breeding: Courtship or display.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 53. Pheno.: adult. Activity: Confirmed Breeding: Nest-building or carrying nest material.

Count: 10. Pheno.: adult. Activity: Confirmed Breeding: Nest-building or carrying nest material.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Pheno.: juvenile. Activity: Confirmed Breeding: Nest with young.

Count: 1. Pheno.: adult. Activity: Possible Breeding: Singing male in suitable nesting habitat & season.

Count: 8. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 4. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Count: 2. Pheno.: adult. Activity: Possible Breeding: Adult in suitable in nesting habitat & season.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

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Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

**GENDESC**

Habitat: low woods (poplar & alder). Ecol: Nesting area. Soil: NB130186.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Habitat: Overgrown field. Soil: NB130186.

Habitat: Near base of cool, shaded siliceous rocks in mature Red Spruce-Red Maple forest. Soil: NB130185.

Habitat: rivage maritime. Soil: NB130186.

Soil: NB130185.

Habitat: rivage maritime. Soil: NB130186.

Ecol: Adult foraging area.

Ecol: Adult foraging area.

Soil: NB130186.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

Ecol: Breeding. Soil: NB130185.

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Soil: NB130185.





IDNUM	EDITION
33712	MVD 2001 05 31
45292	SHG 2009 04 22
92242	SHG 2009 04 22
136924	SHG 2001 01 11
167398	SHG 2003 06 30
176777	SHG 2004 02 23
222326	SHG 2005 06
226689	TMP 2004 02 09
321682	SHG 2007 11 08
321684	SHG 2007 11 08
389446	SHG 2009 03 18
22778	SHG 2010 01 29
39519	SHG 2010 01 29
46241	SHG 2010 01 29
47415	SHG 2010 01 29
677814	SHG 2012 02 21
1109990	JLC 2014 03 01
1109998	JLC 2014 03 01
1110002	JLC 2014 03 01
1110003	JLC 2014 03 01
1110019	JLC 2014 03 01
1110028	JLC 2014 03 01
1110038	JLC 2014 03 01
1110039	JLC 2014 03 01
1169209	JLC 2014 03 01
1239233	JLC 2014 03 01
1267461	JLC 2014 03 01
1285032	JLC 2014 03 01
1285034	JLC 2014 03 01
1285035	JLC 2014 03 01
1285039	JLC 2014 03 01
1285080	JLC 2014 03 01
1285087	JLC 2014 03 01
1285097	JLC 2014 03 01
1285098	JLC 2014 03 01
1285101	JLC 2014 03 01
1343207	JLC 2014 03 01
1343209	JLC 2014 03 01
1383260	JLC 2014 03 01
1398881	JLC 2014 03 01
1398886	JLC 2014 03 01
1471397	JLC 2014 03 02
1471398	JLC 2014 03 02
1472021	JLC 2014 03 02
1472022	JLC 2014 03 02
1473039	JLC 2014 03 02
1478134	JLC 2014 03 02
1478135	JLC 2014 03 02
1478136	JLC 2014 03 02
1478140	JLC 2014 03 02
1478141	JLC 2014 03 02
1478142	JLC 2014 03 02
1478143	JLC 2014 03 02
1478144	JLC 2014 03 02
1478145	JLC 2014 03 02
1478238	JLC 2014 03 02
1478239	JLC 2014 03 02
1478240	JLC 2014 03 02
1478241	JLC 2014 03 02
1478242	JLC 2014 03 02

PETRpyrr	ABPAU09010	NB	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
TROGaedo	ABPBG09010	NB	<i>Troglodytes aedon</i>	House Wren
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRINsoli	ABNNF01070	NB	<i>Tringa solitaria</i>	Solitary Sandpiper
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
PLUVdomi	ABNNB02030	NB	<i>Pluvialis dominica</i>	American Golden-Plover
TRYNSubr	ABNNF14010	NB	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
BUCEalbe	ABNJB18030	NB	<i>Bucephala albeola</i>	Bufflehead
MERGserr	ABNJB21020	NB	<i>Mergus serrator</i>	Red-breasted Merganser
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
CHARvoci	ABNNB03090	NB	<i>Charadrius vociferus</i>	Killdeer
TRINsemi	ABNNF02010	NB	<i>Tringa semipalmata</i>	Willet
STERhiru	ABNNM08070	NB	<i>Sterna hirundo</i>	Common Tern
RIPAripa	ABPAU08010	NB	<i>Riparia riparia</i>	Bank Swallow
HIRUrust	ABPAU09030	NB	<i>Hirundo rustica</i>	Barn Swallow
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
ANASamer	ABNJB10180	NB	<i>Anas americana</i>	American Wigeon
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASacut	ABNJB10110	NB	<i>Anas acuta</i>	Northern Pintail
ANASclyp	ABNJB10150	NB	<i>Anas clypeata</i>	Northern Shoveler
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
ANASstre	ABNJB10160	NB	<i>Anas strepera</i>	Gadwall
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
MORUbass	ABNFB02010	NB	<i>Morus bassanus</i>	Northern Gannet
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
PHALloba	ABNNF20020	NB	<i>Phalaropus lobatus</i>	Red-necked Phalarope
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink
MELAnigr	ABNJB17010	NB	<i>Melanitta nigra</i>	Black Scoter
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
CONTvire	ABPAE32060	NB	<i>Contopus virens</i>	Eastern Wood-Pewee
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
OXYUjama	ABNJB22010	NB	<i>Oxyura jamaicensis</i>	Ruddy Duck
DOLLoryz	ABPBXA9010	NB	<i>Dolichonyx oryzivorus</i>	Bobolink

Hirondelle à front blanc	LC	G5			S3S4B
Troglodyte familier	LC	G5			S1B
Troglodyte familier	LC	G5			S1B
Troglodyte familier	LC	G5			S1B
Pluvier bronzé	LC	G5			S3M
Pluvier bronzé	LC	G5			S3M
Chevalier solitaire	LC	G5			S2B,S5M
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Pluvier bronzé	LC	G5			S3M
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Érismature rousse	LC	G5			S1B,S4N
Pluvier bronzé	LC	G5			S3M
Bécasseau roussâtre	NT	G4	SC		SNA
Érismature rousse	LC	G5			S1B,S4N
Canard souchet	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Canard pilet	LC	G5			S3B
Canard souchet	LC	G5			S2B
Canard pilet	LC	G5			S3B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Petit Garrot	LC	G5			S3N
Harle huppé	LC	G5			S3B,S4S5N
Érismature rousse	LC	G5			S1B,S4N
Pluvier kildir	LC	G5			S3B
Chevalier semipalmé	LC	G5			S2S3B
Sterne pierregarin	LC	G5	NAR		S3B
Hirondelle de rivage	LC	G5	T		S3B
Hirondelle rustique	LC	G5	T	Threatened	S3B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Canard d'Amérique	LC	G5			S3B
Érismature rousse	LC	G5			S1B,S4N
Canard souchet	LC	G5			S2B
Goglu des prés	LC	G5	T	Threatened	S3S4B
Érismature rousse	LC	G5			S1B,S4N
Canard pilet	LC	G5			S3B
Canard souchet	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Canard chipeau	LC	G5			S2B
Érismature rousse	LC	G5			S1B,S4N
Fou de Bassan	LC	G5			SHB,S5M,S5N
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Phalarope à bec étroit	LC	G4G5	SC		S3M
Érismature rousse	LC	G5			S1B,S4N
Goglu des prés	LC	G5	T	Threatened	S3S4B
Macreuse noire	LC	G5			S3M,S2S3N
Érismature rousse	LC	G5			S1B,S4N
Pioui de l'Est	LC	G5	SC	Special Concern	S4B
Érismature rousse	LC	G5			S1B,S4N
Érismature rousse	LC	G5			S1B,S4N
Goglu des prés	LC	G5	T	Threatened	S3S4B



3 Sensitive	83	2	150	-64.501763	45.984017	383682	5093368	2.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
5 Undetermined	83	2	150	-64.47877	45.968566	385431	5091618	4.9 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.9762078	379238	5092585	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
8 Accidental	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561126	45.983679	379083	5093419	1.7 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
4 Secure	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	4.7	48279	-64.552414	45.941696	379667	5088741	4.5 ± 48.C	NBWEST
3 Sensitive	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
3 Sensitive	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5596123	45.9837667	379201	5093426	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	4.7	44497	-64.561215	45.983631	379076	5093414	1.7 ± 44.C	NBWEST
4 Secure	83	2.7	500	-64.5589256	45.984558	379256	5093513	1.6 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561215	45.983631	379076	5093414	1.7 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.549942	45.93877	379853	5088412	4.7 ± 0.0	NBWEST
3 Sensitive	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	2.7	500	-64.561281	45.984111	379072	5093467	1.8 ± 0.0	NBWEST
4 Secure	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST
4 Secure	83	3.7	5000	-64.552339	46.0044	379809	5095708	2.8 ± 5.0	NBWEST
4 Secure	83	3	1000	-64.5295063	45.9429777	381446	5088849	4.3 ± 1.0	NBWEST
3 Sensitive	83	3.7	5000	-64.553955	45.99447	379662	5094607	1.9 ± 5.0	NBWEST

21 H15 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H16 Memramcook East MBBA square  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Saint-Joseph - St. Thomas Street fields  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph sewage Lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook, Johnson pt rd and Cape Tourmentine  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Memramcook  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Saint Thomas - Lagoon  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 Memramcook-- Arthur St. lagoon  
 21 H15 St-Joseph ± Sewage ± lagoon ± CA-NB-Memramcook-519 Grand Pré §  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 CA-NB-Acadian Birder's yard - 1247 Taylor Rd  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook - Arthur St Sewage Lagoon  
 21 H15 Memramcook  
 21 I02 Memramcook  
 21 H15 Sackville/Memramcook  
 21 H15 Memramcook



Atlasser ID: 3365  
Atlasser ID: 3365  
Atlasser ID: 3365  
Atlasser ID: 3365  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Alain Clavette  
Stuart Tingley  
Stuart Tingley  
Stuart Tingley  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
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Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Jean-Sebastien Guenette  
Gilbert Bouchard  
Gilbert Bouchard  
Gilbert Bouchard  
Gilbert Bouchard  
Stuart Tingley  
Alain Clavette  
Alain Clavette  
Alain Clavette  
Stuart Tingley  
Alain Clavette  
Gilles Belliveau  
Gilles Belliveau  
Gilles Belliveau  
Alain Clavette  
Gilles Belliveau  
Gilles Belliveau  
Karine Gautreau  
Jean-Sebastien Guenette  
James Hirtle  
Roger Burrows

Pheno.: adult. Activity: Confirmed Breeding: Adult leaving or entering nest site.

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1. Pheno.: adult. Activity: Probable Breeding: Territory presumed; adult in suitable nesting habitat & season 2+ times, 1+ wee

Count: 1.

Count: 1.

Count: 1.

Count: 15.

Count: 1.

Count: 20.

Count: 15.

Count: 1.

Count: 22.

Count: 13.

Count: 1.

Count: 2.

Count: 4.

Count: 4.

Count: 1.

Count: 18.

Count: 4.

Count: 4.

Count: 5.

Count: 4.

Count: 4.

Count: 1.

Count: 3.

Count: 2.

Count: 4.

Count: 7.

Count: 2.

Count: 1.

Count: 3.

Count: 1.

Count: 2.

Count: 2.

Count: 7.

Count: 6.

Count: 41.

Count: 1.

Count: 46.

Count: 2.

Count: 41.

Count: 24.

Count: 42.

Count: 1.

Count: 4.

Count: 18.

Count: 1.

Count: 22.

Count: 2.

Count: 6.

Count: 1.









1478243 JLC 2014 03 02  
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1697011 JLC 2015 03 29  
1697447 JLC 2015 03 29

SITECODE	IUCNCAT	PREC	PROJ	UTME20	UTMN20	LONDEC	LATDEC	N	S	E	W	COCODE	SUBNAT
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QUADCODE	LOCATION	PROPNAME	PID	PROTSTAT	LEGALACT	LEGALDATE	ESTABDATE
21 H/15	Saint-Joseph			limited access	National Parks Act	1930	

LOCALJURIS	OWNERCODE	OWNER	OWNERCOM	DESCRIPT	ADDITTOPIC
Parks Canada		Govt of Canada	Fed		Added for Mawhinney site review

CITATION	SOURCECODE	EDITION
Parks Canada , GeoNames websites	W01NRC00ACCA	SHG 2004 07 08