

APPENDIX D

ATLANTIC CANADA CONSERVATION DATA CENTRE REPORT

DATA REPORT 7682: Hartville, NS

Prepared 26 May 2023

by J. Churchill, Data Manager

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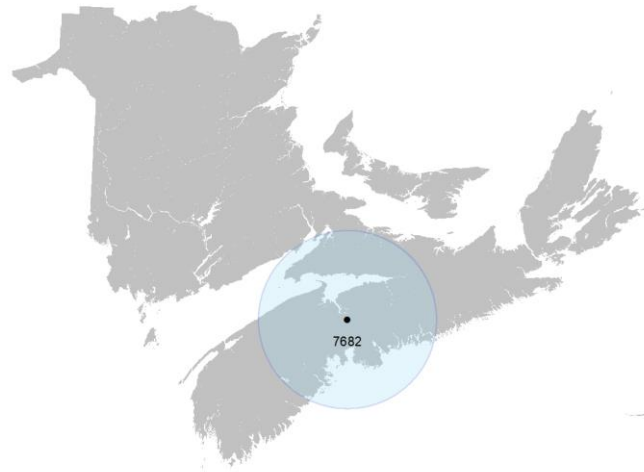
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Map 1. A 100 km buffer around the study area

1.0 PREFACE

The Atlantic Canada Conservation Data Centre (AC CDC; www.accdc.com) 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 AC CDC 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 AC CDC is supported by 6 federal agencies and 4 provincial governments, as well as through outside grants and data processing fees.

Upon request and for a fee, the AC CDC 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 AC CDC 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

HartvilleNS_7682ob.xls

HartvilleNS_7682ob100km.xls

HartvilleNS_7682msa.xls

HartvilleNS_7682ff_py.xls

Contents

Rare or legally-protected Flora and Fauna in your study area

A list of Rare and legally protected Flora and Fauna within 100 km of your study area

Managed and Biologically Significant Areas in your study area

Rare Freshwater Fish in your study area (DFO database)

1.2 RESTRICTIONS

The AC CDC 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 AC CDC 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 AC CDC 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) AC CDC 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) AC CDC 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 AC CDC data response.

1.3 ADDITIONAL INFORMATION

The accompanying Data Dictionary provides metadata for the data provided.

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

Plants, Lichens, Ranking Methods, All other Inquiries

Sean Blaney
Senior Scientist / Executive Director
(506) 364-2658
sean.blaney@accdc.ca

Animals (Fauna)

John Klymko
Zoologist
(506) 364-2660
john.klymko@accdc.ca

Data Management, GIS

James Churchill
Conservation Data Analyst / Field Biologist
(902) 679-6146
james.churchill@accdc.ca

Billing

Jean Breau
Financial Manager / Executive Assistant
(506) 364-2657
jean.breau@accdc.ca

Questions on the biology of Federal Species at Risk can be directed to AC CDC: (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 Hubert Askanas, Energy and Resource Development: (506) 453-5873.

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 Donna Hurlburt, NS DLF: (902) 679-6886. To determine if location-sensitive species (section 4.3) occur near your study site please contact a NS DLF Regional Biologist:

Western: Emma Vost
(902) 670-8187
Emma.Vost@novascotia.ca

Western: Sarah Spencer
(902) 541-0081
Sarah.Spencer@novascotia.ca

Central: Shavonne Meyer
(902) 893-0816
Shavonne.Meyer@novascotia.ca

Central: Kimberly George
(902) 890-1046
Kimberly.George@novascotia.ca

Eastern: Harrison Moore
(902) 497-4119
Harrison.Moore@novascotia.ca

Eastern: Maureen Cameron-MacMillan
(902) 295-2554
Maureen.Cameron-MacMillan@novascotia.ca

Eastern: Elizabeth Walsh
(902) 563-3370
Elizabeth.Walsh@novascotia.ca

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.

2.0 RARE AND ENDANGERED SPECIES

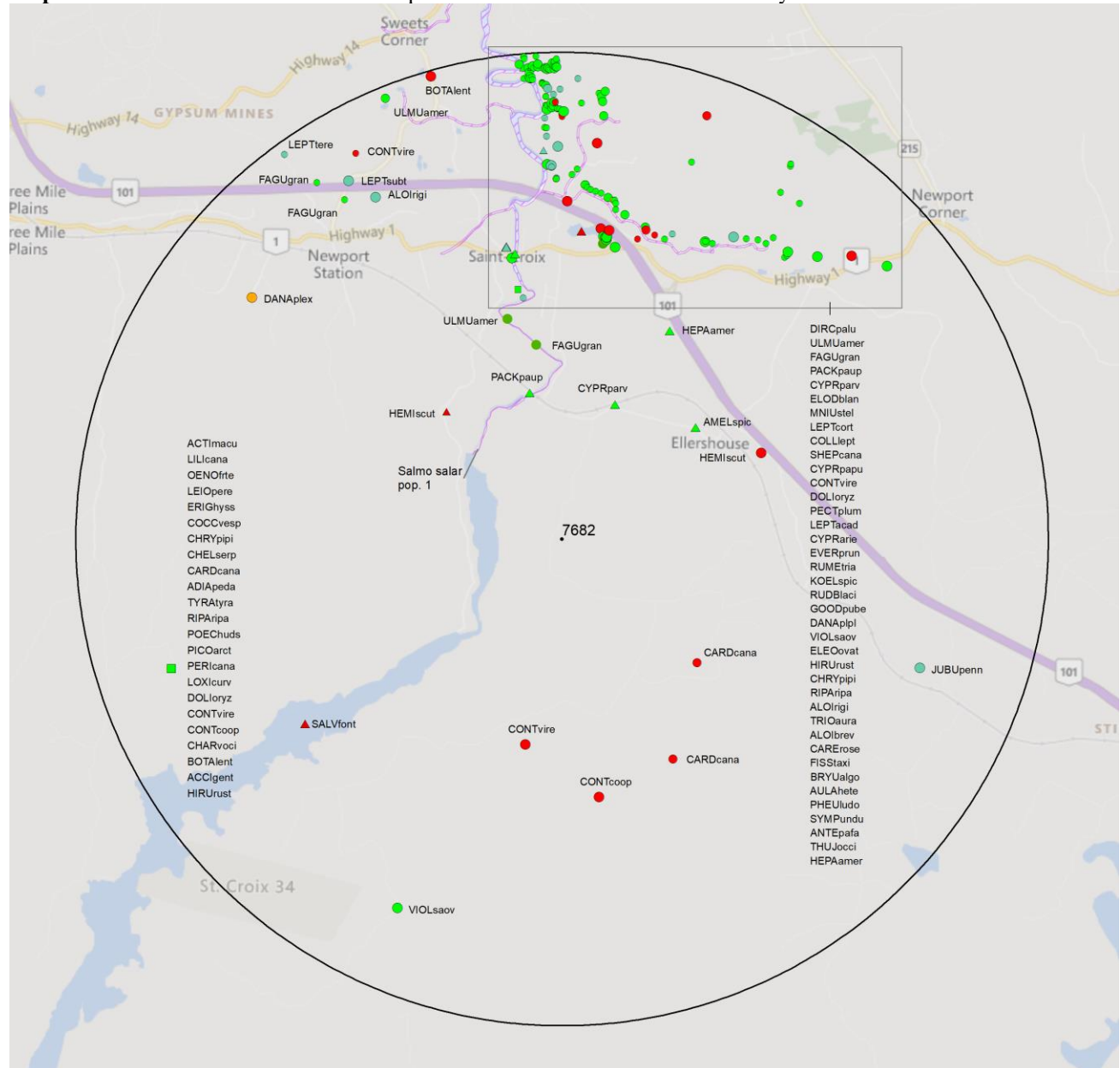
2.1 FLORA

The study area contains 150 records of 25 vascular and 27 records of 15 nonvascular flora (Map 2 and attached: *ob.xls), excluding 'location-sensitive' species.

2.2 FAUNA

The study area contains 50 records of 22 vertebrate and 2 records of 2 invertebrate fauna (Map 2 and attached data files - see 1.1 Data List), excluding 'location-sensitive species'. Please see section 4.3 to determine if 'location-sensitive' species occur near your study site.

Map 2: Known observations of rare and/or protected flora and fauna within the study area.



- RESOLUTION**
- 4.7 within 50s of kilometers
 - 4.0 within 10s of kilometers
 - 3.7 within 5s of kilometers
 - △ 3.0 within kilometers
 - △ 2.7 within 500s of meters
 - ⊙ 2.0 within 100s of meters
 - ⊙ 1.7 within 10s of meters

- HIGHER TAXON**
- vertebrate fauna
 - invertebrate fauna
 - vascular flora
 - nonvascular flora

3.0 SPECIAL AREAS

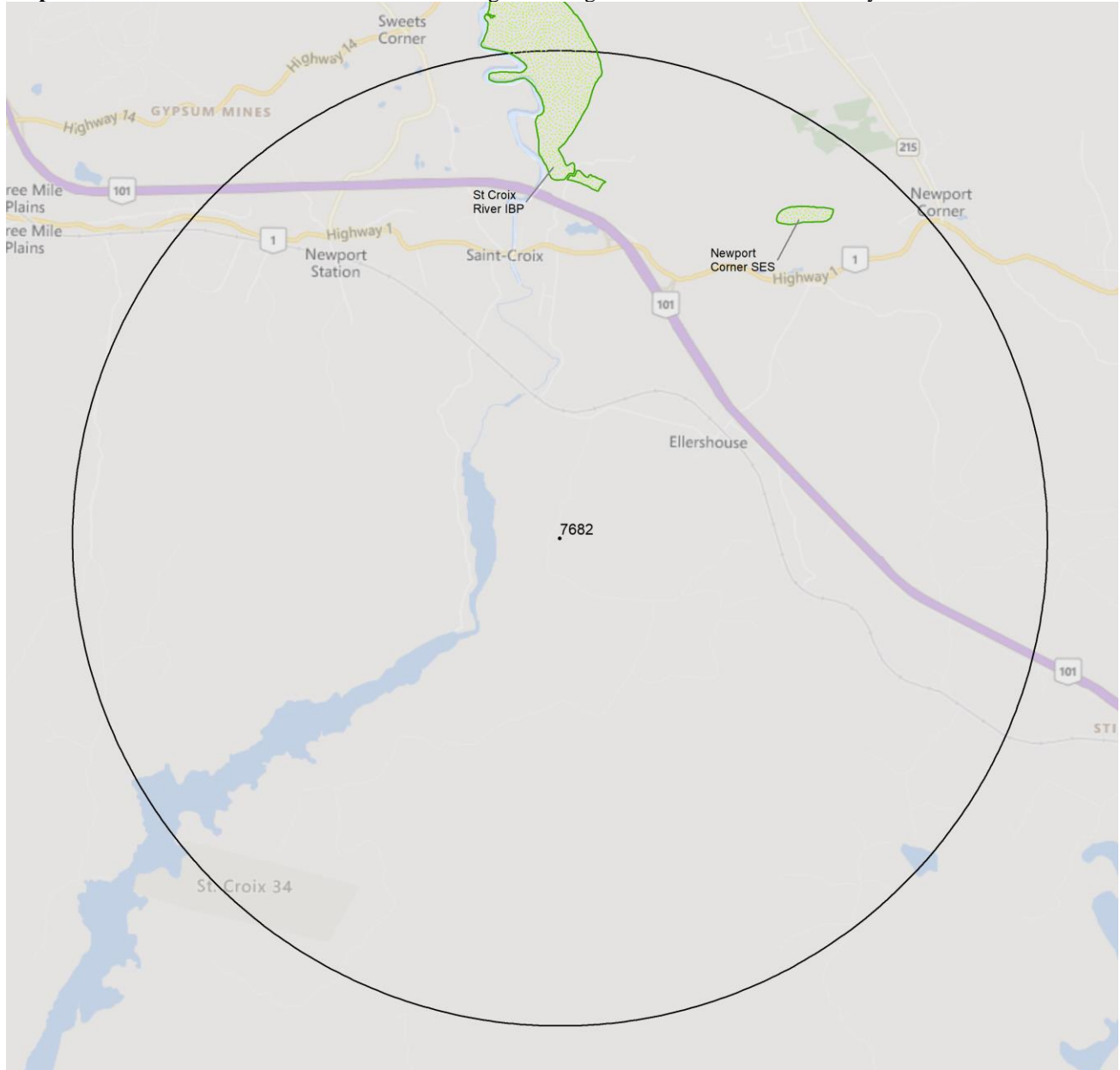
3.1 MANAGED AREAS

The GIS scan identified no managed areas in the vicinity of the study area (Map 3).

3.2 SIGNIFICANT AREAS

The GIS scan identified 2 biologically significant sites in the vicinity of the study area (Map 3 and attached file: *msa.xls).

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



 Managed Area  Significant Area

4.0 RARE SPECIES LISTS

Rare and/or endangered taxa (excluding “location-sensitive” species, section 4.3) within the study 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. Note: records are from attached files *ob.xls/*ob.shp only.

4.1 FLORA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)
N	<i>Pectenia plumbea</i>	Blue Felt Lichen	Special Concern	Special Concern	Vulnerable	S3	4	3.6 \pm 0.0
N	<i>Aloina brevirostris</i>	Short-Beaked Rigid Screw Moss				S1	1	3.1 \pm 2.0
N	<i>Jubula pennsylvanica</i>	a liverwort				S1?	1	3.9 \pm 0.0
N	<i>Aloina rigida</i>	Aloe-Like Rigid Screw Moss				S1?	2	3.1 \pm 2.0
N	<i>Arrhenopterum heterostichum</i>	One-sided Groove Moss				S1S2	1	3.1 \pm 2.0
N	<i>Ptychostomum pendulum</i>	Drooping Bryum				S2?	1	3.1 \pm 2.0
N	<i>Collema leptaleum</i>	Crumpled Bat's Wing Lichen				S2S3	1	4.6 \pm 0.0
N	<i>Fissidens taxifolius</i>	Yew-leaved Pocket Moss				S3	2	3.1 \pm 2.0
N	<i>Elodium blandowii</i>	Blandow's Bog Moss				S3?	1	4.7 \pm 0.0
N	<i>Mnium stellare</i>	Star Leafy Moss				S3?	1	4.6 \pm 0.0
N	<i>Scytinium teretiusculum</i>	Curly Jellyskin Lichen				S3S4	1	4.9 \pm 0.0
N	<i>Leptogium acadiense</i>	Acadian Jellyskin Lichen				S3S4	2	4.0 \pm 0.0
N	<i>Scytinium subtile</i>	Appressed Jellyskin Lichen				S3S4	1	4.3 \pm 0.0
N	<i>Leptogium corticola</i>	Blistered Jellyskin Lichen				S3S4	1	4.6 \pm 0.0
N	<i>Evernia prunastri</i>	Valley Oakmoss Lichen				S3S4	7	2.5 \pm 0.0
P	<i>Adiantum pedatum</i>	Northern Maidenhair Fern				S1	1	4.2 \pm 10.0
P	<i>Cypripedium arietinum</i>	Ram's-Head Lady's-Slipper			Endangered	S1S2	48	3.8 \pm 0.0
P	<i>Antennaria parlinii ssp. fallax</i>	Parlin's Pussytoes				S2	1	2.9 \pm 0.0
P	<i>Rudbeckia laciniata</i>	Cut-Leaved Coneflower				S2	2	3.5 \pm 0.0
P	<i>Hepatica americana</i>	Round-lobed Hepatica				S2	13	2.4 \pm 3.0
P	<i>Dirca palustris</i>	Eastern Leatherwood				S2	1	4.9 \pm 0.0
P	<i>Lilium canadense</i>	Canada Lily				S2	1	4.2 \pm 7.0
P	<i>Cypripedium parviflorum var. pubescens</i>	Yellow Lady's-slipper				S2	1	4.5 \pm 0.0
P	<i>Thuja occidentalis</i>	Eastern White Cedar			Vulnerable	S2S3	1	4.4 \pm 0.0
P	<i>Oenothera fruticosa ssp. tetragona</i>	Narrow-leaved Evening Primrose				S2S3	1	4.2 \pm 7.0
P	<i>Rumex triangulivalvis</i>	Triangular-valve Dock				S2S3	1	3.6 \pm 0.0
P	<i>Eleocharis ovata</i>	Ovate Spikerush				S2S3	1	3.4 \pm 0.0
P	<i>Goodyera pubescens</i>	Downy Rattlesnake-Plantain				S2S3	3	4.2 \pm 0.0
P	<i>Symphyotrichum undulatum</i>	Wavy-leaved Aster				S3	2	3.9 \pm 0.0
P	<i>Triosteum aurantiacum</i>	Orange-fruited Tinker's Weed				S3	2	3.0 \pm 0.0
P	<i>Carex rosea</i>	Rosy Sedge				S3	2	3.0 \pm 2.0
P	<i>Cypripedium parviflorum</i>	Yellow Lady's-slipper				S3	19	1.5 \pm 1.0
P	<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane				S3S4	1	4.2 \pm 7.0
P	<i>Packera paupercula</i>	Balsam Groundsel				S3S4	29	1.5 \pm 1.0
P	<i>Shepherdia canadensis</i>	Soapberry				S3S4	5	3.5 \pm 0.0
P	<i>Fagus grandifolia</i>	American Beech				S3S4	7	2.0 \pm 0.0
P	<i>Amelanchier spicata</i>	Running Serviceberry				S3S4	1	1.8 \pm 3.0
P	<i>Ulmus americana</i>	White Elm				S3S4	4	2.3 \pm 0.0
P	<i>Viola sagittata var. ovata</i>	Arrow-Leaved Violet				S3S4	2	4.2 \pm 0.0
P	<i>Koeleria spicata</i>	Narrow False Oats				S3S4	1	3.6 \pm 0.0

4.2 FAUNA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)
A	<i>Riparia riparia</i>	Bank Swallow	Threatened	Threatened	Endangered	S2B	2	3.2 ± 1.0
A	<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	Vulnerable	S3	3	4.2 ± 10.0
A	<i>Hirundo rustica</i>	Barn Swallow	Special Concern	Threatened	Endangered	S3B	5	3.5 ± 0.0
A	<i>Cardellina canadensis</i>	Canada Warbler	Special Concern	Threatened	Endangered	S3B	3	1.9 ± 0.0
A	<i>Contopus cooperi</i>	Olive-sided Flycatcher	Special Concern	Special Concern	Threatened	S3B	2	2.7 ± 0.0
A	<i>Dolichonyx oryzivorus</i>	Bobolink	Special Concern	Threatened	Vulnerable	S3B	3	4.1 ± 0.0
A	<i>Coccothraustes vespertinus</i>	Evening Grosbeak	Special Concern	Special Concern	Vulnerable	S3B,S3N,S3M	1	4.2 ± 7.0
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern	Special Concern	Vulnerable	S3S4B	10	2.1 ± 0.0
A	<i>Chrysemys picta picta</i>	Eastern Painted Turtle	Special Concern	Special Concern		S4	4	3.2 ± 0.0
A	<i>Hemidactylium scutatum</i>	Four-toed Salamander	Not At Risk			S3	2	1.8 ± 0.0
A	<i>Accipiter gentilis</i>	Northern Goshawk	Not At Risk			S3S4	1	4.2 ± 7.0
A	<i>Perisoreus canadensis</i>	Canada Jay				S3	1	4.2 ± 7.0
A	<i>Poecile hudsonicus</i>	Boreal Chickadee				S3	1	4.2 ± 7.0
A	<i>Salvelinus fontinalis</i>	Brook Trout				S3	1	3.3 ± 2.0
A	<i>Charadrius vociferus</i>	Killdeer				S3B	1	4.2 ± 7.0
A	<i>Tyrannus tyrannus</i>	Eastern Kingbird				S3B	1	4.2 ± 7.0
A	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak				S3B	2	3.2 ± 0.0
A	<i>Picoides arcticus</i>	Black-backed Woodpecker				S3S4	1	4.2 ± 7.0
A	<i>Loxia curvirostra</i>	Red Crossbill				S3S4	1	4.2 ± 7.0
A	<i>Botaurus lentiginosus</i>	American Bittern				S3S4B,S4S5M	2	4.2 ± 7.0
A	<i>Actitis macularius</i>	Spotted Sandpiper				S3S4B,S5M	2	4.2 ± 7.0
A	<i>Leiothlypis peregrina</i>	Tennessee Warbler				S3S4B,S5M	1	4.2 ± 7.0
I	<i>Danaus plexippus</i>	Monarch	Endangered	Special Concern	Endangered	S2?B,S3M	1	4.0 ± 0.0
I	<i>Danaus plexippus plexippus</i>	Monarch	Endangered	Special Concern		S2?B,S3M	1	3.5 ± 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 your study area are indicated below with “YES”.

Nova Scotia

Scientific Name	Common Name	SARA	Prov Legal Prot	Known within the Study Site?
<i>Fraxinus nigra</i>	Black Ash		Threatened	No
<i>Emydoidea blandingii</i>	Blanding's Turtle - Nova Scotia pop.	Endangered	Endangered	No
<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	No
<i>Falco peregrinus pop. 1</i>	Peregrine Falcon - anatum/tundrius pop.		Vulnerable	No
<i>Bat hibernaculum</i> or bat species occurrence		[Endangered] ¹	[Endangered] ¹	No

¹ *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 NS Endangered Species Act.

4.4 SOURCE BIBLIOGRAPHY

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

# recs	CITATION
55	Belliveau, A.G. 2020. E.C. Smith Herbarium and Atlantic Canada Conservation Data Centre Fieldwork 2019, 2020. E.C. Smith Herbarium.
30	Cameron, E. 2008. Canadian Gypsum Co. survey 2007-08. Conestoga-Rovers & Assoc., 623 recs.
20	Lepage, D. 2014. Maritime Breeding Bird Atlas Database. Bird Studies Canada, Sackville NB, 407,838 recs.
18	Blaney, C.S.; Mazerolle, D.M.; Belliveau, A.B. 2015. Atlantic Canada Conservation Data Centre Fieldwork 2015. Atlantic Canada Conservation Data Centre, # recs.
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7	Scott, F.W. 2002. Nova Scotia Herpetofauna Atlas Database. Acadia University, Wolfville NS, 8856 recs.
6	Pronych, G. & Wilson, A. 1993. Atlas of Rare Vascular Plants in Nova Scotia. Nova Scotia Museum, Halifax NS, I:1-168, II:169-331. 1446 recs.
5	Belland, R.J. Maritimes moss records from various herbarium databases. 2014.
5	Erskine, A.J. 1992. Maritime Breeding Bird Atlas Database. NS Museum & Nimbus Publ., Halifax, 82,125 recs.
5	LaPaix, Rich. 2022. Rare species observations, 2018-2022. Nova Scotia Nature Trust.
4	Newell, R.E. 2000. E.C. Smith Herbarium Database. Acadia University, Wolfville NS, 7139 recs.
4	Newell, R.E. 2005. E.C. Smith Digital Herbarium. E.C. Smith Herbarium, Irving Biodiversity Collection, Acadia University, Web site: http://luxor.acadiu.ca/library/Herbarium/project/ . 582 recs.
4	Pepper, C. 2013. 2013 rare bird and plant observations in Nova Scotia. , 181 records.
3	Blaney, C.S.; Mazerolle, D.M.; Belliveau, A.B. 2014. Atlantic Canada Conservation Data Centre Fieldwork 2014. Atlantic Canada Conservation Data Centre, # recs.
3	Neily, T.H. 2019. Tom Neily NS Bryophyte records (2009-2013). T.H. Neily, Atlantic Canada Conservation Data Centre, 1029 specimen records.
2	Belliveau, A. 2013. Rare species records from Nova Scotia. Mersey Tobeatic Research Institute, 296 records. 296 recs.
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2	Benjamin, L.K. (compiler). 2007. Significant Habitat & Species Database. Nova Scotia Dept Natural Resources, 8439 recs.
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2	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2013.
1	Amiro, P.G. 1998. Atlantic Salmon Inner Bay of Fundy SFA 22 & part of 23. DFO Sci. SSR D3-12.
1	Benjamin, L.K. (compiler). 2001. Significant Habitat & Species Database. Nova Scotia Dept of Natural Resources, 15 spp, 224 recs.
1	Cameron, R.P. 2018. Degelia plumbea records. Nova Scotia Environment.
1	Churchill, J.L. 2018. Atlantic Canada Conservation Data Centre Fieldwork 2018. Atlantic Canada Conservation Data Centre, 907 recs.
1	Crowell, A. 2004. Cyripedium arietinum in Weir Brook, Hants Co. Pers. comm. to S. Blaney, 1 rec.
1	eBird. 2020. eBird Basic Dataset. Version: EBD_relNov-2019. Ithaca, New York. Nov 2019, Cape Breton Bras d'Or Lakes Watershed subset. Cornell Lab of Ornithology.
1	Munro, Marian K. Tracked lichen specimens, Nova Scotia Provincial Museum of Natural History Herbarium. Atlantic Canada Conservation Data Centre. 2019.
1	Nelly, T.H. 2006. Cyripedium arietinum in Hants Co. Pers. comm. to C.S. Blaney. 22 recs, 22 recs.

5.0 RARE SPECIES WITHIN 100 KM

A 100 km buffer around the study area contains 54355 records of 159 vertebrate and 2584 records of 81 invertebrate fauna; 17260 records of 298 vascular and 3431 records of 220 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 (including “location-sensitive” species). 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	# recs	Distance (km)	Prov
A	<i>Coregonus huntsmani</i>	Atlantic Whitefish	Endangered	Endangered	Endangered	S1	147	50.4 \pm 1.0	NS
A	<i>Myotis lucifugus</i>	Little Brown Myotis	Endangered	Endangered	Endangered	S1	518	2.2 \pm 0.0	NS
A	<i>Myotis septentrionalis</i>	Northern Myotis	Endangered	Endangered	Endangered	S1	54	3.5 \pm 0.0	NS
A	<i>Perimyotis subflavus</i>	Tricolored Bat	Endangered	Endangered	Endangered	S1	67	3.5 \pm 0.0	NS
A	<i>Emydoidea blandingii</i>	Blanding's Turtle	Endangered	Endangered	Endangered	S1	4786	48.0 \pm 0.0	NS
A	<i>Salmo salar pop. 1</i>	Atlantic Salmon - Inner Bay of Fundy population	Endangered	Endangered		S1	45	7.6 \pm 0.0	NS
A	<i>Salmo salar pop. 6</i>	Atlantic Salmon - Nova Scotia Southern Upland population	Endangered			S1	25	16.5 \pm 0.0	NS
A	<i>Charadrius melodus melodus</i>	Piping Plover melodus subspecies	Endangered	Endangered	Endangered	S1B	999	48.5 \pm 0.0	NS
A	<i>Sterna dougallii</i>	Roseate Tern	Endangered	Endangered	Endangered	S1B	64	36.0 \pm 0.0	NS
A	<i>Dermodochelys coriacea pop. 2</i>	Leatherback Sea Turtle - Atlantic population	Endangered	Endangered		S1S2N	3	33.1 \pm 5.0	NS
A	<i>Morone saxatilis pop. 2</i>	Striped Bass - Bay of Fundy population	Endangered			S2S3B,S2S3N	5	33.8 \pm 1.0	NS
A	<i>Lamna nasus</i>	Porbeagle Shark	Endangered			SNR	1	66.4 \pm 0.0	NS
A	<i>Lasiurus cinereus</i>	Hoary Bat	Endangered			SUB, S1M	47	17.6 \pm 0.0	NS
A	<i>Lasionycteris noctivagans</i>	Silver-haired Bat	Endangered			SUB,S1M	16	31.3 \pm 0.0	NS
A	<i>Lasiurus borealis</i>	Eastern Red Bat	Endangered			SUB,S1M	1	39.9 \pm 0.0	NS
A	<i>Catharus bicknelli</i>	Bicknell's Thrush	Threatened	Threatened	Endangered	S1B	1	80.4 \pm 7.0	NS
A	<i>Asio flammeus</i>	Short-eared Owl	Threatened	Special Concern		S1B	36	29.7 \pm 0.0	NS
A	<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	Threatened	S2	1762	5.9 \pm 5.0	NS
A	<i>Riparia riparia</i>	Bank Swallow	Threatened	Threatened	Endangered	S2B	1723	3.2 \pm 1.0	NS
A	<i>Thamnophis saurita</i>	Eastern Ribbonsnake	Threatened	Threatened	Threatened	S2S3	650	73.2 \pm 0.0	NS
A	<i>Chaetura pelagica</i>	Chimney Swift	Threatened	Threatened	Endangered	S2S3B,S1M	1509	9.6 \pm 7.0	NS
A	<i>Limosa haemastica</i>	Hudsonian Godwit	Threatened			S2S3M	107	10.2 \pm 0.0	NS
A	<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	Threatened			S2S3N	12	8.7 \pm 0.0	NS
A	<i>Hydrobates leucorhous</i>	Leach's Storm-Petrel	Threatened			S3B	26	38.2 \pm 0.0	NS
A	<i>Tringa flavipes</i>	Lesser Yellowlegs	Threatened			S3M	998	10.2 \pm 0.0	NS
A	<i>Anguilla rostrata</i>	American Eel	Threatened			S3N	118	6.6 \pm 0.0	NS
A	<i>Sturnella magna</i>	Eastern Meadowlark	Threatened	Threatened		SHB	5	23.3 \pm 7.0	NS
A	<i>Ixobrychus exilis</i>	Least Bittern	Threatened	Threatened		SUB	4	50.3 \pm 0.0	NS
A	<i>Hylocichla mustelina</i>	Wood Thrush	Threatened	Threatened		SUB	58	25.5 \pm 7.0	NS
A	<i>Salmo salar pop. 12</i>	Atlantic Salmon - Gaspé - Southern Gulf of St. Lawrence population	Special Concern			S1	11	80.7 \pm 0.0	NS
A	<i>Antrostomus vociferus</i>	Eastern Whip-Poor-Will	Special Concern	Threatened	Threatened	S1?B	16	28.3 \pm 7.0	NS
A	<i>Passerculus sandwichensis princeps</i>	Ipswich Sparrow	Special Concern	Special Concern		S1B	29	30.4 \pm 0.0	NS
A	<i>Bucephala islandica</i>	Barrow's Goldeneye	Special Concern	Special Concern		S1N,SUM	20	31.5 \pm 2.0	NS
A	<i>Euphagus carolinus</i>	Rusty Blackbird	Special Concern	Special Concern	Endangered	S2B	273	12.0 \pm 7.0	NS
A	<i>Balaenoptera physalus</i>	Fin Whale	Special Concern	Special Concern		S2S3	4	62.4 \pm 0.0	NS
A	<i>Phalaropus lobatus</i>	Red-necked Phalarope	Special Concern	Special Concern		S2S3M	15	23.8 \pm 0.0	NS
A	<i>Histrionicus histrionicus pop.</i>	Harlequin Duck - Eastern	Special Concern	Special Concern	Endangered	S2S3N,SUM	69	48.9 \pm 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
	1	population							
A	<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	Vulnerable	S3	615	4.2 ± 10.0	NS
A	<i>Hirundo rustica</i>	Barn Swallow	Special Concern	Threatened	Endangered	S3B	1488	3.5 ± 0.0	NS
A	<i>Cardellina canadensis</i>	Canada Warbler	Special Concern	Threatened	Endangered	S3B	1197	1.9 ± 0.0	NS
A	<i>Chordeiles minor</i>	Common Nighthawk	Special Concern	Special Concern	Threatened	S3B	672	6.1 ± 7.0	NS
A	<i>Contopus cooperi</i>	Olive-sided Flycatcher	Special Concern	Special Concern	Threatened	S3B	1097	2.7 ± 0.0	NS
A	<i>Dolichonyx oryzivorus</i>	Bobolink	Special Concern	Threatened	Vulnerable	S3B	1244	4.1 ± 0.0	NS
A	<i>Coccothraustes vespertinus</i>	Evening Grosbeak	Special Concern	Special Concern	Vulnerable	S3B,S3N,S3M	813	4.2 ± 7.0	NS
A	<i>Podiceps auritus</i>	Horned Grebe	Special Concern	Special Concern		S3N,SUM	24	31.4 ± 0.0	NS
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern	Special Concern	Vulnerable	S3S4B	1358	2.1 ± 0.0	NS
A	<i>Phocoena phocoena</i>	Harbour Porpoise	Special Concern			S4	17	27.3 ± 0.0	NS
A	<i>Phocoena phocoena pop. 1</i>	Harbour Porpoise - Northwest Atlantic Population	Special Concern			S4	3	42.8 ± 0.0	NS
A	<i>Chrysemys picta</i>	Painted Turtle	Special Concern	Special Concern		S4	111	6.2 ± 0.0	NS
A	<i>Chrysemys picta picta</i>	Eastern Painted Turtle	Special Concern	Special Concern		S4	842	3.2 ± 0.0	NS
A	<i>Anarhichas lupus</i>	Atlantic Wolffish	Special Concern	Special Concern		SNR	5	32.5 ± 0.0	NS
A	<i>Accipiter cooperii</i>	Cooper's Hawk	Not At Risk			S1?B,SUN,SUM	14	29.1 ± 0.0	NS
A	<i>Fulica americana</i>	American Coot	Not At Risk			S1B	51	32.9 ± 0.0	NS
A	<i>Chlidonias niger</i>	Black Tern	Not At Risk			S1B	13	67.8 ± 0.0	NS
A	<i>Falco peregrinus pop. 1</i>	Peregrine Falcon - anatum/tundrius	Not At Risk		Vulnerable	S1B,SUM	218	15.3 ± 0.0	NS
A	<i>Sorex dispar</i>	Long-tailed Shrew	Not At Risk			S2	2	43.3 ± 0.0	NS
A	<i>Aegolius funereus</i>	Boreal Owl	Not At Risk			S2?B,SUM	4	46.0 ± 7.0	NS
A	<i>Lynx canadensis</i>	Canada Lynx	Not At Risk		Endangered	S2S3	2	79.1 ± 1.0	NS
A	<i>Globicephala melas</i>	Long-finned Pilot Whale	Not At Risk			S2S3	3	57.8 ± 0.0	NS
A	<i>Hemidactylum scutatum</i>	Four-toed Salamander	Not At Risk			S3	36	1.8 ± 0.0	NS
A	<i>Megaptera novaeangliae</i>	Humpback Whale	Not At Risk			S3	5	36.5 ± 0.0	NS
A	<i>Sterna hirundo</i>	Common Tern	Not At Risk			S3B	264	22.2 ± 7.0	NS
A	<i>Sialia sialis</i>	Eastern Bluebird	Not At Risk			S3B	117	30.4 ± 7.0	NS
A	<i>Buteo lagopus</i>	Rough-legged Hawk	Not At Risk			S3N	5	59.0 ± 0.0	NS
A	<i>Accipiter gentilis</i>	Northern Goshawk	Not At Risk			S3S4	167	4.2 ± 7.0	NS
A	<i>Glaucomys volans</i>	Southern Flying Squirrel	Not At Risk			S3S4	8	28.7 ± 0.0	NS
A	<i>Lagenorhynchus acutus</i>	Atlantic White-sided Dolphin	Not At Risk			S3S4	5	34.7 ± 0.0	NS
A	<i>Ammospiza nelsoni</i>	Nelson's Sparrow	Not At Risk			S3S4B	199	9.6 ± 7.0	NS
A	<i>Calidris canutus rufa</i>	Red Knot rufa subspecies	E,SC	Endangered	Endangered	S2M	658	10.2 ± 0.0	NS
A	<i>Calidris canutus</i>	Red Knot	E,SC	E,T		S2M	4	59.2 ± 1.0	NS
A	<i>Morone saxatilis</i>	Striped Bass	E,SC			S2S3B,S2S3N	30	12.3 ± 0.0	NS
A	<i>Gadus morhua</i>	Atlantic Cod	E,SC,DD			SNR	11	35.7 ± 0.0	NS
A	<i>Salmo salar</i>	Atlantic Salmon	E,T,SC			S1B,S1N	14	9.8 ± 0.0	NS
A	<i>Alces alces americana</i>	Moose			Endangered	S1	44	20.9 ± 0.0	NS
A	<i>Alces alces</i>	Moose				S1	10	19.3 ± 0.0	NS
A	<i>Uria aalge</i>	Common Murre				S1?B	7	47.7 ± 0.0	NS
A	<i>Passerina cyanea</i>	Indigo Bunting				S1?B,SUM	46	26.6 ± 7.0	NS
A	<i>Oxyura jamaicensis</i>	Ruddy Duck				S1B	14	47.6 ± 0.0	NS
A	<i>Gallinula galeata</i>	Common Gallinule				S1B	12	9.6 ± 7.0	NS
A	<i>Myiarchus crinitus</i>	Great Crested Flycatcher				S1B	36	25.5 ± 7.0	NS
A	<i>Cistothorus palustris</i>	Marsh Wren				S1B	8	75.3 ± 7.0	NS
A	<i>Mimus polyglottos</i>	Northern Mockingbird				S1B	94	9.6 ± 7.0	NS
A	<i>Toxostoma rufum</i>	Brown Thrasher				S1B	24	38.8 ± 7.0	NS
A	<i>Charadrius semipalmatus</i>	Semipalmated Plover				S1B,S4M	1978	10.2 ± 0.0	NS
A	<i>Calidris minutilla</i>	Least Sandpiper				S1B,S4M	1410	10.2 ± 0.0	NS
A	<i>Anas acuta</i>	Northern Pintail				S1B,SUM	88	11.3 ± 0.0	NS
A	<i>Vireo gilvus</i>	Warbling Vireo				S1B,SUM	25	30.0 ± 0.0	NS
A	<i>Vespertilionidae sp.</i>	bat species				S1S2	332	1.6 ± 0.0	NS
A	<i>Pooecetes gramineus</i>	Vesper Sparrow				S1S2B,SUM	79	19.6 ± 7.0	NS
A	<i>Vireo philadelphicus</i>	Philadelphia Vireo				S2?B,SUM	91	44.7 ± 0.0	NS
A	<i>Alca torda</i>	Razorbill				S2B	26	43.8 ± 0.0	NS

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A	<i>Fratercula arctica</i>	Atlantic Puffin				S2B	31	50.1 ± 0.0	NS
A	<i>Empidonax traillii</i>	Willow Flycatcher				S2B	43	30.1 ± 0.0	NS
A	<i>Molothrus ater</i>	Brown-headed Cowbird				S2B	229	6.1 ± 7.0	NS
A	<i>Spatula clypeata</i>	Northern Shoveler				S2B,SUM	74	10.2 ± 0.0	NS
A	<i>Mareca strepera</i>	Gadwall				S2B,SUM	92	34.0 ± 7.0	NS
A	<i>Piranga olivacea</i>	Scarlet Tanager				S2B,SUM	56	14.1 ± 7.0	NS
A	<i>Calidris alba</i>	Sanderling				S2N,S3M	1552	10.2 ± 0.0	NS
A	<i>Martes americana</i>	American Marten			Endangered	S2S3	8	67.5 ± 0.0	NS
A	<i>Asio otus</i>	Long-eared Owl				S2S3	27	19.6 ± 7.0	NS
A	<i>Rallus limicola</i>	Virginia Rail				S2S3B	48	40.3 ± 7.0	NS
A	<i>Rissa tridactyla</i>	Black-legged Kittiwake				S2S3B	19	50.1 ± 0.0	NS
A	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow				S2S3B	373	6.1 ± 7.0	NS
A	<i>Phalacrocorax carbo</i>	Great Cormorant				S2S3B,S2S3N	71	26.9 ± 0.0	NS
A	<i>Cathartes aura</i>	Turkey Vulture				S2S3B,S4S5M	184	26.4 ± 0.0	NS
A	<i>Setophaga pinus</i>	Pine Warbler				S2S3B,S4S5M	62	18.2 ± 7.0	NS
A	<i>Bucephala clangula</i>	Common Goldeneye				S2S3B,S5N,S5M	286	15.6 ± 11.0	NS
A	<i>Icterus galbula</i>	Baltimore Oriole				S2S3B,SUM	124	9.6 ± 7.0	NS
A	<i>Pluvialis dominica</i>	American Golden-Plover				S2S3M	264	10.2 ± 0.0	NS
A	<i>Numerius phaeopus</i>	Whimbrel				S2S3M	19	31.4 ± 0.0	NS
A	<i>Numerius phaeopus hudsonicus</i>	Whimbrel				S2S3M	262	26.3 ± 4.0	NS
A	<i>Phalaropus fulicarius</i>	Red Phalarope				S2S3M	4	57.1 ± 0.0	NS
A	<i>Perisoreus canadensis</i>	Canada Jay				S3	654	4.2 ± 7.0	NS
A	<i>Poecile hudsonicus</i>	Boreal Chickadee				S3	570	4.2 ± 7.0	NS
A	<i>Spinus pinus</i>	Pine Siskin				S3	624	6.1 ± 7.0	NS
A	<i>Salvelinus fontinalis</i>	Brook Trout				S3	139	3.3 ± 2.0	NS
A	<i>Salvelinus namaycush</i>	Lake Trout				S3	1	55.5 ± 0.0	NS
A	<i>Sorex maritimensis</i>	Maritime Shrew				S3	1	31.2 ± 1.0	NS
A	<i>Synaptomys cooperi</i>	Southern Bog Lemming				S3	1	43.3 ± 0.0	NS
A	<i>Pekania pennanti</i>	Fisher				S3	17	21.1 ± 0.0	NS
A	<i>Calcarius lapponicus</i>	Lapland Longspur				S3?N,SUM	7	30.4 ± 0.0	NS
A	<i>Spatula discors</i>	Blue-winged Teal				S3B	205	9.6 ± 7.0	NS
A	<i>Charadrius vociferus</i>	Killdeer				S3B	760	4.2 ± 7.0	NS
A	<i>Tringa semipalmata</i>	Willet				S3B	1829	9.6 ± 7.0	NS
A	<i>Sterna paradisaea</i>	Arctic Tern				S3B	50	29.7 ± 7.0	NS
A	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo				S3B	73	28.1 ± 0.0	NS
A	<i>Tyrannus tyrannus</i>	Eastern Kingbird				S3B	347	4.2 ± 7.0	NS
A	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak				S3B	617	3.2 ± 0.0	NS
A	<i>Alosa pseudoharengus</i>	Alewife				S3B	31	11.4 ± 0.0	NS
A	<i>Somateria mollissima</i>	Common Eider				S3B,S3M,S3N	945	28.6 ± 10.0	NS
A	<i>Tringa melanoleuca</i>	Greater Yellowlegs				S3B,S4M	2151	10.2 ± 0.0	NS
A	<i>Falco sparverius</i>	American Kestrel				S3B,S4S5M	394	6.1 ± 7.0	NS
A	<i>Gallinago delicata</i>	Wilson's Snipe				S3B,S5M	781	6.1 ± 7.0	NS
A	<i>Setophaga striata</i>	Blackpoll Warbler				S3B,S5M	137	6.1 ± 7.0	NS
A	<i>Cardellina pusilla</i>	Wilson's Warbler				S3B,S5M	122	10.0 ± 0.0	NS
A	<i>Pinicola enucleator</i>	Pine Grosbeak				S3B,S5N,S5M	145	6.1 ± 7.0	NS
A	<i>Setophaga tigrina</i>	Cape May Warbler				S3B,SUM	163	12.8 ± 7.0	NS
A	<i>Branta bernicla</i>	Brant				S3M	14	29.8 ± 0.0	NS
A	<i>Pluvialis squatarola</i>	Black-bellied Plover				S3M	2071	10.2 ± 0.0	NS
A	<i>Arenaria interpres</i>	Ruddy Turnstone				S3M	832	10.2 ± 0.0	NS
A	<i>Calidris pusilla</i>	Semipalmated Sandpiper				S3M	1803	10.2 ± 0.0	NS
A	<i>Calidris melanotos</i>	Pectoral Sandpiper				S3M	363	10.2 ± 0.0	NS
A	<i>Limnodromus griseus</i>	Short-billed Dowitcher				S3M	1347	10.2 ± 0.0	NS
A	<i>Chroicocephalus ridibundus</i>	Black-headed Gull				S3N	29	46.8 ± 0.0	NS
A	<i>Picoides arcticus</i>	Black-backed Woodpecker				S3S4	155	4.2 ± 7.0	NS
A	<i>Loxia curvirostra</i>	Red Crossbill				S3S4	286	4.2 ± 7.0	NS
A	<i>Botaurus lentiginosus</i>	American Bittern				S3S4B,S4S5M	308	4.2 ± 7.0	NS
A	<i>Setophaga castanea</i>	Bay-breasted Warbler				S3S4B,S4S5M	447	6.1 ± 7.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
A	<i>Actitis macularius</i>	Spotted Sandpiper				S3S4B,S5M	947	4.2 ± 7.0	NS
A	<i>Leiothlypis peregrina</i>	Tennessee Warbler				S3S4B,S5M	446	4.2 ± 7.0	NS
A	<i>Passerella iliaca</i>	Fox Sparrow				S3S4B,S5M	88	31.4 ± 0.0	NS
A	<i>Mergus serrator</i>	Red-breasted Merganser				S3S4B,S5M,S5N	350	9.6 ± 7.0	NS
A	<i>Calidris maritima</i>	Purple Sandpiper				S3S4N	239	30.8 ± 10.0	NS
A	<i>Lanius borealis</i>	Northern Shrike				S3S4N	36	32.3 ± 0.0	NS
A	<i>Morus bassanus</i>	Northern Gannet				SHB	69	33.4 ± 0.0	NS
A	<i>Aythya americana</i>	Redhead				SHB	7	46.8 ± 0.0	NS
A	<i>Leucophaeus atricilla</i>	Laughing Gull				SHB	13	32.6 ± 0.0	NS
A	<i>Progne subis</i>	Purple Martin				SHB	13	59.4 ± 7.0	NS
A	<i>Eremophila alpestris</i>	Horned Lark				SHB,S4S5N,S5M	36	30.0 ± 0.0	NS
I	<i>Bombus bohemicus</i>	Ashton Cuckoo Bumble Bee	Endangered	Endangered	Endangered	S1	32	16.0 ± 5.0	NS
I	<i>Epeoloides pilosulus</i>	Macropis Cuckoo Bee	Endangered	Endangered	Endangered	S1	2	82.1 ± 5.0	NS
I	<i>Danaus plexippus</i>	Monarch	Endangered	Special Concern	Endangered	S2?B,S3M	1183	4.0 ± 0.0	NS
I	<i>Danaus plexippus plexippus</i>	Monarch	Endangered	Special Concern		S2?B,S3M	4	3.5 ± 0.0	NS
I	<i>Barnea truncata</i>	Atlantic Mud-piddock	Threatened	Threatened		S1	10	30.3 ± 0.0	NS
I	<i>Bombus suckleyi</i>	Suckley's Cuckoo Bumble Bee	Threatened			SH	4	19.1 ± 5.0	NS
I	<i>Alasmidonta varicosa</i>	Brook Floater	Special Concern	Special Concern	Threatened	S3	11	51.3 ± 0.0	NS
I	<i>Bombus terricola</i>	Yellow-banded Bumble Bee	Special Concern	Special Concern	Vulnerable	S3	198	9.9 ± 5.0	NS
I	<i>Coccinella transversoguttata richardsoni</i>	Transverse Lady Beetle	Special Concern		Endangered	SH	6	7.8 ± 2.0	NS
I	<i>Gomphurus ventricosus</i>	Skillet Clubtail	Special Concern	Endangered		SH	2	13.2 ± 1.0	NS
I	<i>Cicindela formosa</i>	Big Sand Tiger Beetle				S1	1	38.3 ± 1.0	NS
I	<i>Erora laeta</i>	Early Hairstreak				S1	1	44.8 ± 1.0	NS
I	<i>Ophiogomphus anomalus</i>	Extra-Striped Snaketail				S1	8	98.5 ± 0.0	NS
I	<i>Pachydiplax longipennis</i>	Blue Dasher				S1	28	10.3 ± 0.0	NS
I	<i>Atlanticoncha ochracea</i>	Tidewater Mucket				S1	11	68.8 ± 1.0	NS
I	<i>Polygonia comma</i>	Eastern Comma				S1?	21	27.0 ± 0.0	NS
I	<i>Polygonia satyrus</i>	Satyr Comma				S1?	7	10.0 ± 2.0	NS
I	<i>Boloria chariclea</i>	Arctic Fritillary				S1S2	3	56.2 ± 2.0	NS
I	<i>Somatochlora brevicincta</i>	Quebec Emerald				S1S2	2	60.9 ± 0.0	NS
I	<i>Tharsalea dospassosi</i>	Maritime Copper				S2	6	47.6 ± 5.0	NS
I	<i>Satyrrium acadica</i>	Acadian Hairstreak				S2	6	70.6 ± 2.0	NS
I	<i>Coenagrion resolutum</i>	Taiga Bluet				S2	5	36.8 ± 1.0	NS
I	<i>Margaritifera margaritifera</i>	Eastern Pearlshell				S2	120	34.3 ± 0.0	NS
I	<i>Pantala hymenaea</i>	Spot-Winged Glider				S2?B	7	48.9 ± 1.0	NS
I	<i>Nymphalis l-album</i>	Compton Tortoiseshell				S2S3	21	34.5 ± 0.0	NS
I	<i>Aglais milberti</i>	Milbert's Tortoiseshell				S2S3	22	42.1 ± 1.0	NS
I	<i>Somatochlora kennedyi</i>	Kennedy's Emerald				S2S3	4	13.2 ± 1.0	NS
I	<i>Somatochlora williamsoni</i>	Williamson's Emerald				S2S3	1	64.9 ± 0.0	NS
I	<i>Williamsonia fletcheri</i>	Ebony Boghaunter				S2S3	5	82.4 ± 0.0	NS
I	<i>Enallagma geminatum</i>	Skimming Bluet				S2S3	2	69.4 ± 0.0	NS
I	<i>Stylurus scudderi</i>	Zebra Clubtail				S2S3	28	38.9 ± 0.0	NS
I	<i>Alasmidonta undulata</i>	Triangle Floater				S2S3	34	22.7 ± 1.0	NS
I	<i>Strophiona nitens</i>	Chestnut Bark Long-horned Beetle				S3	4	37.8 ± 0.0	NS
I	<i>Psephenus herricki</i>	Herrick's Water Penny Beetle				S3	1	84.4 ± 0.0	NS
I	<i>Lebia ornata</i>	Ornate Harp Ground Beetle				S3	1	83.6 ± 0.0	NS
I	<i>Carabus serratus</i>	Serrated Ground Beetle				S3	1	67.5 ± 0.0	NS
I	<i>Hippodamia parenthesis</i>	Parenthesis Lady Beetle				S3	3	54.1 ± 0.0	NS
I	<i>Disonychia pensylvanica</i>	Pennsylvania Flea Beetle				S3	1	40.3 ± 0.0	NS
I	<i>Chrysochus auratus</i>	Dogbane Leaf Beetle				S3	2	58.5 ± 0.0	NS
I	<i>Naemia seriata</i>	Seaside Lady Beetle				S3	41	23.4 ± 0.0	NS
I	<i>Pachyrhinus elegans</i>	Elegant Broad-nosed Weevil				S3	1	98.0 ± 0.0	NS
I	<i>Elateroides lugubris</i>	Sapwood Ship-timber Beetle				S3	1	45.0 ± 0.0	NS
I	<i>Chilocorus stigma</i>	Twice-stabbed Lady Beetle				S3	17	31.7 ± 0.0	NS

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I	<i>Myzia pullata</i>	Streaked Lady Beetle				S3	5	36.3 ± 0.0	NS
I	<i>Monochamus marmorator</i>	Balsam Fir Sawyer				S3	1	33.9 ± 0.0	NS
I	<i>Trachysida aspera</i>	Rough Flower Longhorn Beetle				S3	1	45.0 ± 0.0	NS
I	<i>Dicerca tenebrosa</i>	Dark Jewel Beetle				S3	1	83.4 ± 0.0	NS
I	<i>Dicerca tuberculata</i>	Swollen Jewel Beetle				S3	1	28.9 ± 9.0	NS
I	<i>Astylopsis sexguttata</i>	Six-speckled Long-horned Beetle				S3	2	35.2 ± 0.0	NS
I	<i>Satyrium calanus</i>	Banded Hairstreak				S3	75	32.0 ± 0.0	NS
I	<i>Callophrys lanoraieensis</i>	Bog Elfin				S3	22	20.3 ± 1.0	NS
I	<i>Strymon melinus</i>	Gray Hairstreak				S3	14	24.8 ± 2.0	NS
I	<i>Phanogomphus descriptus</i>	Harpoon Clubtail				S3	4	83.9 ± 0.0	NS
I	<i>Ophiogomphus aspersus</i>	Brook Snaketail				S3	6	5.3 ± 0.0	NS
I	<i>Ophiogomphus mainensis</i>	Maine Snaketail				S3	12	33.4 ± 0.0	NS
I	<i>Ophiogomphus rupinsulensis</i>	Rusty Snaketail				S3	31	5.3 ± 0.0	NS
I	<i>Epithea princeps</i>	Prince Baskettail				S3	23	32.9 ± 0.0	NS
I	<i>Somatochlora forcipata</i>	Forcinate Emerald				S3	5	46.3 ± 1.0	NS
I	<i>Enallagma vernale</i>	Vernal Bluet				S3	6	13.2 ± 1.0	NS
I	<i>Strophitus undulatus</i>	Creeper				S3	6	87.3 ± 0.0	NS
I	<i>Polygonia interrogationis</i>	Question Mark				S3B	213	10.0 ± 1.0	NS
I	<i>Lepturopsis biforis</i>	Two-spotted Long-horned Beetle				S3S4	1	41.8 ± 0.0	NS
I	<i>Cecropterus pylades</i>	Northern Cloudywing				S3S4	5	63.1 ± 2.0	NS
I	<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper				S3S4	29	11.4 ± 5.0	NS
I	<i>Cupido comyntas</i>	Eastern Tailed Blue				S3S4	39	11.4 ± 5.0	NS
I	<i>Argynnis aphrodite</i>	Aphrodite Fritillary				S3S4	48	13.3 ± 2.0	NS
I	<i>Polygonia faunus</i>	Green Comma				S3S4	17	15.8 ± 2.0	NS
I	<i>Oeneis jutta</i>	Jutta Arctic				S3S4	26	13.3 ± 2.0	NS
I	<i>Aeshna clepsydra</i>	Mottled Darner				S3S4	13	35.1 ± 0.0	NS
I	<i>Aeshna constricta</i>	Lance-Tipped Darner				S3S4	28	5.6 ± 1.0	NS
I	<i>Boyeria grafiana</i>	Ocellated Darner				S3S4	13	8.5 ± 1.0	NS
I	<i>Gomphaeschna furcillata</i>	Harlequin Darner				S3S4	20	10.5 ± 0.0	NS
I	<i>Somatochlora franklini</i>	Delicate Emerald				S3S4	6	13.2 ± 1.0	NS
I	<i>Erythrodiplax berenice</i>	Seaside Dragonlet				S3S4	7	56.2 ± 0.0	NS
I	<i>Nannothemis bella</i>	Elfin Skimmer				S3S4	21	13.2 ± 1.0	NS
I	<i>Enallagma vesperum</i>	Vesper Bluet				S3S4	9	21.3 ± 0.0	NS
I	<i>Amphiagrion saucium</i>	Eastern Red Damsel				S3S4	2	74.7 ± 1.0	NS
I	<i>Sphaerophoria pyrrhina</i>	Violaceous Globetail				SH	1	75.4 ± 5.0	NS
I	<i>Icaricia saepiolus</i>	Greenish Blue				SH	1	44.5 ± 2.0	NS
I	<i>Polygonia gracilis</i>	Hoary Comma				SH	1	76.6 ± 2.0	NS
I	<i>Eristalis brousii</i>	Hourglass Drone Fly				SX	1	83.3 ± 0.0	NS
N	<i>Erioderma mollissimum</i>	Graceful Felt Lichen	Endangered	Endangered	Endangered	S1	19	44.8 ± 0.0	NS
N	<i>Erioderma pedicellatum</i> (Atlantic pop.)	Boreal Felt Lichen - Atlantic pop.	Endangered	Endangered	Endangered	S1	189	34.8 ± 1.0	NS
N	<i>Peltigera hydrothyria</i>	Eastern Waterfan	Threatened	Threatened	Threatened	S1	146	23.4 ± 0.0	NS
N	<i>Pannaria lurida</i>	Wrinkled Shingle Lichen	Threatened	Threatened	Threatened	S2S3	223	7.6 ± 0.0	NS
N	<i>Anzia colpododes</i>	Black-foam Lichen	Threatened	Threatened	Threatened	S3	95	20.3 ± 0.0	NS
N	<i>Fuscopannaria leucosticta</i>	White-rimmed Shingle Lichen	Threatened			S3	28	25.7 ± 0.0	NS
N	<i>Heterodermia squamulosa</i>	Scaly Fringe Lichen	Threatened			S3	108	49.9 ± 3.0	NS
N	<i>Pectenaria plumbea</i>	Blue Felt Lichen	Special Concern	Special Concern	Vulnerable	S3	208	3.6 ± 0.0	NS
N	<i>Sclerophora peronella</i> (Atlantic pop.)	Frosted Glass-whiskers (Atlantic population)	Special Concern	Special Concern		S3S4	26	22.8 ± 0.0	NS
N	<i>Pseudevernia cladonia</i>	Ghost Antler Lichen	Not At Risk			S2S3	41	32.5 ± 1.0	NS
N	<i>Fissidens exilis</i>	Pygmy Pocket Moss	Not At Risk			S3	17	6.1 ± 0.0	NS
N	<i>Aloina brevirostris</i>	Short-Beaked Rigid Screw Moss				S1	2	3.1 ± 2.0	NS
N	<i>Orthotrichum gymnostomum</i>	Aspen Bristle Moss				S1	1	66.3 ± 0.0	NS

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N	<i>Sematophyllum demissum</i>	a Moss				S1	2	35.3 ± 2.0	NS
N	<i>Tetradontium brownianum</i>	Little Georgia				S1	1	97.1 ± 0.0	NS
N	<i>Blennothallia crispa</i>	Crinkled Jelly Lichen				S1	1	30.0 ± 0.0	NS
N	<i>Umbilicaria vellea</i>	Grizzled Rocktripe Lichen				S1	1	29.2 ± 5.0	NS
N	<i>Usnea perplexans</i>	Powdered Beard Lichen				S1	1	26.8 ± 0.0	NS
N	<i>Scytinium dactylinum</i>	Brown-buttoned Jellyskin Lichen				S1	2	51.3 ± 0.0	NS
N	<i>Lathagrium cristatum</i>	Fingered Jelly Lichen				S1	3	10.7 ± 0.0	NS
N	<i>Ephebe hispidula</i>	Dryside Rockshag Lichen				S1	1	92.3 ± 0.0	NS
N	<i>Ephebe perspinulosa</i>	Thread Lichen				S1	2	51.2 ± 1.0	NS
N	<i>Fuscopannaria praetermissa</i>	Moss Shingles Lichen				S1	1	7.4 ± 0.0	NS
N	<i>Scytinium schraderi</i>	Wrinkled Jellyskin Lichen				S1	1	52.0 ± 0.0	NS
N	<i>Lichina confinis</i>	Marine Seaweed Lichen				S1	2	63.6 ± 0.0	NS
N	<i>Parmotrema perforatum</i>	Perforated Ruffle Lichen				S1	2	98.6 ± 0.0	NS
N	<i>Polychidium muscicola</i>	Eyed Mossthorns Woollybear Lichen				S1	4	76.2 ± 0.0	NS
N	<i>Pseudevernia consocians</i>	Common Antler Lichen				S1	1	73.8 ± 0.0	NS
N	<i>Spilonema revertens</i>	Rock Hairball Lichen				S1	4	99.1 ± 0.0	NS
N	<i>Sticta limbata</i>	Powdered Moon Lichen				S1	12	38.9 ± 3.0	NS
N	<i>Lathagrium fuscovirens</i>	Crumpled Rock Tarpaper Lichen				S1	1	87.1 ± 0.0	NS
N	<i>Dermatocarpon miniatum</i>	Common Stippleback Lichen				S1	1	79.5 ± 0.0	NS
N	<i>Peltigera lepidophora</i>	Scaly Pelt Lichen				S1	8	6.0 ± 0.0	NS
N	<i>Bryoria nitidula</i>	Tundra Horsehair Lichen				S1	2	62.2 ± 0.0	NS
N	<i>Hypogymnia hultenii</i>	Powdered Honeycomb Lichen				S1	13	51.5 ± 0.0	NS
N	<i>Calypogeia neogaea</i>	Common Pouchwort				S1?	2	33.4 ± 0.0	NS
N	<i>Jubula pennsylvanica</i>	a liverwort				S1?	1	3.9 ± 0.0	NS
N	<i>Aloina rigida</i>	Aloe-Like Rigid Screw Moss				S1?	5	3.1 ± 2.0	NS
N	<i>Imbricium muehlenbeckii</i>	Muehlenbeck's Bryum Moss				S1?	2	23.8 ± 0.0	NS
N	<i>Cirriophyllum piliferum</i>	Hair-pointed Moss				S1?	1	83.0 ± 0.0	NS
N	<i>Conardia compacta</i>	Coast Creeping Moss				S1?	1	49.5 ± 2.0	NS
N	<i>Tortula obtusifolia</i>	a Moss				S1?	3	75.8 ± 1.0	NS
N	<i>Didymodon tophaceus</i>	Olive Beard Moss				S1?	2	29.7 ± 4.0	NS
N	<i>Homomallium adnatum</i>	Adnate Hairy-gray Moss				S1?	1	38.1 ± 0.0	NS
N	<i>Paludella squarrosa</i>	Tufted Fen Moss				S1?	3	9.7 ± 0.0	NS
N	<i>Physcomitrium immersum</i>	a Moss				S1?	8	38.5 ± 0.0	NS
N	<i>Schistostega pennata</i>	Luminous Moss				S1?	2	16.3 ± 0.0	NS
N	<i>Trichodon cylindricus</i>	Cylindric Hairy-teeth Moss				S1?	3	57.2 ± 0.0	NS
N	<i>Plagiomnium ellipticum</i>	Marsh Leafy Moss				S1?	1	73.9 ± 0.0	NS
N	<i>Enchylium limosum</i>	Lime-loving Tarpaper Lichen				S1?	2	29.7 ± 4.0	NS
N	<i>Euopsis granatina</i>	Lesser Rockbud Lichen				S1?	1	95.0 ± 1.0	NS
N	<i>Scytinium intermedium</i>	Forty-five Jellyskin Lichen				S1?	1	29.7 ± 4.0	NS
N	<i>Melanelia culbersonii</i>	Appalachain Camouflage Lichen				S1?	1	43.0 ± 0.0	NS
N	<i>Porella pinnata</i>	Pinnate Scalewort				S1S2	2	57.6 ± 0.0	NS
N	<i>Reboulia hemisphaerica</i>	Purple-margined Liverwort				S1S2	1	78.5 ± 0.0	NS
N	<i>Arrhenopterum heterostichum</i>	One-sided Groove Moss				S1S2	3	3.1 ± 2.0	NS
N	<i>Brachythecium turgidum</i>	Thick Ragged Moss				S1S2	3	63.5 ± 3.0	NS
N	<i>Hypnum pratense</i>	Meadow Plait Moss				S1S2	1	50.0 ± 3.0	NS
N	<i>Mnium thomsonii</i>	Thomson's Leafy Moss				S1S2	1	8.1 ± 2.0	NS
N	<i>Tortula acaulon</i>	Cuspidate Earth Moss				S1S2	5	43.9 ± 0.0	NS
N	<i>Plagiothecium latebricola</i>	Alder Silk Moss				S1S2	2	44.0 ± 5.0	NS
N	<i>Platydictya confervoides</i>	a Moss				S1S2	1	6.1 ± 0.0	NS
N	<i>Seligeria donniana</i>	Donian Beardless Moss				S1S2	1	94.6 ± 3.0	NS
N	<i>Sematophyllum marylandicum</i>	a Moss				S1S2	2	34.2 ± 6.0	NS

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N	<i>Timmia megapolitana</i>	Metropolitan Timmia Moss				S1S2	3	50.0 ± 1.0	NS
N	<i>Tortula mucronifolia</i>	Mucronate Screw Moss				S1S2	1	44.8 ± 3.0	NS
N	<i>Syntrichia papillosa</i>	a Moss				S1S2	2	66.6 ± 0.0	NS
N	<i>Pseudotaxiphyllum distichaceum</i>	a Moss				S1S2	3	70.0 ± 0.0	NS
N	<i>Haplocladium microphyllum</i>	Tiny-leaved Haplocladium Moss				S1S2	1	59.4 ± 5.0	NS
N	<i>Rhynchostegium serrulatum</i>	Dark Beaked Moss				S1S2	1	32.7 ± 2.0	NS
N	<i>Enchylium bachmanianum</i>	Bachman's Jelly Lichen				S1S2	2	10.8 ± 0.0	NS
N	<i>Placidium squamulosum</i>	Limy Soil Stipplescale Lichen				S1S2	1	87.0 ± 6.0	NS
N	<i>Pilophorus cereolus</i>	Powdered Matchstick Lichen				S1S2	1	55.3 ± 3.0	NS
N	<i>Rhizoplaca subdiscrepans</i>	Scattered Rock-posy Lichen				S1S2	1	44.5 ± 1.0	NS
N	<i>Parmotrema reticulatum</i>	Netted Ruffle Lichen				S1S2	10	52.8 ± 0.0	NS
N	<i>Parmeliella parvula</i>	Poor-man's Shingles Lichen				S1S2	6	51.6 ± 0.0	NS
N	<i>Chaenotheca hygrophila</i>	a lichen				S1S3	1	96.4 ± 0.0	NS
N	<i>Umbilicaria polyrhiza</i>	Ballpoint Rocktripe Lichen				S1S3	1	87.6 ± 0.0	NS
N	<i>Lecanora polytropa</i>	a lichen				S1S3	3	63.5 ± 1.0	NS
N	<i>Acarospora sinopica</i>	a cracked lichen				S1S3	2	44.8 ± 0.0	NS
N	<i>Heterodermia galactophylla</i>	Branching Fringe Lichen				S1S3	2	45.0 ± 0.0	NS
N	<i>Xylopsora friesii</i>	a Lichen				S1S3	2	48.1 ± 0.0	NS
N	<i>Usnea fragilesceus</i>	Inflationary Beard Lichen				S1S3	1	97.3 ± 0.0	NS
N	<i>Usnea chaetophora</i>	Articulated Beard Lichen				S1S3	1	82.3 ± 0.0	NS
N	<i>Stereocaulon grande</i>	Grand Foam Lichen				S1S3	1	74.3 ± 0.0	NS
N	<i>Stereocaulon intermedium</i>	Pacific Brain Foam Lichen				S1S3	6	39.0 ± 0.0	NS
N	<i>Anacamptodon splachnoides</i>	a Moss				S2	4	45.5 ± 30.0	NS
N	<i>Sphagnum platyphyllum</i>	Flat-leaved Peat Moss				S2	3	37.4 ± 3.0	NS
N	<i>Sphagnum subnitens</i>	Lustrous Peat Moss				S2	1	91.4 ± 2.0	NS
N	<i>Usnea flavocardia</i>	Blood-splattered Beard Lichen				S2	1	38.2 ± 4.0	NS
N	<i>Cystocoleus ebeneus</i>	Rockgossamer Lichen				S2	6	37.4 ± 0.0	NS
N	<i>Hypotrachyna catawbiensis</i>	Powder-tipped Antler Lichen				S2	25	43.6 ± 0.0	NS
N	<i>Scytinium imbricatum</i>	Scaly Jellyskin Lichen				S2	2	34.3 ± 4.0	NS
N	<i>Nephroma arcticum</i>	Arctic Kidney Lichen				S2	2	56.5 ± 1.0	NS
N	<i>Nephroma resupinatum</i>	a lichen				S2	12	29.8 ± 0.0	NS
N	<i>Placynthium flabellousum</i>	Scaly Ink Lichen				S2	2	62.5 ± 17.0	NS
N	<i>Cololejeunea biddlecomiae</i>	Biddlecome's Pouncewort				S2?	1	72.6 ± 0.0	NS
N	<i>Moerckia flotoviana</i>	Flotow's Ruffwort				S2?	1	30.5 ± 0.0	NS
N	<i>Riccardia multifida</i>	Delicate Germanderwort				S2?	3	22.7 ± 0.0	NS
N	<i>Anomodon viticulosus</i>	a Moss				S2?	2	47.6 ± 0.0	NS
N	<i>Weissia muhlenbergiana</i>	a Moss				S2?	6	8.1 ± 1.0	NS
N	<i>Atrichum angustatum</i>	Lesser Smoothcap Moss				S2?	2	60.6 ± 5.0	NS
N	<i>Ptychostomum pendulum</i>	Drooping Bryum				S2?	1	3.1 ± 2.0	NS
N	<i>Drepanocladus polygamus</i>	Polygamous Hook Moss				S2?	8	29.7 ± 4.0	NS
N	<i>Pseudocampyllum radicale</i>	Long-stalked Fine Wet Moss				S2?	1	50.0 ± 3.0	NS
N	<i>Climacium americanum</i>	American Tree Moss				S2?	1	85.7 ± 0.0	NS
N	<i>Dicranum condensatum</i>	Condensed Broom Moss				S2?	3	40.8 ± 0.0	NS
N	<i>Ditrichum rhynchostegium</i>	a Moss				S2?	1	37.4 ± 1.0	NS
N	<i>Fissidens bushii</i>	Bush's Pocket Moss				S2?	10	79.2 ± 0.0	NS
N	<i>Fontinalis sullivantii</i>	Sullivant's Water Moss				S2?	1	98.8 ± 0.0	NS
N	<i>Grimmia anomala</i>	Mountain Forest Grimmia				S2?	1	48.6 ± 1.0	NS
N	<i>Hygrohypnum bestii</i>	Best's Brook Moss				S2?	1	83.9 ± 0.0	NS
N	<i>Kiaeria starkei</i>	Starke's Fork Moss				S2?	1	77.5 ± 10.0	NS
N	<i>Orthotrichum anomalum</i>	Anomalous Bristle Moss				S2?	2	10.6 ± 2.0	NS
N	<i>Philonotis marchica</i>	a Moss				S2?	2	85.0 ± 0.0	NS
N	<i>Physcomitrium collenchymatum</i>	a Moss				S2?	1	63.5 ± 0.0	NS
N	<i>Platydictya</i>	False Willow Moss				S2?	1	53.3 ± 0.0	NS

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N	<i>jungermanniioides</i>								
N	<i>Saelania glaucescens</i>	Blue Dew Moss			S2?		1	98.7 ± 0.0	NS
N	<i>Cyrtomnium hymenophylloides</i>	Short-pointed Lantern Moss			S2?		2	46.0 ± 5.0	NS
N	<i>Platylomella lescurii</i>	a Moss			S2?		7	19.3 ± 0.0	NS
N	<i>Phyllicum demangeonii</i>	Black Rock-wafer Lichen			S2?		6	15.6 ± 0.0	NS
N	<i>Oxyrrhynchium hians</i>	Light Beaked Moss			S2S3		5	6.7 ± 0.0	NS
N	<i>Platydictya subtilis</i>	Bark Willow Moss			S2S3		4	58.4 ± 3.0	NS
N	<i>Plagiomnium rostratum</i>	Long-beaked Leafy Moss			S2S3		1	62.4 ± 2.0	NS
N	<i>Scorpidium revolvens</i>	Limprichtia Moss			S2S3		3	9.7 ± 0.0	NS
N	<i>Moelleropsis nebulosa</i>	Blue-gray Moss Shingle Lichen			S2S3		36	29.7 ± 1.0	NS
N	<i>Moelleropsis nebulosa ssp. frullanae</i>	Blue-gray Moss Shingle Lichen			S2S3		3	77.6 ± 0.0	NS
N	<i>Ramalina thrausta</i>	Angelhair Ramalina Lichen			S2S3		11	57.2 ± 5.0	NS
N	<i>Collema leptaleum</i>	Crumpled Bat's Wing Lichen			S2S3		91	4.6 ± 0.0	NS
N	<i>Usnea ceratina</i>	Warty Beard Lichen			S2S3		3	51.6 ± 0.0	NS
N	<i>Usnea rubicunda</i>	Red Beard Lichen			S2S3		6	26.7 ± 0.0	NS
N	<i>Ahtiana aurescens</i>	Eastern Candlewax Lichen			S2S3		18	15.7 ± 2.0	NS
N	<i>Usnocetraria oakesiana</i>	Yellow Band Lichen			S2S3		14	17.9 ± 0.0	NS
N	<i>Cladonia mateocyatha</i>	Mixed-up Pixie-cup			S2S3		5	16.6 ± 6.0	NS
N	<i>Cladonia parasitica</i>	Fence-rail Lichen			S2S3		3	25.6 ± 0.0	NS
N	<i>Chaenotheca gracilentia</i>	a lichen			S2S3		1	48.9 ± 0.0	NS
N	<i>Scytinium tenuissimum</i>	Birdnest Jellyskin Lichen			S2S3		9	6.1 ± 0.0	NS
N	<i>Melanohalea septentrionalis</i>	Northern Camouflage Lichen			S2S3		1	26.9 ± 0.0	NS
N	<i>Myelochroa aurulenta</i>	Powdery Axil-bristle Lichen			S2S3		6	32.2 ± 2.0	NS
N	<i>Parmelia fertilis</i>	Fertile Shield Lichen			S2S3		10	20.3 ± 0.0	NS
N	<i>Hypotrachyna minarum</i>	Hairless-spined Shield Lichen			S2S3		7	52.3 ± 0.0	NS
N	<i>Parmeliopsis ambigua</i>	Green Starburst Lichen			S2S3		2	33.1 ± 2.0	NS
N	<i>Racodium rupestre</i>	Rockhair Lichen			S2S3		4	29.7 ± 1.0	NS
N	<i>Umbilicaria polyphylla</i>	Petalled Rocktripe Lichen			S2S3		2	33.1 ± 2.0	NS
N	<i>Usnea cavernosa</i>	Pitted Beard Lichen			S2S3		4	26.8 ± 0.0	NS
N	<i>Usnea mutabilis</i>	Bloody Beard Lichen			S2S3		1	26.8 ± 0.0	NS
N	<i>Fuscopannaria soorediata</i>	a Lichen			S2S3		8	29.7 ± 1.0	NS
N	<i>Stereocaulon condensatum</i>	Granular Soil Foam Lichen			S2S3		3	58.0 ± 0.0	NS
N	<i>Physcia subtilis</i>	Slender Rosette Lichen			S2S3		2	55.6 ± 0.0	NS
N	<i>Dimelaena oreina</i>	Golden Moonglow Lichen			S2S3		2	55.0 ± 0.0	NS
N	<i>Hypotrachyna revoluta</i>	Granulating Loop Lichen			S2S3		1	81.8 ± 2.0	NS
N	<i>Cetraria arenaria</i>	Sand-loving Icelandmoss Lichen			S2S3		33	64.4 ± 0.0	NS
N	<i>Cladonia coccifera</i>	Eastern Boreal Pixie-cup Lichen			S2S3		3	47.0 ± 4.0	NS
N	<i>Cladonia deformis</i>	Lesser Sulphur-cup Lichen			S2S3		3	23.3 ± 4.0	NS
N	<i>Cladonia phyllophora</i>	Felt Lichen			S2S3		2	44.9 ± 4.0	NS
N	<i>Hypotrachyna afrorevoluta</i>	Pustulate Revolute Loop Lichen			S2S3		3	82.0 ± 0.0	NS
N	<i>Usnea flammea</i>	Coastal Bushy Beard Lichen			S2S3		2	63.5 ± 1.0	NS
N	<i>Ephemerum serratum</i>	a Moss			S3		6	10.0 ± 5.0	NS
N	<i>Fissidens taxifolius</i>	Yew-leaved Pocket Moss			S3		17	3.1 ± 2.0	NS
N	<i>Anomodon tristis</i>	a Moss			S3		11	44.2 ± 0.0	NS
N	<i>Sphagnum contortum</i>	Twisted Peat Moss			S3		6	33.0 ± 0.0	NS
N	<i>Tetraplodon angustatus</i>	Toothed-leaved Nitrogen Moss			S3		5	82.6 ± 0.0	NS
N	<i>Rostania occultata</i>	Crusted Tarpaper Lichen			S3		8	52.1 ± 0.0	NS
N	<i>Collema nigrescens</i>	Blistered Tarpaper Lichen			S3		43	10.2 ± 0.0	NS
N	<i>Solorina saccata</i>	Woodland Owl Lichen			S3		11	10.9 ± 0.0	NS
N	<i>Fuscopannaria ahlneri</i>	Corrugated Shingles Lichen			S3		79	19.5 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
N	<i>Scytinium lichenoides</i>	Tattered Jellyskin Lichen				S3	33	6.0 ± 0.0	NS
N	<i>Leptogium milligranum</i>	Stretched Jellyskin Lichen				S3	25	9.9 ± 0.0	NS
N	<i>Nephroma bellum</i>	Naked Kidney Lichen				S3	14	25.9 ± 0.0	NS
N	<i>Placynthium nigrum</i>	Common Ink Lichen				S3	1	88.4 ± 0.0	NS
N	<i>Platismatia norvegica</i>	Oldgrowth Rag Lichen				S3	1	94.0 ± 0.0	NS
N	<i>Punctelia appalachensis</i>	Appalachian Speckleback Lichen				S3	149	44.4 ± 0.0	NS
N	<i>Viridothelium virens</i>	a lichen				S3	4	10.2 ± 0.0	NS
N	<i>Ephebe lanata</i>	Waterside Rockshag Lichen				S3	6	23.8 ± 0.0	NS
N	<i>Phaeophyscia adiastrata</i>	Powder-tipped Shadow Lichen				S3	19	47.7 ± 0.0	NS
N	<i>Phaeophyscia pusilloides</i>	Pompom-tipped Shadow Lichen				S3	11	17.8 ± 1.0	NS
N	<i>Peltigera collina</i>	Tree Pelt Lichen				S3	11	5.6 ± 2.0	NS
N	<i>Metzgeria conjugata</i>	Rock Veilwort				S3?	2	72.8 ± 0.0	NS
N	<i>Barbula convoluta</i>	Lesser Bird's-claw Beard Moss				S3?	4	6.1 ± 0.0	NS
N	<i>Calliergon giganteum</i>	Giant Spear Moss				S3?	3	5.2 ± 3.0	NS
N	<i>Drummondia prorepens</i>	a Moss				S3?	5	11.6 ± 5.0	NS
N	<i>Elodium blandowii</i>	Blandow's Bog Moss				S3?	6	4.7 ± 0.0	NS
N	<i>Mnium stellare</i>	Star Leafy Moss				S3?	3	4.6 ± 0.0	NS
N	<i>Sphagnum riparium</i>	Streamside Peat Moss				S3?	4	74.4 ± 0.0	NS
N	<i>Cladonia stygia</i>	Black-footed Reindeer Lichen				S3?	9	55.0 ± 0.0	NS
N	<i>Anomodon rugelii</i>	Rugel's Anomodon Moss				S3S4	5	44.2 ± 0.0	NS
N	<i>Dichelyma capillaceum</i>	Hairlike Dichelyma Moss				S3S4	3	34.9 ± 3.0	NS
N	<i>Dicranum leioneuron</i>	a Dicranum Moss				S3S4	1	50.6 ± 0.0	NS
N	<i>Encalypta ciliata</i>	Fringed Extinguisher Moss				S3S4	2	44.9 ± 3.0	NS
N	<i>Encalypta procera</i>	Slender Extinguisher Moss				S3S4	2	94.2 ± 0.0	NS
N	<i>Myurella julacea</i>	Small Mouse-tail Moss				S3S4	2	98.7 ± 0.0	NS
N	<i>Splachnum ampullaceum</i>	Cruet Dung Moss				S3S4	3	74.3 ± 0.0	NS
N	<i>Thamnobryum alleghaniense</i>	a Moss				S3S4	21	27.2 ± 0.0	NS
N	<i>Tomentypnum nitens</i>	Golden Fuzzy Fen Moss				S3S4	4	9.7 ± 0.0	NS
N	<i>Schistidium agassizii</i>	Elf Bloom Moss				S3S4	4	48.6 ± 1.0	NS
N	<i>Hylocomiastrum pyrenaicum</i>	a Feather Moss				S3S4	5	48.1 ± 0.0	NS
N	<i>Bryoria pseudofuscescens</i>	Mountain Horsehair Lichen				S3S4	8	16.5 ± 5.0	NS
N	<i>Enchylium tenax</i>	Soil Tarpaper Lichen				S3S4	11	9.4 ± 0.0	NS
N	<i>Sticta fuliginosa</i>	Peppered Moon Lichen				S3S4	70	18.7 ± 0.0	NS
N	<i>Arctoparmelia incurva</i>	Finger Ring Lichen				S3S4	86	32.7 ± 0.0	NS
N	<i>Scytinium teretiusculum</i>	Curly Jellyskin Lichen				S3S4	23	4.9 ± 0.0	NS
N	<i>Leptogium acadense</i>	Acadian Jellyskin Lichen				S3S4	54	4.0 ± 0.0	NS
N	<i>Scytinium subtile</i>	Appressed Jellyskin Lichen				S3S4	36	4.3 ± 0.0	NS
N	<i>Felipes leucopellaeus</i>	a lichen				S3S4	1	87.1 ± 0.0	NS
N	<i>Cladonia floerkeana</i>	Gritty British Soldiers Lichen				S3S4	4	28.4 ± 0.0	NS
N	<i>Vahlia leucophaea</i>	Shelter Shingle Lichen				S3S4	18	49.1 ± 0.0	NS
N	<i>Heterodermia speciosa</i>	Powdered Fringe Lichen				S3S4	81	24.4 ± 0.0	NS
N	<i>Leptogium corticola</i>	Blistered Jellyskin Lichen				S3S4	90	4.6 ± 0.0	NS
N	<i>Melanohalea olivacea</i>	Spotted Camouflage Lichen				S3S4	5	26.8 ± 0.0	NS
N	<i>Parmeliopsis hyperopta</i>	Gray Starburst Lichen				S3S4	3	62.4 ± 0.0	NS
N	<i>Parmotrema perlatum</i>	Powdered Ruffle Lichen				S3S4	53	52.8 ± 0.0	NS
N	<i>Peltigera hymenina</i>	Cloudy Pelt Lichen				S3S4	2	62.5 ± 2.0	NS
N	<i>Sphaerophorus fragilis</i>	Fragile Coral Lichen				S3S4	11	49.8 ± 3.0	NS
N	<i>Sclerophora peronella</i>	Frosted Glass-whiskers Lichen				S3S4	2	43.5 ± 0.0	NS
N	<i>Coccocarpia palmicola</i>	Salted Shell Lichen				S3S4	240	15.7 ± 0.0	NS
N	<i>Physcia caesia</i>	Blue-gray Rosette Lichen				S3S4	3	49.5 ± 0.0	NS
N	<i>Physcia tenella</i>	Fringed Rosette Lichen				S3S4	7	43.1 ± 0.0	NS
N	<i>Anaptychia palmulata</i>	Shaggy Fringed Lichen				S3S4	186	19.5 ± 0.0	NS

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N	<i>Evernia prunastri</i>	Valley Oakmoss Lichen				S3S4	43	2.5 ± 0.0	NS
N	<i>Heterodermia neglecta</i>	Fringe Lichen				S3S4	127	12.8 ± 0.0	NS
P	<i>Rhynchospora macrostachya</i>	Tall Beakrush	Endangered	Endangered	Endangered	S1	7	88.0 ± 0.0	NS
P	<i>Clethra alnifolia</i>	Coast Pepper-Bush	Endangered	Threatened	Vulnerable	S2	3	52.2 ± 0.0	NS
P	<i>Fraxinus nigra</i>	Black Ash	Threatened		Threatened	S1S2	1403	3.7 ± 0.0	NS
P	<i>Lachnanthes caroliniana</i>	Redroot	Special Concern	Special Concern	Vulnerable	S2	1450	87.3 ± 0.0	NS
P	<i>Lophiola aurea</i>	Goldcrest	Special Concern	Special Concern	Vulnerable	S2	790	78.9 ± 0.0	NS
P	<i>Lilaeopsis chinensis</i>	Eastern Lilaeopsis	Special Concern	Special Concern	Vulnerable	S3	160	71.5 ± 1.0	NS
P	<i>Scirpus longii</i>	Long's Bulrush	Special Concern		Vulnerable	S3	319	78.7 ± 0.0	NS
P	<i>Isoetes prototypus</i>	Prototype Quillwort	Special Concern	Special Concern	Vulnerable	S3	18	61.5 ± 0.0	NS
P	<i>Floerkea proserpinacoides</i>	False Mermaidweed	Not At Risk			S2S3	39	43.6 ± 1.0	NS
P	<i>Acer saccharinum</i>	Silver Maple				S1	12	29.7 ± 0.0	NS
P	<i>Osmorhiza depauperata</i>	Blunt Sweet Cicely				S1	1	31.7 ± 5.0	NS
P	<i>Antennaria rosea ssp. arida</i>	Rosy Pussytoes				S1	1	70.9 ± 0.0	NS
P	<i>Andersonglossum boreale</i>	Northern Wild Comfrey				S1	5	6.5 ± 1.0	NS
P	<i>Turritis glabra</i>	Tower Mustard				S1	1	50.6 ± 0.0	NS
P	<i>Lobelia spicata</i>	Pale-Spiked Lobelia				S1	8	37.4 ± 7.0	NS
P	<i>Silene antirrhina</i>	Sleepy Catchfly				S1	5	69.0 ± 0.0	NS
P	<i>Astragalus robbinsii var. minor</i>	Robbins' Milkvetch				S1	32	70.9 ± 0.0	NS
P	<i>Ribes americanum</i>	Wild Black Currant				S1	4	7.9 ± 3.0	NS
P	<i>Trichostema dichotomum</i>	Forked Bluecurls				S1	9	84.4 ± 0.0	NS
P	<i>Fraxinus pennsylvanica</i>	Red Ash				S1	12	10.9 ± 2.0	NS
P	<i>Persicaria careyi</i>	Carey's Smartweed				S1	1	68.9 ± 3.0	NS
P	<i>Phytolacca americana</i>	Common Pokeweed				S1	4	39.9 ± 0.0	NS
P	<i>Podostemum ceratophyllum</i>	Horn-leaved Riverweed				S1	4	69.5 ± 0.0	NS
P	<i>Montia fontana</i>	Water Blinks				S1	3	48.0 ± 1.0	NS
P	<i>Lysimachia quadrifolia</i>	Whorled Yellow Loosestrife				S1	1	26.9 ± 0.0	NS
P	<i>Clematis occidentalis</i>	Purple Clematis				S1	3	96.2 ± 0.0	NS
P	<i>Ranunculus pensylvanicus</i>	Pennsylvania Buttercup				S1	31	86.0 ± 0.0	NS
P	<i>Amelanchier nantucketensis</i>	Nantucket Serviceberry				S1	1	59.0 ± 1.0	NS
P	<i>Salix myrtilifolia</i>	Blueberry Willow				S1	1	67.0 ± 0.0	NS
P	<i>Salix serissima</i>	Autumn Willow				S1	2	67.0 ± 0.0	NS
P	<i>Scrophularia lanceolata</i>	Lance-leaved Figwort				S1	2	66.6 ± 1.0	NS
P	<i>Carex digitalis</i>	Slender Wood Sedge				S1	2	94.2 ± 0.0	NS
P	<i>Carex garberi</i>	Garber's Sedge				S1	4	86.7 ± 0.0	NS
P	<i>Carex laxiflora</i>	Loose-Flowered Sedge				S1	3	43.3 ± 1.0	NS
P	<i>Carex ormostachya</i>	Necklace Spike Sedge				S1	4	54.0 ± 5.0	NS
P	<i>Carex plantaginea</i>	Plantain-Leaved Sedge				S1	2	79.6 ± 0.0	NS
P	<i>Carex prairea</i>	Prairie Sedge				S1	2	45.6 ± 1.0	NS
P	<i>Carex viridula var. saxillittoralis</i>	Greenish Sedge				S1	1	49.7 ± 0.0	NS
P	<i>Scirpus atrovirens</i>	Dark-green Bulrush				S1	4	6.7 ± 0.0	NS
P	<i>Schoenoplectus torreyi</i>	Torrey's Bulrush				S1	6	81.1 ± 0.0	NS
P	<i>Iris prismatica</i>	Slender Blue Flag				S1	1	45.6 ± 100.0	NS
P	<i>Sisyrinchium fuscatum</i>	Coastal Plain Blue-eyed-grass				S1	3	69.4 ± 0.0	NS
P	<i>Juncus secundus</i>	Secund Rush				S1	2	49.3 ± 0.0	NS
P	<i>Juncus vaseyi</i>	Vasey Rush				S1	2	76.4 ± 0.0	NS
P	<i>Trillium grandiflorum</i>	White Trillium				S1	3	45.6 ± 1.0	NS
P	<i>Malaxis monophyllos var. brachypoda</i>	North American White Adder's-mouth				S1	6	37.4 ± 10.0	NS
P	<i>Spiranthes casei var. casei</i>	Case's Ladies'-Tresses				S1	1	31.3 ± 0.0	NS
P	<i>Dichantherium xanthophyllum</i>	Slender Panic Grass				S1	10	70.5 ± 0.0	NS
P	<i>Elymus hystrix</i>	Spreading Wild Rye				S1	11	6.4 ± 0.0	NS
P	<i>Torreyochloa pallida var.</i>	Pale False Manna Grass				S1	2	68.1 ± 1.0	NS

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P	<i>pallida</i>								
P	<i>Adiantum pedatum</i>	Northern Maidenhair Fern				S1	26	4.2 ± 10.0	NS
P	<i>Dryopteris goldieana</i>	Goldie's Woodfern				S1	1	61.1 ± 1.0	NS
P	<i>Equisetum palustre</i>	Marsh Horsetail				S1	1	40.5 ± 5.0	NS
P	<i>Botrychium lunaria</i>	Common Moonwort				S1	10	60.9 ± 0.0	NS
P	<i>Selaginella rupestris</i>	Rock Spikemoss				S1	1	5.8 ± 0.0	NS
P	<i>Solidago hispida</i>	Hairy Goldenrod				S1?	1	47.7 ± 7.0	NS
P	<i>Suaeda rolandii</i>	Roland's Sea-Blite				S1?	5	6.7 ± 2.0	NS
P	<i>Carex pensylvanica</i>	Pennsylvania Sedge				S1?	4	40.0 ± 0.0	NS
P	<i>Juncus antheratus</i>	Greater Poverty Rush				S1?	1	81.6 ± 0.0	NS
P	<i>Allium schoenoprasum</i>	Wild Chives				S1?	2	37.3 ± 0.0	NS
P	<i>Allium schoenoprasum var. sibiricum</i>	Wild Chives				S1?	1	74.2 ± 7.0	NS
P	<i>Huperzia selago</i>	Northern Firmoss				S1?	1	84.4 ± 1.0	NS
P	<i>Crocanthemum canadense</i>	Long-branched Frostweed			Endangered	S1S2	150	34.5 ± 1.0	NS
P	<i>Cypripedium arietinum</i>	Ram's-Head Lady's-Slipper			Endangered	S1S2	329	3.8 ± 2.0	NS
P	<i>Sanicula odorata</i>	Clustered Sanicle				S1S2	10	6.5 ± 0.0	NS
P	<i>Ageratina altissima</i>	White Snakeroot				S1S2	23	71.4 ± 0.0	NS
P	<i>Draba glabella</i>	Rock Whitlow-Grass				S1S2	6	45.7 ± 0.0	NS
P	<i>Proserpinaca intermedia</i>	Intermediate Mermaidweed				S1S2	3	46.2 ± 2.0	NS
P	<i>Anemone virginiana var. alba</i>	Virginia Anemone				S1S2	5	74.2 ± 7.0	NS
P	<i>Carex haydenii</i>	Hayden's Sedge				S1S2	5	38.4 ± 1.0	NS
P	<i>Platanthera huronensis</i>	Fragrant Green Orchid				S1S2	2	10.5 ± 10.0	NS
P	<i>Calamagrostis stricta ssp. stricta</i>	Slim-stemmed Reed Grass				S1S2	3	70.1 ± 7.0	NS
P	<i>Euphrasia farlowii</i>	Farlow's Eyebright				S1S3	2	86.4 ± 0.0	NS
P	<i>Carex vacillans</i>	Estuarine Sedge				S1S3	1	98.0 ± 0.0	NS
P	<i>Zizia aurea</i>	Golden Alexanders				S2	41	32.4 ± 0.0	NS
P	<i>Antennaria parlinii ssp. fallax</i>	Parlin's Pussytoes				S2	34	2.9 ± 0.0	NS
P	<i>Rudbeckia laciniata</i>	Cut-Leaved Coneflower				S2	33	3.5 ± 0.0	NS
P	<i>Arabis pycnocarpa</i>	Cream-flowered Rockcress				S2	2	50.0 ± 0.0	NS
P	<i>Cardamine maxima</i>	Large Toothwort				S2	20	31.7 ± 0.0	NS
P	<i>Hudsonia ericoides</i>	Pinebarren Golden Heather				S2	314	38.1 ± 0.0	NS
P	<i>Desmodium canadense</i>	Canada Tick-trefoil				S2	13	33.8 ± 1.0	NS
P	<i>Hylodesmum glutinosum</i>	Large Tick-trefoil				S2	37	8.9 ± 0.0	NS
P	<i>Oxytropis campestris var. johannensis</i>	Field Locoweed				S2	27	70.9 ± 0.0	NS
P	<i>Conopholis americana</i>	American Cancer-root				S2	33	38.6 ± 1.0	NS
P	<i>Anemonastrum canadense</i>	Canada Anemone				S2	17	6.1 ± 7.0	NS
P	<i>Hepatica americana</i>	Round-lobed Hepatica				S2	80	2.4 ± 3.0	NS
P	<i>Ranunculus sceleratus</i>	Cursed Buttercup				S2	24	35.9 ± 1.0	NS
P	<i>Galium boreale</i>	Northern Bedstraw				S2	8	37.4 ± 7.0	NS
P	<i>Gratiola neglecta</i>	Clammy Hedge-Hyssop				S2	6	49.9 ± 0.0	NS
P	<i>Dirca palustris</i>	Eastern Leatherwood				S2	75	4.9 ± 0.0	NS
P	<i>Carex gynocrates</i>	Northern Bog Sedge				S2	2	67.0 ± 0.0	NS
P	<i>Carex pellita</i>	Woolly Sedge				S2	4	85.6 ± 0.0	NS
P	<i>Carex livida</i>	Livid Sedge				S2	13	10.4 ± 10.0	NS
P	<i>Juncus greenei</i>	Greene's Rush				S2	5	27.9 ± 0.0	NS
P	<i>Allium tricoccum</i>	Wild Leek				S2	108	31.8 ± 0.0	NS
P	<i>Lilium canadense</i>	Canada Lily				S2	94	4.2 ± 7.0	NS
P	<i>Cypripedium parviflorum var. pubescens</i>	Yellow Lady's-slipper				S2	27	4.5 ± 0.0	NS
P	<i>Cypripedium parviflorum var. makasin</i>	Small Yellow Lady's-Slipper				S2	13	5.2 ± 0.0	NS
P	<i>Cypripedium reginae</i>	Showy Lady's-Slipper				S2	58	6.3 ± 0.0	NS
P	<i>Platanthera flava var. flava</i>	Southern Rein Orchid				S2	16	30.4 ± 7.0	NS
P	<i>Platanthera flava var.</i>	Pale Green Orchid				S2	30	29.6 ± 1.0	NS

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P	<i>herbiola</i> <i>Platanthera macrophylla</i>	Large Round-Leaved Orchid				S2	6	15.2 ± 1.0	NS
P	<i>Bromus latiglumis</i>	Broad-Glumed Brome				S2	33	77.7 ± 0.0	NS
P	<i>Cinna arundinacea</i>	Sweet Wood Reed Grass				S2	60	45.5 ± 0.0	NS
P	<i>Elymus wiegandii</i>	Wiegand's Wild Rye				S2	13	47.7 ± 7.0	NS
P	<i>Festuca subverticillata</i>	Nodding Fescue				S2	15	19.1 ± 7.0	NS
P	<i>Piptatheropsis pungens</i>	Slender Ricegrass				S2	11	68.2 ± 10.0	NS
P	<i>Cryptogramma stelleri</i>	Steller's Rockbrake				S2	3	10.4 ± 0.0	NS
P	<i>Cuscuta cephalanthi</i>	Buttonbush Dodder				S2?	2	33.5 ± 0.0	NS
P	<i>Rumex persicarioides</i>	Peach-leaved Dock				S2?	1	42.8 ± 0.0	NS
P	<i>Crataegus submollis</i>	Quebec Hawthorn				S2?	5	5.6 ± 1.0	NS
P	<i>Carex peckii</i>	White-Tinged Sedge				S2?	4	7.8 ± 5.0	NS
P	<i>Thuja occidentalis</i>	Eastern White Cedar			Vulnerable	S2S3	1089	4.4 ± 0.0	NS
P	<i>Osmorhiza longistylis</i>	Smooth Sweet Cicely				S2S3	22	9.3 ± 0.0	NS
P	<i>Bidens hyperborea</i>	Estuary Beggarticks				S2S3	2	94.7 ± 0.0	NS
P	<i>Erigeron philadelphicus</i>	Philadelphia Fleabane				S2S3	5	84.5 ± 0.0	NS
P	<i>Eutrochium dubium</i>	Coastal Plain Joe Pye Weed				S2S3	2	96.7 ± 0.0	NS
P	<i>Lactuca hirsuta</i>	Hairy Lettuce				S2S3	5	28.2 ± 1.0	NS
P	<i>Impatiens pallida</i>	Pale Jewelweed				S2S3	13	45.4 ± 1.0	NS
P	<i>Caulophyllum thalictroides</i>	Blue Cohosh				S2S3	116	7.2 ± 1.0	NS
P	<i>Draba arabisans</i>	Rock Whitlow-Grass				S2S3	30	43.3 ± 1.0	NS
P	<i>Boechera stricta</i>	Drummond's Rockcress				S2S3	16	43.3 ± 1.0	NS
P	<i>Stellaria humifusa</i>	Saltmarsh Starwort				S2S3	14	50.0 ± 1.0	NS
P	<i>Hypericum majus</i>	Large St John's-wort				S2S3	21	30.4 ± 10.0	NS
P	<i>Hypericum x dissimulatum</i>	Disguised St. John's-wort				S2S3	9	34.4 ± 0.0	NS
P	<i>Empetrum atropurpureum</i>	Purple Crowberry				S2S3	5	41.6 ± 7.0	NS
P	<i>Euphorbia polygonifolia</i>	Seaside Spurge				S2S3	12	57.6 ± 3.0	NS
P	<i>Myriophyllum farwellii</i>	Farwell's Water Milfoil				S2S3	10	14.5 ± 1.0	NS
P	<i>Hedeoma pulegioides</i>	American False Pennyroyal				S2S3	19	31.1 ± 2.0	NS
P	<i>Oenothera fruticosa ssp. tetragona</i>	Narrow-leaved Evening Primrose				S2S3	8	4.2 ± 7.0	NS
P	<i>Polygala polygama</i>	Racemed Milkwort				S2S3	5	46.9 ± 1.0	NS
P	<i>Polygonum aviculare ssp. buxiforme</i>	Box Knotweed				S2S3	8	10.6 ± 0.0	NS
P	<i>Polygonum oxyspermum ssp. raii</i>	Ray's Knotweed				S2S3	3	41.8 ± 1.0	NS
P	<i>Polygonum oxyspermum</i>	Sharp-fruit Knotweed				S2S3	1	31.4 ± 0.0	NS
P	<i>Rumex triangulivalvis</i>	Triangular-valve Dock				S2S3	12	3.6 ± 0.0	NS
P	<i>Primula mistassinica</i>	Mistassini Primrose				S2S3	17	74.2 ± 7.0	NS
P	<i>Anemone quinquefolia</i>	Wood Anemone				S2S3	41	48.5 ± 0.0	NS
P	<i>Caltha palustris</i>	Yellow Marsh Marigold				S2S3	32	10.0 ± 0.0	NS
P	<i>Amelanchier fernaldii</i>	Fernald's Serviceberry				S2S3	2	67.6 ± 7.0	NS
P	<i>Potentilla canadensis</i>	Canada Cinquefoil				S2S3	10	25.6 ± 0.0	NS
P	<i>Galium obtusum</i>	Blunt-leaved Bedstraw				S2S3	2	80.7 ± 0.0	NS
P	<i>Salix pellita</i>	Satiny Willow				S2S3	10	62.7 ± 2.0	NS
P	<i>Tiarella cordifolia</i>	Heart-leaved Foamflower				S2S3	24	54.4 ± 0.0	NS
P	<i>Agalinis purpurea var. parviflora</i>	Small-flowered Purple False Foxglove				S2S3	1	64.7 ± 0.0	NS
P	<i>Boehmeria cylindrica</i>	Small-spike False-nettle				S2S3	60	45.4 ± 0.0	NS
P	<i>Carex adusta</i>	Lesser Brown Sedge				S2S3	11	41.6 ± 0.0	NS
P	<i>Carex capillaris</i>	Hairlike Sedge				S2S3	9	58.4 ± 0.0	NS
P	<i>Carex comosa</i>	Bearded Sedge				S2S3	9	9.6 ± 7.0	NS
P	<i>Carex houghtoniana</i>	Houghton's Sedge				S2S3	6	63.6 ± 1.0	NS
P	<i>Carex hystericina</i>	Porcupine Sedge				S2S3	9	39.8 ± 0.0	NS
P	<i>Eleocharis ovata</i>	Ovate Spikerush				S2S3	9	3.4 ± 0.0	NS
P	<i>Scirpus pedicellatus</i>	Stalked Bulrush				S2S3	7	47.1 ± 0.0	NS
P	<i>Vallisneria americana</i>	Wild Celery				S2S3	14	61.4 ± 1.0	NS
P	<i>Najas gracillima</i>	Thread-Like Naiad				S2S3	6	8.1 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
P	<i>Goodyera pubescens</i>	Downy Rattlesnake-Plantain				S2S3	28	4.2 ± 0.0	NS
P	<i>Spiranthes casei</i>	Case's Ladies'-Tresses				S2S3	1	91.9 ± 0.0	NS
P	<i>Spiranthes casei</i> var. <i>novaescotiae</i>	Case's Ladies'-Tresses				S2S3	4	66.4 ± 0.0	NS
P	<i>Spiranthes lucida</i>	Shining Ladies'-Tresses				S2S3	15	8.8 ± 1.0	NS
P	<i>Calamagrostis stricta</i>	Slim-stemmed Reed Grass				S2S3	2	99.6 ± 2.0	NB
P	<i>Potamogeton friesii</i>	Fries' Pondweed				S2S3	11	38.6 ± 1.0	NS
P	<i>Woodsia glabella</i>	Smooth Cliff Fern				S2S3	2	63.7 ± 1.0	NS
P	<i>Botrychium lanceolatum</i> ssp. <i>angustisegmentum</i>	Narrow Triangle Moonwort				S2S3	8	38.2 ± 0.0	NS
P	<i>Botrychium simplex</i>	Least Moonwort				S2S3	4	10.7 ± 1.0	NS
P	<i>Ophioglossum pusillum</i>	Northern Adder's-tongue				S2S3	7	28.3 ± 7.0	NS
P	<i>Potamogeton pulcher</i>	Spotted Pondweed			Vulnerable	S3	18	70.3 ± 0.0	NS
P	<i>Angelica atropurpurea</i>	Purple-stemmed Angelica				S3	1	81.3 ± 0.0	NS
P	<i>Conioselinum chinense</i>	Chinese Hemlock-parsley				S3	9	34.0 ± 0.0	NS
P	<i>Hieracium robinsonii</i>	Robinson's Hawkweed				S3	2	75.5 ± 1.0	NS
P	<i>Iva frutescens</i>	Big-leaved Marsh-elder				S3	59	5.7 ± 0.0	NS
P	<i>Senecio pseudoarnica</i>	Seabeach Ragwort				S3	18	39.4 ± 0.0	NS
P	<i>Symphyotrichum boreale</i>	Boreal Aster				S3	8	33.7 ± 5.0	NS
P	<i>Symphyotrichum undulatum</i>	Wavy-leaved Aster				S3	145	3.9 ± 0.0	NS
P	<i>Symphyotrichum ciliolatum</i>	Fringed Blue Aster				S3	22	12.0 ± 0.0	NS
P	<i>Alnus serrulata</i>	Smooth Alder				S3	543	69.7 ± 0.0	NS
P	<i>Betula michauxii</i>	Michaux's Dwarf Birch				S3	69	21.6 ± 0.0	NS
P	<i>Betula pumila</i>	Bog Birch				S3	4	65.3 ± 0.0	NS
P	<i>Cardamine parviflora</i>	Small-flowered Bittercress				S3	17	25.5 ± 7.0	NS
P	<i>Palustricodon aparinoides</i>	Marsh Bellflower				S3	28	16.2 ± 1.0	NS
P	<i>Mononeuria groenlandica</i>	Greenland Stitchwort				S3	239	35.2 ± 0.0	NS
P	<i>Sagina nodosa</i>	Knotted Pearlwort				S3	52	48.2 ± 0.0	NS
P	<i>Sagina nodosa</i> ssp. <i>borealis</i>	Knotted Pearlwort				S3	5	58.8 ± 0.0	NS
P	<i>Stellaria longifolia</i>	Long-leaved Starwort				S3	11	54.8 ± 0.0	NS
P	<i>Ceratophyllum echinatum</i>	Prickly Hornwort				S3	15	38.5 ± 3.0	NS
P	<i>Triosteum aurantiacum</i>	Orange-fruited Tinker's Weed				S3	47	3.0 ± 0.0	NS
P	<i>Crassula aquatica</i>	Water Pygmyweed				S3	1	50.0 ± 0.0	NS
P	<i>Empetrum eamesii</i>	Pink Crowberry				S3	94	30.6 ± 0.0	NS
P	<i>Vaccinium uliginosum</i>	Alpine Bilberry				S3	4	60.8 ± 1.0	NS
P	<i>Halenia deflexa</i>	Spurred Gentian				S3	3	52.9 ± 0.0	NS
P	<i>Geranium bicknellii</i>	Bicknell's Crane's-bill				S3	27	10.3 ± 3.0	NS
P	<i>Myriophyllum verticillatum</i>	Whorled Water Milfoil				S3	6	16.3 ± 3.0	NS
P	<i>Utricularia resupinata</i>	Inverted Bladderwort				S3	13	79.3 ± 0.0	NS
P	<i>Epilobium strictum</i>	Downy Willowherb				S3	10	11.0 ± 0.0	NS
P	<i>Polygala sanguinea</i>	Blood Milkwort				S3	50	30.5 ± 0.0	NS
P	<i>Persicaria arifolia</i>	Halberd-leaved Tearthumb				S3	24	42.1 ± 1.0	NS
P	<i>Plantago rugelii</i>	Rugel's Plantain				S3	14	31.2 ± 3.0	NS
P	<i>Primula laurentiana</i>	Laurentian Primrose				S3	58	38.8 ± 7.0	NS
P	<i>Samolus parviflorus</i>	Seaside Brookweed				S3	49	42.3 ± 1.0	NS
P	<i>Pyrola minor</i>	Lesser Pyrola				S3	2	47.8 ± 7.0	NS
P	<i>Anemone virginiana</i>	Virginia Anemone				S3	19	6.7 ± 1.0	NS
P	<i>Cephalanthus occidentalis</i>	Common Buttonbush				S3	1385	47.8 ± 0.0	NS
P	<i>Galium labradoricum</i>	Labrador Bedstraw				S3	79	63.7 ± 0.0	NS
P	<i>Salix pedicellaris</i>	Bog Willow				S3	130	49.7 ± 0.0	NS
P	<i>Salix sericea</i>	Silky Willow				S3	125	36.0 ± 1.0	NS
P	<i>Saxifraga paniculata</i> ssp. <i>laestadii</i>	Laestadius' Saxifrage				S3	13	37.4 ± 7.0	NS
P	<i>Lindernia dubia</i>	Yellow-seeded False Pimperel				S3	38	9.5 ± 0.0	NS
P	<i>Laportea canadensis</i>	Canada Wood Nettle				S3	58	5.1 ± 0.0	NS
P	<i>Pilea pumila</i>	Dwarf Clearweed				S3	9	6.0 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
P	<i>Viola nephrophylla</i>	Northern Bog Violet				S3	7	28.1 ± 1.0	NS
P	<i>Carex bebbii</i>	Bebb's Sedge				S3	25	5.1 ± 0.0	NS
P	<i>Carex castanea</i>	Chestnut Sedge				S3	39	25.2 ± 0.0	NS
P	<i>Carex cryptolepis</i>	Hidden-scaled Sedge				S3	17	6.3 ± 0.0	NS
P	<i>Carex eburnea</i>	Bristle-leaved Sedge				S3	11	51.8 ± 0.0	NS
P	<i>Carex hirtifolia</i>	Pubescent Sedge				S3	42	6.5 ± 0.0	NS
P	<i>Carex lupulina</i>	Hop Sedge				S3	72	5.6 ± 0.0	NS
P	<i>Carex rosea</i>	Rosy Sedge				S3	45	3.0 ± 2.0	NS
P	<i>Carex swanii</i>	Swan's Sedge				S3	14	33.9 ± 0.0	NS
P	<i>Carex tenera</i>	Tender Sedge				S3	11	13.1 ± 0.0	NS
P	<i>Carex tribuloides</i>	Blunt Broom Sedge				S3	15	5.1 ± 0.0	NS
P	<i>Carex tuckermanii</i>	Tuckerman's Sedge				S3	50	5.1 ± 0.0	NS
P	<i>Carex atratiformis</i>	Scabrous Black Sedge				S3	3	57.9 ± 0.0	NS
P	<i>Eleocharis nitida</i>	Quill Spikerush				S3	18	22.3 ± 5.0	NS
P	<i>Eleocharis flavescens</i> var. <i>olivacea</i>	Bright-green Spikerush				S3	12	41.1 ± 0.0	NS
P	<i>Eriophorum gracile</i>	Slender Cottongrass				S3	15	28.4 ± 1.0	NS
P	<i>Coeloglossum viride</i>	Long-bracted Frog Orchid				S3	13	28.5 ± 1.0	NS
P	<i>Cypripedium parviflorum</i>	Yellow Lady's-slipper				S3	580	1.5 ± 1.0	NS
P	<i>Neottia bifolia</i>	Southern Twayblade				S3	134	16.2 ± 0.0	NS
P	<i>Platanthera flava</i>	Southern Rein-Orchid				S3	36	69.2 ± 0.0	NS
P	<i>Platanthera grandiflora</i>	Large Purple Fringed Orchid				S3	88	12.7 ± 1.0	NS
P	<i>Platanthera hookeri</i>	Hooker's Orchid				S3	44	5.5 ± 1.0	NS
P	<i>Dichanthelium linearifolium</i>	Narrow-leaved Panic Grass				S3	17	9.6 ± 7.0	NS
P	<i>Piptatheropsis canadensis</i>	Canada Ricegrass				S3	20	25.2 ± 0.0	NS
P	<i>Poa glauca</i>	Glaucous Blue Grass				S3	16	13.3 ± 1.0	NS
P	<i>Potamogeton praelongus</i>	White-stemmed Pondweed				S3	5	39.6 ± 1.0	NS
P	<i>Potamogeton richardsonii</i>	Richardson's Pondweed				S3	7	33.8 ± 0.0	NS
P	<i>Potamogeton zosteriformis</i>	Flat-stemmed Pondweed				S3	18	42.7 ± 1.0	NS
P	<i>Asplenium viride</i>	Green Spleenwort				S3	12	48.8 ± 7.0	NS
P	<i>Dryopteris fragrans</i>	Fragrant Wood Fern				S3	15	51.6 ± 0.0	NS
P	<i>Sceptridium dissectum</i>	Dissected Moonwort				S3	7	53.8 ± 0.0	NS
P	<i>Polypodium appalachianum</i>	Appalachian Polypody				S3	25	23.5 ± 0.0	NS
P	<i>Persicaria amphibia</i> var. <i>emersa</i>	Long-root Smartweed				S3?	25	6.1 ± 0.0	NS
P	<i>Spiranthes ochroleuca</i>	Yellow Ladies'-tresses				S3?	47	16.5 ± 4.0	NS
P	<i>Diphasiastrum x sabinifolium</i>	Savin-leaved Ground-cedar				S3?	10	69.3 ± 0.0	NS
P	<i>Bidens vulgata</i>	Tall Beggarticks				S3S4	6	16.7 ± 0.0	NS
P	<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane				S3S4	25	4.2 ± 7.0	NS
P	<i>Hieracium paniculatum</i>	Panicled Hawkweed				S3S4	35	9.5 ± 11.0	NS
P	<i>Bidens beckii</i>	Water Beggarticks				S3S4	11	53.9 ± 0.0	NS
P	<i>Packera paupercula</i>	Balsam Groundsel				S3S4	104	1.5 ± 1.0	NS
P	<i>Atriplex glabriuscula</i> var. <i>franktonii</i>	Frankton's Saltbush				S3S4	15	11.2 ± 0.0	NS
P	<i>Shepherdia canadensis</i>	Soapberry				S3S4	113	3.5 ± 0.0	NS
P	<i>Vaccinium boreale</i>	Northern Blueberry				S3S4	5	76.6 ± 0.0	NS
P	<i>Vaccinium cespitosum</i>	Dwarf Bilberry				S3S4	61	12.0 ± 0.0	NS
P	<i>Vaccinium corymbosum</i>	Highbush Blueberry				S3S4	16	31.8 ± 0.0	NS
P	<i>Fagus grandifolia</i>	American Beech				S3S4	915	2.0 ± 0.0	NS
P	<i>Bartonia virginica</i>	Yellow Bartonia				S3S4	33	36.0 ± 7.0	NS
P	<i>Proserpinaca pectinata</i>	Comb-leaved Mermaidweed				S3S4	59	37.6 ± 1.0	NS
P	<i>Decodon verticillatus</i>	Swamp Loosestrife				S3S4	6	15.4 ± 0.0	NS
P	<i>Nuphar microphylla</i>	Small Yellow Pond-lily				S3S4	3	19.5 ± 0.0	NS
P	<i>Persicaria pensylvanica</i>	Pennsylvania Smartweed				S3S4	33	10.9 ± 1.0	NS
P	<i>Fallopia scandens</i>	Climbing False Buckwheat				S3S4	29	6.1 ± 7.0	NS
P	<i>Rumex pallidus</i>	Seabeach Dock				S3S4	2	74.4 ± 0.0	NS
P	<i>Pyrola asarifolia</i>	Pink Pyrola				S3S4	12	26.3 ± 1.0	NS
P	<i>Endotropis alnifolia</i>	alder-leaved buckthorn				S3S4	278	8.1 ± 0.0	NS

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	# recs	Distance (km)	Prov
P	<i>Amelanchier spicata</i>	Running Serviceberry				S3S4	60	1.8 ± 3.0	NS
P	<i>Crataegus succulenta</i>	Fleshy Hawthorn				S3S4	1	37.6 ± 0.0	NS
P	<i>Fragaria vesca ssp. americana</i>	Woodland Strawberry				S3S4	71	5.2 ± 0.0	NS
P	<i>Fragaria vesca</i>	Woodland Strawberry				S3S4	17	14.9 ± 0.0	NS
P	<i>Galium aparine</i>	Common Bedstraw				S3S4	36	6.7 ± 0.0	NS
P	<i>Geocaulon lividum</i>	Northern Comandra				S3S4	7	24.0 ± 0.0	NS
P	<i>Limosella australis</i>	Southern Mudwort				S3S4	21	54.7 ± 3.0	NS
P	<i>Ulmus americana</i>	White Elm				S3S4	105	2.3 ± 0.0	NS
P	<i>Verbena hastata</i>	Blue Vervain				S3S4	272	6.5 ± 1.0	NS
P	<i>Viola sagittata var. ovata</i>	Arrow-Leaved Violet				S3S4	50	4.2 ± 0.0	NS
P	<i>Viola selkirkii</i>	Great-Spurred Violet				S3S4	6	12.0 ± 4.0	NS
P	<i>Symlocarpus foetidus</i>	Eastern Skunk Cabbage				S3S4	10	47.9 ± 0.0	NS
P	<i>Carex argyrantha</i>	Silvery-flowered Sedge				S3S4	10	13.9 ± 1.0	NS
P	<i>Sisyrinchium atlanticum</i>	Eastern Blue-Eyed-Grass				S3S4	98	59.0 ± 0.0	NS
P	<i>Triglochin gaspensis</i>	Gasp Arrowgrass				S3S4	13	52.9 ± 0.0	NS
P	<i>Juncus acuminatus</i>	Sharp-Fruit Rush				S3S4	15	15.1 ± 0.0	NS
P	<i>Juncus subcaudatus</i>	Woods-Rush				S3S4	25	21.2 ± 1.0	NS
P	<i>Luzula parviflora ssp. melanocarpa</i>	Black-fruited Woodrush				S3S4	7	52.9 ± 0.0	NS
P	<i>Goodyera repens</i>	Lesser Rattlesnake-plantain				S3S4	29	21.3 ± 0.0	NS
P	<i>Liparis loeselii</i>	Loesel's Twayblade				S3S4	13	26.9 ± 0.0	NS
P	<i>Platanthera obtusata</i>	Blunt-leaved Orchid				S3S4	15	35.1 ± 10.0	NS
P	<i>Platanthera orbiculata</i>	Small Round-leaved Orchid				S3S4	53	12.0 ± 4.0	NS
P	<i>Alopecurus aequalis</i>	Short-awned Foxtail				S3S4	26	46.1 ± 1.0	NS
P	<i>Dichanthelium clandestinum</i>	Deer-tongue Panic Grass				S3S4	302	7.6 ± 0.0	NS
P	<i>Coleataenia longifolia</i>	Long-leaved Panicgrass				S3S4	979	79.1 ± 0.0	NS
P	<i>Panicum philadelphicum</i>	Philadelphia Panicgrass				S3S4	31	13.1 ± 0.0	NS
P	<i>Koeleria spicata</i>	Narrow False Oats				S3S4	20	3.6 ± 0.0	NS
P	<i>Asplenium trichomanes</i>	Maidenhair Spleenwort				S3S4	17	26.8 ± 0.0	NS
P	<i>Equisetum pratense</i>	Meadow Horsetail				S3S4	18	7.1 ± 0.0	NS
P	<i>Diphasiastrum complanatum</i>	Northern Ground-cedar				S3S4	19	11.1 ± 0.0	NS
P	<i>Diphasiastrum sitchense</i>	Sitka Ground-cedar				S3S4	3	31.7 ± 1.0	NS
P	<i>Huperzia appressa</i>	Mountain Firmoss				S3S4	20	48.8 ± 7.0	NS
P	<i>Sceptridium multifidum</i>	Leathery Moonwort				S3S4	14	24.1 ± 10.0	NS
P	<i>Botrychium matricariifolium</i>	Daisy-leaved Moonwort				S3S4	6	18.0 ± 10.0	NS
P	<i>Viola canadensis</i>	Canada Violet				SH	2	10.3 ± 0.0	NS
P	<i>Greeneochloa coarctata</i>	Small Reedgrass				SH	1	45.1 ± 6.0	NS

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

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622	Cameron, E. 2008. Canadian Gypsum Co. survey 2007-08. Conestoga-Rovers & Assoc., 623 recs.
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561	Wildlife Division. 2021. <i>Fraxinus nigra</i> records assembled to define and model habitat. Nova Scotia Department of Natural Resources and Renewables.
526	Belliveau, A.G. 2020. E.C. Smith Herbarium and Atlantic Canada Conservation Data Centre Fieldwork 2019, 2020. E.C. Smith Herbarium.
518	Newell, R.E. 2000. E.C. Smith Herbarium Database. Acadia University, Wolfville NS, 7139 recs.
474	Clayden, S. Digitization of Wolfgang Maass Nova Scotia forest lichen collections, 1964-2004. New Brunswick Museum. 2018.
441	Newell, R.E. 2005. E.C. Smith Digital Herbarium. E.C. Smith Herbarium, Irving Biodiversity Collection, Acadia University, Web site: http://luxor.acadiau.ca/library/Herbarium/project/ . 582 recs.
406	Scott, F.W. 2002. Nova Scotia Herpetofauna Atlas Database. Acadia University, Wolfville NS, 8856 recs.
401	McNeil, J.A. 2010. Ribbonsnake (<i>Thamnophis sauritus</i>) sightings, 1900-2009. Parks Canada, 2521 recs of 716+ individuals.
398	Brazner, John. 2022. Clearcut Transect Study. Nova Scotia Department of Natural Resources and Renewables Wildlife Division.
364	McNeil, J.A. 2019. Blanding's Turtle records, 2017. Mersey Tobeatic Research Institute, 372 recs.
363	Benjamin, L.K. (compiler). 2012. Significant Habitat & Species Database. Nova Scotia Dept Natural Resources, 4965 recs.
342	Belliveau, A.G. 2018. Atlantic Canada Conservation Data Centre Fieldwork 2017. Atlantic Canada Conservation Data Centre.
319	Hicks, Andrew. 2009. Coastal Waterfowl Surveys Database, 2000-08. Canadian Wildlife Service, Sackville, 46488 recs (11149 non-zero).
316	Toms, Brad. 2011. Atlantic Coastal Plain Flora records 2010. Mersey-Tobiatic Research Institute, 1074 recs.
311	Churchill, J.L. 2022. Atlantic Canada Conservation Data Centre Fieldwork 2022. Atlantic Canada Conservation Data Centre.
309	Blaney, C.S.; Mazerolle, D.M.; Oberndorfer, E. 2007. Fieldwork 2007. Atlantic Canada Conservation Data Centre. Sackville NB, 13770 recs.
303	Churchill, J.L. 2018. Atlantic Canada Conservation Data Centre Fieldwork 2018. Atlantic Canada Conservation Data Centre, 907 recs.
300	McNeil, Jeffie. 2022. Wood Turtle GPS Tracking data, 2021. Mersey Tobeatic Research Institute.
300	Pronych, G. & Wilson, A. 1993. Atlas of Rare Vascular Plants in Nova Scotia. Nova Scotia Museum, Halifax NS, I:1-168, II:169-331. 1446 recs.
278	McNeil, J.A. 2018. Blanding's Turtle records, 2018. Mersey Tobeatic Research Institute, 372 recs.
277	Amirault, D.L. & Stewart, J. 2007. Piping Plover Database 1894-2006. Canadian Wildlife Service, Sackville, 3344 recs, 1228 new.
268	Neily, T.H. & Pepper, C.; Toms, B. 2018. Nova Scotia lichen database [as of 2018-03]. Mersey Tobeatic Research Institute.
252	Klymko, J. 2018. Maritimes Butterfly Atlas database. Atlantic Canada Conservation Data Centre.
239	Toms, B. 2018. Bat Species data from www.batconservation.ca for Nova Scotia. Mersey Tobeatic Research Institute, 547 Records.
234	Hill, N.M. 1994. Status report on the Long's bulrush <i>Scirpus longii</i> in Canada. Committee on the Status of Endangered Wildlife in Canada, 7 recs.
210	eBird. 2014. eBird Basic Dataset. Version: EBD_relNov-2014. Ithaca, New York. Nov 2014. Cornell Lab of Ornithology, 25036 recs.
209	Brazner, J. 2016. Nova Scotia Forested Wetland Bird Surveys. Nova Scotia Department of Lands and Forestry.
209	McNeil, J.A. 2015. Blandings Turtle (<i>Emydoidea blandingii</i>), Eastern Ribbonsnake (<i>Thamnophis sauritus</i>), and Snapping Turtle (<i>Chelydra serpentina</i>) sightings, 2015. Mersey Tobeatic Research Institute.
201	Munro, Marian K. Tracked lichen specimens, Nova Scotia Provincial Museum of Natural History Herbarium. Atlantic Canada Conservation Data Centre. 2019.
178	Hagerman, Christianne. 2022. Wisqoq and Eastern White Cedar field work. E.C. Smith Herbarium, Acadia University.
172	McNeil, J.A. 2019. Blanding's Turtle records, 2019. Mersey Tobeatic Research Institute.
169	Staicer, C. 2021. Additional compiled Nova Scotia Species at Risk bird records, 2005-2020. Dalhousie University.
167	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2013.
159	Belliveau, A.G. 2021. E.C. Smith Herbarium and Atlantic Canada Conservation Data Centre Fieldwork 2021. E.C. Smith Herbarium.
159	Manthorne, A. 2014. MaritimesSwiftwatch Project database 2013-2014. Bird Studies Canada, Sackville NB, 326 recs.
158	Brunelle, P.-M. (compiler). 2009. ADIP/MDDS Odonata Database: data to 2006 inclusive. Atlantic Dragonfly Inventory Program (ADIP), 24200 recs.
156	Gallop, John. 2023. Species at Risk and Species of Conservation Interest records. McCallum Environmental.
153	Blaney, C.S.; Mazerolle, D.M.; Hill, N.M. 2011. Nova Scotia Crown Share Land Legacy Trust Fieldwork. Atlantic Canada Conservation Data Centre, 5022 recs.
151	Belliveau, A.G. 2018. E.C. Smith Herbarium and Atlantic Canada Conservation Data Centre Fieldwork 2018. E.C. Smith Herbarium, 6226 recs.
145	McNeil, Jeffie. 2023. 2022 Turtle Records. Mersey Tobeatic Research Institute.
144	Bryson, I.C. 2020. Nova Scotia flora and lichen observations 2020. Nova Scotia Environment, 139 recs.
143	e-Butterfly. 2016. Export of Maritimes records and photos. Maxim Larrivee, Sambo Zhang (ed.) e-butterfly.org.
140	Cameron, R.P. 2009. Cyanolichens database. Nova Scotia Environment & Labour, 1724 recs.
140	McNeil, J.A. 2019. Eastern Painted Turtle trapping records, 2019. Mersey Tobeatic Research Institute.
131	Berrigan, L. 2019. Maritimes Marsh Monitoring Project 2013, 2014, 2016, 2017, and 2018 data. Bird Studies Canada, Sackville, NB.

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129	Keddy, C.J. 1989. Habitat securement for redroot, golden crest and Long's bulrush in Ponhook Lake, NS. World Wildlife Fund (Canada), 131 recs.
129	Staicer, Cindy. 2023. 2022 SAR Bird ARU occurrences. Dalhousie University, 379 records.
128	Pepper, C. 2013. 2013 rare bird and plant observations in Nova Scotia. , 181 records.
127	MacDonald, Haley. 2022. Updates to <i>Fraxinus nigra</i> observations on NCC Docherty's Brook property. Nature Conservancy of Canada.
125	Toms, Brad & Pepper, Chris; Neily, Tom. 2022. Nova Scotia lichen database [as of 2022-04]. Mersey Tobeatic Research Institute.
124	Blaney, C.S.; Mazerolle, D.M. 2008. Fieldwork 2008. Atlantic Canada Conservation Data Centre. Sackville NB, 13343 recs.
124	Blaney, C.S.; Mazerolle, D.M. 2011. Fieldwork 2011. Atlantic Canada Conservation Data Centre. Sackville NB.
122	Chapman-Lam, C.J. 2021. Atlantic Canada Conservation Data Centre 2020 botanical fieldwork. Atlantic Canada Conservation Data Centre, 17309 recs.
122	iNaturalist. 2018. iNaturalist Data Export 2018. iNaturalist.org and iNaturalist.ca, Web site: 11700 recs.
121	Blaney, C.S. 2000. Fieldwork 2000. Atlantic Canada Conservation Data Centre. Sackville NB, 1265 recs.
120	McNeil, J.A. 2018. Wood Turtle records, 2018. Mersey Tobeatic Research Institute, 68 recs.
115	McNeil, Jeffie. 2022. 2021 Turtle Records. Mersey Tobeatic Research Institute.
114	Staicer, Cindy. 2022. 2021 Landbird Species at Risk observations. Dalhousie University.
112	e-Butterfly. 2019. Export of Maritimes records and photos. McFarland, K. (ed.) e-butterfly.org.
106	McNeil, J.A. 2014. Blandings Turtle (<i>Emydoidea blandingii</i>) and Snapping Turtle (<i>Chelydra serpentina</i>) sightings, 2014. Mersey Tobeatic Research Institute.
106	Richardson, Leif. 2018. Maritimes Bombus records from various sources. Richardson, Leif.
102	Wilhelm, S.I. et al. 2011. Colonial Waterbird Database. Canadian Wildlife Service, Sackville, 2698 sites, 9718 recs (8192 obs).
101	Birds Canada. 2022. Maritimes Swiftwatch project data for 2022. Pers. comm., 155 records.
101	Chapman, C.J. 2018. Atlantic Canada Conservation Data Centre botanical fieldwork 2018. Atlantic Canada Conservation Data Centre, 11171 recs.
100	Hubley, Nicole. 2022. Monarch (<i>Danaus plexippus</i>) records submitted to MTRI from the 2021 field season. Mersey Tobeatic Research Institute.
99	Churchill, J.L. 2019. Atlantic Canada Conservation Data Centre Fieldwork 2019. Atlantic Canada Conservation Data Centre.
99	Mazerolle, D.M. 2017. Atlantic Canada Conservation Data Centre Fieldwork 2017. Atlantic Canada Conservation Data Centre.
96	Belliveau, A.G. & Churchill, J.L.; Anderson, F.; Brooks, F. 2023. Lichen Inventory of Blue Rocks, NS. E.C. Smith Herbarium.
96	Belliveau, A.G. 2014. Plant Records from Southern and Central Nova Scotia. Atlantic Canada Conservation Data Centre, 919 recs.
95	Breen, A. 2019. 2019 Atlantic Whitefish observations. Coastal Action, 95 recs.
95	Staicer, Cindy. 2023. 2022 SAR Bird field occurrences from the Landbirds at Risk Project, NS. Dalhousie University, 446 records.
94	Blaney, C.S.; Mazerolle, D.M. 2009. Fieldwork 2009. Atlantic Canada Conservation Data Centre. Sackville NB, 13395 recs.
94	Layberry, R.A. & Hall, P.W., LaFontaine, J.D. 1998. The Butterflies of Canada. University of Toronto Press. 280 pp+plates.
94	Nussey, Pat & NCC staff. 2019. AEI tracked species records, 2016-2019. Chapman, C.J. (ed.) Atlantic Canada Conservation Data Centre, 333.
93	Nature Conservancy of Canada. 2022. NCC Field data for Nova Scotia. Nature Conservancy of Canada.
91	McNeil, J.A. 2020. Blanding's Turtle records, 2020. Mersey Tobeatic Research Institute.
88	LaPaix, R.W.; Crowell, M.J.; MacDonald, M. 2011. Stantec rare plant records, 2010-11. Stantec Consulting, 334 recs.
88	Neily, T.H. & Pepper, C.; Toms, B. 2013. Nova Scotia lichen location database. Mersey Tobeatic Research Institute, 1301 records.
87	NatureServe Canada. 2019. iNaturalist Maritimes Butterfly Records. iNaturalist.org and iNaturalist.ca.
87	Roland, A.E. & Smith, E.C. 1969. The Flora of Nova Scotia, 1st Ed. Nova Scotia Museum, Halifax, 743pp.
87	Zinck, M. & Roland, A.E. 1998. Roland's Flora of Nova Scotia. Nova Scotia Museum, 3rd ed., rev. M. Zinck; 2 Vol., 1297 pp.
86	Belland, R.J. Maritimes moss records from various herbarium databases. 2014.
85	Westwood, A., Staicer, C. 2016. Nova Scotia landbird Species at Risk observations. Dalhousie University.
83	Stewart, J.I. 2010. Peregrine Falcon Surveys in New Brunswick, 2002-09. Canadian Wildlife Service, Sackville, 58 recs.
78	McNeil, J.A. 2019. Eastern Painted Turtle trapping records, 2017. Mersey Tobeatic Research Institute.
76	Blaney, C.S. & Spicer, C.D.; Popma, T.M.; Basquill, S.P. 2003. Vascular Plant Surveys of Northumberland Strait Rivers & Amherst Area Peatlands. Nova Scotia Museum Research Grant, 501 recs.
76	Blaney, C.S. 2020. Sean Blaney 2020 field data. Atlantic Canada Conservation Data Centre, 4407 records.
75	McNeil, J.A. 2020. Snapping Turtle and Eastern Painted Turtle records, 2020. Mersey Tobeatic Research Institute.
73	Bryson, I. 2020. Nova Scotia and Newfoundland rare species observations, 2018-2020. Nova Scotia Environment.
63	iNaturalist. 2020. iNaturalist butterfly records selected for the Maritimes Butterfly Atlas. iNaturalist.
63	Klymko, John. 2022. Atlantic Canada Conservation Data Centre zoological fieldwork 2021. Atlantic Canada Conservation Data Centre.
63	Staicer, C. & Bliss, S.; Achenbach, L. 2017. Occurrences of tracked breeding birds in forested wetlands. , 303 records.
57	Belliveau, A.G. 2016. Atlantic Canada Conservation Data Centre Fieldwork 2016. Atlantic Canada Conservation Data Centre, 10695 recs.
57	McNeil, Jeffie. 2023. Ribbonsnake records from 2022. Mersey Tobeatic Research Institute.
55	Belliveau, A. 2013. Rare species records from Nova Scotia. Mersey Tobeatic Research Institute, 296 records. 296 recs.
55	Chapman, C.J. 2019. Atlantic Canada Conservation Data Centre 2019 botanical fieldwork. Atlantic Canada Conservation Data Centre, 11729 recs.
55	LaPaix, R.W.; Crowell, M.J.; MacDonald, M.; Neily, T.D.; Quinn, G. 2017. Stantec Nova Scotia rare plant records, 2012-2016. Stantec Consulting.
54	Feltham, Carter. 2022. Monarch (<i>Danaus plexippus</i>) and Milkweed MTRI records from the 2022 Field Season. Mersey Tobeatic Research Institute.
53	Churchill, J.L. 2020. Atlantic Canada Conservation Data Centre Fieldwork 2020. Atlantic Canada Conservation Data Centre, 1083 recs.
52	Belliveau, A.G., Churchill, J.L. 2019. Compilation of flora and fauna observation records from Isle Haute, Nova Scotia. Acadia University; Atlantic Canada Conservation Data Centre, 522 recs.
52	McNeil, J.A. 2019. Snapping Turtle records, 2019. Mersey Tobeatic Research Institute.
52	Mersey Tobeatic Research Institute. 2021. 2020 Monarch records from the MTRI monitoring program. Mersey Tobeatic Research Institute, 72 records.
51	Churchill, J.L.; Klymko, J.D. 2015. Chignecto and Tintamarre National Wildlife Area Bird Surveys 2015. Atlantic Canada Conservation Data Centre, 2238 recs.
51	Neily, T.H. 2019. Tom Neily NS Bryophyte records (2009-2013). T.H. Neily, Atlantic Canada Conservation Data Centre, 1029 specimen records.

# recs	CITATION
50	Cameron, R.P. 2011. Lichen observations, 2011. Nova Scotia Environment & Labour, 731 recs.
48	Benjamin, L.K. (compiler). 2001. Significant Habitat & Species Database. Nova Scotia Dept of Natural Resources, 15 spp, 224 recs.
44	Blaney, C.S.; Spicer, C.D.; Rothfels, C. 2004. Fieldwork 2004. Atlantic Canada Conservation Data Centre. Sackville NB, 1343 recs.
44	McLean, K. 2019. Wood Turtle observations . Clean Annapolis River Project.
43	Amirault, D.L. & McKnight, J. 2003. Piping Plover Database 1991-2003. Canadian Wildlife Service, Sackville, unpublished data. 7 recs.
43	Hall, R.A. 2001. S. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 178 recs.
43	Hall, R.A. 2003. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 189 recs.
41	Blaney, C.S.; Spicer, C.D.; Popma, T.M.; Hanel, C. 2002. Fieldwork 2002. Atlantic Canada Conservation Data Centre. Sackville NB, 2252 recs.
40	Cameron, E. 2007. Canadian Gypsum Co. survey 2005-07. Dillon Consulting Ltd, 40 recs.
40	MacDonald, E.C. 2018. Piping Plover nest records from 2010-2017. Canadian Wildlife Service.
40	Neily, T.H. 2017. Nova Scotia lichen records. Mersey Tobeatic Research Institute.
39	Bayne, D.M. 2007. Atlantic Coastal Plain Flora record, 2004-06. Nova Scotia Nature Trust. Pers. comm. to C.S. Blaney, 57 recs.
39	Mazerolle, D.M. 2018. Atlantic Canada Conservation Data Centre botanical fieldwork 2018. Atlantic Canada Conservation Data Centre, 13515 recs.
38	Tranquilla, L. 2015. Maritimes Marsh Monitoring Project 2015 data. Bird Studies Canada, Sackville NB, 5062 recs.
37	Bryson, I. 2013. Nova Scotia rare plant records. CBCL Ltd., 180 records.
37	Newell, R.E. 2019. Crocanthemum canadense records compiled for provincial status report. pers. comm. from Ruth Newell to AC CDC.
37	Tsehtik, M.; Leblanc, M.; Creaser, T. 2020. Coastal Action: 2020 Species at Risk Data. Coastal Action, 40 records.
36	Brazner, John; MacKinnon, Frances. 2020. Relative conservation value of Nova Scotia's forests: forested wetlands as avian biodiversity hotspots. Canadian Journal of Forest Research, 50(12): 1307-1322. dx.doi.org/10.1139/cjfr-2020-0101.
36	Churchill, J.L. 2018. Atlantic Canada Conservation Data Centre Fieldwork 2017. Atlantic Canada Conservation Data Centre, 2318 recs.
34	LaPaix, Rich. 2022. Rare species observations, 2018-2022. Nova Scotia Nature Trust.
33	Blaney, C.S. 2018. Atlantic Canada Conservation Data Centre Fieldwork 2018. Atlantic Canada Conservation Data Centre.
33	Klymko, J.J.D.; Robinson, S.L. 2012. 2012 field data. Atlantic Canada Conservation Data Centre, 447 recs.
33	Ogden, J. NS DNR Butterfly Collection Dataset. Nova Scotia Department of Natural Resources. 2014.
32	Atlantic Canada Conservation Data Centre. 2020. Cape LaHave Island observations from August 2020. Atlantic Canada Conservation Data Centre, 605 records.
32	Blaney, C.S.; Spicer, C.D. 2001. Fieldwork 2001. Atlantic Canada Conservation Data Centre. Sackville NB, 981 recs.
32	Cameron, R.P. 2009. Erioderma pedicellatum database, 1979-2008. Dept Environment & Labour, 103 recs.
32	McNeil, Jeffie. 2022. Ribbonsnake records, 2021. Mersey Tobeatic Research Institute.
31	Cameron, R.P. 2018. Degelia plumbea records. Nova Scotia Environment.
31	Porter, C.J.M. 2014. Field work data 2007-2014. Nova Scotia Nature Trust, 96 recs.
30	Ferguson, D.C. 1954. The Lepidoptera of Nova Scotia. Part I, macrolepidoptera. Proceedings of the Nova Scotian Institute of Science, 23(3), 161-375.
29	Chapman-Lam, C.J. 2022. Atlantic Canada Conservation Data Centre 2021 botanical fieldwork. Atlantic Canada Conservation Data Centre, 15099 recs.
29	Wallace, S. 2020. Stewardship Department species occurrence data on NTNB preserves. Nature Trust of New Brunswick.
28	Richardson, D., Anderson, F., Cameron, R, McMullin, T., Clayden, S. 2014. Field Work Report on Black Foam Lichen (Anzia colpodetes). COSEWIC.
27	Pepper, Chris. 2012. Observations of breeding Canada Warbler's along the Eastern Shore, NS. Pers. comm. to S. Blaney, Jan. 20, 28 recs.
26	Canadian Wildlife Service, Dartmouth. 2010. Piping Plover censuses 2007-09, 304 recs.
26	Frittaion, C. 2012. NSNT 2012 Field Observations. Nova Scotia Nature Trust, Pers comm. to S. Blaney Feb. 7, 34 recs.
26	Manthorne, A. 2019. Incidental aerial insectivore observations. Birds Canada.
26	McLean, K. 2020. Species occurrence records from Clean Annapolis River Project fieldwork in 2020. Clean Annapolis River Project, 206 records.
26	McLean, K. 2020. Wood Turtle observations . Clean Annapolis River Project.
26	Neily, T.H. 2013. Email communication to Sean Blaney regarding <i>Listera australis</i> observations made from 2007 to 2011 in Nova Scotia. , 50.
26	Porter, Caitlin. 2021. Field data for 2020 in various locations across the Maritimes. Atlantic Canada Conservation Data Centre, 3977 records.
25	Benjamin, L.K. 2011. NSDNR fieldwork & consultant reports 1997, 2009-10. Nova Scotia Dept Natural Resources, 85 recs.
25	MacDonald, E.C. 2018. CWS Piping Plover Census, 2010-2017. Canadian Wildlife Service, 672 recs.
25	McNeil, J.A. 2017. Updates to Blanding's Turtle database, 1984-2014. Mersey Tobeatic Research Institute.
24	Belliveau, A.G. 2021. New Black ash site records near Kentville, NS. Acadia University, 47 records.
24	Blaney, C.S. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre. Sackville NB, 1042 recs.
24	Haughian, Sean. 2021. Update to lichen data from 2017-2021. Nova Scotia Museum.
22	Breen, A. 2018. 2018 Atlantic Whitefish observations. Coastal Action.
22	Klymko, J.J.D. 2018. 2017 field data. Atlantic Canada Conservation Data Centre.
22	Neily, T.H. & Pepper, C.; Toms, B. 2020. Nova Scotia lichen database [as of 2020-03-18]. Mersey Tobeatic Research Institute.
22	Nelly, T.H. 2006. <i>Cyrtopodium arietinum</i> in Hants Co. Pers. comm. to C.S. Blaney. 22 recs, 22 recs.
22	Nova Scotia Nature Trust. 2013. Nova Scotia Nature Trust 2013 Species records. Nova Scotia Nature Trust, 95 recs.
22	NS DNR. 2017. Black Ash records from NS DNR Permanent Sample Plots (PSPs), 1965-2016. NS Dept of Natural Resources.
21	MacKinnon, D.S. & O'Brien, M.K.H.; Cameron, R.P. 2002. Fieldwork 2000. Dept of Environment & Labour, Protected Areas Branch, 252 recs.
21	Ogden, K. Nova Scotia Museum butterfly specimen database. Nova Scotia Museum. 2017.
19	McNeil, J.A. 2019. Snapping Turtle records, 2017. Mersey Tobeatic Research Institute.
19	Powell, B.C. 1967. Female sexual cycles of <i>Chrysemy spicta</i> & <i>Clemmys insculpta</i> in Nova Scotia. Can. Field-Nat., 81:134-139. 26 recs.
19	Richardson, D., Anderson, F., Cameron, R, Pepper, C., Clayden, S. 2015. Field Work Report on the Wrinkled Shingle lichen (<i>Pannaria lurida</i>). COSEWIC.

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19	Robinson, S.L. 2014. 2013 Field Data. Atlantic Canada Conservation Data Centre.
18	Basquill, S.; Sam, D. 2019. Crocanthemum canadense observations near Greenwood, NS, 2015-2019. pers. commun. from Nova Scotia Department of Lands and Forestry to AC CDC, 18 recs.
18	Cameron, R.P. 2014. 2013-14 rare species field data. Nova Scotia Department of Environment, 35 recs.
18	McNeil, J.A. 2017. Eastern Ribbonsnake (Thamnophis sauritus) sightings, 2017. Mersey Tobeatic Research Institute, 36 recs.
17	Anderson, Frances; Neily, Tom. 2010. A Reconnaissance Level Survey of Calciphilous Lichens in Selected Karst Topography in Nova Scotia with Notes on Incidental Bryophytes. Mersey Tobeatic Research Institute.
17	Benjamin, L.K. 2012. NSDNR fieldwork & consultant reports 2008-2012. Nova Scotia Dept Natural Resources, 196 recs.
17	Blaney, C.S.; Mazerolle, D.M.; Klymko, J; Spicer, C.D. 2006. Fieldwork 2006. Atlantic Canada Conservation Data Centre. Sackville NB, 8399 recs.
17	Blaney, C.S.; Korol, J.B.; Crowell, I. 2023. 2022 AC CDC Botany program field data. Atlantic Canada Conservation Data Centre, 5293 records.
17	Cameron, R.P. 2013. 2013 rare species field data. Nova Scotia Department of Environment, 71 recs.
17	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2014.
17	Neily, T.H. 2010. Erioderma pedicellatum records 2005-09. Mersey Tobiatic Research Institute, 67 recs.
17	Patrick, Allison. 2021. Animal and plant records from NCC properties from 2019 and 2020. Nature Conservancy Canada.
16	McMullin, R.T. 2022. Maritimes lichen records. Canadian Museum of Nature.
16	McNeil, J.A. 2011. Ribbonsnake (Thamnophis sauritus) sightings, 2010. Parks Canada, 148 recs of 70+ individuals.
16	Basquill, S.P. 2011 vascular plant field data. Nova Scotia Department of Natural Resources, 37 recs.
15	Basquill, S.P., Porter, C. 2019. Bryophyte and lichen specimens submitted to the E.C. Smith Herbarium. NS Department of Lands and Forestry.
15	Klymko, J.J.D. 2012. Odonata specimens & observations, 2010. Atlantic Canada Conservation Data Centre, 425 recs.
15	Neily, T.H. & Pepper, C.; Toms, B. 2020. Nova Scotia lichen database [as of 2020-05-25]. Mersey Tobeatic Research Institute, 668 recs.
14	e-Butterfly. 2018. Selected Maritimes butterfly records from 2016 and 2017. Maxim Larrivee, Sambo Zhang (ed.) e-butterfly.org.
13	Adams, J. & Herman, T.B. 1998. Thesis, Unpublished map of C. insculpta sightings. Acadia University, Wolfville NS, 88 recs.
13	Goltz, J.P. & Bishop, G. 2005. Confidential supplement to Status Report on Prototype Quillwort (Isoetes prototypus). Committee on the Status of Endangered Wildlife in Canada, 111 recs.
13	Holder, M. 2003. Assessment and update status report on the Eastern Lilaepsis (Lilaepsis chinensis) in Canada. Committee on the Status of Endangered Wildlife in Canada, 16 recs.
13	MacKinnon, D.S. 1998. Ponhook Lake survey map & notes. Dept of Environment and Labour, Protected Areas Branch, 13 recs.
13	McNeil, J.A. 2013. Ribbonsnake (Thamnophis sauritus) sightings, 2012. Parks Canada, 63 records of 26+ individuals.
13	Nova Scotia Nature Trust. 2014. Ladyslipper records from Saint Croix Nova Scotia, JLC Ed. Nova Scotia Nature Trust.
13	Oldham, M.J. 2000. Oldham database records from Maritime provinces. Oldham, M.J.; ONHIC, 487 recs.
13	Wilhelm, S.I. et al. 2019. Colonial Waterbird Database. Canadian Wildlife Service.
12	Basquill, S.P. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre, Sackville NB, 69 recs.
12	Basquill, S.P. 2012. 2012 rare vascular plant field data. Nova Scotia Department of Natural Resources, 37 recs.
12	Benjamin, L.K. 2009. NSDNR Fieldwork & Consultants Reports. Nova Scotia Dept Natural Resources, 143 recs.
12	Brunelle, P.-M. (compiler). 2010. ADIP/MDDS Odonata Database: NB, NS Update 1900-09. Atlatic Dragonfly Inventory Program (ADIP), 935 recs.
12	Downes, C. 1998-2000. Breeding Bird Survey Data. Canadian Wildlife Service, Ottawa, 111 recs.
12	Hill, N.M. 2021. Observation of Carex haydenii and black ash near Marshy Hope and Ponhook Lake. pers. comm.
12	Klymko, J.J.D.; Robinson, S.L. 2014. 2013 field data. Atlantic Canada Conservation Data Centre.
11	Archibald, D.R. 2003. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 213 recs.
11	Gilhen, J. 1984. Amphibians & Reptiles of Nova Scotia, 1st Ed. Nova Scotia Museum, 164pp.
11	McLean, K. 2019. Species At Risk observations. Clean Annapolis River Project.
11	McNeil, J.A. 2018. Snapping Turtle records, 2018. Mersey Tobeatic Research Institute.
10	Belliveau, A.G. & Vail, Cole; King, Katie. 2020. New Allium tricoccum locations, Cornwallis River. Chapman, C.J. (ed.) Acadia University.
10	Bredin, K.A. 2002. NS Freshwater Mussel Fieldwork. Atlantic Canada Conservation Data Centere, 30 recs.
10	Churchill, J.L.; Walker, J. 2017. Species at Risk Surveys at Correctional Services Canada Properties in Nova Scotia and New Brunswick. Atlantic Canada Conservation Data Centre.
10	Clayden, S.R. 2005. Confidential supplement to Status Report on Ghost Antler Lichen (Pseudevernia cladonia). Committee on the Status of Endangered Wildlife in Canada, 27 recs.
10	Neily, T. H. 2018. Lichen and Bryophyte records, AEI 2017-2018. Tom Neily; Atlantic Canada Conservation Data Centre.
10	Phinney, Lori; Toms, Brad; et. al. 2016. Bank Swallows (Riparia riparia) in Nova Scotia: inventory and assessment of colonies. Merser Tobeiatc Research Institute, 25 recs.
9	Benjamin, L.K. 2006. Cyripedium arietinum. Pers. comm. to D. Mazerolle. 9 recs, 9 recs.
9	Cameron, R.P. 2006. Erioderma pedicellatum 2006 field data. NS Dept of Environment, 9 recs.
9	Cameron, R.P. 2017. 2017 rare species field data. Nova Scotia Environment, 64 recs.
9	Edsall, J. 2007. Personal Butterfly Collection: specimens collected in the Canadian Maritimes, 1961-2007. J. Edsall, unpubl. report, 137 recs.
9	Hauglian, S.R. 2018. Description of Fuscopannaria leucosticta field work in 2017. New Brunswick Museum, 314 recs.
9	Sollows, M.C., 2008. NBM Science Collections databases: mammals. New Brunswick Museum, Saint John NB, download Jan. 2008, 4983 recs.
8	Chapman, C.N. (Cody). 2020. Nova Scotia Black Ash (Fraxinus nigra) field observations by Confederacy of Mainland Mi'kmaq. Forestry Program, Confederacy of Mainland Mi'kmaq.
8	Herman, T.B. & Power, T.D., Eaton, B. 1995. Population status of Blanding's Turtle (Emydoidea blandingii) in Nova Scotia. Can. Field-Nat., 109: 182-191. 79 recs.
8	Holder, M.L.; Kingsley, A.L. 2000. Kinglsey and Holder observations from 2000 field work.
8	King, Katie; Jean, Samuel. 2021. Black ash observations near Booklyn, NS. E.C. Smith Herbarium.
8	Klymko, J. Butterfly records at the Nova Scotia Museum not yet accessioned by the museum. Atlantic Canada Conservation Data Centre. 2017.
8	Neily, T.H. & Anderson, F. 2011. Lichen observations from NRC site at Sandy Cove. , 97.
8	Phinney, L. 2019. Little Brown Myotis maternal colony counts and birdSAR, 2019. Mersey Tobeatic Research Institute.
8	Pohl, G.P. Specimen data from Northern Forest Research Centre. Northern Forest Research Centre. 2022.
8	Webster, R.P. Atlantic Forestry Centre Insect Collection, Maritimes butterfly records. Natural Resources Canada. 2014.

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8	White, S. 2019. Notable species sightings, 2018. East Coast Aquatics.
7	Basquill, S.P. 2009. 2009 field observations. Nova Scotia Dept of Natural Resources.
7	Benedict, B. Connell Herbarium Specimens (Data) . University New Brunswick, Fredericton. 2003.
7	Boyne, A.W. & Grecian, V.D. 1999. Tern Surveys. Canadian Wildlife Service, Sackville, unpublished data. 23 recs.
7	Cameron, B. 2006. Hepatica americana Survey at Scotia Mine Site in Gays River, and Discovery of Three Yellow-listed Species. Conestoga-Rovers and Associates, (a consulting firm), october 25. 7 recs.
7	Chaput, G. 2002. Atlantic Salmon: Maritime Provinces Overview for 2001. Dept of Fisheries & Oceans, Atlantic Region, Science Stock Status Report D3-14. 39 recs.
7	Clayden, S.R. 1998. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, 19759 recs.
7	Olsen, R. Herbarium Specimens. Nova Scotia Agricultural College, Truro. 2003.
7	Pepper, C. 2021. Rare bird, plant and mammal observations in Nova Scotia, 2017-2021.
7	Toms, Brad. 2011. Species at Risk data from 2011 field surveys. Mersey Tobeatic Research Institute, 17 recs.
6	Benjamin, L.K. 2009. Boreal Felt Lichen, Mountain Avens, Orchid and other recent records. Nova Scotia Dept Natural Resources, 105 recs.
6	Brazner, J.; Hill, N. 2018. Plant observations along the Cornwallis River, Nova Scotia. Nova Scotia Department of Lands and Forestry.
6	Canadian National Collection of Insects Arachnids, and Nematodes Bombus specimen database export. Government of Canada. 2022.
6	Christie, D.S. 2000. Christmas Bird Count Data, 1997-2000. Nature NB, 54 recs.
6	Hall, R. 2008. Rare plant records in old fieldbook notes from Truro area. Pers. comm. to C.S. Blaney. 6 recs, 6 recs.
6	Hughes, Cory. 2020. Atlantic Forestry Centre Coccinella transversoguttata collections. Canadian Forest Service, Atlantic Forestry Centre.
6	Matthew Smith. 2010. Field trip report from Avon Caving Club outlining the discovery of Cypripedium arietinum and Hepatica nobilis populations. Public Works and Government Services Canada.
6	Mazerolle, D.M. 2020. Atlantic Canada Conservation Data Centre botanical fieldwork 2019. Atlantic Canada Conservation Data Centre.
6	McKendry, Karen. 2016. Rare species observations, 2016. Nova Scotia Nature Trust, 19 recs.
6	Neily, T.H. Tom Neily NS Sphagnum records (2009-2014). T.H. Neily, Atlantic Canada Conservation Data Centre. 2019.
6	Nova Scotia Nature Trust. 2022. Ram's Head Lady Slipper observations from 2015 and 2019. , 6 records.
5	Cameron, R.P. 2012. Additional rare plant records, 2009. , 7 recs.
5	Carter, Jeff; Churchill, J.; Churchill, I.; Churchill, L. 2020. Bank Swallow colony Scots Bay, NS. Atlantic Canada Conservation Data Centre.
5	Nature Trust of New Brunswick. 2022. Nature Trust of New Brunswick 2022 staff and volunteer observations of species occurrence data. Nature Trust of New Brunswick.
5	Porter, K. 2013. 2013 rare and non-rare vascular plant field data. St. Mary's University, 57 recs.
5	Rock, J. 2020. Atlantic Canada Piping Plover field surveys: Nesting pairs by beach, 2018-2020. Environment and Climate Change Canada - Canadian Wildlife Service, 216 records.
5	Towell, C. 2014. 2014 Northern Goshawk and Common Nighthawk email reports, NS. NS Department of Natural Resources.
5	Walker, J. 2017. Bird inventories at French River, NS, and Memramcook, NB, for Nature Conservancy of Canada. Pers. comm. to AC CDC.
5	Whittam, R.M. 1999. Status Report on the Roseate Tern (update) in Canada. Committee on the Status of Endangered Wildlife in Canada, 36 recs.
4	Bagnell, B.A. 2001. New Brunswick Bryophyte Occurrences. B&B Botanical, Sussex, 478 recs.
4	Benedict, B. Connell Herbarium Specimen Database Download 2004. Connell Memorial Herbarium, University of New Brunswick. 2004.
4	Cameron, R.P. 2009. Nova Scotia nonvascular plant observations, 1995-2007. Nova Scotia Dept Natural Resources, 27 recs.
4	Clayden, S.R. 2007. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, download Mar. 2007, 6914 recs.
4	Cody, W.J. 2003. Nova Scotia specimens of Equisetum pratense at the DAO herbarium in Ottawa. , Pers. comm. to C.S. Blaney. 4 recs.
4	Forsythe, B. 2006. Cypripedium arietinum at Meadow Pond, Hants Co. Pers. comm. to C.S. Blaney. 4 recs, 4 recs.
4	Hennigar, Briana; Gow, Jonas. 2023. Bank Swallow Nesting Site in Waterville. The Jijuktu'kwejk Watershed Alliance.
4	Klymko, J. 2021. Atlantic Canada Conservation Data Centre zoological fieldwork 2020. Atlantic Canada Conservation Data Centre.
4	Klymko, J. Dataset of butterfly records at the New Brunswick Museum not yet accessioned by the museum. Atlantic Canada Conservation Data Centre. 2016.
4	Klymko, J.J.D. 2011. Insect fieldwork & submissions, 2010. Atlantic Canada Conservation Data Centre. Sackville NB, 742 recs.
4	Mazerolle, D.M. 2016. Atlantic Canada Conservation Data Centre Fieldwork 2017. Atlantic Canada Conservation Data Centre.
4	McMullin, Troy. 2021. Anzia colpodens observations near Kejimikujik National Park. Canadian Museum of Nature.
4	Mills, Pamela. 2007. Iva frutescens records. Nova Scotia Dept of Natural Resources, Wildlife Div. Pers. comm. to S. Basquill, 4 recs.
4	Newell, R. & Neily, T.; Toms, B.; Proulx, G. et al. 2011. NCC Properties Fieldwork in NS: August-September 2010. Nature Conservancy Canada, 106 recs.
4	Parker, M.S.R. 2011. Hampton Wind Farm 2010: significant floral/faunal observations. , 13 recs.
4	Sabine, D.L. Bombus terricola specimens in Dwayne Sabine's personal collection. pers. comm. 2022.
4	Toms, B. 2015. Lophiola aurea (Goldencrest) records from Molega Lake. Mersey Tobeatic Research Institute, 4 records.
4	Toms, B. 2016. Email list of four GPS locations of Golden Crest (Lophiola aurea) from the previously documented site on Molega Lake, NS. Mersey Tobeatic Research Institute, 4 records.
3	Amiro, Peter G. 1998. Atlantic Salmon: Inner Bay of Fundy SFA 22 & part of SFA 23. Dept of Fisheries & Oceans, Atlantic Region, Science Stock Status Report D3-12. 4 recs.
3	Bateman, M.C. 2001. Coastal Waterfowl Surveys Database, 1965-2001. Canadian Wildlife Service, Sackville, 667 recs.
3	Bradford, R. 2004. Coregonus huntsmani locations. Dept of Fisheries & Oceans, Atlantic Region, Pers. comm. to K. Bredin. 4 recs.
3	Cameron, R.P. 2005. Erioderma pedicellatum unpublished data. NS Dept of Environment, 9 recs.
3	Cameron, R.P. 2012. Rob Cameron 2012 vascular plant data. NS Department of Environment, 30 recs.
3	Catling, P.M. 1981. Taxonomy of autumn-flowering Spiranthes species of southern Nova Scotia in Can. J. Bot. , 59:1250-1273. 30 recs.
3	Chapman, Cody. Unreported Species at Risk Records across Nova Scotia. Chapman, Cody, 5 records.
3	Doubt, J. 2013. Email to Sean Blaney with Nova Scotia records of Fissidens exilis at Canadian Museum of Nature. pers. comm. , 3 records.
3	Hill, N. and D. Patriquin. 2013. 2013 rare plant observations in Williams Lake Backlands area. Fern Hill Institute of Plant Conservation, Berwick, Nova Scotia, 3 records.
3	Hill, N.M., Myra, M. 2017. Email to Sean Blaney regarding rich intervale flora on Nictaux River. Fern Hill Institute, 3 records.
3	Mersey Tobeatic Research Institute. 2022. Nova Scotia Bobolink observations. pers. comm. to J. Churchill.
3	Nature Trust of New Brunswick. 2021. Nature Trust of New Brunswick site inventory data submitted in April 2021. Nature Trust of New Brunswick, 2189 records.

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3	Newington, Nina. 2023. <i>Anzia colpodes</i> at Beal's Brook, NS. Pers. comm. to J. Churchill.
3	Nova Scotia Department of Lands and Forestry. 2018. Wood Turtle observations in, or near, the cornwallis River watershed. NS DLF, pers. comm. to AC CDC.
3	Parker, M. 2016. Wood turtle (<i>Glyptemys insculpta</i>) Visual Surveys at Black, Wallace, Musquodobit and Sackville Rivers, Nova Scotia. East Coast Aquatics Inc., 3 records.
3	Plissner, J.H. & Haig, S.M. 1997. 1996 International piping plover census. US Geological Survey, Corvallis OR, 231 pp.
3	Sabine, M. 2016. NB DNR staff incidental Black Ash observations. New Brunswick Department of Natural Resources.
3	Sollows, M.C. 2009. NBM Science Collections databases: molluscs. New Brunswick Museum, Saint John NB, download Jan. 2009, 6951 recs (2957 in Atlantic Canada).
3	Standley, L.A. 2002. <i>Carex haydenii</i> in Nova Scotia. , Pers. comm. to C.S. Blaney. 4 recs.
3	Thompson, R. 2018. Williamsdale Quarry Expansion Project, NS, Environmental Assessment rare plants. Dexter Construction Company Limited.
3	White, S. 2018. Notable species sightings, 2016-2017. East Coast Aquatics.
2	Basquill, S.P. 2011. Field observations & specimen collections, 2010. Nova Scotia Department of Natural Resources, Pers. comm. , 8 Recs.
2	Basquill, S.P. 2018. Various specimens, NS DNR field work. NS Department of Natural Resources, 10.
2	Belliveau, A. 2013. email to Sean Blaney regarding <i>Listera australis</i> observations in SW Nova Scotia. Mersey Tobeatic Research Institute, 8.
2	Belliveau, A.G. E.C. Smith Herbarium Specimen Database 2019. E.C. Smith Herbarium, Acadia University. 2019.
2	Benedict, B. Connell Herbarium Specimens. University New Brunswick, Fredericton. 2003.
2	Blaney, C.S. 1999. Fieldwork 1999. Atlantic Canada Conservation Data Centre. Sackville NB, 292 recs.
2	Blaney, C.S. 2017. Atlantic Canada Conservation Data Centre Fieldwork 2017. Atlantic Canada Conservation Data Centre.
2	Blaney, C.S. 2019. Sean Blaney 2019 field data. Atlantic Canada Conservation Data Centre, 4407 records.
2	COSEWIC (Committee on the Status of Wildlife in Canada). 2013. COSEWIC Assessment and Status Report on the Eastern Waterflea <i>Peltigera hydrothryia</i> in Canada. COSEWIC, 46 pp.
2	Gilhen, J., Jones, A., McNeil, J., Tanner, A.W. 2012. A Significant Range Extension for the Eastern Ribbonsnake, <i>Thamnophis sauritus</i> , in Nova Scotia, Canada. The Canadian Field-Naturalist, 126(3): 231-233.
2	Heron, J. 2022. <i>Bombus</i> records communicated to J. Klymko over email in autumn 2022. Pers. comm.
2	Hill, N.M. 2013. email communications to Sean Blaney and David Mazerolle regarding the discovery of <i>Listera australis</i> populations at Black River Lake and Middlewood. , 2.
2	Hill, N.M. 2019. Observation of <i>Crocianthemum canadense</i> near Auburn, Annapolis Co. NS on May 29, 2019. Fern Hill Institute, 2 recs.
2	Hunsinger, J. 2021. Species at Risk records from Medway Community Forest Cooperative monitoring plots and baited game cameras, 2019-2020. Medway Community Forest Cooperative, 16 records.
2	iNaturalist.ca. 2022. iNaturalist records 2022. iNaturalist.ca (ed.) iNaturalist.org; iNaturalist.ca, Web site: 3 recs.
2	Kennedy, B. & Cron, C.; Patriquin, D. 2018. Email to Sean Blaney on observations of <i>Trichostema dichotomum</i> at Shingle Lake, Nova Scotia. , 2 records.
2	Klymko, J. 2019. Atlantic Canada Conservation Data Centre zoological fieldwork 2018. Atlantic Canada Conservation Data Centre.
2	Klymko, J.J.D. 2010. Miscellaneous observations reported to ACCDC (zoology). Pers. comm. from various persons, 3 recs.
2	Klymko, J.J.D. 2012. Insect fieldwork & submissions, 2011. Atlantic Canada Conservation Data Centre. Sackville NB, 760 recs.
2	Klymko, J.J.D. 2016. 2015 field data. Atlantic Canada Conservation Data Centre.
2	LaPaix, R.; Parker, M. 2013. email to Sean Blaney regarding <i>Listera australis</i> observations near Kearney Lake. East Coast Aquatics, 2.
2	Lock, A.R., Brown, R.G.B. & Gerriets, S.H. 1994. Gazetteer of Marine Birds in Atlantic Canada. Canadian Wildlife Service, Atlantic Region, 137 pp.
2	Macaulay, M. Notes on newly discovered <i>Hepatica nobilis</i> var. <i>obtusa</i> population in Cumberland Co. NS. Pers. comm. to S. Blaney, 1 rec.
2	Manning, I. 2020. Peregrine Falcon nest site observations. pers. comm. to J. Churchill.
2	Mazerolle, David. 2021. Botanical fieldwork 2019-20200. Parks Canada.
2	McAlpine, D.F. 1998. NBM Science Collections databases to 1998. New Brunswick Museum, Saint John NB, 241 recs.
2	Munro, M. 2003. <i>Caulophyllum thalictroides</i> & <i>Carex hirtifolia</i> at Herbert River, Brooklyn, NS. , Pers. comm. to C.S. Blaney. 2 recs.
2	Munro, M. 2003. <i>Dirca palustris</i> & <i>Hepatica nobilis</i> var. <i>obtusa</i> at Cogmagun River, NS. , Pers. comm. to C.S. Blaney . 2 recs.
2	Neily, T.H. & Pepper, C. 2020. Nova Scotia SMP lichen surveys 2020. Mersey Tobeatic Research Institute.
2	Neily, T.H. & Pepper, C.; Toms, B. 2015. Nova Scotia lichen location database [as of 2015-02-15]. Mersey Tobeatic Research Institute, 1691 records.
2	Neily, T.H.; Smith, C.; Whitman, E. 2011. NCC Logging Lake (Halifax Co. NS) properties baseline survey data. Nature Conservancy of Canada, 2 recs.
2	Newell, R. E., MacKinnon, C. M. & Kennedy, A. C. 2006. Botanical Survey of Boot Island National Wildlife Area, Nova Scotia, 2004. Canadian Wildlife Service, Atlantic Region, Technical Report Series Number 450. 3 recs.
2	Newell, R.E. 2006. Rare plant observations in Digby Neck. Pers. comm. to S. Blaney, 6 recs.
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.
2	Parker, M. 2018. East Coast Aquatics ACCDC 2018 Report. East Coast Aquatics, 12 records.
2	Popma, T.M. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre. Sackville NB, 113 recs.
2	Shafer, A.B.A., D.T. Stewart. 2006. A Disjunct Population of <i>Sorex dispar</i> (Long-Tailed Shrew) in Nova Scotia. Northeastern Naturalist, 13(4): 603-608.
2	Sheffield, C.S. 2004. The Rare Cleptoparasitic Bee <i>Epeoloides pilosula</i> (Hymenoptera: Apoidea: Apidae) Discovered in Nova Scotia, Canada, with Distributional Notes
2	Toms, Brad. 2022. Non-Lichen Observations from Lichen SMP and NCC Property Searches. Mersey Tobeatic Research Institute.
1	Allan Smith. 2011. Cedar stand location at South Williamston. Abitibi Bowater, 1 Rec.
1	Amirault, D.L. 2003. 2003 Peregrine Falcon Survey. Canadian Wildlife Service, Sackville, unpublished data. 7 recs.
1	Amirault, D.L. 2005. 2005 Peregrine Falcon Survey. Canadian Wildlife Service, Sackville, unpublished data. 27 recs.
1	Amiro, Peter G. 1998. Atlantic Salmon: Southern Nova Scotia SFA 21. Dept of Fisheries & Oceans, Atlantic Region, Science. Stock Status Report D3-11. 1 rec.
1	Anderson, Frances. 2022. <i>Heterodermia squamulosa</i> record near Lunenburg, NS. pers. comm.
1	Anon. Dataset of butterfly records for the Maritime provinces. Museum of Comparative Zoology, Harvard University. 2017.
1	Austin-Smith, P. 2014. 2014 Common Nighthawk personal communication report, NS. NS Department of Natural Resources.
1	Basquill, S. P. 2008. Nova Scotia Dept of Natural Resources.
1	Basquill, S.P. 2004. <i>C. americana</i> and <i>Sedum</i> sp records, 2002. Pers. comm. to C.S. Blaney. 2 recs, 2 recs.
1	Basquill, S.P. 2012. 2012 Bryophyte specimen data. Nova Scotia Department of Natural Resources, 37 recs.

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1	Basquill, S.P.; Quigley, E. 2006. New <i>Minuartia groenlandica</i> record for NS. Pers. comm. to C.S. Blaney, Oct 6, 1 rec.
1	Basset, I.J. & Crompton, C.W. 1978. The Genus <i>Suaeda</i> (Chenopodiaceae) in Canada. <i>Canadian Journal of Botany</i> , 56: 581-591.
1	Belliveau, A. & Toms, B. 2012. Email regarding <i>Lophiola aurea</i> (Goldencrest) location on Molega Lake, NS. Mersey Tobeatic Research Institute, 3 records.
1	Belliveau, A.G. 2020. Email to Colin Chapman on new NS locations for <i>Allium tricoccum</i> . Chapman, C.J. (ed.) Acadia University.
1	Benjamin, L.K. 2003. <i>Cyrtopodium arietinum</i> in Cogmagun River NS. Pers. comm. to S. Blaney, 1 rec.
1	Berg, L. 2020. Canada Warbler observations, Birch Lake, NS. pers. comm. to J. Churchill.
1	Blaney, C.S. Miscellaneous specimens received by ACCDC (botany). Various persons. 2001-08.
1	Brach, A.R. 2019. Correspondence to Sean Blaney regarding <i>Calamagrostis cinnoides</i> specimen from Halifax NS. pers. comm., Harvard University Herbaria, 1 record.
1	Breen, A. 2017. 2017 Atlantic Whitefish observation. Coastal Action.
1	Brooks, Fiona. <i>Erioderma mollissimum</i> records in Lunenburg County, NS. Pers. comm., 2 records.
1	Bruce, J. 2014. 2014 Wood Turtle email report, Nine Mile River, NS. NS Department of Natural Resources.
1	Brunton, Dan. 2022. Record of <i>Isoetes</i> prototypus near Sand Lake, NS. pers. comm.
1	Clayden, S.R. 2006. <i>Pseudevernia cladonia</i> records. NB Museum. Pers. comm. to S. Blaney, Dec, 4 recs.
1	Clayden, S.R. 2020. Email to Sean Blaney regarding <i>Pilophorus cereus</i> and <i>P. fibula</i> at Fidele Lake area, Charlotte County, NB. pers. comm., 2 records.
1	Cook, K. 2016. Wood Turtle record. Pers. comm. to Nova Scotia Department of Lands and Forestry.
1	Creaser, Alissa & Belliveau, Alain <i>Bombus</i> specimens collected in Wolfville, Nova Scotia, in July 2022. E.C. Smith Herbarium. 2022.
1	Crowell, A. 2004. <i>Cyrtopodium arietinum</i> in Weir Brook, Hants Co. Pers. comm. to S. Blaney, 1 rec.
1	Crowell, M. 2013. email to Sean Blaney regarding <i>Listera australis</i> at Bear Head and Mill Cove Canadian Forces Station. Jacques Whitford Environmental Ltd., 2.
1	Crowell, M.J. Plant specimens from Nictaux, NS sent to Sean Blaney for identification. Jacques Whitford Limited. 2005.
1	deGooyer, K. 2018. <i>Chelydra serpentina</i> observation record. Nova Scotia Environment.
1	deGooyer, K. 2019. Snapping Turtle and Eastern White Cedar observations. Nova Scotia Environment.
1	Docherty, Joanne. 2022. Phone call to John Klymko about <i>Danaus plexippus</i> observation in Nova Scotia. Personal communication.
1	Eastman, A. 2019. Snapping Turtle observation at Brookfield, Colchester Co. NS. Halifax Field Naturalists Nova Scotia Nature Archive Facebook Page, 1 record.
1	Edge, Thomas A. 1984. Status report on the Atlantic Whitefish (<i>Coregonus huntsmani</i>). Committee on the Status of Endangered Wildlife in Canada.
1	Golder Associates Ltd. 2021. Black Ash location from Goff's Quarry Expansion Environment Assessment, 2017. Golder Associates Ltd., 1 record.
1	Hill, N. 2014. 2014 Monarch email report, Bridgetown, NS. Fern Hill Institute for Plant Conservation.
1	Hill, N.; Manning, I. 2020. Wild Leek observation, Cornwallis River, NS, floodplain. pers. comm. to J. Churchill.
1	Honeyman, K. 2019. Unique Areas Database, 2018. J.D. Irving Ltd.
1	Horace Moulant. 2022. Monarch observation in Wilmot, Nova Scotia. Personal communication, 1 record.
1	Jacques Whitford Ltd. 2003. Cananda Lily location. Pers. Comm. to S. Blaney. 2pp, 1 rec, 1 rec.
1	Kennedy, Joseph. 2010. New Brunswick Peregrine records, 2009. New Brunswick Dept Natural Resources, 19 recs (14 active).
1	Klymko, J.J.D. 2012. Insect field work & submissions. Atlantic Canada Conservation Data Centre, 852 recs.
1	Lautenschlager, R.A. 2010. Miscellaneous observations reported to ACCDC (zoology). Pers. comm. from various persons, 2 recs.
1	Macauley, M. 2008. Email to Sean Blaney regarding rich hardwood floodplain site at Howards Pool, Wallace River, NS.
1	MacKinnon, D.; Wright, P.; Smith, D. 2014. 2014 Common Tern email report, Eastern Passage, NS. NS Department of Environment.
1	MacKinnon, D.S. 2002. Fieldwork 2002. Dept of Environment & Labour, Protected Areas Branch, 1 rec.
1	MacKinnon, D.S. 2012. <i>Goodyera pubescens</i> observation, photo. Pers. comm. to S. Blaney, Sep 18, 1 rec.
1	Majka, C.G. & McCorquodale, D.B. 2006. The <i>Coccinellidae</i> (Coleoptera) of the Maritime Provinces of Canada: new records, biogeographic notes, and conservation concerns. <i>Zootaxa</i> . <i>Zootaxa</i> , 1154: 49–68. 7 recs.
1	Manning, I. 2020. Peregrine Falcon observation. Pers. comm. to J.L. Churchill.
1	McAlpine, D.F. New Brunswick Museum bee specimens. New Brunswick Museum. 2013.
1	NatureServe Canada. 2018. iNaturalist Butterfly Data Export . iNaturalist.org and iNaturalist.ca.
1	Neily, P.D. Plant Specimens. Nova Scotia Dept Natural Resources, Truro. 2006.
1	Neily, T.H. 2004. <i>Hepatica nobilis</i> var. <i>obtusata</i> record for Falmouth NS. Pers. comm. to C.S. Blaney, 1 rec.
1	Neily, T.H. 2012. 2012 <i>Erioderma pedicellatum</i> records in Nova Scotia.
1	New Brunswick Department of Natural Resources and Energy Development. 2023. Wood turtle records from 2016-2021. New Brunswick Department of Natural Resources and Energy Development, 637 records.
1	Newell, R.E. 2004. <i>Hepatica nobilis</i> var. <i>obtusata</i> record. Pers. comm. to S. Blaney, 1 rec.
1	Niel, K. & Majka, C. 2008. New Records of Tiger Beetles (Coleoptera: Carabidae: Cicindelinae) in Nova Scotia. <i>Journal of the Acadian Entomological Society</i> , 4: 3-6.
1	O'Neil, S. 1998. Atlantic Salmon: Eastern Shore Nova Scotia SFA 20. Dept of Fisheries & Oceans, Atlantic Region, Science. Stock Status Report D3-10. 4 recs.
1	Parks Canada. 2010. Specimens in or near National Parks in Atlantic Canada. Canadian National Museum, 3925 recs.
1	Payzant, P. 2018. <i>Satyr Comma</i> record from Bible Hill, NS. https://novascotiabutterflies.ca .
1	Riley, J. 2019. Digby County lichen observations. Pers. comm. to J.L. Churchill, 50 recs.
1	Robicheau, C. 2019. Atlantic Canada Conservation Data Centre Fieldwork 2019. Atlantic Canada Conservation Data Centre.
1	Scott, F.W. 1988. Status Report on the Southern Flying Squirrel (<i>Glaucomys volans</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada, 2 recs.
1	Shortt, R. UNB specimen data for various tracked species formerly considered secure. Connell Memorial Herbarium, UNB, Fredericton NB. 2019.
1	Skevington, Jeffrey H. 2020. Syrphid records used for the Field Guide to the Flower Flies of Northeastern North America. Canadian National Collection of Insects.
1	Sollows, M.C.. 2009. NBM Science Collections databases: Coccinellid & Cerambycid Beetles. New Brunswick Museum, Saint John NB, download Feb. 2009, 569 recs.
1	Sollows, M.C. 2008. NBM Science Collections databases: herpetiles. New Brunswick Museum, Saint John NB, download Jan. 2008, 8636 recs.
1	Spicer, C.D. & Harries, H. 2001. Mount Allison Herbarium Specimens. Mount Allison University, 128 recs.
1	Stewart, P. 2013. email to Sean Blaney regarding the discovery of a <i>Listera australis</i> population at Blockhouse. Envirosphere Consultants Limited, 1.

# recs	CITATION
1	Thomas, A.W. 1996. A preliminary atlas of the butterflies of New Brunswick. New Brunswick Museum.
1	Timmons, M. 2019. Telephone report of <i>Polygala polygama</i> at Aylesford Mountain, Kings Co., NS by Megan Timmons to C.S. Blaney. . 1 record.
1	Tims, J. & Craig, N. 1995. Environmentally Significant Areas in New Brunswick (NBESA). NB Dept of Environment & Nature Trust of New Brunswick Inc, 6042 recs. https://doi.org/10.1037/arc0000014 .
1	Tingley, S. (compiler). 2001. Butterflies of New Brunswick. , Web site: www.geocities.com/Yosemite/8425/buttrfly . 142 recs.
1	Williams, M. Cape Breton University Digital Herbarium. Cape Breton University Digital Herbarium. 2013.
1	Wilson, G. 2013. 2013 Snapping Turtle email report, Wentworth, NS. Pers. comm.

APPENDIX E

NOVA SCOTIA MUSEUM REPORT

HERITAGE AND BIOLOGICAL RESOURCES



**Communities, Culture,
Tourism & Heritage**

Tel: (902) 424-6475
Fax: (902) 424-0560

1741 Brunswick Street
3rd Floor
P.O. Box 456
Halifax, NS
B3J 2R5

June 2, 2023

Heather Levy
Envirosphere Consultants Limited
PO 2906 Unit 5 - 120 Morison Drive
Windsor, Nova Scotia
B0N 2T0

Dear Heather Levy:

RE: Environmental Screening 2023_05_15_Envirosphere_Hartville Quarry

Further to your request of May 15, 2023, staff at Communities, Culture, Tourism and Heritage have reviewed their files for reference to the presence of natural and heritage resources in the study area. Please be aware that the information is not comprehensive and may include varying degrees of accuracy with respect to the precise location and condition of natural and heritage resources.

It should be noted that the amount and degree of disturbance from previous developments could have a significant role in establishing the presence, absence or condition of natural and heritage resources in this area.

Archaeology

Given that there are no recorded archaeological sites in the general vicinity, nor are there any within the proposed development area, significant hydrology is distant and both quarries are previously existing, I do not think archaeological oversight is necessary.

Botany

No staff were available to review at this time.

Palaeontology

The bedrock geology at this location is Cambrian age Goldenville Formation. The likelihood of significant fossils being found in the Goldenville is low, but if any potential fossils are observed during quarry operations the museum can be consulted.

Zoology

It is recommended that the Maritime Breeding Bird Atlas be consulted to up-to date information on bird species that have been observed in the project area and immediate vicinity. The following species have been reported to potentially use the project area for breeding activities:

Common Name	Scientific name	Breeding Evidence?	Provincial Status	Federal Status
Bobolink	<i>Dolichonyx oryzivorus</i>	Confirmed	Vulnerable	Threatened
Canada Warbler	<i>Cardellina canadensis</i>	Possible	Endangered	Threatened
Chimney Swift	<i>Chaetura pelagica</i>	Possible	Endangered	Threatened
Common Nighthawk	<i>Chordeiles minor</i>	Possible	threatened	Threatened
Eastern Wood-pewee	<i>Contopus virens</i>	Probable	Vulnerable	Special Concern
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Probable	Vulnerable	Special Concern
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Probable	Threatened	Threatened
Wood Thrush	<i>Hylocichla mustelina</i>	Possible		Threatened

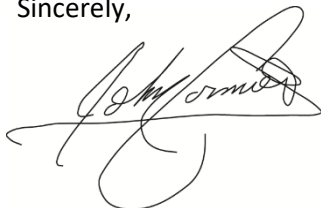
The little brown bat (*Myotis lucifugus*), the Northern myotis (*Myotis septentrionalis*), and the tri-coloured bat (*Perimyotis subflavus*) are known to inhabit much of Nova Scotia. These species are listed as endangered both provincially and federally. There are no known records for the specific project area, but there are records for the region. There are also known hibernation sites in the immediate vicinity of the project area (within 50km).

Note that the endangered Monarch butterfly (*Danaus plexippus*), which is considered endangered provincially and of special concern federally, has been observed in the region. This species relies on wild milkweed (*Asclepias* spp.), which is also present in the area, for laying eggs and as a larval food source.

There have been several sightings of snapping turtle (*Chelydra serpentina*) in region of the project area. This species is considered vulnerable provincially and of special concern federally.

If you have any questions, please contact John.cormier@novascotia.ca

Sincerely,



John Cormier
Coordinator, Special Places

APPENDIX F

LABORATORY RESULTS

TSS & pH

Envirosphere Consultants Limited

Unit 5—120 Morison Drive, Box 2906, Windsor, Nova Scotia, B0N 2T0

ph: (902) 798-4022, fax: (902) 798-2614, e-mail: enviroco@ns.sympatico.ca, website: www.envirosphere.ca

Environmental Sample Analysis Report

Report Number: A1006

Lab Number: L2023-22

Envirosphere Consultants Ltd

Unit 5 - 120 Morison Drive

Windsor, NS | B0N 2T0

Report Date: July 20, 2023

Sample ID	Location	Site	Sample Material	Date Received	Date Analyzed	TSS (mg/L)	Type of Sample	Detection Limit	Sample Comments
20200	Wetland 1, Site 1	W1S1	surface water	Jul 14 2023	Jul 15 2023	99.5	REG	0.5 mg/L	Organic matter present
20201	Wetland 1, Site 2	W1S2	surface water	Jul 14 2023	Jul 15 2023	31.5	REG	0.5 mg/L	Organic matter present
20202	Stream Sample 1	SW-1	surface water	Jul 14 2023	Jul 15 2023	3.5	REG	0.5 mg/L	Organic matter present
20202 (dup)	Stream Sample 1	SW-1	surface water	Jul 14 2023	Jul 15 2023	3.0	DUP	0.5 mg/L	Organic matter present
Blank			dH2O	Jul 14 2023	Jul 15 2023	<0.5	BLANK	0.5 mg/L	
CRM			CRM	Jul 14 2023	Jul 15 2023	210.0	STD	0.5 mg/L	CRM = 209mg/L

Name of Analyst: A Burgess Analyses reviewed by: [Signature] Director / Lab Manager (Circle one)

This laboratory applies standard practice in conformance with ISO/IEC 17025:2017, "General Requirements for the Competence of Testing and Calibration Laboratories".

Validation Range: 1-1000 mg/L. The results in this report relate only to the items tested. More information is available upon request.

The quality of the results is dependent on the quality of sample provided.

Samples for TSS analysis should be kept cool until delivery to the lab unless they are analyzed immediately. A minimum sample volume of 500 ml is preferred. Place sample in a clean plastic container free of cracks or contamination. Fill the bottle to the top and then cap. Samples should reach the lab within 24 hours of sampling, but will be accepted up to 7 days.

Methods: Modified from Standard Methods for the Examination of Water and Wastewater 23rd Edition, 2017 and online version. 2540D. Total Suspended Solids. ECL method 3, Total Suspended Solids.

Type of Sample: REG = regular; STD = standard; DUP = duplicate; CRM = certified reference material.

Sample Comments: BDL = Below Detection limit; QR = Qualified result; NR = No result, damaged or insufficient sample; MAC = Maximum Allowable Concentration.

Envirosphere Consultants Limited

Unit 5—120 Morison Drive, Box 2906, Windsor, Nova Scotia, B0N 2T0

ph: (902) 798-4022, fax: (902) 798-2614, e-mail: enviroco@ns.sympatico.ca, website: www.envirosphere.ca

Environmental Sample Analysis Report

Report Number: A1005

Lab Number: 20200-20202

Envirosphere Consultants Ltd
Unit 5 - 120 Morison Drive
Windsor, NS | B0N 2T0

Report Date: July 14, 2023

Sample ID	Location	Site	Sample Material	Date Received	Date Analyzed	pH	Type of Sample	Detection Limit	Sample Comments
20200	Wetland 1, Site 1	W1S1	surface water	Jul 14 2023	Jul 14 2023	5.7	REG	0.1	
20201	Wetland 1, Site 2	W1S2	surface water	Jul 14 2023	Jul 14 2023	6.2	REG	0.1	
20202	Stream Sample 1	SW-1	surface water	Jul 14 2023	Jul 14 2023	5.9	REG	0.1	
20202 (dup)	Stream Sample 1	SW-1	surface water	Jul 14 2023	Jul 14 2023	5.9	DUP	0.1	
CRM			CRM	Jul 14 2023	Jul 14 2023	7.0	STD	0.1	CRM = 7.00 (ECL 863)

Name of Analyst: 

Analyses reviewed by: 

Director / Lab Manager (circle one)

This laboratory applies standard practice in conformance with ISO/IEC 17025:2017, "General Requirements for the Competence of Testing and Calibration Laboratories".

Validation Range: 3-10 units The results in this report relate only to the items tested. More information is available upon request.

The quality of the results is dependent on the quality of sample provided.

Comment: Samples for pH should be kept cool until delivery to the lab unless the samples are analyzed immediately. Preferably samples should be analyzed within 24 hours. Hach manual recommends filling bottle completely and capping tightly; cooling to 4°C for storage and analyzing within 6 hours. If this can't be done, Hach manual recommends reporting the holding time with results.

Method: Standard Methods for the Examination of Water and Wastewater 23rd Edition, 2017 and online version., 4500-HB. Electrometric measurement of pH. ECL Method 8, pH.

Type of Sample: REG = regular; STD = standard; DUP = duplicate; CRM = certified reference material.

Sample Comments: BDL = Below Detection limit; QR = Qualified result; NR = No result, damaged or insufficient sample; MAC = Maximum Allowable Concentration.

APPENDIX G

SURVEY OF WATERCOURSE

EAST OF EXPANSION AREA

Hartville Quarry Site Visit Report

A site visit of the Alva Quarry near Hartville, NS was conducted on March 15, 2024 by Sean Timpa (M.Sc. Geol) and Kyra Scott (B.Sc. Bio) of Envirosphere Consultants Ltd. Conditions were overcast with light winds, and temperatures slightly above freezing. Water levels were above average due to recent snow melt and rainfall. The intermittent stream which drains wetlands at the site was followed in its entirety to determine its suitability for fish habitat (Figure 1). Water quality data was collected at four locations (Table 1) using a YSI Pro 2030 portable dissolved oxygen and conductivity meter.

Waypoint	Description	UTM ¹	
		Easting	Northing
543	Slowly flowing area within wetland	0419162	4976217
547	At the outflow of the wetland	0419334	4976419
551	At the bottom of 30 cm high, 4 m long cascade	0419396	4976505
575	Downstream of culvert on quarry access road	0419227	4977151

1 All UTM coordinates were taken using the WGS-84 datum, Zone 20T.

Average channel width was approximately 1 m, varying from 0.3 m to more than 10 m wide in braided, swampy sections, and the flow was above average during mid-March, a time when higher flows are expected. Water quality was generally good (Table 2), and improved significantly once it left the wetland and flow rates increased. Much of this may be attributed to the high water levels and cool temperatures. Significantly less favourable conditions are expected during low flow and summer months.

Waypoint	Water Temp (°C)	% O ₂ Saturation	Dissolved O ₂ (mg/L)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)
543	2.1	65.1	8.83	6.9	12.3
547	2.2	57.9	7.86	8.4	14.9
551	2.5	96.6	12.0	12.1	21.1
575	3.3	92.7	12.2	14.4	24.6

The stream was often braided as it passed through swamps (Figure 2) and had numerous barriers to fish passage (Figure 1) such as woody debris log jams (Figure 3), cascades (Figure 4), and waterfalls up to 1 m (Figure 5), many of which lacked pools at their base. The most

significant impediment to fish passage is a woods road constructed across the stream approximately 100 meters downstream of the culvert that passes under the quarry road. At this point the stream percolates into the gravel of the roadbed (Figure 6) and likely enters the unnamed stream that flows from Taylor Lake as subterranean flow, 10 meters away on the opposite side of the woods road. On a subsequent visit, on April 10, 2024, the culvert that passes beneath the quarry road was found to be dry during average water levels (Figure 7). No direct connection of the stream with another watercourse could be identified although the watercourse likely flows through the subsurface into the unnamed watercourse which flows from Taylor Lake (Figure 1) and eventually reaches the St. Croix River.

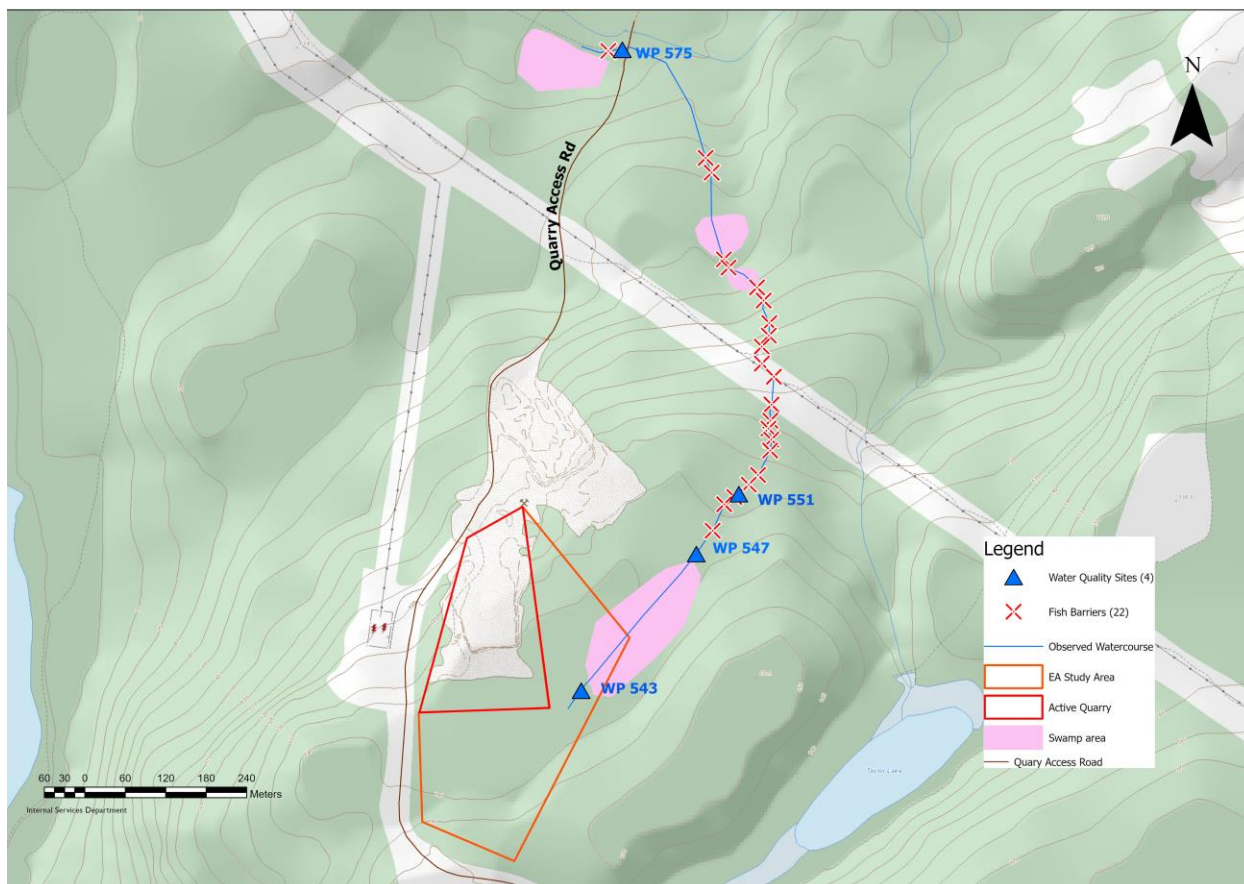


Figure 1: Topographic map showing fish barriers and water sampling locations along unnamed stream located in the vicinity of the Hartville Quarry.

The expansion will only affect a portion of the catchment area of the stream at the site, entirely due to removal of wetlands in the upper reaches of the watershed. The catchment of the stream is 29.6 ha and the portion proposed to be removed is 4.2 ha or 14.5%. Productivity associated with the woods in the surroundings of the watercourse provides a source of nutrients and organic productivity which may reach area downstream.



Figure 2. A braided section of the stream with slow, shallow flow. Photo by K. Scott, March 15, 2024.



Figure 3. A woody debris log jam in the stream. Photo by K. Scott, March 15, 2024.



Figure 4. A long stretch of cascades and waterfalls in the unnamed watercourse.
Photo by K. Scott, March 15, 2024.



Figure 5. A small waterfall in the unnamed watercourse. Photo by K. Scott, March 15, 2024.



Figure 6. Downstream end of the unnamed stream with water percolating into the gravel of the bed of the woods road. Photo by K. Scott, March 15, 2024.



Figure 7. Downstream end of culvert on the unnamed stream where it passes beneath the quarry road.
Photo by S. Timpa, April 10, 2024.