

Appendix 9 ACCDC Report



DATA REPORT 5243: Ketch Harbour, NS

Prepared 25 June 2014
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1.0 PREFACE

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

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

1.1 DATA LIST

Included datasets:

Filename	Contents
KetchHrNS_5243ob.xls	All Rare and legally protected <i>Flora and Fauna</i> within 5 km of your study area
KetchHrNS_5243ob100km.xls	A list of Rare and legally protected <i>Flora and Fauna</i> within 100 km of your study area
KetchHrNS_5243ma.xls	All <i>Managed Areas</i> in your study area
KetchHrNS_5243sa.xls	All <i>Significant Natural Areas</i> in your study area

1.2 RESTRICTIONS

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

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

1.3 ADDITIONAL INFORMATION

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

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

Plants, Lichens, Ranking Methods, All other Inquiries

Sean Blaney, Botanist, Executive Director (effective 10 June, 2014)

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James Churchill, Data Manager

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Questions on the biology of Federal Species at Risk can be directed to ACCDC: (506) 364-2657, with questions on Species at Risk regulations to: Samara Eaton, Canadian Wildlife Service (NB and PE): (506) 364-5060 or Julie McKnight, Canadian Wildlife Service (NS): (902) 426-4196.

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

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

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For provincial information about rare taxa and protected areas, or information about game animals, fish habitat etc., in Prince Edward Island, please contact Rosemary Curley, PEI Dept. of Agriculture and Forestry: (902) 368-4807.

2.0 RARE AND ENDANGERED SPECIES

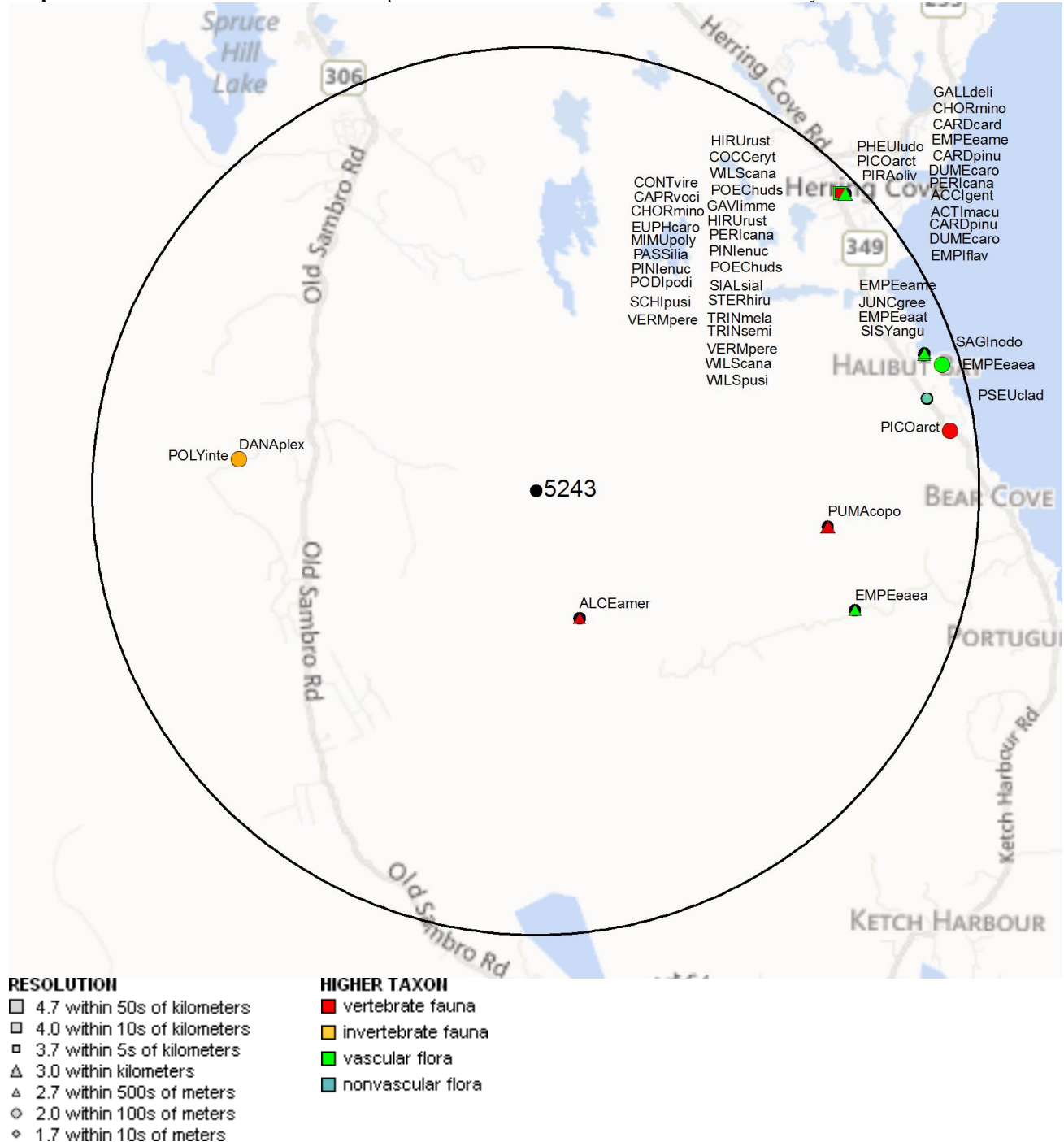
2.1 FLORA

A 5 km buffer around the study area contains 12 records of 7 vascular, 1 record of 1 nonvascular flora (Map 2 and attached: *ob.xls).

2.2 FAUNA

A 5 km buffer around the study area contains 50 records of 32 vertebrate, 3 records of 2 invertebrate fauna (Map 2 and attached data files - see 1.1 Data List). 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 5 km of the study area.



3.0 SPECIAL AREAS

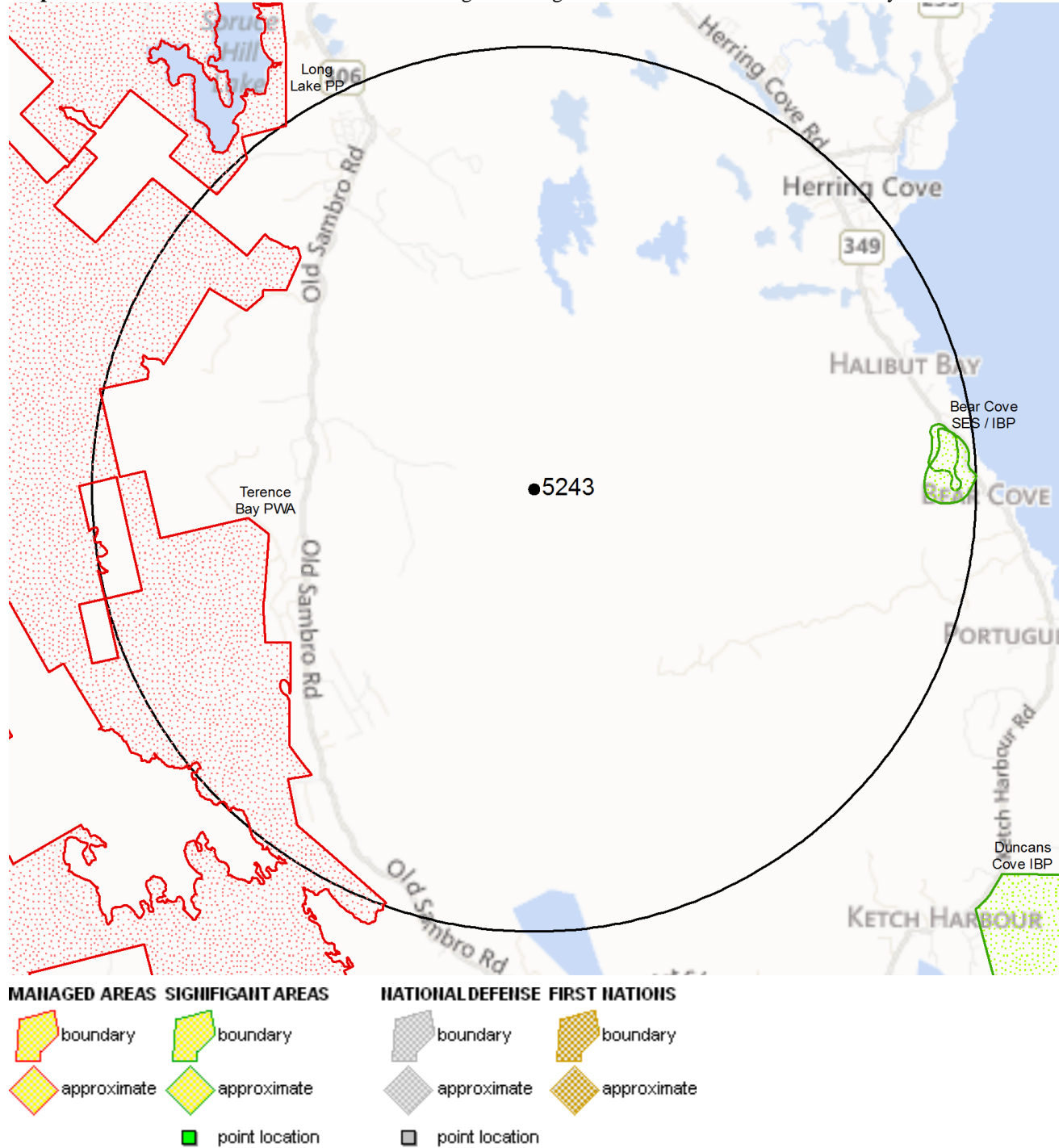
3.1 MANAGED AREAS

The GIS scan identified 2 managed areas in the vicinity of the study area (Map 3 and attached file: *ma*.xls)

3.2 SIGNIFICANT AREAS

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

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



4.0 RARE SPECIES LISTS

Rare and/or endangered taxa within the 5 km-buffered area listed in order of concern, beginning with legally listed taxa, with the number of observations per taxon and the distance in kilometers from study area centroid to the closest observation. [P] = vascular plant, [N] = nonvascular plant, [A] = vertebrate animal, [I] = invertebrate animal, [C] = community.

4.1 FLORA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
N	<i>Pseudevernia cladonia</i>	Ghost Antler Lichen	Not At Risk			S2S3	3 Sensitive	1	4.5 ± 0.01
P	<i>Juncus greenii</i>	Greene's Rush				S1S2	2 May Be At Risk	1	4.6 ± 0.5
P	<i>Sagina nodosa</i>	Knotted Pearlwort				S2S3	4 Secure	2	4.7 ± 0.5
P	<i>Empetrum eamesii</i> ssp. <i>atropurpureum</i>	Pink Crowberry				S2S3	3 Sensitive	2	4.6 ± 0.5
P	<i>Empetrum eamesii</i> ssp. <i>eamesii</i>	Pink Crowberry				S2S3	3 Sensitive	3	4.6 ± 0.5
P	<i>Empetrum eamesii</i>	Pink Crowberry				S3	3 Sensitive	2	4.8 ± 0.1
P	<i>Schizaea pusilla</i>	Little Curlygrass Fern				S3	4 Secure	1	4.8 ± 10.0
P	<i>Sisyrinchium angustifolium</i>	Narrow-leaved Blue-eyed-grass				S3S4	4 Secure	1	4.7 ± 0.5

4.2 FAUNA

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
A	<i>Caprimulgus vociferus</i>	Whip-Poor-Will	Threatened	Threatened	Threatened	S1?B	1 At Risk	1	4.8 ± 7.07
A	<i>Hirundo rustica</i>	Barn Swallow	Threatened		Endangered	S3B	1 At Risk	3	4.8 ± 7.07
A	<i>Wilsonia canadensis</i>	Canada Warbler	Threatened	Threatened	Endangered	S3B	1 At Risk	3	4.8 ± 7.07
A	<i>Chordeiles minor</i>	Common Nighthawk	Threatened	Threatened	Threatened	S3B	1 At Risk	4	4.8 ± 7.07
A	<i>Euphagus carolinus</i>	Rusty Blackbird	Special Concern	Special Concern	Endangered	S2S3B	2 May Be At Risk	1	4.8 ± 7.07
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern		Vulnerable	S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Sterna hirundo</i>	Common Tern	Not At Risk			S3B	3 Sensitive	2	4.8 ± 7.07
A	<i>Sialia sialis</i>	Eastern Bluebird	Not At Risk			S3B	3 Sensitive	1	4.8 ± 7.07
A	<i>Gavia immer</i>	Common Loon	Not At Risk			S3B,S4N	2 May Be At Risk	2	4.8 ± 7.07
A	<i>Accipiter gentilis</i>	Northern Goshawk	Not At Risk			S3S4	4 Secure	1	4.8 ± 7.07
A	<i>Puma concolor</i> pop. 1	Cougar - Eastern pop.	Data Deficient			SH	5 Undetermined	1	3.3 ± 1.0
A	<i>Alces americanus</i>	Moose			Endangered	S1	1 At Risk	1	1.5 ± 0.5
A	<i>Piranga olivacea</i>	Scarlet Tanager				S2B	5 Undetermined	1	4.8 ± 7.07
A	<i>Tringa semipalmata</i>	Willet				S2S3B	2 May Be At Risk	1	4.8 ± 7.07
A	<i>Poecile hudsonica</i>	Boreal Chickadee				S3	3 Sensitive	3	4.8 ± 7.07
A	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo				S3?B	2 May Be At Risk	1	4.8 ± 7.07
A	<i>Pinicola enucleator</i>	Pine Grosbeak				S3?B,S5N	2 May Be At Risk	2	4.8 ± 7.07
A	<i>Podilymbus podiceps</i>	Pied-billed Grebe				S3B	3 Sensitive	1	4.8 ± 7.07
A	<i>Dumetella carolinensis</i>	Gray Catbird				S3B	2 May Be At Risk	3	4.8 ± 7.07
A	<i>Mimus polyglottos</i>	Northern Mockingbird				S3B	4 Secure	1	4.8 ± 7.07
A	<i>Tringa melanoleuca</i>	Greater Yellowlegs				S3B,S5M	3 Sensitive	1	4.8 ± 7.07
A	<i>Picoides arcticus</i>	Black-backed Woodpecker				S3S4	3 Sensitive	2	4.8 ± 7.07
A	<i>Perisoreus canadensis</i>	Gray Jay				S3S4	3 Sensitive	2	4.8 ± 7.07
A	<i>Cardinalis cardinalis</i>	Northern Cardinal				S3S4	4 Secure	1	4.8 ± 7.07
A	<i>Actitis macularia</i>	Spotted Sandpiper				S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Gallinago delicata</i>	Wilson's Snipe				S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher				S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Vermivora peregrina</i>	Tennessee Warbler				S3S4B	3 Sensitive	2	4.8 ± 7.07
A	<i>Wilsonia pusilla</i>	Wilson's Warbler				S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak				S3S4B	3 Sensitive	1	4.8 ± 7.07
A	<i>Passerella iliaca</i>	Fox Sparrow				S3S4B	4 Secure	1	4.8 ± 7.07
A	<i>Carduelis pinus</i>	Pine Siskin				S3S4B,S5N	3 Sensitive	2	4.8 ± 7.07
I	<i>Danaus plexippus</i>	Monarch	Special Concern	Special Concern		S2B	3 Sensitive	1	3.4 ± 0.5

	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
1	<i>Polygonia interrogationis</i>	Question Mark				S3B	4 Secure	2	3.4 ± 0.25

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.

Nova Scotia

Scientific Name	Common Name	SARA	Prov Legal Prot	Known within 5 km of Study Site?
<i>Fraxinus nigra</i>	Black Ash		Threatened	No
<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	No
<i>Emydoidea blandingii</i>	Blanding's Turtle - Nova Scotia pop.	Endangered	Vulnerable	No
<i>Falco peregrinus pop. 1</i>	Peregrine Falcon - anatum/tundrius pop.	Special Concern	Vulnerable	No
<i>Bat Hibernaculum</i>			[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 NS Endangered Species Act.

4.4 SOURCE BIBLIOGRAPHY

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

# recs	CITATION
33	Lepage, D. 2014. Maritime Breeding Bird Atlas Database. Bird Studies Canada, Sackville NB, 400,000 recs.
15	Erskine, A.J. 1992. Maritime Breeding Bird Atlas Database. NS Museum & Nimbus Publ., Halifax, 82,125 recs.
5	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.
3	Klymko, J.J.D. 2014. Maritimes Butterfly Atlas. 2012 submissions. Atlantic Canada Conservation Data Centre, 8552 records.
3	Newell, R. E. E.C. Smith Digital Herbarium. E.C. Smith Herbarium, Irving Biodiversity Collection, Acadia University. 2013.
2	Newell, R.E. 2000. E.C. Smith Herbarium Database. Acadia University, Wolfville NS, 7139 recs.
1	Benjamin, L.K. (compiler) 2001. Significant Habitat & Species Database. Nova Scotia Dept of Natural Resources. 15 spp, 224 recs.
1	Benjamin, L.K. (compiler). 2001. Significant Habitat & Species Database. Nova Scotia Dept of Natural Resources, 15 spp, 224 recs.
1	Clayden, S.R. 2005. Confidential supplement to Status Report on Ghost Antler Lichen (<i>Pseudevernia cladonia</i>). Committee on the Status of Endangered Wildlife in Canada, 27 recs.
1	Munro, Marian K. Nova Scotia Provincial Museum of Natural History Herbarium Database. Nova Scotia Provincial Museum of Natural History, Halifax, Nova Scotia. 2013.
1	NS DOE. Protected Areas
1	NSDNR website
1	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.
1	Scott, Fred W. 1998. Updated Status Report on the Cougar (<i>Puma Concolor cougar</i>) [Eastern population]. Committee on the Status of Endangered Wildlife in Canada, 298 recs.
1	Staff, DNR 2007. Restricted & Limited Use Land Database (RLUL).

5.0 RARE SPECIES WITHIN 100 KM

A 100 km buffer around the study area contains 19608 records of 122 vertebrate and 862 records of 60 invertebrate fauna; 7089 records of 291 vascular, 343 records of 52 nonvascular flora (attached: *ob100km.xls).

Rare and/or endangered taxa within the 100 km-buffered area listed in order of concern, beginning with legally listed taxa, with the number of observations per taxon and the distance in kilometers from study area centroid to the closest observation.

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
A	<i>Coregonus huntsmani</i>	Atlantic Whitefish	Endangered	Endangered	Endangered	S1	7 Exotic	9	76.3 ± 1.0
A	<i>Myotis lucifugus</i>	Little Brown Myotis	Endangered		Endangered	S1	1 At Risk	31	27.4 ± 0.5
A	<i>Myotis septentrionalis</i>	Northern Long-eared Myotis	Endangered		Endangered	S1	1 At Risk	4	53.0 ± 0.2
A	<i>Perimyotis subflavus</i>	Eastern Pipistrelle	Endangered		Endangered	S1	1 At Risk	7	53.0 ± 0.2
A	<i>Emydoidea blandingii</i>	Blanding's Turtle - Nova Scotia pop.	Endangered	Endangered	Endangered	S1	1 At Risk	840	89.7 ± 0.01
A	<i>Morone saxatilis</i> pop. 2	Striped Bass - Bay of Fundy pop.	Endangered			S1	2 May Be At Risk	4	45.6 ± 0.5
A	<i>Charadrius melodus melodus</i>	Piping Plover melodus ssp	Endangered	Endangered	Endangered	S1B	1 At Risk	959	9.9 ± 0.5
A	<i>Sterna dougallii</i>	Roseate Tern	Endangered	Endangered	Endangered	S1B	1 At Risk	62	11.4 ± 0.15
A	<i>Dermodochelys coriacea</i> (Atlantic pop.)	Leatherback Sea Turtle - Atlantic pop.	Endangered	Endangered		S1S2N		3	35.4 ± 5.0
A	<i>Salmo salar</i> pop. 1	Atlantic Salmon - Inner Bay of Fundy pop.	Endangered	Endangered		S2	2 May Be At Risk	20	35.3 ± 0.5
A	<i>Calidris canutus rufa</i>	Red Knot rufa ssp	Endangered		Endangered	S2S3M	1 At Risk	583	14.1 ± 0.5
A	<i>Colinus virginianus</i>	Northern Bobwhite	Endangered	Endangered				6	58.9 ± 0.15
A	<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	Threatened			S1?	2 May Be At Risk	3	53.5 ± 0.5
A	<i>Caprimulgus vociferus</i>	Whip-Poor-Will	Threatened	Threatened	Threatened	S1?B	1 At Risk	12	4.8 ± 7.07
A	<i>Hylocichla mustelina</i>	Wood Thrush	Threatened			S1B	5 Undetermined	20	49.3 ± 7.07
A	<i>Sturnella magna</i>	Eastern Meadowlark	Threatened			S1B	3 Sensitive	2	37.2 ± 7.07
A	<i>Glyptemys insculpta</i>	Wood Turtle	Threatened	Threatened	Threatened	S2	3 Sensitive	125	10.9 ± 0.1
A	<i>Thamnophis sauritus</i> pop. 3	Eastern Ribbonsnake - Atlantic pop.	Threatened	Threatened	Threatened	S2S3	1 At Risk	350	80.9 ± 0.1
A	<i>Chaetura pelagica</i>	Chimney Swift	Threatened	Threatened	Endangered	S2S3B	1 At Risk	120	10.2 ± 0.15
A	<i>Hirundo rustica</i>	Barn Swallow	Threatened		Endangered	S3B	1 At Risk	623	4.8 ± 7.07
A	<i>Wilsonia canadensis</i>	Canada Warbler	Threatened	Threatened	Endangered	S3B	1 At Risk	444	4.8 ± 7.07
A	<i>Chordeiles minor</i>	Common Nighthawk	Threatened	Threatened	Threatened	S3B	1 At Risk	315	4.8 ± 7.07
A	<i>Contopus cooperi</i>	Olive-sided Flycatcher	Threatened	Threatened	Threatened	S3B	1 At Risk	411	7.4 ± 7.07
A	<i>Riparia riparia</i>	Bank Swallow	Threatened			S3B	2 May Be At Risk	236	7.5 ± 7.07
A	<i>Dolichonyx oryzivorus</i>	Bobolink	Threatened		Vulnerable	S3S4B	3 Sensitive	297	13.8 ± 7.07
A	<i>Anguilla rostrata</i>	American Eel	Threatened			S5	4 Secure	7	48.5 ± 0.5
A	<i>Falco peregrinus</i> pop. 1	Peregrine Falcon - anatum/tundrius	Special Concern	Special Concern	Vulnerable	S1B	3 Sensitive	12	27.8 ± 0.5
A	<i>Passerculus sandwichensis princeps</i>	Savannah Sparrow princeps ssp	Special Concern	Special Concern		S1B	3 Sensitive	2	22.1 ± 0.05
A	<i>Asio flammeus</i>	Short-eared Owl	Special Concern	Special Concern		S1S2	2 May Be At Risk	9	13.8 ± 7.07
A	<i>Histrionicus histrionicus</i> pop. 1	Harlequin Duck - Eastern pop.	Special Concern	Special Concern	Endangered	S2N	1 At Risk	11	14.1 ± 2.15
A	<i>Euphagus carolinus</i>	Rusty Blackbird	Special Concern	Special Concern	Endangered	S2S3B	2 May Be At Risk	165	4.8 ± 7.07
A	<i>Contopus virens</i>	Eastern Wood-Pewee	Special Concern		Vulnerable	S3S4B	3 Sensitive	431	4.8 ± 7.07
A	<i>Phocoena phocoena</i> (NW Atlantic pop.)	Harbour Porpoise - Northwest Atlantic pop.	Special Concern	Threatened		S4		4	51.8 ± 1.0
A	<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	Special Concern	Vulnerable	S5	4 Secure	93	16.1 ± 0.5
A	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper	Special Concern			SNA	8 Accidental	40	14.1 ± 0.5
A	<i>Lynx canadensis</i>	Canadian Lynx	Not At Risk		Endangered	S1	1 At Risk	2	67.3 ± 1.0
A	<i>Accipiter cooperii</i>	Cooper's Hawk	Not At Risk			S1?B,SNAN	5 Undetermined	2	24.3 ± 7.07
A	<i>Fulica americana</i>	American Coot	Not At Risk			S1B	5 Undetermined	5	73.4 ± 7.07

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
A	<i>Aegolius funereus</i>	Boreal Owl	Not At Risk			S1B	5 Undetermined	2	54.7 ± 7.07
A	<i>Glaucomys volans</i>	Southern Flying Squirrel	Not At Risk	Special Concern		S2S3	3 Sensitive	5	85.1 ± 10.0
A	<i>Globicephala melas</i>	Long-finned Pilot Whale	Not At Risk			S2S3		1	70.6 ± 100.0
A	<i>Hemidactylium scutatum</i>	Four-toed Salamander	Not At Risk			S3	4 Secure	28	7.1 ± 0.5
A	<i>Sterna hirundo</i>	Common Tern	Not At Risk			S3B	3 Sensitive	190	4.8 ± 7.07
A	<i>Sialia sialis</i>	Eastern Bluebird	Not At Risk			S3B	3 Sensitive	40	4.8 ± 7.07
A	<i>Gavia immer</i>	Common Loon	Not At Risk			S3B,S4N	2 May Be At Risk	612	4.8 ± 7.07
A	<i>Accipiter gentilis</i>	Northern Goshawk	Not At Risk			S3S4	4 Secure	88	4.8 ± 7.07
A	<i>Lagenorhynchus acutus</i>	Atlantic White-sided Dolphin	Not At Risk			S3S4		1	25.1 ± 1.0
A	<i>Puma concolor pop. 1</i>	Cougar - Eastern pop.	Data Deficient			SH	5 Undetermined	58	3.3 ± 1.0
A	<i>Martes americana</i>	American Marten			Endangered	S1	1 At Risk	1	92.2 ± 0.05
A	<i>Alces americanus</i>	Moose			Endangered	S1	1 At Risk	7	1.5 ± 0.5
A	<i>Lasiurus cinereus</i>	Hoary Bat				S1	2 May Be At Risk	2	8.0 ± 0.5
A	<i>Toxostoma rufum</i>	Brown Thrasher				S1?B	5 Undetermined	10	7.5 ± 7.07
A	<i>Vireo gilvus</i>	Warbling Vireo				S1?B	5 Undetermined	16	13.2 ± 0.15
A	<i>Tringa solitaria</i>	Solitary Sandpiper				S1?B,S4S5M	4 Secure	28	24.2 ± 0.5
A	<i>Larus delawarensis</i>	Ring-billed Gull				S1?B,S5N	4 Secure	10	27.0 ± 7.07
A	<i>Gallinula chloropus</i>	Common Moorhen				S1B	5 Undetermined	2	64.7 ± 7.07
A	<i>Cistothorus palustris</i>	Marsh Wren				S1B	5 Undetermined	2	59.5 ± 0.15
A	<i>Alca torda</i>	Razorbill				S1B,S4N	3 Sensitive	17	38.9 ± 0.5
A	<i>Fratercula arctica</i>	Atlantic Puffin				S1B,S4S5N	3 Sensitive	18	38.9 ± 0.5
A	<i>Calidris minutilla</i>	Least Sandpiper				S1B,S5M	4 Secure	1016	13.4 ± 7.07
A	<i>Passerina cyanea</i>	Indigo Bunting				S1S2B	5 Undetermined	12	45.5 ± 0.15
A	<i>Eremophila alpestris</i>	Horned Lark				S1S2B,S4N	4 Secure	6	33.5 ± 7.07
A	<i>Charadrius semipalmatus</i>	Semipalmated Plover				S1S2B,S5M	4 Secure	1384	10.2 ± 0.5
A	<i>Asio otus</i>	Long-eared Owl				S2	2 May Be At Risk	19	13.8 ± 7.07
A	<i>Salmo salar</i>	Atlantic Salmon				S2	2 May Be At Risk	27	16.2 ± 1.0
A	<i>Pekania pennanti</i>	Fisher				S2	3 Sensitive	2	68.8 ± 5.0
A	<i>Vireo philadelphicus</i>	Philadelphia Vireo				S2?B	5 Undetermined	19	14.8 ± 0.15
A	<i>Anas acuta</i>	Northern Pintail				S2B	2 May Be At Risk	17	13.8 ± 7.07
A	<i>Anas clypeata</i>	Northern Shoveler				S2B	2 May Be At Risk	7	27.0 ± 7.07
A	<i>Anas strepera</i>	Gadwall				S2B	2 May Be At Risk	19	13.8 ± 7.07
A	<i>Rallus limicola</i>	Virginia Rail				S2B	5 Undetermined	17	26.4 ± 0.15
A	<i>Empidonax traillii</i>	Willow Flycatcher				S2B	3 Sensitive	20	13.8 ± 7.07
A	<i>Myiarchus crinitus</i>	Great Crested Flycatcher				S2B	2 May Be At Risk	24	13.8 ± 7.07
A	<i>Piranga olivacea</i>	Scarlet Tanager				S2B	5 Undetermined	31	4.8 ± 7.07
A	<i>Rissa tridactyla</i>	Black-legged Kittiwake				S2B,S4S5N	3 Sensitive	7	38.9 ± 0.5
A	<i>Bucephala clangula</i>	Common Goldeneye				S2B,S5N	4 Secure	97	8.6 ± 12.5
A	<i>Cathartes aura</i>	Turkey Vulture				S2S3B	3 Sensitive	10	16.9 ± 7.07
A	<i>Tringa semipalmata</i>	Willet				S2S3B	2 May Be At Risk	1238	4.8 ± 7.07
A	<i>Poocetes gramineus</i>	Vesper Sparrow				S2S3B	2 May Be At Risk	12	33.5 ± 7.07
A	<i>Molothrus ater</i>	Brown-headed Cowbird				S2S3B	4 Secure	114	7.5 ± 7.07
A	<i>Icterus galbula</i>	Baltimore Oriole				S2S3B	2 May Be At Risk	43	13.8 ± 7.07
A	<i>Phalaropus lobatus</i>	Red-necked Phalarope				S2S3M	3 Sensitive	6	14.1 ± 0.5
A	<i>Phalaropus fulicarius</i>	Red Phalarope				S2S3M	3 Sensitive	2	14.1 ± 0.5
A	<i>Phalacrocorax carbo</i>	Great Cormorant				S3	3 Sensitive	34	8.6 ± 12.5
A	<i>Poecile hudsonica</i>	Boreal Chickadee				S3	3 Sensitive	324	4.8 ± 7.07
A	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo				S3?B	2 May Be At Risk	36	4.8 ± 7.07
A	<i>Dendroica tigrina</i>	Cape May Warbler				S3?B	3 Sensitive	66	7.4 ± 7.07
A	<i>Pinicola enucleator</i>	Pine Grosbeak				S3?B,S5N	2 May Be At Risk	98	4.8 ± 7.07
A	<i>Podilymbus podiceps</i>	Pied-billed Grebe				S3B	3 Sensitive	48	4.8 ± 7.07
A	<i>Anas discors</i>	Blue-winged Teal				S3B	2 May Be At Risk	45	13.8 ± 7.07
A	<i>Sterna paradisaea</i>	Arctic Tern				S3B	2 May Be At Risk	59	22.2 ± 0.15
A	<i>Petrochelidon pyrrhonota</i>	Cliff Swallow				S3B	2 May Be At Risk	172	7.4 ± 7.07
A	<i>Dumetella carolinensis</i>	Gray Catbird				S3B	2 May Be At Risk	282	4.8 ± 7.07
A	<i>Mimus polyglottos</i>	Northern Mockingbird				S3B	4 Secure	34	4.8 ± 7.07
A	<i>Tringa melanoleuca</i>	Greater Yellowlegs				S3B,S5M	3 Sensitive	1375	4.8 ± 7.07

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
A	<i>Mergus serrator</i>	Red-breasted Merganser				S3B,S5N	4 Secure	55	7.5 ± 7.07
A	<i>Branta bernicla</i>	Brant				S3M	3 Sensitive	1	85.1 ± 0.5
A	<i>Pluvialis dominica</i>	American Golden-Plover				S3M	3 Sensitive	218	14.1 ± 0.5
A	<i>Numenius phaeopus hudsonicus</i>	Hudsonian Whimbrel				S3M	3 Sensitive	212	14.1 ± 0.5
A	<i>Limosa haemastica</i>	Hudsonian Godwit				S3M	3 Sensitive	86	14.1 ± 0.5
A	<i>Calidris pusilla</i>	Semipalmated Sandpiper				S3M	3 Sensitive	1254	10.2 ± 0.5
A	<i>Calidris maritima</i>	Purple Sandpiper				S3N	3 Sensitive	163	8.6 ± 12.5
A	<i>Cephus grylle</i>	Black Guillemot				S3S4	4 Secure	58	8.6 ± 12.5
A	<i>Picoides arcticus</i>	Black-backed Woodpecker				S3S4	3 Sensitive	110	4.7 ± 0.15
A	<i>Perisoreus canadensis</i>	Gray Jay				S3S4	3 Sensitive	319	4.8 ± 7.07
A	<i>Cardinalis cardinalis</i>	Northern Cardinal				S3S4	4 Secure	63	4.8 ± 7.07
A	<i>Botaurus lentiginosus</i>	American Bittern				S3S4B	3 Sensitive	104	13.8 ± 7.07
A	<i>Charadrius vociferus</i>	Killdeer				S3S4B	3 Sensitive	409	7.4 ± 7.07
A	<i>Actitis macularius</i>	Spotted Sandpiper				S3S4B	3 Sensitive	559	4.8 ± 7.07
A	<i>Gallinago delicata</i>	Wilson's Snipe				S3S4B	3 Sensitive	260	4.8 ± 7.07
A	<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher				S3S4B	3 Sensitive	302	4.8 ± 7.07
A	<i>Sayornis phoebe</i>	Eastern Phoebe				S3S4B	3 Sensitive	104	7.4 ± 7.07
A	<i>Tyrannus tyrannus</i>	Eastern Kingbird				S3S4B	3 Sensitive	151	7.4 ± 7.07
A	<i>Vermivora peregrina</i>	Tennessee Warbler				S3S4B	3 Sensitive	187	4.8 ± 7.07
A	<i>Dendroica castanea</i>	Bay-breasted Warbler				S3S4B	3 Sensitive	221	7.4 ± 7.07
A	<i>Dendroica striata</i>	Blackpoll Warbler				S3S4B	3 Sensitive	81	7.4 ± 7.07
A	<i>Wilsonia pusilla</i>	Wilson's Warbler				S3S4B	3 Sensitive	53	4.8 ± 7.07
A	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak				S3S4B	3 Sensitive	173	4.8 ± 7.07
A	<i>Passerella iliaca</i>	Fox Sparrow				S3S4B	4 Secure	59	4.8 ± 7.07
A	<i>Carduelis pinus</i>	Pine Siskin				S3S4B,S5N	3 Sensitive	275	4.8 ± 7.07
A	<i>Leucophaeus atricilla</i>	Laughing Gull				SHB	4 Secure	1	84.8 ± 0.15
A	<i>Morus bassanus</i>	Northern Gannet				SHB,S5M	4 Secure	1	11.7 ± 12.1
I	<i>Gomphus ventricosus</i>	Skillet Clubtail	Endangered	Endangered		S1	2 May Be At Risk	2	44.3 ± 0.5
I	<i>Barnea truncata</i>	Atlantic Mud-piddock	Threatened					1	96.9 ± 1.0
I	<i>Alasmidonta varicosa</i>	Brook Floater	Special Concern		Threatened	S1S2	3 Sensitive	5	57.7 ± 0.1
I	<i>Danaus plexippus</i>	Monarch	Special Concern	Special Concern		S2B	3 Sensitive	71	3.4 ± 0.5
I	<i>Lycaena hyllus</i>	Bronze Copper				S1	4 Secure	2	42.4 ± 1.0
I	<i>Plebejus saepiolus</i>	Greenish Blue				S1	1 At Risk	1	12.7 ± 1.0
I	<i>Polygonia satyrus</i>	Satyr Comma				S1	3 Sensitive	2	10.0 ± 1.0
I	<i>Polygonia gracilis</i>	Hoary Comma				S1	3 Sensitive	1	96.1 ± 1.0
I	<i>Oeneis jutta</i>	Jutta Arctic				S1	2 May Be At Risk	4	45.2 ± 1.0
I	<i>Ophiogomphus aspersus</i>	Brook Snaketail				S1	2 May Be At Risk	2	32.8 ± 0.1
I	<i>Ophiogomphus mainensis</i>	Maine Snaketail				S1	2 May Be At Risk	6	80.4 ± 0.05
I	<i>Somatochlora brevicincta</i>	Quebec Emerald				S1	2 May Be At Risk	1	31.5 ± 0.1
I	<i>Somatochlora franklini</i>	Delicate Emerald				S1	3 Sensitive	1	45.2 ± 1.0
I	<i>Coenagrion resolutum</i>	Taiga Bluet				S1	2 May Be At Risk	2	29.5 ± 1.0
I	<i>Enallagma signatum</i>	Orange Bluet				S1	2 May Be At Risk	3	8.9 ± 1.0
I	<i>Callophrys lanoraieensis</i>	Bog Elfin				S1S2	2 May Be At Risk	15	29.3 ± 1.0
I	<i>Nymphalis l-album</i>	Compton Tortoiseshell				S1S2	4 Secure	10	10.0 ± 0.5
I	<i>Ophiogomphus rupinsulensis</i>	Rusty Snaketail				S1S2	2 May Be At Risk	29	44.3 ± 0.5
I	<i>Somatochlora kennedyi</i>	Kennedy's Emerald				S1S2	2 May Be At Risk	3	13.5 ± 1.0
I	<i>Stylurus scudderii</i>	Zebra Clubtail				S1S2	2 May Be At Risk	6	44.3 ± 0.5
I	<i>Thorybes pylades</i>	Northern Cloudywing				S2	3 Sensitive	1	97.8 ± 1.0
I	<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper				S2	4 Secure	21	10.9 ± 1.0
I	<i>Amblyscirtes vialis</i>	Common Roadside-Skipper				S2	4 Secure	10	31.1 ± 1.0
I	<i>Pieris oleracea</i>	Mustard White				S2	3 Sensitive	73	12.6 ± 1.0
I	<i>Satyrion calanus</i>	Banded Hairstreak				S2	5 Undetermined	9	8.4 ± 1.0
I	<i>Satyrion calanus falacer</i>	Banded Hairstreak				S2	1 At Risk	2	10.0 ± 0.5
I	<i>Callophrys henrici</i>	Henry's Elfin				S2	4 Secure	23	7.9 ± 0.01
I	<i>Callophrys niphon</i>	Eastern Pine Elfin				S2	4 Secure	26	6.6 ± 1.0
I	<i>Strymon melinus</i>	Grey Hairstreak				S2	4 Secure	5	56.2 ± 1.0
I	<i>Polygonia comma</i>	Eastern Comma				S2	1 At Risk	9	10.0 ± 0.1

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I	<i>Aglais milberti</i>	Milbert's Tortoiseshell				S2	4 Secure	7	10.9 ± 1.0
I	<i>Epitheca princeps</i>	Prince Baskettail				S2	3 Sensitive	12	29.5 ± 1.0
I	<i>Somatochlora forcipata</i>	Forcipate Emerald				S2	2 May Be At Risk	4	12.6 ± 1.0
I	<i>Lampsilis radiata</i>	Eastern Lampmussel				S2	3 Sensitive	11	47.2 ± 0.1
I	<i>Pantala hymenaea</i>	Spot-Winged Glider				S2B	3 Sensitive	6	8.9 ± 1.0
I	<i>Erynnis juvenalis</i>	Juvenal's Duskywing				S2S3	4 Secure	53	6.6 ± 0.5
I	<i>Enallagma vesperum</i>	Vesper Bluet				S2S3	3 Sensitive	2	72.4 ± 1.0
I	<i>Alasmidonta undulata</i>	Triangle Floater				S2S3	4 Secure	21	16.4 ± 0.3
I	<i>Hesperia comma</i>	Common Branded Skipper				S3	4 Secure	11	12.6 ± 1.0
I	<i>Satyrium liparops</i>	Striped Hairstreak				S3	5 Undetermined	8	10.0 ± 0.05
I	<i>Satyrium liparops strigosum</i>	Striped Hairstreak				S3	3 Sensitive	2	10.0 ± 0.5
I	<i>Euphydryas phaeton</i>	Baltimore Checkerspot				S3	4 Secure	8	24.4 ± 1.0
I	<i>Polygonia faunus</i>	Green Comma				S3	4 Secure	10	10.9 ± 1.0
I	<i>Lethe anthedon</i>	Northern Pearly-Eye				S3	4 Secure	44	6.6 ± 0.5
I	<i>Lanthus parvulus</i>	Northern Pygmy Clubtail				S3	4 Secure	1	96.8 ± 5.0
I	<i>Ophiogomphus carolus</i>	Riffle Snaketail				S3	4 Secure	32	32.8 ± 0.1
I	<i>Aeshna clepsydra</i>	Mottled Darner				S3	4 Secure	11	10.1 ± 0.01
I	<i>Aeshna constricta</i>	Lance-Tipped Darner				S3	4 Secure	16	11.2 ± 1.0
I	<i>Boyeria grafiana</i>	Ocellated Darner				S3	3 Sensitive	6	58.7 ± 1.0
I	<i>Gomphaeschna furcillata</i>	Harlequin Darner				S3	3 Sensitive	6	16.1 ± 1.0
I	<i>Somatochlora tenebrosa</i>	Clamp-Tipped Emerald				S3	4 Secure	15	10.2 ± 0.5
I	<i>Erythrodiplax berenice</i>	Seaside Dragonlet				S3	3 Sensitive	2	57.3 ± 0.1
I	<i>Nannothemis bella</i>	Elfin Skimmer				S3	4 Secure	17	9.0 ± 1.0
I	<i>Amphiagrion saucium</i>	Eastern Red Damselfly				S3	4 Secure	1	95.8 ± 1.0
I	<i>Polygonia interrogationis</i>	Question Mark				S3B	4 Secure	105	3.4 ± 0.25
I	<i>Feniseca tarquinius</i>	Harvester				S3S4	4 Secure	48	6.6 ± 0.5
I	<i>Callophrys polius</i>	Hoary Elfin				S3S4	4 Secure	35	10.9 ± 1.0
I	<i>Speyeria aphrodite</i>	Aphrodite Fritillary				S3S4	4 Secure	10	31.1 ± 1.0
I	<i>Polygonia progne</i>	Grey Comma				S3S4	4 Secure	11	7.9 ± 0.5
I	<i>Megisto cymela</i>	Little Wood-satyr				S3S4	4 Secure	1	96.2 ± 0.01
N	<i>Erioderma mollissimum</i>	Graceful Felt Lichen	Endangered		Endangered	S1S2	2 May Be At Risk	7	38.1 ± 0.01
N	<i>Erioderma pedicellatum (Atlantic pop.)</i>	Boreal Felt Lichen - Atlantic pop.	Endangered	Endangered	Endangered	S1S2	1 At Risk	197	12.5 ± 0.5
N	<i>Fissidens exilis</i>	Pygmy Pocket Moss	Special Concern			S1?	1 At Risk	3	61.4 ± 1.5
N	<i>Sclerophora peronella (Nova Scotia pop.)</i>	Frosted Glass-whiskers Lichen - Nova Scotia pop.	Special Concern	Special Concern		S1?		1	72.1 ± 0.01
N	<i>Degelia plumbea</i>	Blue Felt Lichen	Special Concern	Special Concern	Vulnerable	S2	4 Secure	27	8.1 ± 0.1
N	<i>Pseudevernia cladonia</i>	Ghost Antler Lichen	Not At Risk			S2S3	3 Sensitive	13	4.5 ± 0.01
N	<i>Aloina rigida</i>	Aloe-Like Rigid Screw Moss				S1	2 May Be At Risk	1	59.3 ± 0.1
N	<i>Bryohaplocladium microphyllum</i>	Tiny-leaved Haplocladium Moss				S1		1	87.3 ± 5.0
N	<i>Solorina saccata</i>	Woodland Owl Lichen				S1	2 May Be At Risk	4	65.9 ± 0.05
N	<i>Pannaria lurida</i>	Veined Shingle Lichen				S1?	2 May Be At Risk	1	94.5 ± 0.1
N	<i>Parmeliella parvula</i>	Poor-man's Shingles Lichen				S1?	2 May Be At Risk	1	38.3 ± 0.1
N	<i>Everniastrum catawbiense</i>	Powder-tipped Antler Lichen				S1S2	2 May Be At Risk	2	39.5 ± 0.01
N	<i>Fuscopannaria leucosticta</i>	Rimmed Shingles Lichen				S1S2	2 May Be At Risk	2	68.9 ± 0.1
N	<i>Leptogium lichenoides</i>	Tattered Jellyskin Lichen				S1S2	2 May Be At Risk	5	65.6 ± 0.05
N	<i>Sticta limbata</i>	Powdered Moon Lichen				S1S2	2 May Be At Risk	3	37.3 ± 0.1
N	<i>Peltigera lepidophora</i>	Scaly Pelt Lichen				S1S2	2 May Be At Risk	1	67.9 ± 0.05
N	<i>Leptogium subtile</i>	Appressed Jellyskin Lichen				S1S3	3 Sensitive	2	40.8 ± 0.1
N	<i>Weissia muhlenbergiana</i>	a Moss				S2?	3 Sensitive	1	64.9 ± 5.0
N	<i>Aulacomnium heterostichum</i>	One-sided Groove Moss				S2?	3 Sensitive	1	91.9 ± 5.0
N	<i>Conardia compacta</i>	Coast Creeping Moss				S2?	3 Sensitive	1	24.6 ± 2.0
N	<i>Drummondia prorepens</i>	a Moss				S2?	3 Sensitive	1	61.2 ± 5.0
N	<i>Eurhynchium hians</i>	Light Beaked Moss				S2?	3 Sensitive	3	27.2 ± 5.0
N	<i>Fissidens taxifolius</i>	Yew-leaved Pocket Moss				S2?	3 Sensitive	1	64.9 ± 5.0
N	<i>Paludella squarrosa</i>	Tufted Fen Moss				S2?	3 Sensitive	1	60.0 ± 0.1

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N	<i>Plagiothecium latebricola</i>	Alder Silk Moss				S2?	3 Sensitive	1	48.8 ± 5.0
N	<i>Sematophyllum marylandicum</i>	a Moss				S2?	3 Sensitive	1	31.6 ± 3.0
N	<i>Sphagnum subnitens</i>	Lustrous Peat Moss				S2?	3 Sensitive	1	61.2 ± 2.0
N	<i>Thamnobryum alleghaniense</i>	a Moss				S2?	3 Sensitive	1	92.6 ± 1.0
N	<i>Thelia hirtella</i>	a Moss				S2?	3 Sensitive	2	30.3 ± 12.0
N	<i>Zygodon conoideus</i>	a Moss				S2?	3 Sensitive	1	95.3 ± 5.0
N	<i>Cyrtomnium hymenophylloides</i>	Short-pointed Lantern Moss				S2?	3 Sensitive	1	15.3 ± 5.0
N	<i>Platylomella lescurii</i>	a Moss				S2?	3 Sensitive	3	39.5 ± 1.0
N	<i>Ephemerum serratum</i>	a Moss				S2S3	3 Sensitive	2	64.9 ± 5.0
N	<i>Hygrohypnum luridum</i>	Drab Brook Moss				S2S3	3 Sensitive	2	39.6 ± 1.0
N	<i>Orthotrichum anomalum</i>	Anomalous Bristle Moss				S2S3	3 Sensitive	1	63.6 ± 2.0
N	<i>Sphagnum wulfianum</i>	Wulf's Peat Moss				S2S3	3 Sensitive	2	59.5 ± 0.01
N	<i>Tetraplodon angustatus</i>	Toothed-leaved Nitrogen Moss				S2S3	3 Sensitive	1	61.2 ± 2.0
N	<i>Hylocomiastrum pyrenaicum</i>	a Feather Moss				S2S3	3 Sensitive	1	10.4 ± 0.5
N	<i>Collema nigrescens</i>	Blistered Tarpaper Lichen				S2S3	3 Sensitive	4	35.5 ± 0.01
N	<i>Leptogium teretiusculum</i>	Beaded Jellyskin Lichen				S2S3	3 Sensitive	2	35.1 ± 0.01
N	<i>Heterodermia squamulosa</i>	Scaly Fringe Lichen				S2S3	3 Sensitive	1	94.5 ± 0.1
N	<i>Leptogium corticola</i>	Blistered Jellyskin Lichen				S2S3	3 Sensitive	10	38.2 ± 0.01
N	<i>Leptogium milligranum</i>	Stretched Jellyskin Lichen				S2S3	3 Sensitive	2	94.4 ± 0.1
N	<i>Parmeliopsis ambigua</i>	Green Starburst Lichen				S2S3	3 Sensitive	1	85.6 ± 2.0
N	<i>Physconia deterosa</i>	Bottlebrush Frost Lichen				S2S3	3 Sensitive	1	73.7 ± 0.01
N	<i>Umbilicaria polyphylla</i>	Petalled Rocktripe Lichen				S2S3	3 Sensitive	1	85.6 ± 2.0
N	<i>Peltigera collina</i>	Tree Pelt Lichen				S2S3	3 Sensitive	2	59.9 ± 2.0
N	<i>Evernia prunastri</i>	Valley Oakmoss Lichen				S2S3	3 Sensitive	1	60.7 ± 2.0
N	<i>Usnea flammaea</i>	Coastal Bushy Beard Lichen				S2S3	3 Sensitive	1	8.3 ± 1.0
N	<i>Anzia colpodes</i>	Black-foam Lichen				S3?	3 Sensitive	2	67.5 ± 0.1
N	<i>Sticta fuliginosa</i>	Peppered Moon Lichen				S3?	3 Sensitive	14	36.1 ± 0.01
N	<i>Collema furfuraceum</i>	Blistered Tarpaper Lichen				S3?	3 Sensitive	1	58.3 ± 0.1
P	<i>Juglans cinerea</i>	Butternut	Endangered	Endangered		SNA	7 Exotic	1	58.0 ± 0.01
P	<i>Bartonia paniculata ssp. paniculata</i>	Branched Bartonian	Threatened	Threatened		SNA		1	97.0 ± 10.0
P	<i>Liatris spicata</i>	Dense Blazing Star	Threatened	Threatened				1	11.4 ± 0.03
P	<i>Clethra alnifolia</i>	Coast Pepper-Bush	Special Concern	Special Concern	Vulnerable	S1	3 Sensitive	2	10.6 ± 0.1
P	<i>Lilaeopsis chinensis</i>	Eastern Lilaeopsis	Special Concern	Special Concern	Vulnerable	S2	3 Sensitive	149	68.8 ± 0.01
P	<i>Lachnanthes caroliniana</i>	Redroot	Special Concern	Threatened	Vulnerable	S2	1 At Risk	254	95.5 ± 0.05
P	<i>Lophiola aurea</i>	Goldencrest	Special Concern	Threatened	Vulnerable	S2	1 At Risk	414	77.5 ± 1.0
P	<i>Scirpus longii</i>	Long's Bulrush	Special Concern	Special Concern	Vulnerable	S2S3	3 Sensitive	24	93.1 ± 0.05
P	<i>Floerkea proserpinacoides</i>	False Mermaidweed	Not At Risk			S2	3 Sensitive	11	97.4 ± 1.0
P	<i>Smilax rotundifolia (Atlantic pop.)</i>	Round-leaved Greenbrier	Not At Risk			S3	4 Secure	5	96.9 ± 0.01
P	<i>Helianthemum canadense</i>	Long-branched Frostweed			Endangered	S1	1 At Risk	9	21.4 ± 1.6
P	<i>Cypripedium arietinum</i>	Ram's-Head Lady's-Slipper			Endangered	S1	1 At Risk	128	56.4 ± 2.0
P	<i>Acer saccharinum</i>	Silver Maple				S1	2 May Be At Risk	1	85.1 ± 2.5
P	<i>Osmorhiza depauperata</i>	Blunt Sweet Cicely				S1	2 May Be At Risk	1	85.7 ± 5.0
P	<i>Sanicula odorata</i>	Clustered Sanicle				S1	2 May Be At Risk	7	59.1 ± 0.1
P	<i>Zizia aurea</i>	Golden Alexanders				S1	2 May Be At Risk	15	84.7 ± 1.0
P	<i>Antennaria parlinii</i>	a Pussytoes				S1	2 May Be At Risk	17	57.9 ± 0.1
P	<i>Cynoglossum virginianum var. boreale</i>	Wild Comfrey				S1	2 May Be At Risk	5	61.4 ± 1.6
P	<i>Arabis glabra</i>	Tower Mustard				S1	5 Undetermined	1	81.4 ± 0.5
P	<i>Cardamine pratensis var. pratensis</i>	Cuckoo Flower				S1	2 May Be At Risk	2	21.5 ± 0.03
P	<i>Cardamine maxima</i>	Large Toothwort				S1	2 May Be At Risk	1	98.7 ± 0.01
P	<i>Lobelia spicata</i>	Pale-Spiked Lobelia				S1	2 May Be At Risk	2	92.6 ± 7.07
P	<i>Hypericum majus</i>	Large St John's-wort				S1	2 May Be At Risk	3	13.8 ± 7.07
P	<i>Cuscuta cephalanthi</i>	Buttonbush Dodder				S1	2 May Be At Risk	1	35.1 ± 0.25
P	<i>Cuscuta pentagona</i>	Five-angled Dodder				S1	5 Undetermined	1	85.7 ± 2.0
P	<i>Desmodium canadense</i>	Canada Tick-trefoil				S1	2 May Be At Risk	3	85.3 ± 7.07
P	<i>Desmodium glutinosum</i>	Large Tick-Trefoil				S1	2 May Be At Risk	16	62.0 ± 0.01
P	<i>Ribes americanum</i>	Wild Black Currant				S1	5 Undetermined	4	61.1 ± 3.0
P	<i>Proserpinaca intermedia</i>	Intermediate Mermaidweed				S1	2 May Be At Risk	5	56.8 ± 0.9

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
P	<i>Trichostema dichotomum</i>	Forked Bluecurls				S1	2 May Be At Risk	3	96.4 ± 0.01
P	<i>Fraxinus pennsylvanica</i>	Red Ash				S1	2 May Be At Risk	8	43.5 ± 5.0
P	<i>Polygala polygama</i>	Racemed Milkwort				S1	5 Undetermined	1	12.4 ± 1.0
P	<i>Polygonum careyi</i>	Carey's Smartweed				S1	5 Undetermined	1	77.6 ± 3.0
P	<i>Podostemum ceratophyllum</i>	Horn-leaved Riverweed				S1	2 May Be At Risk	4	84.6 ± 0.1
P	<i>Montia fontana</i>	Water Blinks				S1	2 May Be At Risk	1	10.4 ± 1.0
P	<i>Lysimachia quadrifolia</i>	Whorled Yellow Loosestrife				S1	5 Undetermined	1	30.3 ± 0.01
P	<i>Galium aparine</i>	Common Bedstraw				S1	7 Exotic	5	11.2 ± 0.08
P	<i>Dirca palustris</i>	Eastern Leatherwood				S1	2 May Be At Risk	47	52.4 ± 1.0
P	<i>Boehmeria cylindrica</i>	Small-spike False-nettle				S1	2 May Be At Risk	45	75.1 ± 0.01
P	<i>Pilea pumila</i>	Dwarf Clearweed				S1	2 May Be At Risk	3	61.7 ± 0.01
P	<i>Viola canadensis</i>	Canada Violet				S1	0.1 Extirpated	2	65.1 ± 0.75
P	<i>Carex haydenii</i>	Hayden's Sedge				S1	2 May Be At Risk	4	92.3 ± 1.0
P	<i>Carex pellita</i>	Woolly Sedge				S1	2 May Be At Risk	1	82.9 ± 10.0
P	<i>Carex laxiflora</i>	Loose-Flowered Sedge				S1	2 May Be At Risk	1	98.5 ± 1.0
P	<i>Carex livida</i> var. <i>radicalis</i>	Livid Sedge				S1	2 May Be At Risk	1	65.1 ± 10.0
P	<i>Carex plantaginea</i>	Plantain-Leaved Sedge				S1	2 May Be At Risk	1	99.0 ± 0.1
P	<i>Carex prairea</i>	Prairie Sedge				S1	2 May Be At Risk	2	98.6 ± 1.0
P	<i>Carex tuckermanii</i>	Tuckerman's Sedge				S1	2 May Be At Risk	13	59.2 ± 2.5
P	<i>Carex wiegandii</i>	Wiegand's Sedge				S1	2 May Be At Risk	2	72.7 ± 2.0
P	<i>Rhynchospora macrostachya</i>	Tall Beakrush				S1	2 May Be At Risk	7	96.7 ± 0.01
P	<i>Scirpus pedicellatus</i>	Stalked Bulrush				S1	5 Undetermined	4	58.8 ± 1.0
P	<i>Schoenoplectus torreyi</i>	Torrey's Bulrush				S1	2 May Be At Risk	6	94.0 ± 0.01
P	<i>Iris prismatica</i>	Slender Blue Flag				S1	2 May Be At Risk	1	93.7 ± 100.0
P	<i>Sisyrinchium fuscatum</i>	Coastal Plain Blue-eyed-grass				S1	2 May Be At Risk	1	81.4 ± 0.1
P	<i>Juncus secundus</i>	Secund Rush				S1	2 May Be At Risk	1	99.4 ± 0.1
P	<i>Allium tricoccum</i>	Wild Leek				S1	2 May Be At Risk	6	97.0 ± 5.0
P	<i>Trillium grandiflorum</i>	White Trillium				S1	5 Undetermined	3	98.6 ± 1.0
P	<i>Malaxis brachypoda</i>	White Adder's-Mouth				S1	2 May Be At Risk	1	92.6 ± 10.0
P	<i>Spiranthes casei</i> var. <i>casei</i>	Case's Ladies'-Tresses				S1	2 May Be At Risk	2	75.7 ± 0.1
P	<i>Bromus latiglumis</i>	Broad-Glumed Brome				S1	2 May Be At Risk	25	85.1 ± 0.01
P	<i>Cinna arundinacea</i>	Sweet Wood Reed Grass				S1	2 May Be At Risk	54	75.2 ± 0.01
P	<i>Dichanthelium xanthophysum</i>	Slender Panic Grass				S1	2 May Be At Risk	9	75.5 ± 1.6
P	<i>Elymus wiegandii</i>	Wiegand's Wild Rye				S1	2 May Be At Risk	6	13.8 ± 7.07
P	<i>Elymus hystrix</i> var. <i>bigeloviana</i>	Spreading Wild Rye				S1	2 May Be At Risk	9	59.0 ± 0.5
P	<i>Festuca subverticillata</i>	Nodding Fescue				S1	2 May Be At Risk	4	73.1 ± 7.07
P	<i>Puccinellia fasciculata</i>	Saltmarsh Alkali Grass				S1	5 Undetermined	2	86.4 ± 1.0
P	<i>Adiantum pedatum</i>	Northern Maidenhair Fern				S1	2 May Be At Risk	11	49.7 ± 1.5
P	<i>Cryptogramma stelleri</i>	Steller's Rockbrake				S1	2 May Be At Risk	2	65.2 ± 0.25
P	<i>Equisetum palustre</i>	Marsh Horsetail				S1	2 May Be At Risk	1	92.5 ± 5.0
P	<i>Botrychium lunaria</i>	Common Moonwort				S1	2 May Be At Risk	3	23.7 ± 2.0
P	<i>Selaginella rupestris</i>	Rock Spikemoss				S1	2 May Be At Risk	1	60.5 ± 0.01
P	<i>Hieracium kalmii</i> var. <i>fasciculatum</i>	Kalm's Hawkweed				S1?	5 Undetermined	2	12.3 ± 5.0
P	<i>Solidago hispida</i>	Hairy Goldenrod				S1?	2 May Be At Risk	1	13.8 ± 7.07
P	<i>Atriplex acadensis</i>	Maritime Saltbush				S1?	5 Undetermined	2	38.7 ± 0.5
P	<i>Suaeda rolandii</i>	Roland's Sea-Blite				S1?	2 May Be At Risk	3	61.7 ± 2.0
P	<i>Proserpinaca palustris</i> var. <i>palustris</i>	Marsh Mermaidweed				S1?	2 May Be At Risk	2	71.1 ± 1.5
P	<i>Crataegus robinsonii</i>	Robinson's Hawthorn				S1?	5 Undetermined	1	96.1 ± 5.0
P	<i>Crataegus submollis</i>	Quebec Hawthorn				S1?	5 Undetermined	4	36.7 ± 7.07
P	<i>Rubus flagellaris</i>	Northern Dewberry				S1?	5 Undetermined	1	90.5 ± 1.0
P	<i>Triglochin gaspensis</i>	Gasp - Arrowgrass				S1?	5 Undetermined	6	69.1 ± 0.01
P	<i>Dichanthelium acuminatum</i> var. <i>lindheimeri</i>	Woolly Panic Grass				S1?	5 Undetermined	3	74.6 ± 5.0
P	<i>Thuja occidentalis</i>	Eastern White Cedar			Vulnerable	S1S2	1 At Risk	11	14.0 ± 7.07
P	<i>Utricularia resupinata</i>	Inverted Bladderwort				S1S2	2 May Be At Risk	2	83.4 ± 0.01
P	<i>Conopholis americana</i>	American Cancer-root				S1S2	2 May Be At Risk	14	71.7 ± 7.07
P	<i>Anemone virginiana</i> var. <i>alba</i>	Virginia Anemone				S1S2	3 Sensitive	1	96.2 ± 7.07
P	<i>Hepatica nobilis</i> var. <i>obtusata</i>	Round-lobed Hepatica				S1S2	2 May Be At Risk	43	57.1 ± 0.01

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
P	<i>Ranunculus sceleratus</i>	Cursed Buttercup				S1S2	2 May Be At Risk	22	10.4 ± 2.5
P	<i>Galium obtusum</i>	Blunt-leaved Bedstraw				S1S2	2 May Be At Risk	1	94.7 ± 0.01
P	<i>Gratiola neglecta</i>	Clammy Hedge-Hyssop				S1S2	3 Sensitive	3	85.0 ± 0.1
P	<i>Carex bebbii</i>	Bebb's Sedge				S1S2	2 May Be At Risk	7	62.6 ± 0.7
P	<i>Carex pensylvanica</i>	Pennsylvania Sedge				S1S2	5 Undetermined	2	37.6 ± 0.05
P	<i>Carex tenera</i>	Tender Sedge				S1S2	3 Sensitive	4	61.5 ± 0.1
P	<i>Juncus greenii</i>	Greene's Rush				S1S2	2 May Be At Risk	5	4.6 ± 0.5
P	<i>Najas gracillima</i>	Thread-Like Naiad				S1S2	2 May Be At Risk	2	50.9 ± 0.45
P	<i>Platanthera flava</i> var. <i>herbiola</i>	Pale Green Orchid				S1S2	4 Secure	10	83.3 ± 1.0
P	<i>Potamogeton pulcher</i>	Spotted Pondweed				S1S2	2 May Be At Risk	18	70.7 ± 0.01
P	<i>Huperzia selago</i>	Northern Firmoss				S1S3	5 Undetermined	2	83.4 ± 7.07
P	<i>Conioselinum chinense</i>	Chinese Hemlock-parsley				S2	3 Sensitive	1	70.4 ± 0.05
P	<i>Osmorhiza longistylis</i>	Smooth Sweet Cicely				S2	2 May Be At Risk	11	62.1 ± 0.01
P	<i>Erigeron philadelphicus</i>	Philadelphia Fleabane				S2	3 Sensitive	2	84.4 ± 1.0
P	<i>Hieracium robinsonii</i>	Robinson's Hawkweed				S2	3 Sensitive	2	94.6 ± 1.0
P	<i>Iva frutescens</i> ssp. <i>oraria</i>	Big-leaved Marsh-elder				S2	3 Sensitive	16	66.3 ± 1.0
P	<i>Lactuca hirsuta</i> var. <i>sanguinea</i>	Hairy Lettuce				S2	3 Sensitive	4	33.1 ± 7.07
P	<i>Rudbeckia laciniata</i>	Cut-Leaved Coneflower				S2	5 Undetermined	6	42.6 ± 7.07
P	<i>Rudbeckia laciniata</i> var. <i>gaspereauensis</i>	Cut-Leaved Coneflower				S2	3 Sensitive	7	82.4 ± 3.0
P	<i>Senecio pseudoarnica</i>	Seabeach Ragwort				S2	3 Sensitive	6	7.5 ± 1.0
P	<i>Symphotrichum undulatum</i>	Wavy-leaved Aster				S2	3 Sensitive	112	24.2 ± 1.5
P	<i>Impatiens pallida</i>	Pale Jewelweed				S2	3 Sensitive	1	99.4 ± 7.07
P	<i>Caulophyllum thalictroides</i>	Blue Cohosh				S2	2 May Be At Risk	25	49.5 ± 7.07
P	<i>Betula michauxii</i>	Michaux's Dwarf Birch				S2	3 Sensitive	45	34.5 ± 0.1
P	<i>Arabis drummondii</i>	Drummond's Rockcress				S2	3 Sensitive	1	98.5 ± 1.0
P	<i>Cardamine parviflora</i> var. <i>arenicola</i>	Small-flowered Bittercress				S2	3 Sensitive	4	23.1 ± 1.0
P	<i>Draba arabisans</i>	Rock Whitlow-Grass				S2	3 Sensitive	1	98.5 ± 1.0
P	<i>Minuartia groenlandica</i>	Greenland Stitchwort				S2	3 Sensitive	84	6.5 ± 0.01
P	<i>Stellaria humifusa</i>	Saltmarsh Starwort				S2	3 Sensitive	1	65.3 ± 0.1
P	<i>Hudsonia ericoides</i>	Pinebarren Golden Heather				S2	3 Sensitive	25	7.5 ± 0.01
P	<i>Triosteum aurantiacum</i>	Orange-fruited Tinker's Weed				S2	3 Sensitive	9	58.9 ± 2.0
P	<i>Crassula aquatica</i>	Water Pygmyweed				S2	3 Sensitive	1	25.0 ± 0.1
P	<i>Shepherdia canadensis</i>	Soapberry				S2	3 Sensitive	71	50.8 ± 7.07
P	<i>Vaccinium boreale</i>	Northern Blueberry				S2	2 May Be At Risk	2	55.6 ± 0.01
P	<i>Vaccinium caespitosum</i>	Dwarf Bilberry				S2	3 Sensitive	37	8.1 ± 0.01
P	<i>Vaccinium uliginosum</i>	Alpine Bilberry				S2	3 Sensitive	3	6.5 ± 1.0
P	<i>Myriophyllum farwellii</i>	Farwell's Water Milfoil				S2	3 Sensitive	9	44.3 ± 1.5
P	<i>Myriophyllum verticillatum</i>	Whorled Water Milfoil				S2	3 Sensitive	3	65.5 ± 7.07
P	<i>Oenothera fruticosa</i> ssp. <i>glauca</i>	Narrow-leaved Evening Primrose				S2	5 Undetermined	7	7.4 ± 7.07
P	<i>Polygonum arifolium</i>	Halberd-leaved Tearthumb				S2	3 Sensitive	2	94.0 ± 1.5
P	<i>Rumex salicifolius</i> var. <i>mexicanus</i>	Triangular-valve Dock				S2	3 Sensitive	8	60.5 ± 1.0
P	<i>Plantago rugelii</i>	Rugel's Plantain				S2	5 Undetermined	7	11.1 ± 0.5
P	<i>Primula mistassinica</i>	Mistassini Primrose				S2	3 Sensitive	3	90.2 ± 1.0
P	<i>Samolus valerandi</i> ssp. <i>parviflorus</i>	Seaside Brookweed				S2	3 Sensitive	47	14.2 ± 5.0
P	<i>Pyrola minor</i>	Lesser Pyrola				S2	3 Sensitive	1	99.4 ± 7.07
P	<i>Anemone canadensis</i>	Canada Anemone				S2	2 May Be At Risk	7	50.8 ± 7.07
P	<i>Anemone quinquefolia</i>	Wood Anemone				S2	3 Sensitive	13	67.8 ± 0.01
P	<i>Anemone virginiana</i>	Virginia Anemone				S2	3 Sensitive	12	59.4 ± 5.0
P	<i>Anemone virginiana</i> var. <i>virginiana</i>	Virginia Anemone				S2	3 Sensitive	2	59.6 ± 7.07
P	<i>Caltha palustris</i>	Yellow Marsh Marigold				S2	3 Sensitive	1	85.3 ± 5.0
P	<i>Galium boreale</i>	Northern Bedstraw				S2	2 May Be At Risk	4	92.6 ± 7.07
P	<i>Galium labradoricum</i>	Labrador Bedstraw				S2	3 Sensitive	10	86.6 ± 0.01
P	<i>Salix pedicellaris</i>	Bog Willow				S2	3 Sensitive	98	82.4 ± 0.1
P	<i>Salix sericea</i>	Silky Willow				S2	2 May Be At Risk	121	43.5 ± 1.0
P	<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>	White Mountain Saxifrage				S2	3 Sensitive	1	92.6 ± 7.07
P	<i>Tiarella cordifolia</i>	Heart-leaved Foamflower				S2	3 Sensitive	5	57.5 ± 0.01

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
P	<i>Viola nephrophylla</i>	Northern Bog Violet				S2	3 Sensitive	4	72.8 ± 1.5
P	<i>Carex atlantica</i> ssp. <i>capillacea</i>	Atlantic Sedge				S2	5 Undetermined	8	8.2 ± 0.01
P	<i>Carex castanea</i>	Chestnut Sedge				S2	2 May Be At Risk	1	73.2 ± 0.01
P	<i>Carex comosa</i>	Bearded Sedge				S2	3 Sensitive	3	63.4 ± 5.0
P	<i>Carex hystericina</i>	Porcupine Sedge				S2	2 May Be At Risk	7	74.9 ± 0.05
P	<i>Eriophorum gracile</i>	Slender Cottongrass				S2	3 Sensitive	5	26.3 ± 1.5
P	<i>Vallisneria americana</i>	Wild Celery				S2	2 May Be At Risk	11	45.8 ± 1.2
P	<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	Wild Chives				S2	2 May Be At Risk	1	96.2 ± 7.07
P	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	Yellow Lady's-slipper				S2	3 Sensitive	8	34.0 ± 7.07
P	<i>Cypripedium parviflorum</i> var. <i>makasin</i>	Small Yellow Lady's-Slipper				S2	3 Sensitive	5	61.2 ± 0.1
P	<i>Cypripedium reginae</i>	Showy Lady's-Slipper				S2	2 May Be At Risk	12	58.7 ± 0.5
P	<i>Goodyera pubescens</i>	Downy Rattlesnake-Plantain				S2	2 May Be At Risk	10	55.8 ± 1.0
P	<i>Listera australis</i>	Southern Twayblade				S2	2 May Be At Risk	98	5.0 ± 0.01
P	<i>Platanthera flava</i>	Southern Rein-Orchid				S2	3 Sensitive	25	75.3 ± 0.01
P	<i>Platanthera flava</i> var. <i>flava</i>	Southern Rein Orchid				S2	3 Sensitive	20	75.1 ± 0.01
P	<i>Platanthera macrophylla</i>	Large Round-Leaved Orchid				S2	3 Sensitive	1	65.6 ± 1.0
P	<i>Spiranthes lucida</i>	Shining Ladies'-Tresses				S2	2 May Be At Risk	9	58.0 ± 1.3
P	<i>Piptatherum canadense</i>	Canada Rice Grass				S2	3 Sensitive	17	33.3 ± 7.07
P	<i>Piptatherum pungens</i>	Slender Rice Grass				S2	3 Sensitive	7	60.7 ± 10.0
P	<i>Potamogeton friesii</i>	Fries' Pondweed				S2	2 May Be At Risk	10	92.4 ± 1.0
P	<i>Asplenium trichomanes</i>	Maidenhair Spleenwort				S2	3 Sensitive	7	80.9 ± 0.85
P	<i>Equisetum pratense</i>	Meadow Horsetail				S2	3 Sensitive	9	59.1 ± 0.01
P	<i>Hieracium kalmii</i>	Kalm's Hawkweed				S2?	5 Undetermined	7	8.0 ± 0.5
P	<i>Hieracium kalmii</i> var. <i>kalmii</i>	Kalm's Hawkweed				S2?	5 Undetermined	2	12.7 ± 5.0
P	<i>Symphotrichum boreale</i>	Boreal Aster				S2?	3 Sensitive	4	41.5 ± 5.5
P	<i>Ceratophyllum echinatum</i>	Prickly Hornwort				S2?	2 May Be At Risk	6	76.2 ± 0.01
P	<i>Epilobium coloratum</i>	Purple-veined Willowherb				S2?	3 Sensitive	6	49.9 ± 2.0
P	<i>Amelanchier fernaldii</i>	Fernald's Serviceberry				S2?	5 Undetermined	1	76.9 ± 7.07
P	<i>Carex houghtoniana</i>	Houghton's Sedge				S2?	3 Sensitive	1	76.5 ± 1.2
P	<i>Carex peckii</i>	White-Tinged Sedge				S2?	2 May Be At Risk	2	61.1 ± 5.0
P	<i>Eleocharis ovata</i>	Ovate Spikerush				S2?	3 Sensitive	3	31.9 ± 0.5
P	<i>Juncus dudleyi</i>	Dudley's Rush				S2?	3 Sensitive	10	44.5 ± 1.0
P	<i>Dichanthelium linearifolium</i>	Narrow-leaved Panic Grass				S2?	3 Sensitive	4	64.7 ± 7.07
P	<i>Fraxinus nigra</i>	Black Ash			Threatened	S2S3	3 Sensitive	65	20.6 ± 0.01
P	<i>Asclepias incarnata</i> ssp. <i>pulchra</i>	Swamp Milkweed				S2S3	5 Undetermined	19	41.5 ± 5.5
P	<i>Symphotrichum ciliolatum</i>	Fringed Blue Aster				S2S3	3 Sensitive	6	61.9 ± 0.01
P	<i>Sagina nodosa</i>	Knotted Pearlwort				S2S3	4 Secure	23	4.7 ± 0.5
P	<i>Suaeda calceoliformis</i>	Horned Sea-blite				S2S3	4 Secure	6	13.8 ± 7.07
P	<i>Hypericum dissimulatum</i>	Disguised St John's-wort				S2S3	3 Sensitive	4	19.4 ± 10.0
P	<i>Empetrum eamesii</i> ssp. <i>atropurpureum</i>	Pink Crowberry				S2S3	3 Sensitive	5	4.6 ± 0.5
P	<i>Empetrum eamesii</i> ssp. <i>eamesii</i>	Pink Crowberry				S2S3	3 Sensitive	5	3.8 ± 0.5
P	<i>Hedeoma pulegioides</i>	American False Pennyroyal				S2S3	3 Sensitive	13	16.0 ± 5.0
P	<i>Polygala sanguinea</i>	Blood Milkwort				S2S3	3 Sensitive	10	13.8 ± 7.07
P	<i>Polygonum buxiforme</i>	Small's Knotweed				S2S3	5 Undetermined	5	46.7 ± 7.07
P	<i>Polygonum raii</i>	Sharp-fruited Knotweed				S2S3	5 Undetermined	5	44.5 ± 1.0
P	<i>Salix pellita</i>	Satiny Willow				S2S3	5 Undetermined	3	72.7 ± 2.0
P	<i>Carex adusta</i>	Lesser Brown Sedge				S2S3	3 Sensitive	4	6.8 ± 0.01
P	<i>Carex hirtifolia</i>	Pubescent Sedge				S2S3	3 Sensitive	14	59.1 ± 2.0
P	<i>Carex swanii</i>	Swan's Sedge				S2S3	3 Sensitive	3	16.6 ± 0.5
P	<i>Eleocharis olivacea</i>	Yellow Spikerush				S2S3	3 Sensitive	6	23.1 ± 0.25
P	<i>Lilium canadense</i>	Canada Lily				S2S3	3 Sensitive	49	50.3 ± 0.1
P	<i>Coeloglossum viride</i> var. <i>virescens</i>	Long-bracted Frog Orchid				S2S3	2 May Be At Risk	1	79.2 ± 1.0
P	<i>Cypripedium parviflorum</i>	Yellow Lady's-slipper				S2S3	3 Sensitive	492	56.0 ± 1.0
P	<i>Spiranthes ochroleuca</i>	Yellow Ladies'-tresses				S2S3	3 Sensitive	27	7.7 ± 0.01
P	<i>Alopecurus aequalis</i>	Short-awned Foxtail				S2S3	3 Sensitive	5	75.1 ± 0.5
P	<i>Panicum tuckermanii</i>	Tuckerman's Panic Grass				S2S3	3 Sensitive	8	61.5 ± 0.01
P	<i>Poa glauca</i>	Glauous Blue Grass				S2S3	3 Sensitive	1	62.2 ± 1.0

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
P	<i>Potamogeton richardsonii</i>	Richardson's Pondweed				S2S3	2 May Be At Risk	4	70.3 ± 0.01
P	<i>Potamogeton zosteriformis</i>	Flat-stemmed Pondweed				S2S3	3 Sensitive	15	47.0 ± 5.0
P	<i>Botrychium lanceolatum</i> var. <i>angustisegmentum</i>	Lance-Leaf Grape-Fern				S2S3	3 Sensitive	2	73.3 ± 5.0
P	<i>Botrychium simplex</i>	Least Moonwort				S2S3	3 Sensitive	6	42.1 ± 0.1
P	<i>Ophioglossum pusillum</i>	Northern Adder's-tongue				S2S3	3 Sensitive	5	12.7 ± 50.0
P	<i>Asclepias incarnata</i>	Swamp Milkweed				S3	4 Secure	284	57.3 ± 1.5
P	<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane				S3	3 Sensitive	12	56.7 ± 7.07
P	<i>Hieracium paniculatum</i>	Panicled Hawkweed				S3	4 Secure	20	48.1 ± 0.5
P	<i>Megalodonta beckii</i>	Water Beggarticks				S3	3 Sensitive	7	45.8 ± 0.5
P	<i>Packera paupercula</i>	Balsam Groundsel				S3	4 Secure	16	56.4 ± 0.01
P	<i>Alnus serrulata</i>	Smooth Alder				S3	3 Sensitive	127	77.1 ± 0.01
P	<i>Campanula aparinoides</i>	Marsh Bellflower				S3	3 Sensitive	6	65.7 ± 1.0
P	<i>Stellaria longifolia</i>	Long-leaved Starwort				S3	3 Sensitive	8	46.7 ± 5.0
P	<i>Empetrum eamesii</i>	Pink Crowberry				S3	3 Sensitive	81	4.8 ± 0.1
P	<i>Vaccinium corymbosum</i>	Highbush Blueberry				S3	4 Secure	2	5.0 ± 5.0
P	<i>Chamaesyce polygoniifolia</i>	Seaside Spurge				S3	4 Secure	3	56.7 ± 3.0
P	<i>Bartonia virginica</i>	Yellow Bartonia				S3	4 Secure	26	7.5 ± 7.07
P	<i>Geranium bicknellii</i>	Bicknell's Crane's-bill				S3	4 Secure	12	65.1 ± 3.0
P	<i>Proserpinaca palustris</i>	Marsh Mermaidweed				S3	4 Secure	19	63.0 ± 1.0
P	<i>Proserpinaca palustris</i> var. <i>crebra</i>	Marsh Mermaidweed				S3	4 Secure	20	52.5 ± 0.01
P	<i>Proserpinaca pectinata</i>	Comb-leaved Mermaidweed				S3	3 Sensitive	24	18.7 ± 1.5
P	<i>Teucrium canadense</i>	Canada Germander				S3	3 Sensitive	45	32.4 ± 5.0
P	<i>Utricularia radiata</i>	Little Floating Bladderwort				S3	4 Secure	57	37.4 ± 0.01
P	<i>Utricularia subulata</i>	Zigzag Bladderwort				S3	4 Secure	7	82.7 ± 0.01
P	<i>Rhexia virginica</i>	Virginia Meadow Beauty				S3	4 Secure	411	76.9 ± 0.01
P	<i>Epilobium strictum</i>	Downy Willowherb				S3	3 Sensitive	8	75.6 ± 0.01
P	<i>Polygonum pennsylvanicum</i>	Pennsylvania Smartweed				S3	4 Secure	21	53.5 ± 7.07
P	<i>Polygonum scandens</i>	Climbing False Buckwheat				S3	3 Sensitive	14	50.1 ± 2.0
P	<i>Primula laurentiana</i>	Laurentian Primrose				S3	4 Secure	1	91.9 ± 7.07
P	<i>Pyrola asarifolia</i>	Pink Pyrola				S3	4 Secure	6	48.0 ± 50.0
P	<i>Ranunculus gmelinii</i>	Gmelin's Water Buttercup				S3	4 Secure	23	53.5 ± 0.01
P	<i>Rhamnus alnifolia</i>	Alder-leaved Buckthorn				S3	3 Sensitive	19	52.7 ± 0.01
P	<i>Agrimonia gryposepala</i>	Hooked Agrimony				S3	4 Secure	76	23.9 ± 5.0
P	<i>Rosa palustris</i>	Swamp Rose				S3	4 Secure	156	54.0 ± 0.01
P	<i>Cephalanthus occidentalis</i>	Common Buttonbush				S3	3 Sensitive	313	85.8 ± 0.01
P	<i>Salix petiolaris</i>	Meadow Willow				S3	4 Secure	16	64.4 ± 0.01
P	<i>Geocalon lividum</i>	Northern Comandra				S3	3 Sensitive	2	95.3 ± 5.0
P	<i>Agalinis neoscotica</i>	Nova Scotia Agalinis				S3	4 Secure	14	20.9 ± 0.01
P	<i>Limosella australis</i>	Southern Mudwort				S3	3 Sensitive	7	12.9 ± 1.0
P	<i>Laportea canadensis</i>	Canada Wood Nettle				S3	3 Sensitive	17	59.3 ± 0.01
P	<i>Verbena hastata</i>	Blue Vervain				S3	4 Secure	77	18.9 ± 7.07
P	<i>Carex eburnea</i>	Bristle-leaved Sedge				S3	3 Sensitive	3	78.7 ± 1.0
P	<i>Carex lupulina</i>	Hop Sedge				S3	4 Secure	31	33.4 ± 1.2
P	<i>Carex rosea</i>	Rosy Sedge				S3	4 Secure	16	58.0 ± 2.0
P	<i>Eleocharis nitida</i>	Quill Spikerush				S3	4 Secure	2	59.7 ± 5.0
P	<i>Juncus marginatus</i>	Grassleaf Rush				S3	3 Sensitive	1	92.8 ± 0.01
P	<i>Juncus subcaudatus</i> var. <i>planisepalus</i>	Woods-Rush				S3	3 Sensitive	15	30.8 ± 0.01
P	<i>Corallorhiza trifida</i>	Early Coralroot				S3	4 Secure	27	20.4 ± 0.01
P	<i>Goodyera repens</i>	Lesser Rattlesnake-plantain				S3	3 Sensitive	1	84.6 ± 1.0
P	<i>Platanthera grandiflora</i>	Large Purple Fringed Orchid				S3	4 Secure	14	62.0 ± 1.8
P	<i>Platanthera hookeri</i>	Hooker's Orchid				S3	4 Secure	10	60.5 ± 1.0
P	<i>Platanthera orbiculata</i>	Small Round-leaved Orchid				S3	4 Secure	4	56.6 ± 4.8
P	<i>Dichanthelium clandestinum</i>	Deer-tongue Panic Grass				S3	4 Secure	259	23.1 ± 1.5
P	<i>Panicum rigidulum</i> var. <i>pubescens</i>	Redtop Panic Grass				S3	3 Sensitive	311	89.7 ± 7.07
P	<i>Sparganium natans</i>	Small Burreed				S3	4 Secure	9	62.6 ± 0.01
P	<i>Equisetum variegatum</i>	Variegated Horsetail				S3	4 Secure	16	20.9 ± 0.01

Taxonomic Group	Scientific Name	Common Name	COSEWIC	SARA	Prov Legal Prot	Prov Rarity Rank	Prov GS Rank	# recs	Distance (km)
P	<i>Isoetes acadensis</i>	Acadian Quillwort				S3	3 Sensitive	8	38.5 ± 0.8
P	<i>Botrychium dissectum</i>	Cut-leaved Moonwort				S3	4 Secure	1	73.3 ± 0.5
P	<i>Schizaea pusilla</i>	Little Curlygrass Fern				S3	4 Secure	5	4.8 ± 10.0
P	<i>Amelanchier stolonifera</i>	Running Serviceberry				S3?	4 Secure	34	55.4 ± 3.0
P	<i>Potentilla canadensis</i>	Canada Cinquefoil				S3?	5 Undetermined	3	80.1 ± 5.0
P	<i>Carex cryptolepis</i>	Hidden-scaled Sedge				S3?	4 Secure	8	42.4 ± 6.5
P	<i>Carex tribuloides</i>	Blunt Broom Sedge				S3?	4 Secure	7	76.4 ± 0.01
P	<i>Carex foenea</i>	Fernald's Hay Sedge				S3?	4 Secure	12	6.8 ± 0.01
P	<i>Elodea canadensis</i>	Canada Waterweed				S3?	4 Secure	2	61.7 ± 0.01
P	<i>Potamogeton praelongus</i>	White-stemmed Pondweed				S3?	3 Sensitive	2	84.3 ± 5.0
P	<i>Lycopodium sabinifolium</i>	Ground-Fir				S3?	4 Secure	1	96.7 ± 0.1
P	<i>Lycopodium sitchense</i>	Sitka Clubmoss				S3?	4 Secure	1	85.8 ± 1.0
P	<i>Polypodium appalachianum</i>	Appalachian Polypody				S3?	5 Undetermined	10	63.2 ± 0.01
P	<i>Angelica atropurpurea</i>	Purple-stemmed Angelica				S3S4	4 Secure	1	87.1 ± 0.01
P	<i>Pseudognaphalium obtusifolium</i>	Eastern Cudweed				S3S4	4 Secure	5	35.3 ± 0.01
P	<i>Myriophyllum sibiricum</i>	Siberian Water Milfoil				S3S4	4 Secure	5	89.2 ± 0.01
P	<i>Utricularia gibba</i>	Humped Bladderwort				S3S4	4 Secure	19	66.6 ± 0.1
P	<i>Sanguinaria canadensis</i>	Bloodroot				S3S4	4 Secure	26	49.0 ± 0.01
P	<i>Polygonum robustius</i>	Stout Smartweed				S3S4	4 Secure	13	76.6 ± 0.01
P	<i>Lindernia dubia</i>	Yellow-seeded False Pimpernel				S3S4	4 Secure	7	61.5 ± 0.01
P	<i>Viola sagittata var. ovata</i>	Arrow-Leaved Violet				S3S4	4 Secure	15	9.9 ± 1.7
P	<i>Carex argyrantha</i>	Silvery-flowered Sedge				S3S4	4 Secure	6	50.1 ± 1.5
P	<i>Cyperus dentatus</i>	Toothed Flatsedge				S3S4	4 Secure	151	70.7 ± 2.0
P	<i>Eriophorum chamissonis</i>	Russet Cotton-Grass				S3S4	4 Secure	7	11.1 ± 3.0
P	<i>Sisyrinchium angustifolium</i>	Narrow-leaved Blue-eyed-grass				S3S4	4 Secure	50	4.7 ± 0.5
P	<i>Sisyrinchium atlanticum</i>	Eastern Blue-Eyed-Grass				S3S4	4 Secure	24	60.4 ± 0.8
P	<i>Juncus acuminatus</i>	Sharp-Fruit Rush				S3S4	3 Sensitive	5	23.5 ± 0.01
P	<i>Luzula parviflora</i>	Small-flowered Woodrush				S3S4	4 Secure	1	98.9 ± 0.01
P	<i>Liparis loeselii</i>	Loesel's Twayblade				S3S4	4 Secure	6	30.1 ± 0.01
P	<i>Dichanthelium spretum</i>	Eaton's Witchgrass				S3S4	4 Secure	204	34.2 ± 0.5
P	<i>Trisetum spicatum</i>	Narrow False Oats				S3S4	4 Secure	2	58.9 ± 1.5
P	<i>Cystopteris bulbifera</i>	Bulblet Bladder Fern				S3S4	4 Secure	50	54.6 ± 0.01
P	<i>Equisetum hyemale var. affine</i>	Common Scouring-rush				S3S4	4 Secure	32	24.4 ± 2.0
P	<i>Equisetum scirpoides</i>	Dwarf Scouring-Rush				S3S4	4 Secure	39	57.1 ± 4.0
P	<i>Lycopodium complanatum</i>	Northern Clubmoss				S3S4	4 Secure	8	15.0 ± 1.0
P	<i>Lycopodiella appressa</i>	Southern Bog Clubmoss				S3S4	4 Secure	109	42.4 ± 5.0

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

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4	Forsythe, B. 2006. Cypripedium arietinum at Meadow Pond, Hants Co. Pers. comm. to C.S. Blaney. 4 recs, 4 recs.
4	Hall, R.A. 2003. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 189 recs.
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.
3	Basquill, S.P. 2003. Fieldwork 2003. Atlantic Canada Conservation Data Centre, Sackville NB, 69 recs.
3	Basquill, S.P. 2009. 2009 field observations. Nova Scotia Dept of Natural Resources.
3	Benjamin, L.K. 2009. NSDNR Fieldwork & Consultants Reports. Nova Scotia Dept Natural Resources, 143 recs.
3	Blaney, C.S.; Spicer, C.D. 2001. Fieldwork 2001. Atlantic Canada Conservation Data Centre. Sackville NB, 717 recs.
3	Bradford, R. 2004. Coregonus huntsmani locations. Dept of Fisheries & Oceans, Atlantic Region, Pers. comm. to K. Bredin. 4 recs.
3	Clayden, S.R. 1998. NBM Science Collections databases: vascular plants. New Brunswick Museum, Saint John NB, 19759 recs.
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	Hall, R.A. 2001. S. NS Freshwater Mussel Fieldwork. Nova Scotia Dept Natural Resources, 178 recs.
3	LaPaix, R.; Parker, M. 2013. email to Sean Blaney regarding Listera australis observations near Kearney Lake. East Coast Aquatics, 2.
3	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.
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2	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.
2	Basquill, S.P. 2011. Field observations & specimen collections, 2010. Nova Scotia Department of Natural Resources, Pers. comm. , 8 Recs.
2	Benedict, B. Connell Herbarium Specimens, Digital photos. University New Brunswick, Fredericton. 2005.
2	Catling, P.M. 1981. Taxonomy of autumn-flowering Spiranthes species of southern Nova Scotia in Can. J. Bot. , 59:1250-1273. 30 recs.
2	Frittaion, C. 2012. NSNT 2012 Field Observations. Nova Scotia Nature Trust, Pers comm. to S. Blaney Feb. 7, 34 recs.
2	Gilhen, J., Jones, A., McNeil, J., Tanner, A.W. 2012. A Significant Range Extension for the Eastern Ribbonsnake, Thamnophis sauritus, in Nova Scotia, Canada. The Canadian Field-Naturalist, 126(3): 231-233.
2	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.
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# recs	CITATION
	and Middlewood. , 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	McAlpine, D.F. 1998. NBM Science Collections databases to 1998. New Brunswick Museum, Saint John NB, 241 recs.
2	Munro, M. 2003. Caulophyllum thalictroides & Carex hirtifolia at Herbert River, Brooklyn, NS. , Pers. comm. to C.S. Blaney. 2 recs.
2	Munro, M. 2003. Dirca palustris & Hepatica nobilis var. obtusa at Cogmagun River, NS. , Pers. comm. to C.S. Blaney. 2 recs.
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. 2006. Rare plant observations in Digby Neck. Pers. comm. to S. Blaney, 6 recs.
2	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.
2	Standley, L.A. 2002. Carex haydenii in Nova Scotia. , Pers. comm. to C.S. Blaney. 4 recs.
2	Williams, M. Cape Breton University Digital Herbarium. Cape Breton University Digital Herbarium. 2013.
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	Basquill, S. P. 2008. Nova Scotia Dept of Natural Resources.
1	Basquill, S.P. 2004. C. americana and Sedum 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.
1	Basquill, S.P.; Quigley, E. 2006. New Minuartia groenlandica record for NS. Pers. comm. to C.S. Blaney, Oct 6, 1 rec.
1	Benjamin, L.K. 2003. Cyripedium arietinum in Cogmagun River NS. Pers. comm. to S. Blaney, 1 rec.
1	Blaney, C.S. 1999. Fieldwork 1999. Atlantic Canada Conservation Data Centre. Sackville NB, 292 recs.
1	Clayden, S.R. 2006. Pseudevernia cladonia records. NB Museum. Pers. comm. to S. Blaney, Dec, 4 recs.
1	Crowell, A. 2004. Cyripedium arietinum in Weir Brook, Hants Co. Pers. comm. to S. Blaney, 1 rec.
1	Crowell, M. 2013. email to Sean Blaney regarding Listera australis at Bear Head and Mill Cove Canadian Forces Station. Jacques Whitford Environmental Ltd., 2.
1	Jacques Whitford Ltd. 2003. Cananda Lily location. Pers. Comm. to S. Blaney. 2pp, 1 rec, 1 rec.
1	Klymko, J.J.D. 2011. Insect fieldwork & submissions, 2010. Atlantic Canada Conservation Data Centre. Sackville NB, 742 recs.
1	Lautenschlager, R.A. 2010. Miscellaneous observations reported to ACCDC (zoology). Pers. comm. from various persons, 2 recs.
1	MacKinnon, D.S. 1998. Ponhook Lake survey map & notes. Dept of Environment and Labour, Protected Areas Branch, 13 recs.
1	Neily, T.H. & Anderson, F. 2011. Lichen observations from NRC site at Sandy Cove. , 97.
1	Neily, T.H. 2004. Hepatica nobilis var. obtusa record for Falmouth NS. Pers. comm. to C.S. Blaney, 1 rec.
1	Neily, T.H. 2012. 2012 Erioderma pedicellatum records in Nova Scotia.
1	Newell, R.E. 2004. Hepatica nobilis var. obtusa record. Pers. comm. to S. Blaney, 1 rec.
1	Oldham, M.J. 2000. Oldham database records from Maritime provinces. Oldham, M.J.; ONHIC, 487 recs.
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1	Sollows, M.C., 2009. NBM Science Collections databases: molluscs. New Brunswick Museum, Saint John NB, download Jan. 2009, 6951 recs (2957 in Atlantic Canada).
1	Sollows, M.C. 2008. NBM Science Collections databases: herpetiles. New Brunswick Museum, Saint John NB, download Jan. 2008, 8636 recs.
1	Stewart, P. 2013. email to Sean Blaney regarding the discovery of a Listera australis population at Blockhouse. EnviroSphere Consultants Limited, 1.

Appendix 10 Moose Surveys

Ketch Harbour Wind Farm
Spring Pellet Group Inventory Study

Summary

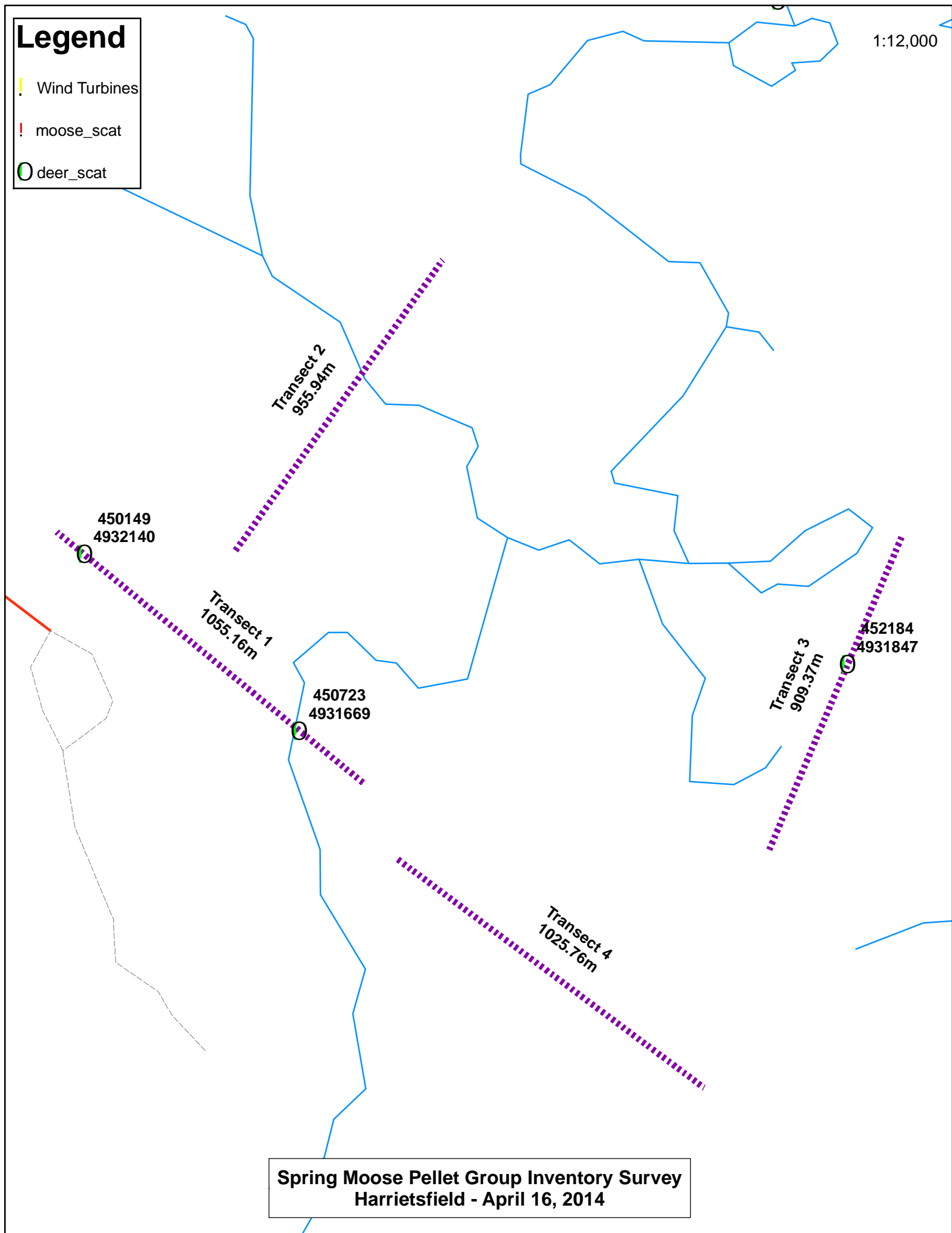
There was one pellet group survey done at this site in the spring of 2014

These transects varied in length and one meter on each side was observed. The results are shown on the attached maps.

Legend

- Wind Turbines
- moose_scats
- deer_scats

1:12,000



**Spring Moose Pellet Group Inventory Survey
Harrietsfield - April 16, 2014**

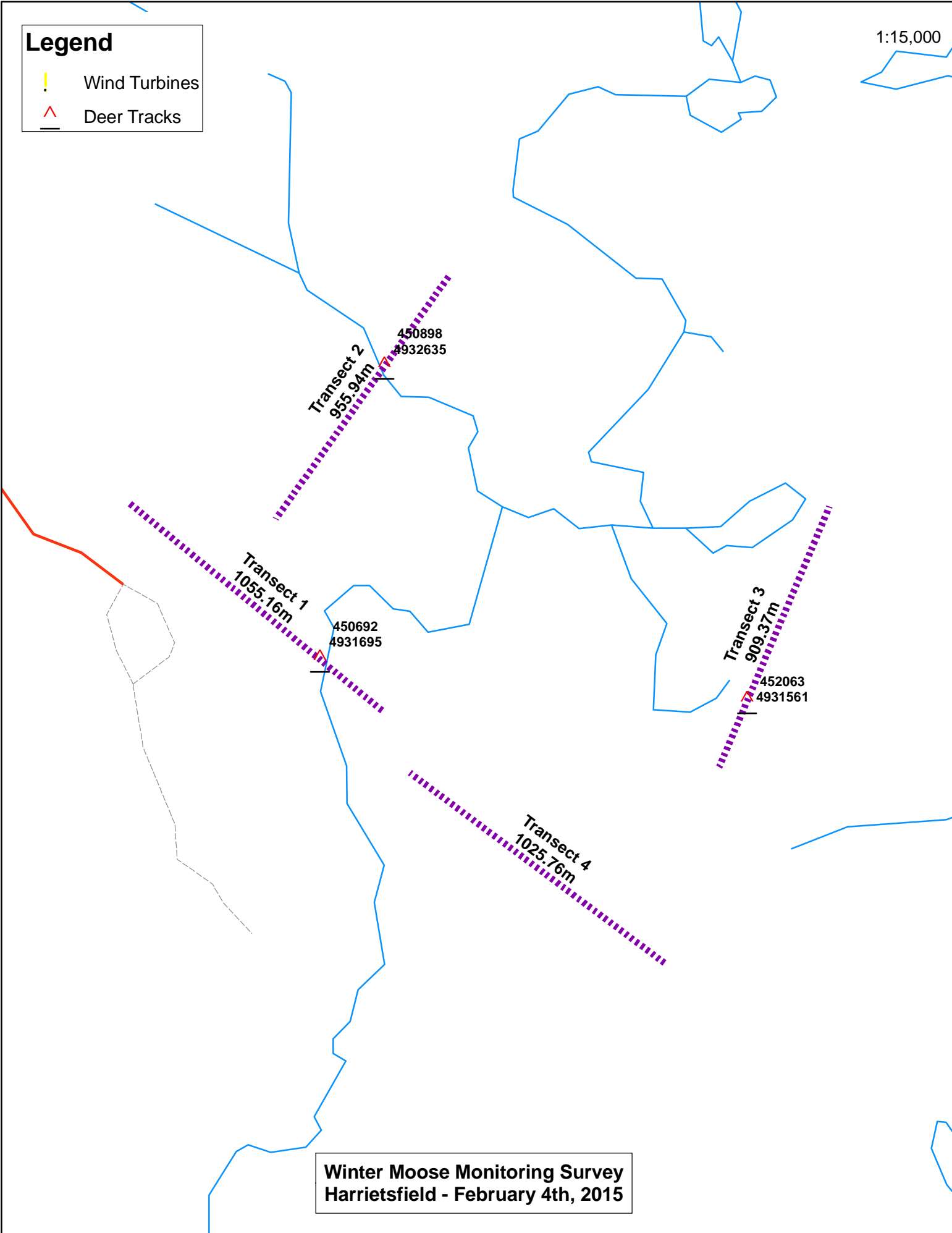
Winter Moose Monitoring

Harrietsfield Wind Project

Two winter moose monitoring surveys were conducted on this site during the winter of 2015. The surveys were completed by Jody Hamper and the same transects were observed as last year. There was no sign of moose during either survey, several deer tracks were recorded and are shown on the attached maps. One meter on each side of the transect line was observed.

Legend

- ! Wind Turbines
- ^ Deer Tracks



Transect 2
955.94m
450898
4932635

Transect 1
1055.16m
450692
4931695

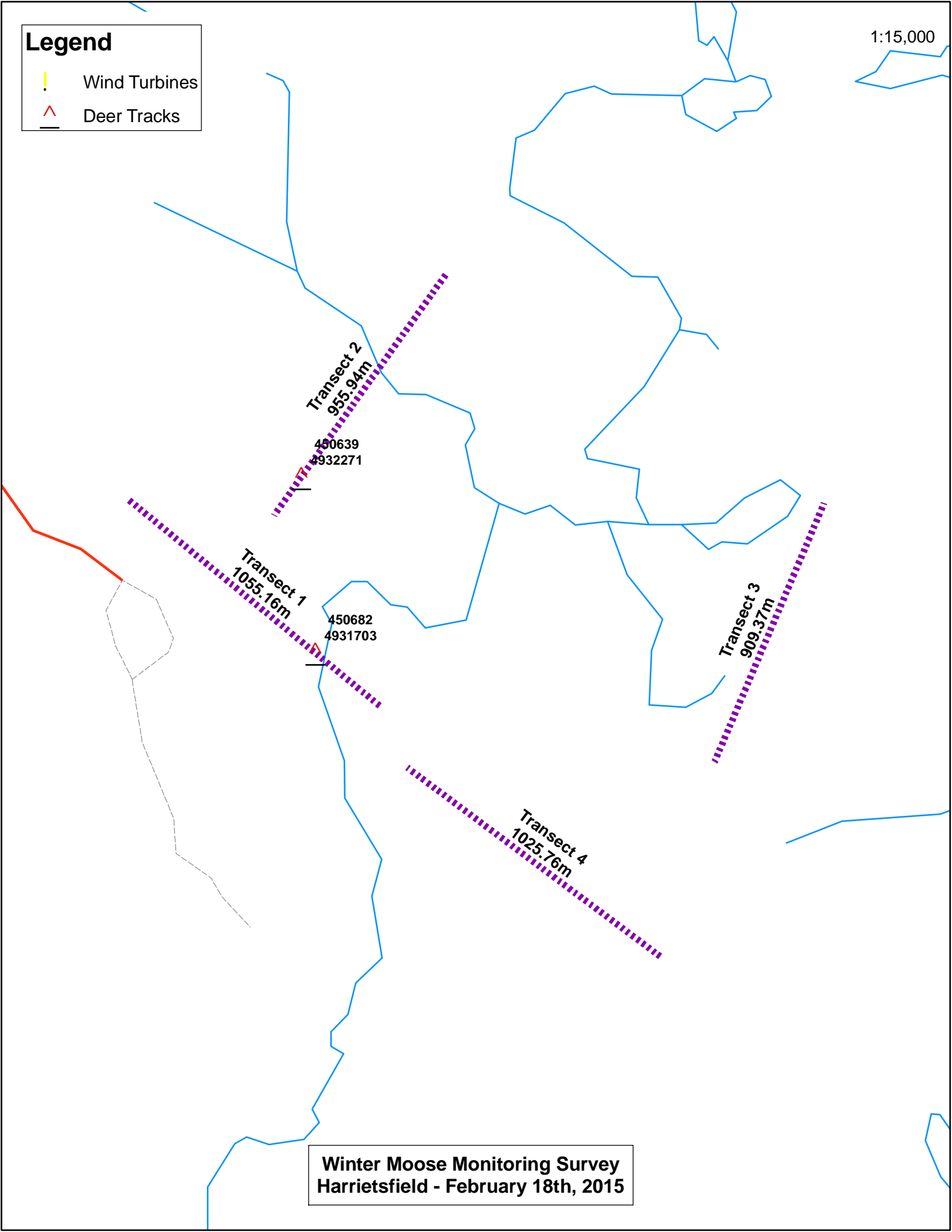
Transect 3
909.37m
452063
4931561

Transect 4
1025.76m

**Winter Moose Monitoring Survey
Harrietsfield - February 4th, 2015**

Legend

- ! Wind Turbines
- ^ Deer Tracks



**Winter Moose Monitoring Survey
Harrietsfield - February 18th, 2015**

Appendix 11 Community Engagement Documentation

Information Session

You are invited to attend an information session for a proposed Community Wind Turbine installation near Harrietsfield, NS.

Session will include a presentation and Q&A forum.

Date: August 18th, 2014

Time: 6:00p.m. – 7:30 p.m.

Location: Harrietsfield
Williamswood Community Center

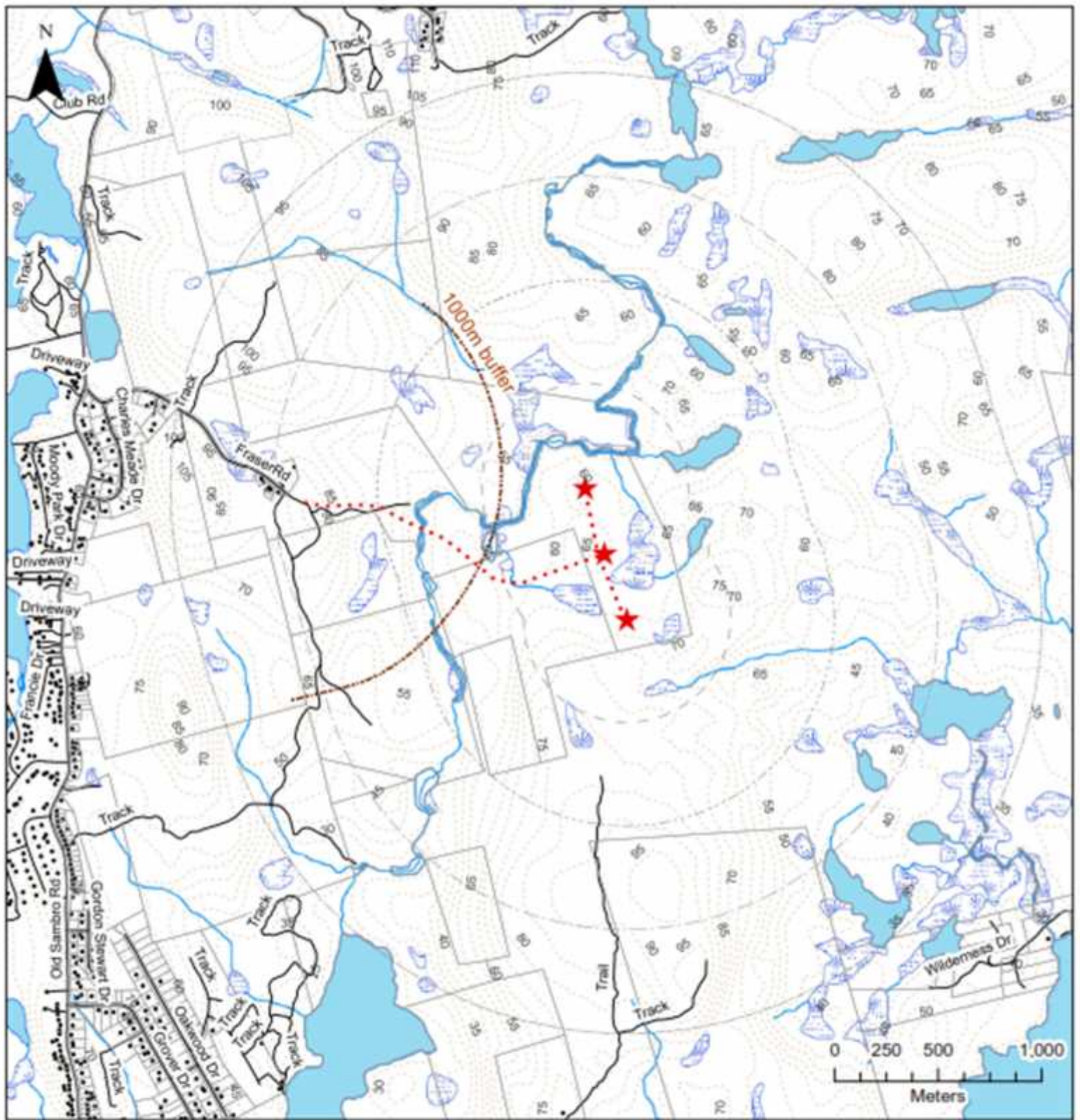
For more information on community wind energy please visit:

www.wattswind.com

For any questions previous to the information session, please email: tmacdonald@eonwind.com or call 902-482-8687 (Trent)



1.5 MW community owned turbine installed by Watts Wind Energy Inc. in Watts Section, Nova Scotia



Legend

- ★ Turbine Location
- Building Point
- 1000m residential buffer
- Roads
- Proposed Access Route
- Watercourse
- 2000m turbine setback
- Contours
- 1500m turbine setback
- Lake
- 1000m turbine setback
- Wetland
- 500m turbine setback
- Property bounds (not surveyed)



WattsWind

**Proposed Williamswood
Wind Project**

Map Parameters
Projection: UTM/NAD83/Z20
Project No: 045

Date: 4/15/2014




Community Wind Developer
wattswind.com
info@wattswind.com




Harrietsfield Community Wind Project
Information Session - August 18, 2014

Who are we?



- Nova Scotia company
- Diverse team of engineering, energy and finance professionals
- Provided engineering services and maintenance for over 300 megawatts of wind energy projects globally over two decades



Project Experience



Fermuse, NFLD



Amherst, NS



Maryvale, NS



Digby, NS



Iowa, USA



Morgan Falls, NS



Development Company



- Formed a development company to own projects
- Projects owned by non-NS entities, revenues leaving province
- Developed the Watt Section wind project, with Watts Wind Energy Inc.



Watts Wind Energy Inc



- Community Economic Development Investment Fund
- \$3.5 million raised from Nova Scotian investors
- 100+ Nova Scotian investors
- Single 1.5 megawatt turbine operating
- Over 30 megawatts in development across Nova Scotia



Watt Section Wind Project



- Commissioned in March 2011
- Vensys 1.5 megawatt turbine
- **400** homes power by wind energy per year
- 20 year contract with NSPI
- **Zero** emissions





Building Road to Site – Broke ground mid-October 2010 – local contractors hired



Building Foundation – Completed mid-February 2011.





COMFIT Program



- Special rate for community based projects
- Accepted applications September 2011
- Harrietsfield site is a good possible candidate



Harrietsfield Project



- Site investigation commenced October 2011
- Nova Scotia Power grid studies December 2011
- Environmental Assessment Field work underway
- Met tower August/September 2014
- Community Information Sessions underway



Benefits to Community



- Local, sustainable energy
- Local Ownership
- Tax revenue
- Construction jobs
- Operations and maintenance jobs



Questions?



- Survey
- Tea, Coffee and Timbits
- CLC
- Trip to Watts





Legend

- Building Point
- ★ Wind Turbine
- - - Access Road
- Roads
- Contours
- Watercourse
- ▭ Municipal Bounds
- - - 1000 meter buffer
- Lake
- Wet Area

HARRIETSFIELD WIND FARM

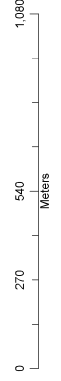
PROPOSED WIND ENERGY PROJECT

Drawn by: AWA

Date: 8/18/2014

Project #: 045

Scale @ A0



Coord. System: NAD83 CSRS UTM Z20N
 Projection: Transverse Mercator
 Units: Meters



Do you have any other comments about this information session or the project?

Please check the most appropriate response:

Do you support wind energy in general?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Undecided <input type="checkbox"/>
Do you support wind energy in this county?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Undecided <input type="checkbox"/>
Do you support the Harrietsfield Wind Farm?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Undecided <input type="checkbox"/>
Did you find this information session informative?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Did you take any of the provided educational brochures?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Are you a civil/electrical contractor interested in helping construct the Harrietsfield Wind Farm (provide contact details below)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Interested in visiting Watt Section turbine?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Would you be interesting in investing in the Watts CEDIF?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

Correspondence:

Would you like to be added to our **MAILING LIST** for future correspondence? Yes No

How would you prefer to receive correspondence? Regular Mail E-mail

(Please ensure a full mailing address or e-mail address is clearly printed on the reverse side.)

Your phone number will only be used to clarify contact details in the event of an email or letter returned to sender)

Please tell us a little bit about yourself:

Occupation: _____

Age (check range): Under 25 25 – 34 35 – 49 50 – 64 Over 65

Are you a member of any organizations in the area? Yes No

If so, which one(s)? _____

Thank you for coming by the information session and filling out this questionnaire.

Please leave your completed questionnaire with a staff member or send it via fax or regular mail to:



**Watts Wind
Energy Inc**
300 Prince Albert Road
Dartmouth, NS
B2Y4J2

Telephone: +1-902-482-0920
Fax: +1-866-314-5349

Contact Details
Contact Trent MacDonald: info@wattswind.com



Harrietsfield Williamswood Community Information Session

Location: Harrietsfield Williamswood Community Center, Harrietsfield

Date: August 18, 2014

Time: 6:00 pm to 8:00 pm

Hosted by: Paul Pynn, P.Eng

Accompanied by: Trent MacDonald, EIT

The following are details from the information session:

- The information session was attended by approximately 17 community members.
- The duration of the meeting was approximately 1 hour 30 minutes.
- The Proponent provided a background on Watts Wind Energy Inc., past and present projects, and the preliminary information on the proposed Harrietsfield Williamswood Community Wind Farm.

The presentation was open for community questions throughout the project. The following concerns were raised in accordance to the information session and a following note is provided on how it was addressed:

Concern 1 – The major concern was that of the RDM Recycling Facility in Harrietsfield. This site, currently closed, was a major concern for community members as they feel they were not properly informed on the proceedings in the facility.

Addressed – The proposed Watts Wind Energy the Harrietsfield Williamswood community is in no way being kept a secret from the community. Numerous information sessions and Q&A periods will be held to address all of the members concerns. Also, the proposed wind farm should not be considered as a “dump” or landfill site as there is no waste being released into the environment from the towers. The site itself will also be maintained and no garbage will be left around the site.



Concern 2 – How does the community benefit from this kind of facility?

Addressed – The community can benefit in many ways from these projects. One suggestion brought up by a member in the community is the poor current state of their roads and if upgrading/resurfacing is a possibility. Also, a community liaison committee (CLC) can be created and as this facility generates electricity, it also generates revenue. There are many potential areas where this CLC could use money provided by the Proponent each year, such as the Community Center or the Recreational Facility (ball field, basketball court and playground area).

Concern 3 – Why did only a small number of individuals receive mailouts and notice?

Addressed – Advertising was done in three ways: a mailout was sent to property owners within a two kilometer radius of the proposed site, the information session was posted in the Chebucto News and finally, posted on the board outside the Harrietsfield Williamswood Community Center. For the next info session a three or four kilometer radius mailout may be done to improve attendance.

Concern 4 – When three turbines are installed in “The Barrens”, is there a possibility for more?

Addressed – The grid is unable to handle more than the proposed 4.6MW that will be produced by the turbines; therefore, we have no additional plans for increasing the number of turbines in Harrietsfield Williamswood.

Concern 5 – 2 individuals asked about the possibility of noise and hearing the turbines at night while they are sleeping. They were genuinely concerned about the health risks of noise.

Addressed – The possibility of health risks associated with noise at a site where the nearest dwelling is located greater than 1.2 kilometers away from the nearest turbine are miniscule. We hope to have advanced with turbine placement enough to begin preliminary noise studies to display to the public at our next community information session.

* Following the meeting a community member approached Trent to discuss the possibility of having a hybrid name on the wind farm. Instead of referring to the wind farm as the Ketch Harbour Wind Farm or the Harrietsfield Wind Farm, it would be great to see it named the:

Harrietsfield Williamswood Community Wind Farm

Appendix 12 Aboriginal Engagement



Watts Wind Energy
300 Prince Albert Road
Suite 200
Dartmouth, Nova Scotia B2Y 4J2

August 22, 2014

Indian Brook First Nation
522 Church Street
Indian Brook, Nova Scotia B0N 1W0

Chief Rufus Copage,

Watts Wind Energy is a Nova Scotia based company dedicated to developing community based and owned wind energy projects. Please see the attached GIS map showing our proposed wind energy development located outside of Harrietsfield in Halifax Regional Municipality. We would like to ensure this project does not negatively impact First Nation interests and would be pleased to meet with you to discuss in greater detail.

If you require further information, or would like to arrange a time and location for a meeting, please do not hesitate to contact me at 902-482-8687, or smason@seafortheng.ca.

Sincerely,

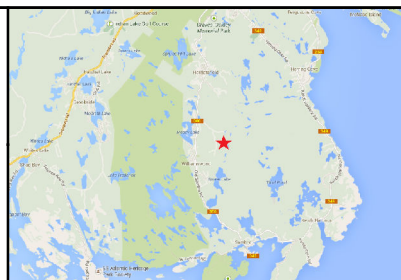
A handwritten signature in black ink, appearing to be "SM", followed by a period.

Stan Mason
President, Watts Wind Energy



Legend

- | | |
|--------------------------------|----------------|
| Turbine_Layout_rev0 | Building Point |
| ns_floacc | Roads |
| 1000m residential buffer | Watercourse |
| Proposed Access Route | Contours |
| 2000m turbine setback | Lake |
| 1500m turbine setback | Wetland |
| 1000m turbine setback | |
| 500m turbine setback | |
| Property bounds (not surveyed) | |



Proposed Williamswood Wind Project

Map Parameters
 Projection: UTM/NAD83/Z20
 Project No: 045

Date: 8/22/2014



Watts Wind Energy
Stan Mason, President
300 Prince Albert Road
Suite 200
Dartmouth, NS B2Y 4J2

September 10, 2014

RE: Proposed Wind Turbine Williamswood/Harrietsfield, Halifax Regional Municipality, NS

Dear Mr. Stan Mason,

Thank you for your letter dated August 22, 2014 on the above mentioned project with the invitation for discussion.

Effective March 5, 2013, Sipekne'katik Band withdrew from the Made in Nova Scotia Process / Mi'kmaq Rights Initiative administered by Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO). Since this time, Sipekne'katik Band has been performing its own consultations.

Sipekne'katik Band has both Mi'kmaq Rights and Title and has never ceded nor released lands within Nova Scotia and has asserted rights and title to all lands and waters of Nova Scotia.

Water, the environment and ecosystems and the protection of each are important to Sipekne'katik Band.

Sipekne'katik Band has an outstanding specific claim in close vicinity of the proposed project site; Sambro Indian Reserve # 15 is part of negotiations of the 1919 Halifax County Specific Land claim.

Sipekne'katik would like to accept your offer to meet to discuss. Our Consultation Coordinator will be in touch to arrange this meeting.

Yours in the spirit of Mi'kmaq Rights and Title,


Chief Rufus Copage



EON WindElectric
Trent MacDonald
300 Prince Albert Road
Suite 200
Dartmouth, NS B2Y 4J2
tmacdonald@eonwind.com

December 1, 2014

Dear Mr. MacDonald,

RE: Proposed Wind Turbine Williamswood/Harrietsfield, Halifax Regional Municipality, NS

This letter is a follow up to our letter dated September 10, 2014 on the above mentioned project.

Will an Environmental Assessment be required for this project? If so, when is it expected to be registered with Nova Scotia Environment and available for review?

At present, if there is an Archaeological Report available for review, Sipekne'katik would like to receive a copy for review.

Sincerely yours,


Chief Rufus Copage

cc. Paul Pynn (ppynn@eonwind.com)



Trent MacDonald <tmacdonald@eonwind.com>

RE: Proposed Watts Wind Turbines Porters Lake & Harrietsfield, HRM, NS

Trent MacDonald <tmacdonald@eonwind.com>
To: rcopage@shubenacadieband.ca

Wed, Dec 10, 2014 at 1:48 PM

Hello Rufus,

Thank you for your email and I hope all is well.

In response to your December 1st, 2014 email regarding the Williamswood/Harrietsfield Wind Farm:

- There will be an Environmental Assessment (EA) required for this Project as the Project exceeds 2MW. We anticipate that the EA will be submitted before the end of January, 2015.
- We are currently in the process of completing an Archaeological Assessment for the area. Upon completion and receipt of the report, I will forward it to Sipekne'katik for your review.

In response to your December 1st, 2014 email regarding the Porters Lake Wind Farm:

- The Environmental Assessment has been registered (Dec.4) for the Porters Lake Wind Farm and I look forward to your comments regarding the Archaeological Report and the EA itself.
- The EA review will be complete on February 2nd, 2015 and I would gladly like to meet and discuss the Project further.

Thank you again for your letters and I look forward to hearing from you.

Best Regards,

Trent

Trent MacDonald, EIT
EON WindElectric
P: (902) 863-9508



Trent MacDonald <tmacdonald@eonwind.com>

Proposed Watts Wind Projects - Porters Lake & Harrietsfield, NS

Trent MacDonald <tmacdonald@eonwind.com>

Wed, Feb 18, 2015 at 8:07 AM

To: rcopage@shubenacadieband.ca

Cc: Jennifer Copage <jennifer@mikmaki.ca>, Paul Pynn <ppynn@eonwind.com>

Hello Rufus,

I hope all is well and that you are able to find some enjoyment in the winter weather we have been receiving. I am writing to update you on our proposed Porters Lake and Harrietsfield Williamswood Wind Projects, last discussed on December 10, 2014 through email.

Porters Lake

The Porters Lake Environmental Assessment (EA) has been reviewed and approved (January 30th, 2015). We have since sat down with Nova Scotia Environment (EA Branch and Field-level Office) and discussed the Conditions of Approval in relation to the EA.

As a follow up to your letter dated December 1, 2014, we would welcome a meeting to sit down and discuss this Project further with regards to the EA, Conditions and planning towards the completion of the Project. Please contact me at your convenience to organize this meeting.

Harrietsfield Williamswood

The Harrietsfield Williamswood Environmental Assessment is currently being completed and the document is scheduled to be submitted by the end of February.

As requested in your email dated December 1, 2014, the Archaeological Assessment report has not been received from Strum Engineering at this time; we expect to receive the report by the end of this week to include in our Environmental Assessment. When the Archaeological Report is submitted by Strum, I will forward the document for your review.

Thank you Rufus and I look forward to hearing from you soon.

Best regards,

Trent

Trent MacDonald, EIT
EON WindElectric
P: (902) 863-9508



Watts Wind Energy
4 MacDonald Avenue
Dartmouth, NS B3B 1C5

March 4, 2015

Chief Bob Gloade
Millbrook Band Administration
P.O. Box 634
Truro, NS B2N 5E5

Dear Chief Gloade,

Watts Wind Energy is a Nova Scotia based company dedicated to developing community based wind energy projects. Watts is proposing a three turbine, 4.6MW project near Harrietsfield and is currently completing environmental studies for the submission of a Provincial Environmental Assessment. We are anticipating EA submission to occur fairly soon.

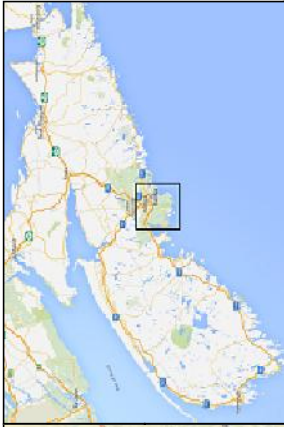
Please see the attached GIS map showing our proposed site. IR30 Cole Harbour is located approximately 15km east of the proposed project location. Accordingly, we would like to ensure our project does not negatively impact First Nation interests and would be pleased to meet with you to discuss in greater detail.

If you require further information such as a Project Description, or could suggest a time and location for a meeting, please do not hesitate to contact me at 902-482-8687, or ppynn@eonwind.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Pynn", with a long horizontal line extending to the right.

Paul Pynn
Vice President, Watts Wind Energy



Legend

★ HWWF Location

Figure 1.1

General Site Location

Drawn by: TAM

Date: 1/30/2015

Project #: 045

Scale 1:125 000



Coord. System: NAD83 CSRS UTM Z20N
 Projection: Transverse Mercator
 Units: Meters

