CENTURY
IRON MINES CORP.

Joyce Lake Direct Shipping Iron Ore Project

Rare Plant Survey

121-18002-01

November 2014

WSP

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Rare Plant Survey

Final Version

Approved by:

Martin Larose, Project Director

121-18002-01 November 2014

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EXECUTIVE SUMMARY

Reference to be cited:

WSP. 2014. Joyce Lake Direct Shipping Iron Ore Project. Rare Plant Survey. Report prepared for Labec Century Iron Ore. 51 p. and appendices.

Labec Century Iron Ore (Labec Century; the Proponent), a subsidiary of Century Iron Mines Corporation (TSX:FER), is proposing to develop an iron mine in western Labrador, approximately 20 kilometres (km) northeast of the Town of Schefferville, Québec. The Joyce Lake Direct Shipping Iron Ore (DSO) Project (the Project) lies on a peninsula of land in Attikamagen Lake and all of the Project's physical elements lie within Labrador. The mine will produce up to two million tonnes (Mt) of product per year. The ore will be transported to the existing rail owned by Tshiuetin Rail Transportation Inc., and further onto the Québec North Shore and Labrador Railway (QNS&L) for transportation to the Port of Sept-Îles.

The Project will require approval from the Government of Newfoundland and Labrador and is subject to environmental assessment (EA) under the *Newfoundland and Labrador Environmental Protection Act* (NLEPA) and associated Environmental Assessment Regulations. Under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) the Project is a Designated Project pursuant to Section 15(a) Regulations Designating Physical Activities and will require a federal EA.

The Rare Plant Survey was conducted to provide additional information to the Vegetation Baseline Study conducted in 2012 in support of the EA process. The Rare Plant Survey report includes all the information related to rare plants collected during both the 2012 and 2013 surveys. In 2012, a reconnaissance survey was conducted on August 4 to make a rapid search for rare vascular plants and species of conservation concern in specific habitats where such species were most likely to be found. The main field survey was conducted from August 14 to August 24, 2012. During the survey, emphasis was put on wetland characterization and on the search for rare or potentially uncommon plant species within the Project Development Area (PDA). In 2012, a total of 59 sampling plots were surveyed. In 2013, the field campaign was specifically aimed at documenting and finding rare plant occurrences in the Study Area and in the Schefferville region (Regional Study Area; RSA). The field campaign was conducted from August 6 to August 11. Sampling areas were selected based on the potential of finding rare plants in any given habitat and on the possibility of finding a nearby landing area for the helicopter. In 2013, 41 additional sampling plots were surveyed.

During both the 2012 and 2013 surveys, random survey transects were used to locate rare plants. A total of 95 km of linear transects were visited by the main field botanist. A more thorough survey was conducted in habitats where rare plants were most likely to be found, such as wetlands (fens), flood plains of slow-moving rivers and streams, and unique rock outcrops and landforms (i.e. calcicolous and chionophilic habitats). When a colony of rare plants was found, coordinates, number of specimens, plant sociology, and a brief description of physical setting and habitat were noted. In addition, digital photographs were taken. An exhaustive listing of species found along with rare plants was also compiled.

According to the Atlantic Canada Conservation Data Centre (ACCDC, 2012), there are no known occurrences of plant species listed under the federal *Species at Risk Act* (SARA) or under the provincial *Newfoundland and Labrador Endangered Species Act* (NLESA) within the RSA. A total of 357 individual occurrences of rare vascular plants were found during the 2012 and 2013 field surveys and 143 rare vascular plants were found to be present within the RSA based on surveys and on the existing literature. Of this number, 73 species were observed during the 2012 and/or the 2013 field surveys. Within the limits of the Study Area, one species considered at risk and 35 species of conservation concern were found. Among these, 17 were given more attention considering their conservation priority, general status and low number of occurrences. The Norwegian cudweed a Low Priority COSEWIC candidate species was found in the Study Area in 2012, but was found to be naturally extirpated from the site during the 2013 survey. This is the single plant species considered at risk found in the Study Area.

PRODUCTION TEAM

Labec Century Iron Ore Inc.

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WSP Canada Inc. (WSP)

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ABBREVIATIONS

ACCDC	:	Atlantic Canada Conservation Data Centre
CDPNQ	:	*Centre de données sur le patrimoine naturel du Québec*
COSEWIC	:	Committee on the Status of Endangered Wildlife in Canada
NL DOEC	:	Newfoundland and Labrador Department of Environment and Conservation
NL DONR	:	Newfoundland and Labrador Department of Natural Resources
DSO	:	Direct Shipping Ore
EA	:	Environmental Assessment
EIS	:	Environmental Impact Statement
FNA	:	Flora of North America
GIS	:	Geographic Information System
LEMV	:	*Act respecting threatened or vulnerable species*
NLEPA	:	*Newfoundland and Labrador Environmental Protection Act*
NLESA	:	*Newfoundland and Labrador Endangered Species Act*
PDA	:	Project Development Area
QA/QC	:	Quality Assurance/Quality Control
RSA	:	Regional Study Area
S Rank	:	Sub-national (provincial) rarity ranking for a species
SARA	:	*Species at Risk Act*
SSAC	:	Species Status Advisory Committee
VASCAN	:	Database of Canadian Vascular Plants

1 INTRODUCTION

Labec Century Iron Ore (Labec Century; the Proponent), a subsidiary of Century Iron Mines Corporation (TSX:FER), is proposing to develop an iron mine in western Labrador, approximately 20 kilometres (km) northeast of the Town of Schefferville, Québec. The Joyce Lake Direct Shipping Iron Ore (DSO) Project (the Project) lies on a peninsula of land in Attikamagen Lake and all of the Project's physical elements lie within Labrador (Figure 1).

The mine will produce up to two million tonnes (Mt) of product per year. The ore will be transported to the existing railway owned by Tshiuetin Rail Transportation Inc., and further onto the Québec North Shore and Labrador Railway (QNS&L) for transportation to the Port of Sept-Îles.

The Project will require approval from the Government of Newfoundland and Labrador and is subject to environmental assessment (EA) under the *Newfoundland and Labrador Environmental Protection Act* (NLEPA) and associated Environmental Assessment Regulations. Under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) the Project is a Designated Project pursuant to Section 15(a) Regulations Designating Physical Activities and will require a federal EA.

1.1 Project Overview

The Joyce Lake mining prospect lies in an undeveloped area adjacent to the small Joyce Lake waterbody on a peninsula within Attikamagen Lake, in an area with a number of interconnecting large lakes. The prospect can be reached from the mainland by crossing a relatively narrow stretch of water, called Iron Arm. Currently, the prospect is accessed from Schefferville either directly by helicopter or by ground via an existing road to Iron Arm and then by helicopter to Joyce Lake.

The Project consists of mining a high grade deposit of hematite iron in western Labrador, approximately 20 km northeast of Schefferville, as shown in Figure 1. The physical works for the proposed Joyce Lake Project subject to assessment are located wholly in Labrador. The mine area lies within two map-staked licences (309 claims) covering 12,665 hectares (ha).

The physical elements of the Project include the Joyce Lake mining area, options for conveyance across Iron Arm (ice bridge, barge), a beneficiation plant on the mainland, a new haul road to connect to a new rail loop by Astray Lake, access roads, and an accommodation camp. Power for the Project will be provided by diesel generators using fuel stored mainly at the beneficiation plant, with smaller tanks at other locations where power is required. Other physical elements of the Project include stockpiles for overburden, waste rock, and ore (pre- and post-processing), water supply systems, settling ponds with water treatment, domestic waste water treatment, drainage ditches, explosives storage, a hazardous materials storage and management area, and ancillary buildings (e.g., offices, workshops, warehouse/storage areas, worker facilities, mobile equipment storage). All structures will be constructed so that they can be moved from the site and re-used elsewhere when no longer required for this Project.

The Project's estimated annual production of iron ore is provided in Table 1, and is based on current exploration information. The current estimated target production is 2 Mt/yr of ore. The first four years of operation would focus on production of DSO which has a high iron content (~60% iron), with stockpiling of lower grade ore (<60% iron) that will be beneficiated in Phase II to bring it up to the desired commercial grade.

Table 1: Estimated Annual Production of Iron Ore in Phase I and Phase II for the Joyce Lake Project

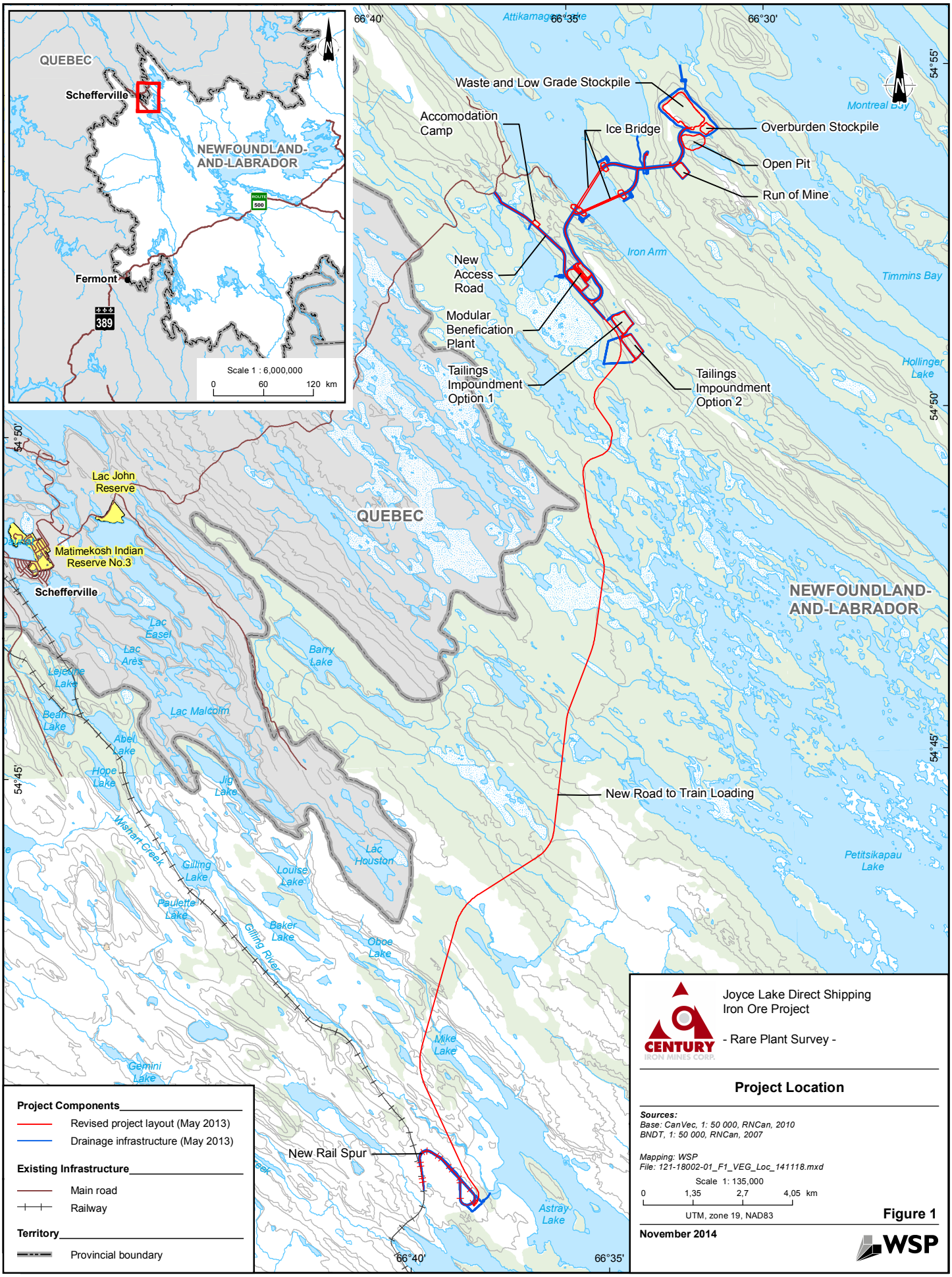
Product	Unit	Estimated Production by Year							
		2014	2015	2016	2017	2018	2019	2020	2021
Phase I Ore (DSO; 60% Fe)	tonne	-	999,000	1,987,000	1,986,000	1,987,000	TBD[1]	TBD[1]	TBD[1]
Phase II Ore (55% Fe)	tonne	-	-	-	-	-	TBD[1]	TBD[1]	TBD[1]
Waste Rock Low Grade	tonne	949,000	11,584,000	15,662,000	5,375,000	140,000	TBD[1]	TBD[1]	TBD[1]

[1] TBD: To be determined.

Phase I construction would begin upon release from EA and with receipt of the relevant permits. For Phase I, mining activities will occur throughout the year. From April to November standard mining activities will occur and ore will be stockpiled. During the winter season, the mining activities will include moving the stockpiled ore by truck from the mine site to the beneficiation plant using the ice bridge to cross Iron Arm. After beneficiation, the ore products will be hauled by truck over the new road to the new rail yard. At the present time, it is anticipated that Phase I will include four years of production (2015 to 2018), followed by three years of Phase II production. Construction of additional infrastructure for Phase II will begin during the last half of Phase I production. The total life-of-mine is anticipated to be up to seven years, but this timeframe may be adjusted as exploration proceeds.

Extraction of the resource will be by open pit and construction of this pit will require dewatering Joyce Lake. The mining operation will consist of removing ore from the single open pit using drilling and blasting, a hydraulic excavator and haul trucks. In Phase I, mining equipment and supplies will be brought to the mine site by barge over Attikamagen Lake during the ice free season and over an ice bridge in the winter. The pre-stripping of overburden at the open pit will start during the summer, with waste rock and low grade ore being stockpiled outside the pit limits.

Beneficiation in Phase I of the Project will consist of a dry circuit with two crushing and two screening steps necessitating no water addition, allowing operation in cold weather. In Phase I, the beneficiation plant will be operated 250 days per year (during the warmer months). Only high grade ore will be processed during Phase I generating two different products: lump ore and sinter feed, and the plant will not produce any tailings.



Joyce Lake Direct Shipping
Iron Ore Project

- Rare Plant Survey -

Project Location

Sources:
Base: CanVec, 1: 50 000, RNCan, 2010
BNDT, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_F1_VEG_Loc_141118.mxd

Scale 1: 135,000
0 1,35 2,7 4,05 km
UTM, zone 19, NAD83

Figure 1

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For Phase II, a wet circuit will be added which will require the use of fresh water and may include an iron content upgrading process. For Phase II, the beneficiation plant will be operated approximately 200 days per year (during the warmer months). Processing details for Phase II have not yet been determined and are being studied in parallel with information obtained during the exploration activities.

For both phases, the final product will be hauled by truck from the beneficiation plant to the rail yard, a distance of approximately 28 km along a new haul road. At the rail yard, the product will be loaded onto rail cars on a new 6 km rail loop that will connect to the existing Tshiuetin Rail. The product will be taken south to Sept-Îles, Québec, where it will be stockpiled on Port Authority land prior to shipping to market.

1.2 Organization of this Report

The remainder of this Rare Plant Survey report outlines the scope, methodology, and results of the field work, and is presented in seven sections, as follows:

- Section 1: Introduction;
- Section 2: Rationale and Objectives;
- Section 3: Description of the Study Area;
- Section 4: Methods;
- Section 5: Results;
- Section 6: Summary and Closure;
- Section 7: References.

Additional supporting information and documentation is presented in the appendices.

2 RATIONALE AND OBJECTIVES

The Rare Plant Survey is one of the components of the Joyce Lake DSO Project and provides additional supporting information to the Vegetation Baseline Study conducted in 2012 (GENIVAR, 2013). This survey concerns only vascular plant species and no specific effort was given to searching for non-vascular species even though several specimens were encountered during the surveys. During the 2012 vegetation survey, a total of 40 rare vascular plant species were found in the area surrounding the Project and additional information was needed to assess the rarity of these species.

Plants that are considered rare are for the most part species with very specific biological needs. Rarity can be influenced by a plethora of factors. In general, species at the limits of their range, species with a restricted number of individuals and limited number of occurrences in any given region are considered rare. The documentation and the preservation of rare plants are important to maintain biological and genetic diversity. Rare plants are also good indicators of rich and well-preserved ecosystems. Rare plant surveys are also useful in pinpointing particular or very specific habitat characteristics that are usually poorly covered by standard methods of inventory.

In Newfoundland and Labrador, only species listed under the *Species at Risk Act* (SARA) and *Newfoundland and Labrador Endangered Species Act* (NLESA) have legislative protection. Candidate species of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), species in need of completion of status reports by the Newfoundland and Labrador Species Status Advisory Committee (SSAC) and listed species from the Atlantic Canada Conservation Data Centre (ACCDC) and the Newfoundland and Labrador Department of Environment and Conservation (NL DOEC) Wildlife Division are not granted legislative protection, although these are considered of concern by provincial regulators.

The NL DOEC, through the Atlantic Canada Conservation Data Centre (ACCDC), maintains a comprehensive list of vascular plant species it considers to be rare, unusual or uncommon. A combined rank (e.g., S1/S2) is given to species whose status is uncertain; the first rank indicates the rarity status given current documentation and the second rank indicates the rarity status that will most likely be assigned after all historical data and likely habitats have been checked. The ranking method used by the ACCDC is based on a system developed by the Nature Conservancy that is used throughout North America (NatureServe, 2013). Therefore, a plant species not listed under one of the Acts or their associated regulations, but considered unique or unusual, either locally or regionally, by NL DOEC as recorded by the ACCDC, is considered rare. All plants having a scarcity rank of SU (unrankable), S1 (extremely rare), S2 (rare), SNR (unranked), SNA (not applicable) or a combination of the above mentioned ranks were considered within this report.

In addition to the ranks provided by the ACCDC the NL DOEC also uses a different ranking system known as The General Status of Species in Canada. This method serves has a first alert tool for identifying species that are potentially at risk. Under this process, the populations of species that are native to the province are classified

as either “At Risk”, “May be at Risk”, “Sensitive” to human activity or natural events, “Secure”, or “Undetermined” should there be insufficient data, information, or knowledge available to access their status. Species ranked “At Risk”, “May be at Risk” and “Sensitive” by this method were also taken into account in this report as they can be considered of concern by provincial regulators. The NL DOEC (C. Hanel, NL DOEC, pers. comm. 2013) also provided conservation priority ranks (High, Medium and Low) after consultation of the list of rare plants included in the Vegetation Baseline Study (GENIVAR, 2013). Appendix A provides an overview of the ranking systems used in Newfoundland and Labrador and in Canada.

For the purpose of the survey, effort was devoted to rare vascular plants, including their habitats, with an emphasis on species listed nationally as “At Risk” (endangered, threatened or of special concern) under Schedule 1 of SARA, those listed as endangered, threatened or vulnerable under the NLESA, assessed as “At Risk” or candidate species by the COSEWIC and species in need of completion of status reports from the SSAC or those listed threatened, vulnerable or likely to be designated under Québec’s LEMV. Elements that had not been previously recorded in Labrador were automatically considered rare.

The main objective of the Rare Plant Survey was to determine the presence or absence as well as the distribution of rare vascular plants to meet legal requirement under the federal SARA and provincial NLESA. Moreover, the Rare Plant Survey was produced to provide the following information: 1) the spatial distribution of rare vascular plants in the Study Area; 2) document the occurrences of rare plant species; 3) maps that illustrate where the rare plants where found in relation to the Project location. Baseline information compiled as part of this study will be used to support the environmental assessment and help in the Project planning and design.

3 DESCRIPTION OF THE STUDY AREA

The Project lies within the Mid Subarctic Forest and the High Subarctic Tundra ecoregions. The Mid Subarctic Forest ecoregion is characterised by cold and snowy winters, cool summers with moderate rainfall and a 100-120-day growing season (Newfoundland and Labrador Department of Natural Resources [NL DONR], 2012). The harsh climate restricts closed-canopy forests to sites protected from the wind. Black spruce (*Picea mariana*), white spruce (*Picea glauca*) and tamarack (*Larix laricina*) are, in general, the only tree species that survive in the northern part of this ecoregion (Groupe Hémisphères, 2009). Black spruce-moss stands are found on moderately drained sites, while stands of spruce and lichen are common on well-drained sites established on thin till deposits. Vast complexes of wetlands are common and peatlands are predominant. The High Subarctic Tundra ecoregion is characterised by cold and windy winters, cool summers with moderate rainfall and an 80-100-day growing period (NL DONR, 2012). Treed vegetation is absent from this ecoregion. The vegetation is mostly shrubs, low shrubs and grass (Meades, 1990). Wetlands typically cover small areas and are located mostly around lakes and in depressions. Additional information regarding upland and wetland types of habitats that occur in the Study Area can be found in the Vegetation Baseline Study (GENIVAR, 2013).

Project Development Area

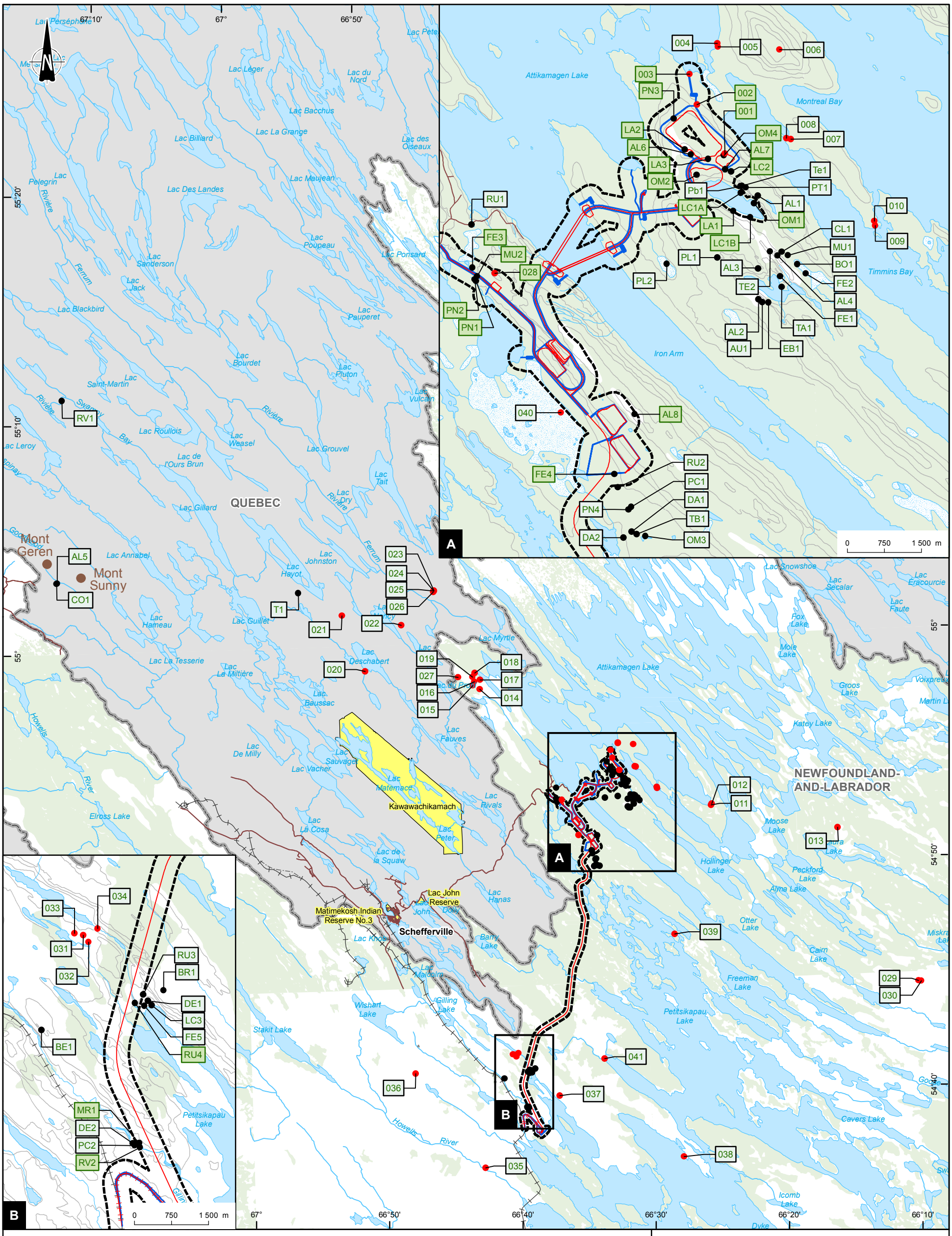
The Project Development Area (PDA) is the most basic and immediate area of the Project. The PDA is limited to the anticipated area of physical disturbance associated with the construction or operation of the Project. For this Project, the mine area lies within two map-staked licences (309 claims) covering 12,665 ha. The PDA includes the mining area, conveyances across Iron Arm, a beneficiation plant on the mainland, access roads, an accommodation camp, a new 28-km long haul road, and a rail spur near the existing railroad (Figure 2).

Rare Plant Survey Study Area

The Rare Plant Survey Study Area (the Study Area) comprises a 28-km² area and encompasses all of the Project Development Area (PDA) with a 250-m buffer zone (Figure 2). Habitats that are partially encompassed within this buffer, where rare vascular plants were found, were also considered as part of the Study Area. The buffer zone was determined to include any Project-related environmental effects that may reasonably be expected to occur. Rare plants are generally site-specific and Project-related environmental effects can be predicted or measured with a reasonable degree of accuracy and confidence.

Regional Study Area

The Regional Study Area (RSA) has no defined borders and the maximum outreach of the survey is 55 km from Joyce Lake (Figure 2). The RSA is representative of the biological and physical settings found in the Study Area. The scale is considered to be appropriate to provide detailed information on the presence or absence of rare vascular plant species and their distribution.



Project Components

- Project layout
- Drainage infrastructure
- Study Area boundary

Existing Infrastructure

- Main road
- Railway

Territory

- Provincial boundary

Vegetation

- Sampling plot
- 035 Identification

- 035 Sampling plot within the Regional Study Area
- 035 Sampling plot within the Study Area
- 2012 survey
- 2013 survey

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Plant Survey Study Area and 2012-2013 Sampling Plots Locations

Sources:
Base: CanVec, 1 : 50 000, RNCan, 2010
BNDT, 1 : 50 000, RNCan, 2007
BDTA, 1 : 250 000, MRN Québec, 2002

Mapping: WSP
File: 121-18002-01_F2_VEG_Stations_141118.mxd

Scale 1:300 000
0 3 6 9 km
UTM, zone 19, NAD83

Figure 2

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4 METHODS

4.1 Existing Information and Desktop Research

A search for existing information regarding the history of botanical explorations in the vicinity of the Study Area was conducted in 2012 and presented in the Vegetation Baseline Study (GENIVAR, 2013). In addition, a review of existing rare plant literature was also conducted in 2012. All relevant information collected to produce the Vegetation Baseline Study was used to supplement the Rare Plant Survey report.

Information regarding species at risk and of conservation concern known to be found in the Project surroundings was collected from the Atlantic Canada Conservation Data Centre (ACCDC) and from the *Centre de données sur le patrimoine naturel du Québec* (CDPNQ) database (Tables 2 and 3; GENIVAR 2013). The following sources of information were also consulted:

- *Species at Risk Act* (SARA);
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC);
- *Newfoundland and Labrador Endangered Species Act* (NLESA);
- Newfoundland and Labrador Species Status Advisory Committee (SSAC);
- Newfoundland and Labrador Department of Environment and Conservation (NL DOEC) – Wildlife General Status of Wildlife Ranks;
- Québec's *Act respecting threatened or vulnerable species* (LEMV).

In this report, the term "rare plant species" includes species that are rare, disjoint, or at risk throughout their range in Labrador and in need of further research. The term "species at risk" encompasses species that are listed under the NLESA, SARA and LEMV, that is to say species with legislative protection, as well as candidate species listed by COSEWIC and SSAC. The term "species of conservation concern" includes rare plant species that have a special designation by the ACCDC and the NL DOEC.

Table 2: List of Rare Plant Species Present within the Study Area or in the Schefferville Area

LB ID	Scientific Name	English Name	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]	Observation Year	Site Name	Survey Site	Accuracy (m)
Vascular Species										
742230	*Packera aurea*	Golden ragwort	G5	NNR	S2S4	Undetermined	1963	Knob Lake (NF)	Knob Lake (NF)	1000
743136	*Salix pedicellaris*	Bog willow	G5	NNR	S2S4	Sensitive	1967	Hope Lake (NF)	Hope Lake (NF)	1000
Non-Vascular Species										
741979	*Sphagnum warnstorfii*	Warnstorf's bog-moss	G5	NNR	S2		1967	Schefferville (QC)	NE end of Astray Lake; SE of Mike Lake	1000
741979	*Sphagnum warnstorfii*	Warnstorf's bog-moss	G5	NNR	S2		1967	Schefferville (QC)	NE end of Astray Lake; SE of Mike Lake	1000
741979	*Sphagnum warnstorfii*	Warnstorf's bog-moss	G5	NNR	S2		1967	Attikamagen Lake (NF)	Schefferville area; SW shore of Attikamagen Lake	1000
742024	*Abietinella abietina*	Moss	G4G5	NNR	S2		1967	24	Schefferville area, east shore of Slimy Lake	1000
741769	*Bryum pallescens*	Moss	G5	NNR	S1		1967	24	Schefferville area, east shore of Slimy Lake	1000
741770	*Bryum pseudotriquetrum*	Moss	G5	NNR	S2		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000
741775	*Bryum weigelii*	Moss	G4G5	NNR	S1		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000

Table 2: List of Rare Plant Species Present within the Study Area or in the Scheffervile Area (Continued)

LB ID	Scientific Name	English Name	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]	Observation Year	Site Name	Survey Site	Accuracy (m)
741780	*Calliergon giganteum*	Moss	G5	NNR	S2		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000
741806	*Dicranella schreberiana*	Moss	G5	NNR	S1		1967	50	Schefferville area, southwest shore of Attikamagen Lake	1000
741835	*Encalypta procera*	Moss	G4G5	NNR	S1		1967	24	Schefferville area, east shore of Slimy Lake	1000
741836	*Encalypta rhaptocarpa*	Moss	G4G5	NNR	S2		1967	24	Schefferville area, east shore of Slimy Lake	1000
741876	*Hypnum recurvatum*	Moss	G3G5	NNR	S1		1967	24	Schefferville area, east shore of Slimy Lake	1000
741875	*Hypnum vaucheri*	Moss	G3G5	N3N5	S1		1967	24	Schefferville area, east shore of Slimy Lake	1000
741896	*Myurella tenerrima*	Moss	G3G4	NNR	S1		1967	24	Schefferville area, east shore of Slimy Lake	1000
741927	*Pohlia wahlenbergii*	Moss	G5	NNR	S1		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000
741929	*Polytrichum longisetum*	Slender Hairy-Cap	G5	NNR	S2		1967	50	Schefferville area, southwest shore of Attikamagen Lake	1000

Table 2: List of Rare Plant Species Present within the Study Area or in the Scheffervile Area (Continued)

LB ID	Scientific Name	English Name	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]	Observation Year	Site Name	Survey Site	Accuracy (m)
742044	*Rhizomnium magnifolium*	Moss	G4G5	NNR	S2		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000
742041	*Rhizomnium pseudopunctatum*	Moss	G5	NNR	S2		1967	49	Schefferville area, northeast end of Astray Lake, southeast of Mike Lake	1000
742041	*Rhizomnium pseudopunctatum*	Moss	G5	NNR	S2		1967	50	Schefferville area, southwest shore of Attikamagen Lake	1000
742004	*Tortella tortuosa*	Moss	G5	NNR	S2		1967	24	Schefferville area, east shore of Slimy Lake	1000
742006	*Tortula ruralis*	Moss	G5	NNR	S2		1967	24	Schefferville area, east shore of Slimy Lake	1000

Source: Atlantic Canada Conservation Data Center (ACCDC, 2012)

[1] Global Conservation Status Rank

[2] National Conservation Status rank

[3] Subnational (or Provincial) Conservation Status Rank

[4] There is no General Status given by the NL DOEC to non-vascular species.

Table 3: List of Rare Vascular Plants Potentially Present within the Study Area with their Preferred Habitat and Québec Priority Rank

Scientific Name	English Name	Status[1]	Québec Priority Rank[2]	Habitat	Potential of Presence[3]
Agoseris aurantiaca var. *aurantiaca*	Orange agoseris	SDMV	G5T4T5/NNR/S1	Subalpine swamps and prairies (calcicolous)	Moderate
Alchemilla glomerulans	Clustered lady's mantle	SDMV	G3G5/NNR/S1	Swamps, humid prairies and sandy shores	Low
Antennaria rosea subsp. *confinis*	Frontier rosy pussitoe	SDMV	G5T4T5/NNR/S1	Dunes, rock ledges, sand and exposed gravel (calcicolous)	Low
Antennaria rosea subsp. *pulvinata*	Cushion rosy pussitoe	SDMV	G5T5?/NNR/S3	Rocky and gravel shores, rock ledges and exposed gravel (calcicolous)	Low
Arnica chamissonis	Chamisso's arnica	SDMV	G5/NNR/S1	Humid prairie and vacant lots	High
Calamagrostis purpurascens	Purple reedgrass	SDMV	G5?/NNR/S2	Rock ledges, sand and exposed gravel (calcicolous)	Low
Carex petricosa var. *misandroides*	Man-hater sedge	SDMV	G4T1T2/N1N2/S2	Rock ledges, sand and exposed gravel (calcicolous)	Moderate
Cirsium muticum var. *monticola*	Mountain swamp thistle	SDMV	G5T?/N5/S2	Alpine tundra and rich fens	Low
Geum macrophyllum var. *perincisum*	Large-leaved avens	SDMV	G5T5/N5/S2	Swamps and mixed conifer forests	High
Hedysarum boreale subsp. *mackenziei*	Mackenzie's hedysarum	SDMV	G5T5?/N5?/S2	Arctic tundra and rocky and gravel shores (calcicolous)	Low

Source: CDPNQ (2008)

[1] Status of species in Québec: SDMV: Likely to be designated threatened or vulnerable.

[2] Priority Rank as established by NatureServe corresponds to a combination of letters and number indicating, respectively, scale and priority: G: Global Rank; N: National Rank; S: Subnational Rank; T: criteria for a subspecies or variety; NNR: National or Subnational Rank not evaluated; 1: High risk; 2: Risky; 3: Moderate risk; 4: Apparently not at risk; 5: Not at risk; (?) Ranks difficult to ascertain.

[3] The potential of presence within the study area was determined based on specific habitat characteristics required by these plants and on the experience of the botanist.

4.2 Field Survey

4.2.1 Overview of the 2012 Vegetation Survey

A reconnaissance survey was conducted on August 4, 2012 to make a rapid search for rare vascular plants and species of conservation concern in specific habitats where such species were most likely to be found. The main field survey in 2012 was conducted from August 14 to August 24. During the survey, emphasis was put on wetland characterization and on the search for rare or potentially uncommon plant species in and around the PDA, based on the preliminary project layout. A total of 59 sampling plots were surveyed and these covered most vegetation types found during the 2012 survey (GENIVAR, 2013).

All rare plant-related information collected during the 2012 vegetation survey was included within the Rare Plant Survey report.

4.2.2 2013 Pre-Survey Planning and Field Work

Prior to the field work, a work plan was prepared in collaboration with Stassinu Stantec team members and included the field methods. Due to limited information available on helicopter landing areas, sampling plots were selected during the field survey.

In 2013 the field campaign was specifically aimed at documenting and finding rare plant occurrences in the Study Area and in the RSA. The survey was conducted to better establish the range and numbers of rare plants observed in 2012. The field campaign was conducted from August 6 to August 11, 2013. A small number of early flowering plant species may have been missed by surveying only in late-summer. However, this number is probably low since special attention was given to plants in seed or exhibiting only vegetative structures. Sampling areas were selected according to the potential of finding rare plants in any given habitat and to find a nearby landing area for the helicopter. A total of 41 sampling plots were implemented in 2013. The survey team was made up of a main field botanist assisted by a field biologist.

Random survey transects were used to locate rare plants. In 2012 and 2013, a total of 95 km (as recorded on the GPS tracklog) of linear transects were visited by the main field botanist. Constant attention was given to species of concern during the entire field campaigns. However, a more thorough survey was conducted in habitats where these species were most likely to be found, such as wetlands (fens), flood plains of slow-moving rivers and streams, and unique rock outcrops and landforms (i.e. calcicolous and chionophilic habitats). In the event a colony of species of conservation concern was found, the following information was collected: coordinates (Garmin GPSmap 60CSx), number of specimens, plant sociology, digital photographs and a brief description of physical setting and habitat (Appendix B). An exhaustive listing of species found along with rare plants was also compiled (Appendix C). All data were tabulated using a Panasonic U2 Toughbook with an integrated GPS unit.

4.3 Voucher Specimens and Validation

During the field work, specimens of vascular plants of interest or plants that could not be identified with certainty were collected and preserved using a plant press for subsequent identification (Appendix D). The specimens collected will be sent to the Department of Agriculture's (DAO) herbarium in Ottawa. Most specimens collected during this field campaigns were reviewed by Jean Deshaye, Senior Botanist at WSP.

4.4 Data Management and Mapping

In this report, flowering plants are classified according to the most recent update of the phylogenetic classification (Angiosperm Phylogeny Group, 2009). The presentation order for the fern and lycophyte families follows the sequences proposed by Christenhusz et al. (2011a, b). Within families, species are arranged by alphabetical order. The most recent nomenclature for species names is based on the Vascan database (Brouillet et al. 2010) and on the Flora of North America Editorial Committee (FNA, 1993+). The information on phytogeographical domains comes from Hultén (1958, 1964, 1968, 1971), Rousseau (1974), Scoggan (1978-79), Meades et al. (2000), Payette (2013) and FNA (1993+).

The Rare Plants Survey data were compiled and analysed using Microsoft Excel. The various vegetation types found in the Study Area were identified and mapped using photo-interpretation. This activity was conducted using digital stereo imaging technology (PurVIEW software, Planar stereoscopic monitor) in combination with ArcGIS to digitize the information and tabulate attributes. This type of equipment allows for a high level of refinement due to the quality of the 3D georeference and to the on-screen magnification capabilities, which means data can be processed at a scale as precise as 1:500. High-resolution natural colour (RGB) digital aerial photographs, offering a ground resolution of 10 cm/pixel, were available for the Project. These aerial photographs were taken in 2012. Rare plant species were then mapped using coordinates gathered at each location. Arc Map GIS (Version 10.1) was used during all cartographic analyses and map production.

4.5 Quality Assurance/Quality Control (QA/QC) Procedures

The Quality Assurance/Quality Control (QA/QC) Program includes planning, organization, communication, field work, data analysis, reporting and the review of completed work. The QA/QC Program included the following measures:

- experienced professionals with a good understanding of the project and its objectives;
- kick-off meeting to present the project and the objectives of the rare plant survey;
- trained and experienced field teams made up of at least two people;
- use of standard methods, with equipment in good condition and appropriate for the work to be carry out;
- preparation of specific protocols, including the field methods and use of field forms;

- use of recent and standard reference documents;
- control of data tabulation;
- conservation of original data and data analysis results (hard copy and electronic);
- revision of all documents produced by qualified professionals.

5 RESULTS

The upland vegetation types where rare plants, including species at risk and of conservation concern, are most likely to be found are weathered rock barrens and exposed gravel and sand ecosystems. Areas where dolomite and highly carbonated rocks are found also offer greater potential for finding such species. In wetlands, rare plants are likely to be found in rich fens and temporary pond ecosystems. The rich horizontal fens and the shrub marshes bordering the Gilling River and other smaller watercourses are habitats where rare plants could potentially be found.

During the 2012 field campaign a total of 11 days were spent in the field. It was estimated that the study team searched approximately 50 person-hours especially for rare vascular plants and another 50 person-hours were given to habitat characterisation. A total of 59 sampling plots were implemented during the 2012 vegetation survey, of which 21 were located within the Study Area and 38 were located in the RSA (Figure 2). A far greater number of homogenous vegetation polygons were visited while moving from one sampling plot to another. A total of 58 km of linear transect were searched for rare vascular plants in 2012.

In 2013, a total of six days were spent in the field by the study team for approximately 60 person-hours. A total of 41 sampling plots were established and 37 km of linear transect were searched for rare vascular plants. Among these, four were located in the Study Area, while 37 were located in the RSA.

A total of 143 rare vascular plant species were found in the Schefferville area based on field surveys and existing literature (Table 4; Appendix E). Of this number 73 rare species were observed during the 2012 (58 species) and/or 2013 (45 species of which 15 rare additional species) field surveys, while the remaining species were found by others in the existing literature. A total of 357 occurrences of rare vascular plants were found during the 2012 and 2013 field surveys (Appendix B). The lack of botanical surveys in Labrador may explain why 61 of the species found are still not ranked by the ACCDC and that 87 species are ranked “Not Assessed” or “Undetermined” by the NL DOEC (Table 4). The characteristics of each single occurrence of rare plants found during the 2012 and 2013 surveys are presented in Appendix B.

5.1 Species at Risk

According to the ACCDC, there are no known occurrences of plant species listed under the federal SARA or the provincial NLESA in the area surrounding the Joyce Lake DSO Project (GENIVAR, 2013).

In regards to the Québec’s *Act respecting threatened or vulnerable species*, three plant species likely to be designated threatened or vulnerable occur in the Schefferville area and are likely to be found within the Study Area. These are the incised large-leaved avens (*Geum macrophyllum* var. *perincisum*), Chamisso’s arnica (*Arnica chamissonis*) and glacial sedge (*Carex glacialis*; Table 4).

The incised large-leaved avens is an herbaceous plant that was found by Hustich and Kallio (Hustich, 1965) near Knob Lake and Burnt Creek to the northwest of

Schefferville. The plant was also collected near the Town of Schefferville in 1999 by Blondeau (2000). No specimens were found in the Study Area or in the RSA during the 2012 and 2013 surveys.

Chamisso's arnica was found in 1999 to the northeast of Schefferville on a vacant lot where houses were demolished (Blondeau, 2000). This herbaceous species is isolated from the main population in eastern North America and was also found in a similar location near the abandoned mining Town of Gagnon (Blondeau and Dignard, 2003). During the 2012 and 2013 surveys no specimens were found in the Study Area or in the RSA.

Glacial sedge, a species listed as threatened in Québec, was found in the Study Area (Table 4). However, the status mentioned for the province of Québec concerns only three small southern populations in Havre Saint-Pierre, Tadoussac and at the head of the Magpie River. This species is considered secure and common in northern parts of Québec and therefore is discussed in more details in Section 5.2.

Norwegian cudweed is a Low Priority COSEWIC candidate species (COSEWIC, 2012) and was found in 2012 near the Joyce Lake shoreline (GENIVAR, 2013; Figure 3). In Labrador, Norwegian cudweed is ranked S2S3 by the ACCDC and it was given a "Sensitive" general status and and a "High" conservation priority by the NL DOEC that mentions only four records spread through eastern Labrador (C. Hanel, NL DOEC, pers. comm., 2013). In the province of Québec, it was found in only 15 known localities (Dignard et al., 2009). In the Schefferville area, Norwegian cudweed was found in the Sunny and Geren Mountain areas by Viereck (1957) and Harper (1964). Norwegian cudweed is an herbaceous plant of the aster family. This species is 15 to 40-cm high, tomentose and whitened with a compact inflorescence. Humid prairies, snow patches and shores of subalpine streams are the preferred habitats for this species.

A single Norwegian cudweed specimen was found on the gravelly shore of Joyce Lake during the 2012 survey (GENIVAR, 2013). Only one basal rosette was found and the viability of this specimen was considered very low due to the erosive area where it was found. The 2013 survey confirmed the fears as the basal rosette had been naturally extirpated from the site. There were no other similar habitats suitable for this species found in the Study Area. A total of two other occurrences were found in the Schefferville region based on the existing literature (Table 4).

Mountain bladder fern (*Cystopteris montana*) a species whose status reports needs to be completed by the SSAC is mentioned in literature for the Schefferville region, but seems to be secure in the Labrador Trough according to Payette (2013). This species was not found during the 2012 and 2013 surveys.

Table 4: Rare Plant Species Occurrences Found in the Study Area and in the RSA during the 2012 and 2013 Surveys and in Existing Literature

Scientific Name	English Name	S Rank[1]	NL DOEC Priority[2]	General Status[3]	COSEWIC	LEMV[4]	Found by Others[5]	Study Area	RSA	Total Occurrences	Total with Others
Potamogeton richardsonii	Richardson's pondweed	S1S3	High	Undetermined			c, i	2	1	3	5
Triantha glutinosa	Sticky false asphodel	S1S3	Medium	Undetermined			c, i	1	1	2	4
Potamogeton pusillus subsp. *tenuissimus*	Small pondweed	S1S3		Undetermined				1		1	1
Platanthera aquilonis	Northern green orchid	S2S3	Medium	May be at risk			c	1	3	4	5
Urtica dioica subsp. *gracilis*	Slender stinging nettle	S2S3	Low	Sensitive			c	1		1	2
Ranunculus lapponicus	Lapland buttercup	S2S3	Medium	Sensitive			c, d, j	3	1	4	7
Carex glacialis	Glacial sedge	S2S3	Medium	Sensitive		Threatened	c, d, i	2	9	11	14
Salix pedicellaris	Bog willow	S2S4	Low	Sensitive			a, c, g, i, j	4	15	19	24
Packera aurea	Golden ragwort	S2S4	Low	Undetermined			c, d, g	1	1	2	5
Pyrola asarifolia	Pink pyrola	S2S4	Low	Undetermined			c, d	4	1	5	7
Pedicularis groenlandica	Elephanthead lousewort	S2S4	Low	Undetermined			a, c, d, j	2	2	4	8
Schizachne purpurascens	False melic	S2S4	Low	Undetermined			c, i, j	1	9	10	13
Salix ballii	Ball's willow	S2S4	Low	Undetermined			c, i	5	6	11	13
Vahlodea atropurpurea	Mountain hairgrass	S2S4	Low	Undetermined			a, c, i	3	11	14	17
Carex diandra	Lesser panicled sedge	S2S4	Medium	Undetermined			i	1	1	2	3
Equisetum variegatum subsp. *variegatum*	Variegated scouring rush	S3	Low	Sensitive			c	2	1	3	4
Carex chordorrhiza	Creeping sedge	S3	Low	Sensitive			c, i, j	1	3	4	7
Taraxacum lapponicum	Lapland dandelion	S3	Low	Sensitive			c, d, i, j	4	12	16	20
Arenaria humifusa	Creeping sandwort	S3	Medium	Sensitive			c, d	1	1	2	4
Callitriche hermaphroditica	Northern water-starwort	SNA	High	Not Assessed				1		1	1
Diphasiastrum sabinifolium	Cedar like clubmoss	SNA	Low	Not Assessed			j	1	3	4	5
Myriophyllum sibiricum	Siberian water-milfoil	SNR	High	May be at risk			c	2		2	3
Eriophorum russeolum subsp. *russeolum*	Russet cotton-grass	SNR	Low	Not Assessed			a, i , j	4	15	19	22
Betula pumila var. *glandulifera*	Northern bog birch	SNR		Not Assessed			c, i, j	9	2	11	14
Spinulum canadense	Northern interrupted clubmoss	SNR		Not Assessed				15	14	29	29
Huperzia appressa	Mountain firmoss	SNR	High	Undetermined			c, d, i, j	1	10	11	15
Carex utriculata	Northwest Territory sedge	SNR	Low	Undetermined			c, j	2	5	7	9
Rhinanthus minor subsp. *groenlandicus*	Arctic rattlebox	SNR	Low	Undetermined			a, c, i	1	6	7	10
Fragaria virginiana subsp. *glauca*	Virginia strawberry	SNR	Low	Undetermined			a, c, i	5	7	12	15
Elymus trachycaulus subsp. *trachycaulus*	Slender wheatgrass	SNR	Low	Undetermined			a, c, i, j	5	14	19	23
Calamagrostis canadensis var. *canadensis*	Bluejoint	SNR	Low	Undetermined			c, d, i, j	15	32	47	51
Monotropa uniflora	Indianpipe	SNR	Medium	Undetermined				1		1	1
Moehringia macrophylla	Largeleaf sandwort	SNR	Medium	Undetermined			c, i, j	1	2	3	6
Carex arcta	Northern cluster sedge	SNR	Medium	Undetermined			c, j	1	4	5	7
Viola renifolia	White violet	S1S3	Medium	Undetermined			c, d		4	4	6
Omalotheca norvegica	Norwegian cudweed	S2S3	High	Sensitive	Low Priority		d, h	1		1	3
Agrostis stolonifera	Creeping bentgrass	S2S4	Low	Exotic/Alien			k		1	1	2
Juncus bufonius	Toad rush	S2S4	Low	Undetermined			k		1	1	2
Salix bebbiana	Bebb willow	S2S4	Low	Undetermined			c, f		3	3	5
Carex interior	Inland sedge	S2S4	Medium	Undetermined			c		3	3	4
Populus balsamifera	Balsam poplar	S3	Low	Sensitive			a, c, d, i		1	1	5
Parnassia kotzebuei	Kotzebue's grass of Parnassus	S3S4		Sensitive			c, d, i, j		4	4	8
Hieracium vulgatum	Common hawkweed	SNA		May be at risk			c, i		1	1	3
Rubus × *paracaulis*	Short-shoot dwarf rasberry	SNA		Not Assessed			c, d, i		2	2	5
Antennaria neglecta	Field pussytoes	SNR		Not Assessed					1	1	1

Table 4: Rare Plant Species Occurrences Found in the Study Area and in the RSA during the 2012 and 2013 Surveys and in Existing Literature (Continued)

Scientific Name	English Name	S Rank[1]	NL DOEC Priority[2]	General Status[3]	COSEWIC	LEMV[4]	Found by Others[5]	Study Area	RSA	Total Occurrences	Total with Others
Packera indecora	Elegant groundsel	SNR	High	Undetermined			a, i		1	1	3
Calamagrostis canadensis var. *langsdorfii*	Bluejoint	SNR	Low	Undetermined			c, d, i, j		4	4	8
Woodsia alpina	Alpine cliff fern	S1		May be at risk					1	1	1
Listera auriculata	Auricled twayblade	S1S2		May be at risk					1	1	1
Primula mistassinica	Mistassini primrose	S2		Sensitive			c, i, j		2	2	5
Omalotheca supina	Alpine arctic cudweed	S2S3		Sensitive			c, d		1	1	3
Alchemilla filicaulis subsp. *filicaulis*	Thinstem lady's mantle	S2S4	Low	Undetermined			a, c, d, i		1	1	5
Lycopodiella inundata	Northern bog clubmoss	S2S4		Undetermined					1	1	1
Carex michauxiana	Michaux's sedge	S2S4		Undetermined					1	1	1
Eriophorum scheuchzeri subsp. *scheuchzeri*	White cotton-grass	S2S4		Undetermined					1	1	1
Luzula multiflora subsp. *frigida*	Common wood rush	S2S4		Undetermined			c		1	1	2
Potamogeton alpinus	Alpine pondweed	S2S4		Undetermined			c, d		1	1	3
Juncus stygius var. *americanus*	American moor rush	S2S4		Undetermined			j		2	2	3
Bartsia alpina	Alpine bartsia	S2S4		Undetermined			c, d, j		1	1	4
Minuartia rubella	Beautiful sandwort	S3		Sensitive					1	1	1
Pyrola grandiflora	Largeflowered wintergreen	S3		Sensitive			c, d		1	1	3
Astragalus alpinus var. *alpinus*	Alpine milkvetch	S3		Sensitive			c, d, i		1	1	4
Veronica scutellata	Skullcap speedwell	S3S4		Sensitive			c, d		2	2	4
Euphrasia wettsteinii	Wettstein's eyebright	SNR		Undetermined					1	1	1
Huperzia selago	Northern firmoss	SNR		Undetermined			c		1	1	2
Danthonia intermedia subsp. *intermedia*	Timber oatgrass	SNR		Undetermined					2	2	2
Calamagrostis stricta subsp. *inexpansa*	Northern reedgrass	SNR		Undetermined			c, i		1	1	3
Sibbaldia procumbens	Creeping sibbaldia	SNR		Undetermined			c, d		1	1	3
Minuartia dawsonensis	Rock stitchwort	SNR		Undetermined			c, i		1	1	3
Antennaria monocephala subsp. *angustata*	Pygmy pussytoes	SNR		Undetermined			c, d		2	2	3
Festuca prolifera var. *lasiolepis*	Proliferous fescue	SNR		Undetermined			c, i		2	2	4
Euphrasia hudsoniana	Hudson Bay eyebright	SNR		Undetermined			c, i, j		1	1	4
Veronica wormskjoldii	American alpine speedwell	SNR		Undetermined			c, d, i, j		4	4	8
Piptatheropsis canadensis	Canada ricegrass	SU		Undetermined			c, i		1	1	3
Equisetum palustre	Marsh horsetail	S1	High	May be at risk			a, d				2
Polystichum lonchitis	Holly fern	S1	High	May be at risk			e, h				2
Botrychium minganense	Mingan moonwort	S1		May be at risk			l				1
Carex viridula subsp. *viridula*	Little green sedge	S1		May be at risk			c				1
Festuca saximontana var. *saximontana*	Rocky Mountain fescue	S1		May be at risk			c, i				2
Carex microglochin subsp. *microglochin*	Fewseeded bog sedge	S1S2		May be at risk			c				1
Cystopteris montana	Mountain bladder fern	S1S2		May be at risk			c, d				2
Carex castanea	Chestnut sedge	S1S2		May be at risk			i, j				2
Carex concinna	Northern elegant sedge	S1S2		May be at risk			c, i				2
Minuartia biflora	Mountain stitchwort	S1S2		Sensitive			c, d, i				3
Potamogeton perfoliatus	Claspingleaf pondweed	S1S3		Sensitive			d				1
Glyceria canadensis var. *canadensis*	Rattlesnake mannagrass	S1S3	High	Undetermined			c, j				2
Primula egaliksensis	Greenland primrose	S1S3		Undetermined			c, d, i				3
Hedysarum alpinum	Alpine sweetvetch	S2		May be at risk			i				1
Ranunculus pedatifidus var. *affinis*	Northern buttercup	S2S3		May be at risk			c				1

Table 4: Rare Plant Species Occurrences Found in the Study Area and in the RSA during the 2012 and 2013 Surveys and in Existing Literature (Continued)

Scientific Name	English Name	S Rank[1]	NL DOEC Priority[2]	General Status[3]	COSEWIC	LEMV[4]	Found by Others[5]	Study Area	RSA	Total Occurrences	Total with Others
Carex leptonervia	Nerveless woodland sedge	S2S3	Medium	Sensitive			a, j				2
Woodsia glabella	Smooth cliff fern	S2S3		Sensitive			c				1
Maianthemum stellatum	Starflower Solomon's-Plume	S2S3		Sensitive			l				1
Juncus tenuis	Slender rush	S2S3		Sensitive			l				1
Carex nardina	Spike sedge	S2S3		Sensitive			c				1
Capnoides sempervirens	Pale corydalis	S2S3		Sensitive			d				1
Gentianella amarella subsp. *acuta*	Autumn dwarf gentian	S2S3		Sensitive			i				1
Arnica angustifolia subsp. *angustifolia*	Narrowleaf arnica	S2S3		Sensitive			d				1
Equisetum pratense	Meadow horsetail	S2S3		Sensitive			c, d				2
Ranunculus allenii	Allen's buttercup	S2S3		Sensitive			c, d				2
Hordeum jubatum subsp. *jubatum*	Foxtail barley	S2S4		Exotic/Alien			k				1
Stuckenia filiformis subsp. *alpina*	Fineleaf pondweed	S2S4		Undetermined			c				1
Sparganium emersum	Unbranched bur-reed	S2S4		Undetermined			l				1
Carex media	Closed-head sedge	S2S4		Undetermined			c, d				2
Carex williamsii	Williams' sedge	S2S4		Undetermined			c, d				2
Viola palustris	Marsh violet	S2S4		Undetermined			i, j				2
Petasites frigidus var. *sagittatus*	Arrowleaf sweet coltsfoot	S2S4		Undetermined			c, i, j				3
Isoetes lacustris	Lake quillwort	S3		Sensitive			c				1
Equisetum scirpoides	Dwarf scouring rush	S3		Sensitive			i				1
Epilobium lactiflorum	Milkflower willowherb	S3		Sensitive			d				1
Carex buxbaumii	Buxbaum's sedge	S3		Sensitive			a, j				2
Antennaria alpina	Alpine pussytoes	S3		Sensitive			c, d, i				3
Barbarea orthoceras	American yellowrocket	S3		Sensitive			c, d, i, j				4
Potentilla nivea	Snow cinquefoil	S3S5		Sensitive			c				1
Potamogeton obtusifolius	Blunt-Leaf pondweed	SNA		Not Assessed			l				1
Piptatheropsis pungens	Slender ricegrass	SNA		Not Assessed			c				1
Petasites frigidus var. × *vitifolius*	Grapeleaf sweet coltsfoot	SNA		Not Assessed			c, i, j				3
Poa palustris	Fowl bluegrass	SNA		Undetermined			c				1
Botrychium lanceolatum subsp. *angustisegmentum*	Narrow triangle moonwort	SNR		May be at risk			c				1
Arnica chamissonis	Chamisso arnica	SNR	High	Not Assessed		SDMV	b, h				2
Carex conoidea	Openfield sedge	SNR		Not Assessed			c				1
Carex heleonastes	Hudson Bay sedge	SNR		Not Assessed			c				1
Draba arabisans	Rock draba	SNR		Not Assessed			c				1
Euthamia graminifolia	Common goldentop	SNR		Not Assessed			a				1
Epilobium davuricum	Dahurian willowherb	SNR		Not Assessed			c, i, j				3
Danthonia spicata	poverty oatgrass	SNR	High	Undetermined			a				1
Potamogeton gramineus	Variableleaf pondweed	SNR	Low	Undetermined			c				1
Geum macrophyllum var. *perincisum*	Incised large-leaved avens	SNR	Low	Undetermined		SDMV	c, h				2
Poa pratensis subsp. *alpigena*	Alpigene bluegrass	SNR	Low	Undetermined			c, d, i				3
Potamogeton praelongus	White-Stem pondweed	SNR		Undetermined			l				1
Sisyrinchium montanum var. *crebrum*	Strict blue-eyed grass	SNR		Undetermined			k				1
Juncus subtilis	Greater creeping rush	SNR		Undetermined			c				1
Luzula arctica	Arctic wood rush	SNR		Undetermined			d				1
Luzula wahlenbergii	Sudetic mountain woodrush	SNR		Undetermined			l				1
Eleocharis nitida	Neat spike-rush	SNR		Undetermined			i				1

Table 4: Rare Plant Species Occurrences Found in the Study Area and in the RSA during the 2012 and 2013 Surveys and in Existing Literature (Continued)

Scientific Name	English Name	S Rank[1]	NL DOEC Priority[2]	General Status[3]	COSEWIC	LEMV[4]	Found by Others[5]	Study Area	RSA	Total Occurrences	Total with Others
Calamagrostis lapponica	Lapland reedgrass	SNR		Undetermined			c				1
Myriophyllum alterniflorum	Alternateflower watermilfoil	SNR		Undetermined			c				1
Callitriche heterophylla subsp. *heterophylla*	Twoheaded water-starwort	SNR		Undetermined			c				1
Carex garberi	Elk sedge	SNR		Undetermined			c, i				2
Packera paupercula	Balsam groundsel	SNR		Undetermined			c, d				2
Eriophorum brachyantherum	Closed-sheath cotton-grass	SNR		Undetermined			c, d, j				3
Anthoxanthum monticola subsp. *alpinum*	Alpine sweetgrass	SNR		Undetermined			a, c, d				3
Erysimum cheiranthoides subsp. *cheiranthoides*	Wormseed wallflower	SU		Exotic/Alien			k				1
Juncus biglumis	Two-Flowered rush	SU		Undetermined			l				1

Note: Species with a green shade were given more attention in this report considering their conservation priority, general status and low number of occurrences found during the 2012-2013 surveys.

[1] Priority rank as established by the ACCDC (2010) for Labrador species.

[2] NL DOEC priority after partial consultation of the Vegetation Baseline Rare Plant List

[3] NL DOEC Wildlife Division General Status

[4] Québec's *Act respecting threatened or vulnerable species*: SDMV: Likely to be designated threatened or vulnerable.

[5] Letter refers to the source of the information: a: NML, 2009; b: Blondeau, 2000; c: Hustich, 1963 and 1965; d: Viereck, 1957 and Harper, 1964; e: Waterway et al., 1982; f: LIM, 2009; g: ACCDC, 2012; h: CDPNQ, 2008; i: Dutilly and Lepage, 1962; j: Dutilly and Lepage, 1964; k: Hustich, 1971; l: Payette, 2013.

RV1
*** Arenaria humifusa (S3)**
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
*** Huperzia appressa (SNR)**
*** Moehringia macrophylla (SNR)**
*** Potamogeton richardsonii (S1S3)**
Rhinanthus minor subsp. groenlandicus (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

21
Calamagrostis canadensis var. canadensis (SNR)
Carex chordorrhiza (S3)
Elymus trachycaulus subsp. trachycaulus (SNR)
*** Platanthera aquilonis (S2S3)**
Salix pedicellaris (S2S4)
Taraxacum lapponicum (S3)

AL5
*** Carex glacialis (S2S3)**
*** Huperzia appressa (SNR)**

CO1
Elymus trachycaulus subsp. trachycaulus (SNR)
*** Huperzia appressa (SNR)**
Spinulum canadense (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

T1
Calamagrostis canadensis var. canadensis (SNR)
Schizachne purpurascens (S2S4)

20
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

23
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
Salix pedicellaris (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

24
*** Carex glacialis (S2S3)**

25
Diphasiastrum sabinifolium (SNA)

26
Calamagrostis canadensis var. canadensis (SNR)
*** Carex glacialis (S2S3)**
*** Huperzia appressa (SNR)**
Viola reniflora (S1S3)

22
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

18
Calamagrostis canadensis var. canadensis (SNR)
*** Carex arcta (SNR)**

17
Calamagrostis canadensis var. canadensis (SNR)

14
Calamagrostis canadensis var. canadensis (SNR)
Carex chordorrhiza (S3)
Eriophorum russeolum subsp. russeolum (SNR)

27
*** Carex arcta (SNR)**
Schizachne purpurascens (S2S4)

15
Spinulum canadense (SNR)

16
*** Huperzia appressa (SNR)**

11
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Schizachne purpurascens (S2S4)
Vahlodea atropurpurea (S2S4)

12
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)

13
*** Carex glacialis (S2S3)**
*** Huperzia appressa (SNR)**
Spinulum canadense (SNR)

9
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Taraxacum lapponicum (S3)

10
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Vahlodea atropurpurea (S2S4)

39
Calamagrostis canadensis var. canadensis (SNR)
*** Carex arcta (SNR)**

29
Eriophorum russeolum subsp. russeolum (SNR)

41
Carex chordorrhiza (S3)
*** Carex diandra (S2S4)**
Salix ballii (S2S4)
Salix pedicellaris (S2S4)

30
*** Carex glacialis (S2S3)**

38
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Pedicularis groenlandica (S2S4)
Rhinanthus minor subsp. groenlandicus (SNR)
*** Triantha glutinosa (S1S3)**

35
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
Rhinanthus minor subsp. groenlandicus (SNR)
Salix ballii (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)

Page 2
Page 3

Project Components
Project layout
Drainage infrastructure
Study Area boundary

Existing Infrastructure
Main road
Railway

Territory
Provincial boundary

Vegetation
Sampling plot
OM2 — Calamagrostis canadensis var. canadensis (SNR)
Rare vascular plant species — Status rank

OM2 Sampling plot within the Regional Study Area
OM2 Sampling plot within the Study Area
2012 survey
2013 survey

* Rare plants considered at risk or of conservation concern in the context of the Joyce Lake DSO Project based on their general status, conservation priority and low number of occurrences found during surveys (in bold characters).

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plants Found in the Study Area during the 2012 and 2013 Surveys and their Occurrences in the Schefferville Area

Sources:
Base: CanVec, 1 : 50 000, RNCan, 2010
BNDT, 1 : 50 000, RNCan, 2007
BDTA, 1 : 250 000, MRN Québec, 2002

Mapping: WSP
File: 121-18002-01_F3_E1de3_VEG_EspeceRare_141118.mxd

Scale 1:300 000
0 3 6 9 km
UTM, zone 19, NAD83

Figure 3

November 2014

66°36' 66°34' 66°32' 66°30' 66°28'

54°56' 54°54' 54°52' 54°50'

Attikamagen Lake

Joyce Lake

Lake E

Iron Arm

4
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Rhinanthus minor subsp. groenlandicus (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

5
Calamagrostis canadensis var. canadensis (SNR)
Salix pedicellaris (S2S4)

3
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum(S3)

2
*** Ranunculus lapponicus (S2S3)**

PN3
Calamagrostis canadensis var. canadensis (SNR)
Spinulum canadense (SNR)

6
*** Carex glacialis (S2S3)**

1
Spinulum canadense (SNR)

OM4
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Spinulum canadense (SNR)

LA3
Spinulum canadense (SNR)

8
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

FE3
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Carex chordorrhiza (S3)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
*** Platanthera aquilonis (S2S3)**
Pyrola asarifolia (S2S4)
*** Triantha glutinosa (S1S3)**

7
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Vahlodea atropurpurea (S2S4)

LA2
Spinulum canadense (SNR)

AL6
*** Carex glacialis (S2S3)**

AL7
Spinulum canadense (SNR)

RU1
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Schizachne purpurascens (S2S4)

PT1
Spinulum canadense (SNR)

OM2
Calamagrostis canadensis var. canadensis (SNR)

LC1A
Calamagrostis canadensis var. canadensis (SNR)
*** Omalotheca norvegica (S2S3)**
Spinulum canadense (SNR)
Taraxacum lapponicum (S3)

LC2
Calamagrostis canadensis var. canadensis (SNR)
*** Carex arcta (SNR)**

Te1
Spinulum canadense (SNR)

AL1
* Carex glacialis (S2S3)
Spinulum canadense (SNR)

LA1
Spinulum canadense (SNR)

TE2
Calamagrostis canadensis var. canadensis (SNR)

LC1B
Calamagrostis canadensis var. canadensis (SNR)
Spinulum canadense (SNR)
Taraxacum lapponicum (S3)

MU1
*** Carex arcta (SNR)**
Eriophorum russeolum subsp. russeolum (SNR)
*** Ranunculus lapponicus (S2S3)**
Spinulum canadense (SNR)
Vahlodea atropurpurea (S2S4)

AL3
Diphasiastrum sabinifolium (SNA)
*** Huperzia appressa (SNR)**

28
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

AL4
*** Carex glacialis (S2S3)**

FE2
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Salix pedicellaris (S2S4)

FE1
Eriophorum russeolum subsp. russeolum (SNR)

BO1
Calamagrostis canadensis var. canadensis (SNR)

CL1
Diphasiastrum sabinifolium (SNA)
Spinulum canadense (SNR)

MU2
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
*** Equisetum variegatum subsp. variegatum (S3)**
*** Monotropa uniflora (SNR)**
*** Ranunculus lapponicus (S2S3)**
Salix ballii (S2S4)
Salix pedicellaris (S2S4)

TA1
*** Huperzia appressa (SNR)**
*** Moehringia macrophylla (SNR)**
Spinulum canadense (SNR)
Viola reniflora (S1S3)

PN1
*** Moehringia macrophylla (SNR)**

EB1
Spinulum canadense (SNR)

PN2
Spinulum canadense (SNR)

AU1
*** Carex glacialis (S2S3)**

AL8
*** Arenaria humifusa (S3)**
*** Carex glacialis (S2S3)**
*** Huperzia appressa (SNR)**

40
Calamagrostis canadensis var. canadensis (SNR)
*** Platanthera aquilonis (S2S3)**
Salix pedicellaris (S2S4)

FE4
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Salix pedicellaris (S2S4)
Spinulum canadense (SNR)
Vahlodea atropurpurea (S2S4)

RU2
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
*** Ranunculus lapponicus (S2S3)**
Salix pedicellaris (S2S4)

PC1
Calamagrostis canadensis var. canadensis (SNR)
Spinulum canadense (SNR)

DA1
Calamagrostis canadensis var. canadensis (SNR)
*** Huperzia appressa (SNR)**
Salix pedicellaris (S2S4)
Spinulum canadense (SNR)

PN4
Calamagrostis canadensis var. canadensis (SNR)

OM3
Carex utriculata (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

Project Components
- Project layout
- Drainage infrastructure
- Study Area boundary

Existing Infrastructure
- Main road
- Railway

Territory
- Provincial boundary

Vegetation

Sampling plot
OM2 — Calamagrostis canadensis var. canadensis (SNR)
Rare vascular plant species — Status rank

- OM2 — Sampling plot within the Regional Study Area
- OM2 — Sampling plot within the Study Area
- 2012 survey
- 2013 survey

* Rare plants considered at risk or of conservation concern in the context of the Joyce Lake DSO Project based on their general status, conservation priority and low number of occurrences found during surveys (in bold characters).

CENTURY IRON MINES CORP.

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plants Found in the Study Area during the 2012 and 2013 Surveys and their Occurences in the Schefferville Area

Sources:
Base: BDTA, 1: 250 000, MRN Québec, 2002
CanVec, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_F3_E2et3de3_VEG_EspeceRare_141118.mxd

Scale 1:40 000
0 400 800 1 200 m
UTM, zone 19, NAD83

Figure 3

November 2014

WSP

66°40'
66°38'
66°36'
54°42'
54°40'

31
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
Rhinanthus minor subsp. groenlandicus (SNR)
Salix ballii (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)
Viola reniflora (S1S3)

34
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Salix ballii (S2S4)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)

Oboe Lake

33
Elymus trachycaulus subsp. trachycaulus (SNR)
Viola reniflora (S1S3)

32
*** Equisetum variegatum subsp. variegatum (S3)**
Fragaria virginiana subsp. glauca (SNR)
*** Packera aurea (S2S4)**
*** Platanthera aquilonis (S2S3)**
Pyrola asarifolia (S2S4)
Salix ballii (S2S4)

RU4
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
*** Packera aurea (S2S4)**
Salix ballii (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)

BE1
Spinulum canadense (SNR)

RU3
Betula pumila var. glandulifera (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
*** Equisetum variegatum subsp. variegatum (S3)**
Fragaria virginiana subsp. glauca (SNR)
Pyrola asarifolia (S2S4)
Salix ballii (S2S4)

BR1
Diphasiastrum sabinifolium (SNA)
Spinulum canadense (SNR)

DE1
Betula pumila var. glandulifera (SNR)

LC3
Calamagrostis canadensis var. canadensis (SNR)
*** Callitriche hermaphroditica (SNA)**
Carex utriculata (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Fragaria virginiana subsp. glauca (SNR)
*** Myriophyllum sibiricum (SNR)**
Pedicularis groenlandica (S2S4)
*** Potamogeton pusillus subsp. Tenuissimus (S1S3)**
*** Potamogeton richardsonii (S1S3)**
Pyrola asarifolia (S2S4)
Rhinanthus minor subsp. groenlandicus (SNR)
Salix ballii (S2S4)
Vahlodea atropurpurea (S2S4)

FE5
Betula pumila var. glandulifera (SNR)
*** Carex diandra (S2S4)**
Pyrola asarifolia (S2S4)
Salix ballii (S2S4)

Mike Lake

37
Calamagrostis canadensis var. canadensis (SNR)
Fragaria virginiana subsp. glauca (SNR)
Salix ballii (S2S4)
Salix pedicellaris (S2S4)
Viola reniflora (S1S3)

MR1
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Fragaria virginiana subsp. glauca (SNR)
Taraxacum lapponicum (S3)
*** Urtica dioica subsp. gracilis (S2S3)**

DE2
Fragaria virginiana subsp. glauca (SNR)
*** Huperzia appressa (SNR)**
Pedicularis groenlandica (S2S4)
Spinulum canadense (SNR)
Vahlodea atropurpurea (S2S4)

PC2
Spinulum canadense (SNR)

RV2
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Fragaria virginiana subsp. glauca (SNR)
*** Myriophyllum sibiricum (SNR)**
Pedicularis groenlandica (S2S4)
*** Potamogeton richardsonii (S1S3)**
Vahlodea atropurpurea (S2S4)

Astray Lake

Gilling River

Project Components
- Project layout
- Drainage infrastructure
- Study Area boundary

Existing Infrastructure
- Main road
- Railway

Territory
- Provincial boundary

Vegetation

Sampling plot
OM2
Calamagrostis canadensis var. canadensis (SNR)
Rare vascular plant species — Status rank

- OM2 — Sampling plot within the Regional Study Area
- OM2 — Sampling plot within the Study Area
- 2012 survey
- 2013 survey

* Rare plants considered at risk or of conservation concern in the context of the Joyce Lake DSO Project based on their general status, conservation priority and low number of occurrences found during surveys (in bold characters).

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plants Found in the Study Area during the 2012 and 2013 Surveys and their Occurences in the Schefferville Area

Sources:
Base: BDTA, 1: 250 000, MRN Québec, 2002
CanVec, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_F3_E2et3de3_VEG_EspeceRare_141118.mxd

Scale 1:25 000
0 — 400 — 800 — 1 200 m
UTM, zone 19, NAD83

Figure 3

November 2014

5.2 Species of Conservation Concern

For the purpose of this study, vascular plants of conservation concern include species ranked S1 (extremely rare) by the ACCDC, species with a “High” priority established by the NL DOEC, plants with a “May be at Risk” general status received from the NL DOEC, species new to Labrador or the Schefferville area and plants with very low number of occurrences and individuals.

A total of 35 rare vascular plants were found in the Study Area, and of this number 17 species were given more attention in this report (Table 4; Figure 3). Photographs of the rare plant species found in the Study Area are presented in Appendix F. These 17 species were selected based on their NL DOEC conservation priority (High and Medium), their General Status (May be at Risk) and the number of occurrences found within the Study Area and in the Schefferville region. The other 17 species were considered relatively common in the Schefferville region based on the number of occurrences found during both the 2012 and 2013 surveys and in the existing literature.

Richardson’s pondweed (*Potamogeton richardsonii*), sticky false asphodel (*Triantha glutinosa*) and small pondweed (*Potamogeton pusillus subsp. tenuissimus*) are ranked S1S3 by the ACCDC. Two species, northern green orchid (*Platanthera aquilonis*) and Siberian water-milfoil (*Myriophyllum sibiricum*), were attributed a “May be at Risk” status by the NL DOEC Wildlife Division. Glacial sedge is ranked S2S3 and was given a “Sensitive” general status and a “Medium” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013). As mentioned in Section 5.1, it is also listed as a threatened species under Québec’s LEMV. After review of the 2012 rare plant list mountain firmoss (*Huperzia appressa*) was given a “High” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013). Northern water-starwort (*Callitriche hermaphroditica*) would be a new record for Labrador and indianpipe (*Monotropa uniflora*) had never been mentioned for the region. Slender stinging nettle (*Urtica dioca* subsp. *gracilis*), Lapland buttercup (*Ranunculus lapponicus*), golden ragwort, lesser panicled sedge (*C. diandra*), variegated scouring rush (*Equisetum variegatum* subsp. *variegatum*), creeping sandwort (*Arenaria humifusa*), largeleaf sandwort (*Moehringia macrophylla*) and northern cluster sedge (*C. arcta*) are all species with a limited number of occurrences both locally and regionally.

Richardson’s Pondweed

Two relatively extensive populations of Richardson’s pondweed were found in the Study Area: in the Mike Lake area (Plot LC3; Figure 3) and in the Gilling River area (Plot RV2; Figure 3). In the Schefferville area, one additional occurrence was found during the surveys in the Swampy Bay River area (Plot RV1; Figure 3; Table 4). Regionally, this species was found by Dutilly and Lepage (1962) and by Hustich (1965) in the Schefferville and Grand Falls areas. In Labrador, Richardson’s pondweed occurs in Mud Lake and several locations in and below the Lower Churchill flood zone (NL DOEC, 2013). Richardson’s pondweed is common in the western part of the Québec-Labrador Peninsula (Payette, 2013).

Richardson’s pondweed is an aquatic plant that grows in alkaline waters of lakes, streams and rivers (FNA, 2005). In Labrador, it was ranked S1S3 by the ACCDC,

and given an “Undetermined” status and a “High” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Sticky False Asphodel

A single sticky false asphodel population was found in the Study Area with a fairly high number of plants in a northern ribbed fen (Plot FE3; Figure 3; Table 4). In the Schefferville area, one additional occurrence (20 individual plants) was found during the surveys on gravel with seepage close to the shores of Dyke Lake (Plot 38, Figure 3). Regionally, sticky false asphodel was found on the dolomitic rocky shores of the Swampy Bay River by Dutilly and Lepage (1962) and by Hustich (1963) in the Knob Lake and Twin Falls areas. Waterway et al. (1984) mention that sticky false asphodel is characteristic of fens in the Schefferville region. This species was also found in approximately 50 locations during the Kami Iron Ore Mine Rare Plant Survey (Stantec, 2012).

Sticky false asphodel is a small sticky plant of the lily family. It grows in marshes, wet meadows and calcareous soil (FNA, 2005). In Labrador, it was ranked S1S3 by the ACCDC and given an “Undetermined” status and a “Medium” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Narrow-Leaved Small Pondweed

A single narrow-leaved small pondweed population was found in the Study Area in the Mike Lake area (Plot LC3; Figure 3; Table 4). Meades et al. (2000) mention that this species is disjoint in central Labrador and that it occurs in the Goose Bay area. It has never been mentioned regionally. According to Payette (2013), narrow-leaved pondweed is quite common in the western part of the Québec-Labrador Peninsula.

Narrow-leaved small pondweed is an aquatic plant that grows in shallow alkaline and basic waters of lakes, streams (FNA, 2005). In Labrador, it was ranked S1S3 by the ACCDC and given an “Undetermined” status by the NL DOEC.

Northern Green Orchid

A single northern green orchid population (five plants) was found in the Study Area near a small runoff on a flat uniform portion of a northern ribbed fen (Plot FE3; Figure 3; Table 4). In the Schefferville area, three additional occurrences were found during the surveys in rich horizontal fens (Plots 21, 32 and 40; Figure 3). It has been found to the north of the Knob Lake area by Hustich (1965). According to Payette (2013), northern green orchid is common in the Labrador Trough. This species was found in 10 locations during the Kami Iron Ore Mine Rare Plant Survey (Stantec, 2012).

Northern green orchid is a robust plant of the orchid family with a spike of yellow green flowers. It grows in wet meadows, tundra, marshes, fens, stream banks, shores, ditches, seeping slopes, roadsides and borrow pits (FNA, 2003). In Labrador, it was ranked S2S3 by the ACCDC and was given a “May be at Risk” status and a “Medium” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Slender Stinging Nettle

A single slender stinging nettle population of five plants was observed in a shrub swamp in the floodplain of the Gilling River (Plot MR1; Figure 3; Table 4). No other specimens were found in the Schefferville area during the surveys. However, the species was found by Hustich (1965) in the Schefferville region and as far north as northern Labrador by Meades et al. (2000).

Slender stinging nettle is a perennial, rhizomatous herbaceous plant with stinging hairs on its leaves and stems. It grows in alluvial woods, margins of deciduous woodland, fencerows and waste places (FNA, 1997). In Labrador, it was ranked S2S3 and given a “Sensitive” status and a “Low” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Lapland Buttercup

Three Lapland buttercup occurrences were found in the Study Area during the surveys: on sphagnum moss substrate bordering a small stream (Plot 2, Figure 3) and in two forested fens (Plots MU2 and RU2, Figure 3; Table 4). Regionally, it was also found in a forested bog on a sphagnum moss substrate (Plot MU1; Figure 3). In all cases the populations comprised only a few individuals. The species was also found in the Schefferville region by Hustich (1965), between Dyke and Pearl Lakes by Dutilly and Lepage (1964) and in the Sunny Mountain region by Viereck (1957). According to Meades et al. (2000), Lapland buttercup occurs in western and central Labrador.

Lapland buttercup is a small, yellow flowered herbaceous plant found in boggy places and lakesides in tundra, muskeg and boreal forests (FNA, 1997). In Labrador, it was ranked S2S3 by the ACCDC (2012) and given a “Sensitive” status and a “Medium” conservation priority by NL DOEC that mentions some records near Goose Bay and in western Labrador (C. Hanel, NL DOEC, pers. comm., 2013).

Glacial Sedge

Two glacial sedge occurrences were found in the Study Area on the summit of moderately and highly weathered rock barrens sometimes near calcareous dolomitic rocks (Plots AL6 and AL8; Figure 3; Table 4). Nine additional occurrences were found in the Schefferville area during surveys (Plots 6, 13, 24, 26, 30, AL1, AL4, AL5 and AU1, Figure 3). In general, populations were small with less than 10 individuals (Appendix B). Regionally, it has been found to be common by Dutilly and Lepage (1962). Hustich (1965) has found this plant in the areas of Knob and Astray Lakes. Viereck (1957) also observed the plant in the Sunny Mountain area.

Glacial sedge is a small calcicolous grass-like plant usually forming dense caespitose tussocks. It grows in dry rock, gravel, sand, talus slopes and eskers (FNA, 2002). Glacial sedge has a rank of S2S3 (ACCDC, 2012) and was given a “Sensitive” status in Labrador and a “Medium” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Golden Ragwort

A single golden ragwort colony (with approximately 25 distinct plants) was found in the Study Area in a forested swamp adjacent to a small stream on a coarse sandy loam substrate of alluvial origin (Plot RU4; Figure 3; Table 4). An additional population of 10 individuals was also found in a calcareous seepage fen in the RSA (Plot 32; Figure 3). Golden ragwort was found in the Schefferville area by Dutilly and Lepage (1962), Viereck (1957) and Hustich (1965). According to the ACCDC (2012), golden ragwort occurs in the Knob Lake area (Table 2).

Golden ragwort is a small, 30 to 60-cm tall, perennial with yellow flowers. It is moderately calcicolous and occurs in damp and swampy places in woodlands, meadows, along gravel banks and streambeds. It is considered abundant and widespread throughout eastern Canada (FNA, 2006). Golden ragwort is ranked S2S4 in Labrador (ACCDC, 2012) and was given an "Undetermined" status and a "Low" conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Lesser Panicled Sedge

A single lesser panicled sedge population, with several specimens, was found in the Study Area in a rich fen bordering Mike Lake (Plot FE5; Figure 3; Table 4). In addition, a very extensive population was found in a rich uniform fen in the RSA (Plot 41, Appendix B; Figure 3). In the Schefferville area, it occurs also near the Swampy Bay River (Dutilly and Lepage, 1962).

Lesser panicled sedge is a grass like plant with culms up to 90 cm in height that grows in swampy, marshy or boggy areas, especially wet meadows, fens, muskegs, floating mats, and peaty or marly shores of water bodies (FNA, 2002). Lesser panicled sedge is ranked S2S4 in Labrador (ACCDC, 2012) and was given an "Undetermined" status and a "Medium" conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Variegated Scouring Rush

Two variegated scouring rush occurrences were found in the Study Area in a forested bog and beside a small stream in rich mineralized seeps (Plots MU2 and RU3; Figure 3; Table 4). An additional population bordering a small seepage pool beside dolomitic rocks was also found during surveys in the RSA (Plot 32; Figure 3). In all cases, populations were made up of a few individuals (Appendix B). The species was also found in the Schefferville region by Hustich (1965). According to Payette (2012), the species is common near the coastline of the Québec-Labrador peninsula.

Variegated scouring rush is small unbranched plant with a persisting stem that grows on lakeshores, riverbanks, ditches, wet woods and tundra (FNA, 1993). In Labrador, it was ranked S3 by the ACCDC (2012) and given a "Sensitive" status and a "Low" conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Creeping Sandwort

A single creeping sandwort population composed of five matted plants was found in the Study Area in a moderately weathered rock barren in wet seepage underlying dolomitic rock (Plot AL8; Figure 3; Table 4). This species was also found during surveys on wet seepage on calcareous ledges bordering the Swampy Bay River (Plot RV1; Figure 3). Creeping sandwort was found in the Schefferville region by Hustich (1965) and in the Sunny Mountain region by Viereck (1957).

Creeping sandwort is a low matted perennial with green flowers that grows in moist calcareous gravels and rock crevices (FNA, 2005). In Labrador, it was ranked S3 by the ACCDC (2012) and given a “Sensitive” status and a “Medium” conservation priority by the NL DOEC that mentions three records from the Labrador Straits, Voisey Bay and in western Labrador (C. Hanel, NL DOEC, pers. comm., 2013).

Northern Water-Starwort

A single northern water-starwort population was found in the Study Area near the shoreline of Mike Lake, where approximately 25 stems were found floating in shallow water (Plot LC3; Figure 3; Table 4). The plant occurs probably in much higher numbers in Mike Lake. Based on surveys and existing literature, this represents the unique occurrence of northern water-starwort in the Schefferville area. It has been found near the Blanc-Sablon River in Québec (Meades et al. 2000). According to Vascan (2010), northern water-starwort occurs in Greenland.

Northern water-starwort is an annual submerged aquatic plant. In Labrador, it is ranked SNA by the ACCDC (2012). This occurrence represents a new species to Labrador and thus its status has not been assessed by the NL DOEC but the species was given a “High” conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Siberian Water-Milfoil

Two relatively extensive Siberian water-milfoil populations were found in the Study Area: in the Mike Lake area (Plot LC3; Figure 3) and in the Gilling River area (Plot RV2; Figure 3; Table 4). No other populations were found during surveys in the RSA. According to Hustich (1965), this species occurs in the Schefferville area.

Siberian water-milfoil is an aquatic plant that grows in alkaline waters of lakes, streams and rivers. In Labrador, it was ranked SNR by the ACCDC (2012) and given a “May be at Risk” status and a “High” conservation priority by the NL DOEC that mentions a few occurrences around Goose Bay (C. Hanel, NL DOEC, pers. comm., 2013).

Mountain Firmoss

A single mountain firmoss colony (ten tufted plants) was found in the Study Area in a moderately weathered rock barren (Plot AL8, Figure 3; Table 4). During the surveys, it was also found in ten additional locations in the RSA (Plots 13, 16, 26, AL5, CO1, RV1, AL3, DA1, DE2 and TA1; Figure 3). Mountain firmoss was found in the Schefferville area by Dutilly and Lepage (1962 and 1964), Viereck (1957) and

Hustich (1965). According to Payette (2013) mountain firmoss is very common in the Québec-Labrador Peninsula.

Mountain firmoss is a small clustered plant with larger leaves in the proximal part of the stem (FNA, 1993 under *Huperzia appalachiana*). It grows on damp acidic igneous rock in the alpine zone or exposed cliffs and talus slopes. It is also found in rock barrens, in moss and lichen covered slopes, on stream banks, in snow patches and in fens (Payette, 2013). In Labrador, it was ranked SNR by the ACCDC (2012) and given an "Undetermined" status and a "High" conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Indianpipe

A single indianpipe specimen was found in the Study Area in a forested fen (Plot MU2; Figure 3; Table 4). Based on surveys and existing literature, this represents the unique occurrence in the Schefferville area. Indianpipe was found up to northern Labrador by Meades et al. (2000) and was found to be abundant in the Goose Bay region by Gillett (1963).

Indianpipe is a small one-flowered plant without chlorophyll that grows in moist to dry coniferous and mixed-deciduous forests (FNA, 2009). In Labrador, it is ranked SNR by the ACCDC (2012) and was given an "Undetermined" status and a "Medium" conservation priority (C. Hanel, NL DOEC, pers. comm., 2013).

Largeleaf Sandwort

A single largeleaf sandwort population was found during the surveys in the Study Area in a small seepage area in a spruce moss forest (Plot PN1; Figure 3; Table 4). In addition, outside the Study Area, largeleaf sandwort was found on calcareous ledges on the shoreline of the Swampy Bay River (Plot RV1) as well as in a calcareous seep on a slightly weathered rock barren (Plot TA1; Figure 3). In the Schefferville area, largeleaf sandwort was found on a sandy shore of Pearl Lake (Dutilly and Lepage, 1964). According to these authors, the plant also occurs in the Otelnuk Lake area and was found to be common and dependant of dolomitic rock. Largeleaf sandwort was found in the Schefferville area by Hustich (1965).

Largeleaf sandwort is a small perennial plant with rhizomes forming an extensive network that grows in moist shaded slopes, rocky ridges, ultramafic outcrops, summits and shores (FNA, 2005). In Labrador, it is ranked SNR by the ACCDC (2012) and was given an "Undetermined" status and a "Medium" conservation priority by the NL DOEC that mentions this species occurs in three other locations in western Labrador (C. Hanel, NL DOEC, pers. comm., 2013).

Northern Cluster Sedge

A single northern cluster sedge population, composed of 25 plants, was found during the surveys in the Study Area near the border of a temporary pond (Plot LC2; Figure 3; Table 4). In addition, it was found during the surveys on a shoreline and in temporary ponds in the RSA (Plots 18, 27 and 39; Figure 3) as well as in a forested fen (Plot MU1; Figure 3). Regionally, it was also found by Hustich (1965) and Dutilly and Lepage (1964).

Northern cluster sedge is a densely caespitose plant with short rhizomes and erect culms that grows in swampy coniferous woods, thickets and wet meadows (FNA, 2002). In Labrador, it is ranked SNR by the ACCDC (2012) and was given an "Undetermined" status and a "Medium" conservation priority by the NL DOEC that mentions three records: in the greater Goose Bay area, in the Fraser River and in the Schefferville area (C. Hanel, NL DOEC, pers. comm., 2013).

5.3 Summary of Rare Vascular Plant Surveys

5.3.1 Species at Risk

Only one species is considered to be potentially at risk, the Norwegian cudweed found in the Study Area in 2012. In 2013, the specimen was found to be naturally extirpated from the gravelly shore where it had been found and no other population was observed during the survey.

5.3.2 Species of Conservation Concern

Of the 34 species of conservation concern found in the Study Area, 17 were given more attention based on their rank, conservation priority, general status and number of occurrences. After a careful examination of the number of found and published occurrences, the information from the NL DOEC (2013), recent distribution maps (Payette, 2013, Vascan 2010, FNA 1993 to 2010) and suitable habitats in the region, it appears that eight species are considered to be more vulnerable to the Joyce Lake DSO Project. These include: sticky false asphodel, indianpipe, small pondweed, Siberian water-milfoil, northern water-starwort, slender stinging nettle, lesser panicled sedge and creeping sandwort. For each of these, only one occurrence was found within the Study Area and, in some cases, an additional population was found in the RSA. The other species, among the 17 given more attention, were found in higher numbers and are considered to be more common in the Schefferville area.

All of these eight species have more or less of a preference for calcareous substrate or alkaline and mineralized habitats. With the exception of creeping sandwort (Plot AL8; Figure 3), all of these species were found in three distinct areas in the Study Area: the projected accommodation camp, the Mike Lake area and the Gilling River area. Sticky false asphodel and indianpipe were found in a rich fen and forested fen with seepage in the western part of the Study Area (Plots FE3 and MU2; Figure 3). Lesser panicled sedge was found in a rich horizontal fen, while Siberian water-milfoil and northern water-starwort were found in Mike Lake area (Plots FE5 and LC2; Figure 3). The Mike Lake region seems to benefit from the leaching of base enriched water originating from dolomitic rock found near Oboe Lake. Finally, slender stinging nettle was found in a shrub swamp bordering the Gilling River (Plot MR1; Figure 3). Siberian water-milfoil was also found in this area (Plot RV2; Figure 3).

Populations of rare aquatic plants in the Study Area are however considered safe from extirpation since Siberian water-milfoil and northern water starwort populations were found in Mike Lake which is located more than 250 m away from the proposed haul road. The Siberian water-milfoil population found in the Gilling River were found

approximately 200 m upstream from the proposed haul road stream crossing, which should protect the plants from any Project's effects.

It is worth mentioning that in the Schefferville area, nine species are considered rare and new to the region. These are: field pussitoes (*Antennaria neglecta*), alpine cliff fern (*Woodsia alpina*), auricled twayblade (*Listera auriculata*), northern bog clubmoss (*Lycopodiella inundata*), Michaux's sedge (*C. michauxiana*), white cotton-grass (*Eriophorum scheuchzeri* subsp. *scheuchzeri*), beautiful sandwort (*Minuartia rubella*), Wettstein's eyebright (*Euphrasia wettsteinii*) and timber oatgrass (*Danthonia intermedia* subsp. *intermedia*) (Appendix B; Table 4). None of these were found in the Study Area during the 2012 and 2013 surveys. The greater number of calcareous, chionophilic and artic alpine habitats may explain this difference. These types of habitats were found in rich fens (Plots 21 and 41; Figure 3), calcareous lakeshores (Plots 4, 8, 12 and 38; Figure 3), rich outcrops on the shores of the Swampy Bay River (Plot RV1; Figure 3), calcareous shrub swamp on the shores of the Howell River (Plot 35; Figure 3) and snow patch and alpine habitats of the Sunny and Geren Mountains (Plots AL5 and CO1; Figure 3). In the Study Area, most of these rich types of habitats are not common, while calcareous outcrops, snow patch and alpine habitat are absent.

5.4 Floristic Diversity

This section provides an update on the floristic diversity presented in the Vegetation Baseline Study (GENIVAR, 2013), based on the 2013 additional information. The Rare Plant Survey conducted in 2013 added 17 new species to the 2012 (of which 15 are rare plant species) list and new information from Payette (2013) brings the regional total to 418 vascular plant species (Appendix G). This total is similar to the 381 species reported by Mäkinen and Kallio (1980) and to the 320 species reported by Blondeau and Dignard (2000) for the Schefferville region. For a region at this latitude, the flora is unusually rich. This fairly high richness could be due to the complex surface geology made up of calcium and magnesium rich metamorphosed sedimentary rock (Waterway et al*.,* 1984) and to its geographic location (the Study Area being found within both the Mid Subarctic Forest and the High Subarctic Tundra Ecoregions).

The floristic diversity fluctuates depending on the vegetation type encountered. In uplands, diversity is usually at its lowest. Diversity is usually highest in open and mineralized terrain. On weathered rock barrens, the number of species in the most enriched stations was twice as high as on less mineralized stations. In plant communities disturbed by human activity, openings in the canopy, bare soil and the introduction of species may explain the much higher diversity and more complex floristic associations.

Wetlands are much more diversified environments, often forming a mosaic of different vegetation types, and frequently sheltering a high number of terrestrial species. Northern ribbed, forested and riparian fens were the most diversified wetlands. Swamps were almost as diversified as northern ribbed fens. In horizontal fens, the number of species found was slightly lower which was mostly due to the uniform topography. Bogs had the lowest number of species found. Finally, temporary ponds were the least diversified, mostly due to the disturbed environment. Species found in these temporary ponds were mostly site specific.

Regionally, vegetation types were similar to those found within the Study Area, but additional types were also observed: alpine tundra, snow patches, calcareous outcrops and other alpine habitats. These vegetation types were located northwest of the Study Area. The floristic diversity is higher regionally due to these additional vegetation types, highlighted by the fact that these habitats have been the subject of several botanical studies.

6 SUMMARY AND CLOSURE

The Rare Plant Survey was conducted to supplement the Vegetation Baseline Study implemented in 2012 in support of the provincial and federal EA processes. This report includes all the information related to rare plants collected during both the 2012 and 2013 surveys. In 2012, a reconnaissance survey was conducted on August 4 to make a rapid search for rare vascular plants and species of conservation concern in specific habitats where such species were most likely to be found. The main field survey was conducted from August 14 to August 24, 2012. During the survey, emphasis was put on wetland characterization and on the search for rare or potentially uncommon plant species within the PDA. In 2012, a total of 59 sampling plots were surveyed. In 2013, the field campaign was specifically aimed at documenting and finding rare plant occurrences in the Study Area and in the Schefferville region (RSA). The field campaign was conducted from August 6 to August 11. Sampling areas were selected based on the potential of finding rare plants in any given habitat and on the possibility of finding a nearby landing area for the helicopter. In 2013, 41 additional sampling plots were surveyed.

During both the 2012 and 2013 surveys, random survey transects were used to locate rare plants. A total of 95 km of linear transects were visited by the main field botanist. A more thorough survey was conducted in habitats where rare plants were most likely to be found, such as wetlands (fens), flood plains of slow-moving rivers and streams, and unique rock outcrops and landforms (i.e. calcicolous and chionophilic habitats). When a colony of rare plants was found, coordinates, number of specimens, plant sociology, and a brief description of physical setting and habitat were noted. In addition, digital photographs were taken. An exhaustive listing of species found along with rare plants was also compiled.

According to the Atlantic Canada Conservation Data Centre (ACCDC, 2012), there are no known occurrences of plant species listed under the federal SARA or under the provincial NLESA within the RSA.

A total of 357 individual occurrences of rare vascular plants were found during the 2012 and 2013 field surveys and 143 rare vascular plants were listed to occur within the RSA based on surveys and on the existing literature. Of this number, 73 species were observed during the 2012 and/or the 2013 field surveys. Within the limits of the Study Area, one species is considered potentially at risk and 35 species of conservation concern were found. Among these, 17 were devoted more attention considering their conservation priority, general status and low number of occurrences. The Norwegian cudweed, a Low Priority COSEWIC candidate species, was found in during the 2012 survey, but was found to be naturally extirpated from the site during the 2013 survey. This is the single plant species considered at risk found in the Study Area.

The species of conservation concern given more attention are: Richardson's pondweed, sticky false asphodel, small pondweed, northern green orchid, Siberian water-milfoil, glacial sedge, mountain firmoss, northern water-starwort, indianpipe, slender stinging nettle, Lapland buttercup, golden ragwort, lesser panicled sedge, variegated scouring rush, creeping sandwort, largeleaf sandwort and northern

cluster sedge. Several of these species were found near or in Mike Lake and in the Gilling River area.

The Rare Plant Survey brings new information on the distribution and numbers of rare vascular plants in western Labrador and accordingly the NL DOEC may adjust the scarcity rank for some of these species.

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Appendix A: Description of Ranking Methods Applied by COSEWIC, SARA, NatureServe, ACCDC and the General Status of Wild Species in Canada

Appendix A.1: Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and *Species at Risk Act* (*SARA*) Wildlife Species Status Categories

Rank*	Description*
Extinct (X)	A wildlife species that no longer exists
Extirpated (XT)	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild
Endangered (E)	A wildlife species that is facing imminent extirpation or extinction in Canada
Threatened (T)	A wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction
Special Concern (SC)	A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats
Data Deficient (DD)	A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction
Not at Risk (NAR)	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances

**COSEWIC 2013. Excerpt from web site - http://www.cosewic.gc.ca/eng/sct0/assessment_process_e.cfm#tbl2*

Appendix A.2: NatureServe National (N) and Subnational (S) Conservation Status Ranks

Status	Rank	Definition
Nx, Sx	Extinct or Presumed Extirpated	Not located despite intensive searches and no expectation of rediscovery
NH, SH	Possibly Extirpated	Possibly extinct or extirpated; known only from historical occurrences but still hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty
N1, S1	Critically Imperilled	At very high risk of extinction due to extreme rarity (often five or fewer populations), steep declines or other factors, making the species especially susceptible to extirpation or extinction
N2, S2	Imperilled	At high risk of extinction due to very restricted range, few populations (often 20 or fewer), steep declines, or other factors
N3, S3	Vulnerable	At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors
N4, S4	Apparently Secure	Uncommon but not rare, and usually widespread in the range. Some cause for long-term concern
N5, S5	Secure	Common or very common and widespread and abundant. Not susceptible to extirpation or extinction under current conditions
N#N#, S#S#	Range Rank	A numeric range rank (e.g., S2/S3 or S1/S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1/S4)
NU, SU	Unrankable	Currently unrankable due to lack of information or due to substantially conflicting information about status or trends
NNR. SNR	Unranked	National or subnational conservation status not yet assessed
N#?, S#?	Inexact Numeric Rank	Denotes inexact numeric rank

Appendix A.3: Definitions of the Atlantic Canada Conservation Data Centre S Rankings

Provincial Ranking	Frequency / Comments
S1	Extremely rare throughout its range in the province (typically five or fewer occurrences or very few remaining individuals). May be especially vulnerable to extirpation
S2	Rare throughout its range in the province (6 to 20 occurrences or few remaining individuals). May be vulnerable to extirpation due to rarity or other factors
S3	Uncommon throughout its range in the province, or found only in a restricted range, even if abundant in some locations (21 to 100 occurrences)
S4	Usually widespread, fairly common throughout its range in the province and apparently secure with many occurrences, but the species is of long-term concern (e.g., watch list) (100+ occurrences)
S5	Demonstrably widespread, abundant and secure throughout its range in the province, and essentially ineradicable under present conditions
S#/S#	Numeric range rank: A range between two consecutive numeric ranks. Denotes uncertainty about the exact rarity of the species (e.g., S1/S2)
?	Inexact or uncertain: for numeric ranks, denotes inexactness (e.g., SE? denotes uncertainty of exotic status). (The? Qualifies the character immediately preceding it in the S Rank)
SU	Unrankable: Possibly in peril, but status is uncertain - more information is needed
SR	Reported but without persuasive documentation (e.g., misidentified specimen)
SE	Exotic / introduced species
Hybrid	Hybrid of two similar species

Appendix A.4: Wild Species: The General Status of Wild Species in Canada Used by NL DOEC

General Status Category	Category Description
Extinct	Species that are extirpated worldwide (i.e., they no longer exist anywhere)
Extirpated	Species that are no longer present in a given geographic area, but occur in other areas
At Risk	Species for which a formal, detailed risk assessment (COSEWIC status assessment or provincial or territorial equivalent) has been completed and that have been determined to be at risk of extirpation or extinction (i.e. Endangered or Threatened). A COSEWIC designation of Endangered or Threatened automatically results in a Canada General Status Rank (Canada rank) of At Risk. Where a provincial or territorial formal risk assessment finds a species to be Endangered or Threatened in that particular region, then, under the general status program, the species automatically receives a provincial or territorial general status rank of At Risk
May Be At Risk	Species that may be at risk of extirpation or extinction and are therefore candidates for a detailed risk assessment by COSEWIC, or provincial or territorial equivalents
Sensitive	Species that are not believed to be at risk of immediate extirpation or extinction but may require special attention or protection to prevent them from becoming at risk
Secure	Species that are not believed to belong in the categories Extinct, Extirpated, At Risk, May be at Risk, Sensitive, Accidental or Exotic. This category includes some species that show a trend of decline in numbers in Canada but remain relatively widespread or abundant
Undetermined	Species for which insufficient data, information, or knowledge are available with which to reliably evaluate their general status
Not Assessed	Species that are known or believed to be present regularly in the geographic area in Canada to which the rank applies, but have not yet been assessed by the general status program
Exotic	Species that have been moved beyond their natural range as a result of human activity. In this report, exotic species have been purposefully excluded from all other categories
Accidental	Species occurring infrequently and unpredictably, outside their usual range

Source '*Wild Species: The General Status of Wild Species in Canada' website Available at: http://www.wildspecies.ca/ranks.cfm?lang=e*

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Study Area							
Arenaria humifusa	S3	AL8	5	Matted	Localised	11-100 m²	Moderatly Weathered Rock Barren
Betula pumila var. *glandulifera*	SNR	FE3	250	Isolated stems	Dispersed	501-1000 m²	Northern Ribbed Fen
Betula pumila var. *glandulifera*	SNR	FE4	150	Isolated stems	Dispersed	501-1000 m²	Northern Ribbed Fen
Betula pumila var. *glandulifera*	SNR	FE5	500	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Betula pumila var. *glandulifera*	SNR	MR1	150	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Betula pumila var. *glandulifera*	SNR	MU2	250	Isolated stems	Dispersed	501-1000 m²	Forested Fen
Betula pumila var. *glandulifera*	SNR	RU2	250	Isolated stems	Dispersed	501-1000 m²	Forested Fen
Betula pumila var. *glandulifera*	SNR	RU3	150	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Betula pumila var. *glandulifera*	SNR	RU4	50	Isolated stems	Dispersed	101-500 m²	Forested Swamp
Betula pumila var. *glandulifera*	SNR	RV2	150	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Betula pumila var. *glandulifera*	SNR	DE1	15	Isolated stems	Localised	2-10 m²	Highly Weathered Rock Barren
Calamagrostis canadensis var. *canadensis*	SNR	28	25	Isolated stems	Dispersed	101-500 m²	Horizontal Fen
Calamagrostis canadensis var. *canadensis*	SNR	FE3	150	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	FE4	100	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	LC2	200	Isolated stems	Uniforme distribution	101-500 m²	Temporary Pond
Calamagrostis canadensis var. *canadensis*	SNR	LC3	200	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	MR1	250	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	MU2	150	Isolated stems	Dispersed	101-500 m²	Forested Fen
Calamagrostis canadensis var. *canadensis*	SNR	OM2	25	Isolated stems	Dispersed	11-100 m²	Flat Bog
Calamagrostis canadensis var. *canadensis*	SNR	OM4	25	Isolated stems	Dispersed	11-100 m²	Flat Bog
Calamagrostis canadensis var. *canadensis*	SNR	PN3	25	Isolated stems	Dispersed	101-500 m²	Open Spuce-Moss Forest
Calamagrostis canadensis var. *canadensis*	SNR	RU2	50	Isolated stems	Dispersed	101-500 m²	Forested Fen
Calamagrostis canadensis var. *canadensis*	SNR	RU4	50	Isolated stems	Dispersed	101-500 m²	Forested Swamp
Calamagrostis canadensis var. *canadensis*	SNR	RV2	50	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	LC1A	500	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	LC1B	500	Isolated stems	Uniforme distribution	101-500 m²	Exposed Gravel and Sand
Callitriche hermaphroditica	SNA	LC3	25	Isolated stems	Localised	11-100 m²	Riparian Fen
Carex arcta	SNR	LC2	25	Tufted	Dispersed	11-100 m²	Temporary Pond
Carex chordorrhiza	S3	FE3	250	Isolated stems	Dispersed	+1000 m²	Northern Ribbed Fen
Carex diandra	S2S4	FE5	5000+	Isolated stems	Uniforme distribution	+1000 m²	Horizontal Fen
Carex glacialis	S2S3	AL6	2	Tufted	Localised	-1 m²	Highly Weathered Rock Barren
Carex glacialis	S2S3	AL8	15	Tufted	Localised	11-100 m²	Moderatly Weathered Rock Barren
Carex utriculata	SNR	FE4	25	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Carex utriculata	SNR	LC3	50	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Diphasiastrum sabinifolium	SNA	BR1	15	Tufted	Dispersed	11-100 m²	Post-Fire Conifer Regeneration
Elymus trachycaulus subsp. *trachycaulus*	SNR	FE3	25	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Elymus trachycaulus subsp. trachycaulus	SNR	LC3	50	Isolated stems	Dispersed	101-500 m²	Riparian Fen

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Study Area							
Elymus trachycaulus subsp. *trachycaulus*	SNR	MU2	15	Isolated stems	Dispersed	101-500 m²	Forested Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	RU3	15	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	RU4	25	Isolated stems	Dispersed	101-500 m²	Forested Swamp
Equisetum variegatum subsp. *variegatum*	SNR	MU2	15	Isolated stems	Localised	2-10 m²	Forested Fen
Equisetum variegatum subsp. *variegatum*	SNR	RU3	20	Isolated stems	Localised	11-100 m²	Riparian Fen
Eriophorum russeolum subsp. *russeolum*	SNR	28	5	Isolated stems	Localised	2-10 m²	Horizontal Fen
Eriophorum russeolum subsp. *russeolum*	SNR	FE3	50	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Eriophorum russeolum subsp. *russeolum*	SNR	OM4	100	Isolated stems	Dispersed	101-500 m²	Flat Bog
Eriophorum russeolum subsp. *russeolum*	SNR	OM4	200	Isolated stems	Dispersed	101-500 m²	Flat Bog
Eriophorum russeolum subsp. *russeolum*	SNR	RU2	50	Isolated stems	Dispersed	101-500 m²	Forested Fen
Fragaria virginiana subsp. *glauca*	SNR	LC3	150	Isolated stems	Localised	101-500 m²	Riparian Fen
Fragaria virginiana subsp. *glauca*	SNR	MR1	150	Isolated stems	Localised	101-500 m²	Shrub Swamp
Fragaria virginiana subsp. *glauca*	SNR	RU3	50	Isolated stems	Localised	101-500 m²	Riparian Fen
Fragaria virginiana subsp. *glauca*	SNR	RU4	250	Isolated stems	Localised	101-500 m²	Forested Swamp
Fragaria virginiana subsp. *glauca*	SNR	RV2	50	Isolated stems	Localised	101-500 m²	Riparian Fen
Huperzia appressa	SNR	AL8	10	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Moehringia macrophylla	SNR	PN1	15	Isolated stems	Localised	-1 m²	Closed Spruce-Moss Forest
Monotropa uniflora	SNR	MU2	1	Isolated stems	Localised	-1 m²	Forested Fen
Myriophyllum sibiricum	SNR	LC3	25	Isolated stems	Dispersed	11-100 m²	Riparian Fen
Myriophyllum sibiricum	SNR	RV2	50	Isolated stems	Dispersed	11-100 m²	Riparian Fen
Omalotheca norvegica	S2S3	LC1A	1	Isolated stems	Localised	-1 m²	Shrub Swamp
Packera aurea	S2S4	RU4	25	Isolated stems	Localised	2-10 m²	Forested Swamp
Pedicularis groenlandica	S2S4	LC3	15	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Pedicularis groenlandica	S2S4	RV2	15	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Platanthera aquilonis	S2S3	FE3	5	Isolated stems	Localised	-1 m²	Northern Ribbed Fen
Potamogeton pusillus subsp. *tenuissimus*	S1S3	LC3	25	Isolated stems	Tige isolée	11-100 m²	Riparian Fen
Potamogeton richardsonii	S1S3	LC3	25	Isolated stems	Tige isolée	11-100 m²	Riparian Fen
Potamogeton richardsonii	S1S3	RV2	25	Isolated stems	Tige isolée	11-100 m²	Riparian Fen
Pyrola asarifolia	S2S4	FE3	15	Isolated stems	Dispersed	11-100 m²	Northern Ribbed Fen
Pyrola asarifolia	S2S4	FE5	25	Isolated stems	Dispersed	501-1000 m²	Horizontal Fen
Pyrola asarifolia	S2S4	LC3	15	Isolated stems	Dispersed	11-100 m²	Riparian Fen
Pyrola asarifolia	S2S4	RU3	5	Isolated stems	Localised	11-100 m²	Riparian Fen
Ranunculus lapponicus	S2S3	2	35	Isolated stems	Localised	2-10 m²	Shrub Swamp
Ranunculus lapponicus	S2S3	MU2	5	Isolated stems	Localised	2-10 m²	Forested Fen
Ranunculus lapponicus	S2S3	RU2	5	Isolated stems	Localised	2-10 m²	Forested Fen
Rhinanthus minor subsp. *groenlandicus*	SNR	LC3	20	Isolated stems	Localised	11-100 m²	Riparian Fen
Salix ballii	S2S4	FE5	25	Isolated stems	Dispersed	101-500 m²	Horizontal Fen

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Study Area							
Salix ballii	S2S4	LC3	25	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Salix ballii	S2S4	MU2	50	Isolated stems	Dispersed	101-500 m²	Forested Fen
Salix ballii	S2S4	RU3	10	Isolated stems	Localised	11-100 m²	Riparian Fen
Salix ballii	S2S4	RU4	15	Isolated stems	Localised	11-100 m²	Forested Swamp
Salix pedicellaris	S2S4	28	100	Isolated stems	Dispersed	101-500 m²	Horizontal Fen
Salix pedicellaris	S2S4	FE4	150	Isolated stems	Uniforme distribution	101-500 m²	Northern Ribbed Fen
Salix pedicellaris	S2S4	MU2	500	Isolated stems	Dispersed	+1000 m²	Forested Fen
Salix pedicellaris	S2S4	RU2	150	Isolated stems	Dispersed	101-500 m²	Forested Fen
Schizachne purpurascens	S2S4	RU4	20	Isolated stems	Localised	101-500 m²	Forested Swamp
Spinulum canadense	SNR	BR1	100	Tufted	Dispersed	501-1000 m²	Post-Fire Conifer Regeneration
Spinulum canadense	SNR	FE4	10	Tufted	Dispersed	11-100 m²	Northern Ribbed Fen
Spinulum canadense	SNR	OM4	10	Tufted	Dispersed	11-100 m²	Flat Bog
Spinulum canadense	SNR	PN3	10	Tufted	Localised	11-100 m²	Open Spuce-Moss Forest
Spinulum canadense	SNR	AL7	50	Tufted	Dispersed	501-1000 m²	Moderatly Weathered Rock Barren
Spinulum canadense	SNR	BE1	25	Tufted	Dispersed	11-100 m²	Birch Forest
Spinulum canadense	SNR	LA1	5	Tufted	Dispersed	11-100 m²	Open Spruce-Lichen Forest
Spinulum canadense	SNR	LA2	15	Tufted	Dispersed	11-100 m²	Open Spruce-Lichen Forest
Spinulum canadense	SNR	LA3	10	Tufted	Dispersed	11-100 m²	Shrubland
Spinulum canadense	SNR	LC1A	25	Tufted	Dispersed	501-1000 m²	Shrub Swamp
Spinulum canadense	SNR	LC1B	5	Tufted	Dispersed	11-100 m²	Exposed Gravel and Sand
Spinulum canadense	SNR	PB1	10	Tufted	Dispersed	11-100 m²	Closed Spruce-Moss Forest
Spinulum canadense	SNR	PC2	25	Tufted	Dispersed	501-1000 m²	Open Spruce-Lichen Forest
Spinulum canadense	SNR	PN2	10	Tufted	Localised	11-100 m²	Open Spruce-Lichen Forest
Taraxacum lapponicum	S3	MR1	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Taraxacum lapponicum	S3	RU4	5	Isolated stems	Localised	2-10 m²	Forested Swamp
Taraxacum lapponicum	S3	LC1A	3	Isolated stems	Localised	-1 m²	Shrub Swamp
Taraxacum lapponicum	S3	LC1B	2	Isolated stems	Localised	2-10 m²	Exposed Gravel and Sand
Triantha glutinosa	S1S3	FE3	50	Isolated stems	Localised	11-100 m²	Northern Ribbed Fen
Urtica dioica subsp. *gracilis*	S2S3	MR1	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Vahlodea atropurpurea	S2S4	FE4	10	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Vahlodea atropurpurea	S2S4	LC3	15	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Vahlodea atropurpurea	S2S4	RV2	5	Isolated stems	Localised	11-100 m²	Riparian Fen

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Alchemilla filicaulis subsp. *filicaulis*	S3S4	35	100	Isolated stems	Dispersed	501-1000 m²	Shrubland
Agrostis stolonifera	S2S4	IA	250	Tufted	Dispersed	+1000 m²	Human Disturbances
Antennaria monocephala subsp. *angustata*	SNR	CO1	25	Isolated stems	Dispersed	11-100 m²	Snow Patch
Antennaria monocephala subsp. *angustata*	SNR	RV1	15	Isolated stems	Localised	2-10 m²	Shrub Swamp
Antennaria neglecta	SNR	DE2	3	Isolated stems	Localised	2-10 m²	Highly Weathered Rock Barren
Arenaria humifusa	S3	RV1	5	Matted	Localised	11-100 m²	Shrub Swamp
Astragalus alpinus var. *alpinus*	S3	35	5	Isolated stems	Localised	2-10 m²	Shrubland
Bartsia alpina	S2S4	CO1	50	Isolated stems	Localised	11-100 m²	Snow Patch
Betula pumila var. *glandulifera*	SNR	RU1	50	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	4	250	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	5	1000	Isolated stems	Uniforme distribution	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	7	100	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	8	100	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	9	25	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	10	150	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	11	500	Isolated stems	Uniforme distribution	501-1000 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	12	100	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	14	250	Isolated stems	Dispersed	+1000 m²	Horizontal Fen
Calamagrostis canadensis var. *canadensis*	SNR	17	10	Isolated stems	Dispersed	11-100 m²	Forested Swamp
Calamagrostis canadensis var. *canadensis*	SNR	18	1000	Isolated stems	Uniforme distribution	501-1000 m²	Temporary pond
Calamagrostis canadensis var. *canadensis*	SNR	20	1500	Isolated stems	Uniforme distribution	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	21	150	Isolated stems	Dispersed	501-1000 m²	Horizontal Fen
Calamagrostis canadensis var. *canadensis*	SNR	23	150	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	26	25	Isolated stems	Dispersed	101-500 m²	Closed Spruce-Moss Forest
Calamagrostis canadensis var. *canadensis*	SNR	37	250	Isolated stems	Dispersed	101-500 m²	Horizontal Fen
Calamagrostis canadensis var. *canadensis*	SNR	38	100	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	39	150	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	RV1	25	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	T1	150	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	3	5000+	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Calamagrostis canadensis var. *canadensis*	SNR	31	500	Isolated stems	Uniforme distribution	501-1000 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	34	100	Isolated stems	Uniforme distribution	101-500 m²	Shrubland
Calamagrostis canadensis var. *canadensis*	SNR	40	500	Isolated stems	Dispersed	+1000 m²	Northern Ribbed Fen
Calamagrostis canadensis var. *canadensis*	SNR	BO1	25	Isolated stems	Dispersed	101-500 m²	Flat Bog
Calamagrostis canadensis var. *canadensis*	SNR	DA1	50	Isolated stems	Dispersed	101-500 m²	Slightly Weathered Rock Barren
Calamagrostis canadensis var. *canadensis*	SNR	FE2	200	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	IA	5000+	Isolated stems	Uniforme distribution	+1000 m²	Human Disturbances

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Calamagrostis canadensis var. *canadensis*	SNR	PC1	25	Isolated stems	Dispersed	101-500 m²	Open Spruce-Lichen Forest
Calamagrostis canadensis var. *canadensis*	SNR	PN4	25	Isolated stems	Dispersed	101-500 m²	Open Spruce-Moss Forest
Calamagrostis canadensis var. *canadensis*	SNR	RU1	150	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Calamagrostis canadensis var. *canadensis*	SNR	TE2	150	Isolated stems	Dispersed	101-500 m²	Temporary pond
Calamagrostis canadensis var. *langsdorfii*	SNR	16	1000	Isolated stems	Uniforme distribution	+1000 m²	Exposed Gravel
Calamagrostis canadensis var. *langsdorfii*	SNR	AL5	15	Isolated stems	Localised	11-100 m²	Moderatly Weathered Rock Barren
Calamagrostis canadensis var. *langsdorfii*	SNR	CO1	15	Isolated stems	Localised	11-100 m²	Snow Patch
Calamagrostis canadensis var. *langsdorfii*	SNR	TA1	15	Isolated stems	Localised	11-100 m²	Moderatly Weathered Rock Barren
Calamagrostis stricta subsp. *inexpansa*	SNR	38	50	Isolated stems	Localised	11-100 m²	Riparian Fen
Carex arcta	SNR	18	50	Tufted	Dispersed	501-1000 m²	Temporary pond
Carex arcta	SNR	27	10	Tufted	Dispersed	101-500 m²	Temporary pond
Carex arcta	SNR	39	100	Tufted	Dispersed	101-500 m²	Shrub Swamp
Carex arcta	SNR	MU1	5	Tufted	Localised	11-100 m²	Forested Bog
Carex chordorrhiza	S3	14	25	Isolated stems	Localised	11-100 m²	Horizontal Fen
Carex chordorrhiza	S3	21	150	Isolated stems	Dispersed	501-1000 m²	Horizontal Fen
Carex chordorrhiza	S3	41	250	Isolated stems	Dispersed	+1000 m²	Horizontal Fen
Carex diandra	S2S4	41	+1000	Isolated stems	Localised	+1000 m²	Horizontal Fen
Carex glacialis	S2S3	6	7	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Carex glacialis	S2S3	13	7	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Carex glacialis	S2S3	24	50	Tufted	Localised	11-100 m²	Moderatly Weathered Rock Barren
Carex glacialis	S2S3	26	10	Tufted	Dispersed	11-100 m²	Closed Spruce-Moss Forest
Carex glacialis	S2S3	30	15	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Carex glacialis	S2S3	AL5	50	Tufted	Dispersed	101-500 m²	Moderatly Weathered Rock Barren
Carex glacialis	S2S3	AL4	1	Tufted	Localised	-1 m²	Highly Weathered Rock Barren
Carex glacialis	S2S3	AU1	4	Tufted	Localised	-1 m²	Shrubland
Carex glacialis	S2S3	AL1	39	Tufted	Dispersed	11-100 m²	Highly Weathered Rock Barren
Carex interior	S2S4	38	150	Tufted	Uniforme distribution	101-500 m²	Riparian Fen
Carex interior	S2S4	41	100	Tufted	Dispersed	501-1000 m²	Horizontal Fen
Carex interior	S2S4	RU1	15	Tufted	Localised	11-100 m²	Riparian Fen
Carex michauxiana	S2S4	21	50	Isolated stems	Localised	11-100 m²	Horizontal Fen
Carex utriculata	SNR	20	500	Isolated stems	Uniforme distribution	101-500 m²	Riparian Fen
Carex utriculata	SNR	38	25	Isolated stems	Localised	2-10 m²	Riparian Fen
Carex utriculata	SNR	3	1000	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Carex utriculata	SNR	FE2	50	Isolated stems	Localised	11-100 m²	Riparian Fen
Carex utriculata	SNR	OM3	50	Isolated stems	Localised	11-100 m²	Flat Bog
Danthonia intermedia subsp. *intermedia*	SNR	38	15	Isolated stems	Localised	11-100 m²	Riparian Fen
Danthonia intermedia subsp. *intermedia*	SNR	RV1	15	Isolated stems	Dispersed	11-100 m²	Shrub Swamp

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Diphasiastrum sabinifolium	SNA	25	10	Tufted	Dispersed	11-100 m²	Shrubland
Diphasiastrum sabinifolium	SNA	AL3	5	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Diphasiastrum sabinifolium	SNA	CL1	10	Tufted	Dispersed	11-100 m²	Open Spruce-Lichen Forest
Elymus trachycaulus subsp. *trachycaulus*	SNR	9	7	Isolated stems	Localised	2-10 m²	Shrub Swamp
Elymus trachycaulus subsp. *trachycaulus*	SNR	11	125	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	12	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Elymus trachycaulus subsp. *trachycaulus*	SNR	21	150	Isolated stems	Localised	11-100 m²	Horizontal Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	23	100	Isolated stems	Localised	11-100 m²	Riparian Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	35	150	Isolated stems	Dispersed	501-1000 m²	Shrubland
Elymus trachycaulus subsp. *trachycaulus*	SNR	38	25	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	CO1	10	Isolated stems	Localised	11-100 m²	Snow Patch
Elymus trachycaulus subsp. *trachycaulus*	SNR	RV1	10	Isolated stems	Localised	11-100 m²	Shrub Swamp
Elymus trachycaulus subsp. *trachycaulus*	SNR	3	10	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Elymus trachycaulus subsp. *trachycaulus*	SNR	31	500	Isolated stems	Uniforme distribution	501-1000 m²	Riparian Fen
Elymus trachycaulus subsp. *trachycaulus*	SNR	33	50	Isolated stems	Dispersed	101-500 m²	Open Spruce-Lichen Forest
Elymus trachycaulus subsp. *trachycaulus*	SNR	34	100	Isolated stems	Dispersed	101-500 m²	Shrubland
Elymus trachycaulus subsp. *trachycaulus*	SNR	RU1	20	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Equisetum variegatum subsp. *variegatum*	SNR	32	250	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Eriophorum russeolum subsp. *russeolum*	SNR	4	50	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Eriophorum russeolum subsp. *russeolum*	SNR	7	1000	Isolated stems	Uniforme distribution	101-500 m²	Northern Ribbed Fen
Eriophorum russeolum subsp. *russeolum*	SNR	8	500	Isolated stems	Uniforme distribution	101-500 m²	Shrub Swamp
Eriophorum russeolum subsp. *russeolum*	SNR	10	100	Isolated stems	Localised	11-100 m²	Northern Ribbed Fen
Eriophorum russeolum subsp. *russeolum*	SNR	11	25	Isolated stems	Dispersed	501-1000 m²	Northern Ribbed Fen
Eriophorum russeolum subsp. *russeolum*	SNR	14	50	Isolated stems	Localised	11-100 m²	Horizontal Fen
Eriophorum russeolum subsp. *russeolum*	SNR	20	25	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Eriophorum russeolum subsp. *russeolum*	SNR	22	+5000	Isolated stems	Uniforme distribution	+1000 m²	Palsa and Northern Ribbed Fen
Eriophorum russeolum subsp. *russeolum*	SNR	29	750	Isolated stems	Localised	11-100 m²	Pond in Bog
Eriophorum russeolum subsp. *russeolum*	SNR	38	25	Isolated stems	Localised	11-100 m²	Riparian Fen
Eriophorum russeolum subsp. *russeolum*	SNR	3	10	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Eriophorum russeolum subsp. *russeolum*	SNR	FE1	25	Isolated stems	Dispersed	101-500 m²	Flat Bog
Eriophorum russeolum subsp. *russeolum*	SNR	MU1	15	Isolated stems	Dispersed	101-500 m²	Forested Bog
Eriophorum russeolum subsp. *russeolum*	SNR	OM3	250	Isolated stems	Dispersed	101-500 m²	Flat Bog
Eriophorum scheuchzeri subsp. *scheuchzeri*	S2S4	12	10	Isolated stems	Localised	2-10 m²	Shrub Swamp
Euphrasia hudsoniana	SNR	RV1	10	Isolated stems	Localised	11-100 m²	Shrub Swamp
Euphrasia wettsteinii	SNR	CO1	10	Isolated stems	Localised	2-10 m²	Snow Patch
Festuca prolifera var. *lasiolepis*	SNR	41	10	Tufted	Dispersed	11-100 m²	Horizontal Fen
Festuca prolifera var. *lasiolepis*	SNR	RV1	10	Tufted	Localised	2-10 m²	Shrub Swamp

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Fragaria virginiana subsp. *glauca*	SNR	23	1000	Isolated stems	Uniforme distribution	101-500 m²	Riparian Fen
Fragaria virginiana subsp. *glauca*	SNR	35	1000	Isolated stems	Dispersed	501-1000 m²	Shrubland
Fragaria virginiana subsp. *glauca*	SNR	37	250	Isolated stems	Localised	101-500 m²	Horizontal Fen
Fragaria virginiana subsp. *glauca*	SNR	RV1	25	Isolated stems	Localised	11-100 m²	Shrub Swamp
Fragaria virginiana subsp. *glauca*	SNR	31	+5000	Isolated stems	Uniforme distribution	501-1000 m²	Riparian Fen
Fragaria virginiana subsp. *glauca*	SNR	32	100	Isolated stems	Localised	11-100 m²	Riparian Fen
Fragaria virginiana subsp. *glauca*	SNR	DE2	25	Isolated stems	Localised	11-100 m²	Highly Weathered Rock Barren
Hieracium vulgatum	SNA	33	25	Isolated stems	Dispersed	101-500 m²	Open Spruce-Lichen Forest
Huperzia appressa	SNR	13	50	Tufted	Localised	11-100 m²	Moderatly Weathered Rock Barren
Huperzia appressa	SNR	16	15	Tufted	Localised	11-100 m²	Exposed Gravel
Huperzia appressa	SNR	26	75	Tufted	Uniforme distribution	101-500 m²	Closed Spruce-Moss Forest
Huperzia appressa	SNR	AL5	25	Tufted	Dispersed	101-500 m²	Moderatly Weathered Rock Barren
Huperzia appressa	SNR	CO1	25	Tufted	Dispersed	11-100 m²	Snow Patch
Huperzia appressa	SNR	RV1	10	Tufted	Dispersed	11-100 m²	Shrub Swamp
Huperzia appressa	SNR	AL3	5	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Huperzia appressa	SNR	DA1	15	Tufted	Dispersed	11-100 m²	Slightly Weathered Rock Barren
Huperzia appressa	SNR	DE2	5	Tufted	Dispersed	11-100 m²	Highly Weathered Rock Barren
Huperzia appressa	SNR	TA1	10	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Huperzia selago	SNR	17	100	Tufted	Dispersed	101-500 m²	Forested Swamp
Juncus bufonius	S2S4	IA	10	Tufted	Localised	11-100 m²	Human Disturbances
Juncus stygius var. *americanus*	S2S4	10	50	Isolated stems	Dispersed	11-100 m²	Northern Ribbed Fen
Juncus stygius var. *americanus*	S2S4	21	50	Isolated stems	Dispersed	11-100 m²	Horizontal Fen
Listera auriculata	S1S2	35	1	Isolated stems	Localised	-1 m²	Shrubland
Luzula multiflora subsp. *frigida*	S2S4	CO1	15	Isolated stems	Localised	11-100 m²	Snow Patch
Lycopodiella inundata	S2S4	RV1	25	Isolated stems	Localised	11-100 m²	Shrub Swamp
Minuartia dawsonensis	SNR	RV1	20	Isolated stems	Localised	11-100 m²	Shrub Swamp
Minuartia rubella	S3	RV1	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Moehringia macrophylla	SNR	RV1	10	Isolated stems	Localised	2-10 m²	Shrub Swamp
Moehringia macrophylla	SNR	TA1	15	Isolated stems	Localised	2-10 m²	Moderatly Weathered Rock Barren
Omalotheca supina	S2S3	CO1	50	Isolated stems	Localised	11-100 m²	Snow Patch
Packera aurea	S2S4	32	10	Isolated stems	Dispersed	11-100 m²	Riparian Fen
Packera indecora	SNR	31	50	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Parnassia kotzebuei	S3S4	35	50	Isolated stems	Dispersed	101-500 m²	Shrubland
Parnassia kotzebuei	S3S4	31	100	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Parnassia kotzebuei	S3S4	34	25	Isolated stems	Dispersed	11-100 m²	Shrubland
Parnassia kotzebuei	S3S4	RU1	5	Isolated stems	Localised	11-100 m²	Riparian Fen
Pedicularis groenlandica	S2S4	38	25	Isolated stems	Dispersed	101-500 m²	Riparian Fen

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Pedicularis groenlandica	S2S4	DE2	15	Isolated stems	Dispersed	11-100 m²	Highly Weathered Rock Barren
Piptatheropsis canadensis	SU	38	10	Isolated stems	Localised	11-100 m²	Riparian Fen
Platanthera aquilonis	S2S3	21	15	Isolated stems	Localised	11-100 m²	Horizontal Fen
Platanthera aquilonis	S2S3	32	10	Isolated stems	Localised	11-100 m²	Riparian Fen
Platanthera aquilonis	S2S3	40	10	Isolated stems	Localised	11-100 m²	Northern Ribbed Fen
Populus balsamifera	S3	IA	10	Isolated stems	Dispersed	501-1000 m²	Human Disturbances
Potamogeton alpinus	S2S4	23	50	Isolated stems	Tige isolée	11-100 m²	Riparian Fen
Potamogeton richardsonii	S1S3	RV1	5	Isolated stems	Tige isolée	11-100 m²	Shrub Swamp
Primula mistassinica	S2	4	25	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Primula mistassinica	S2	38	50	Isolated stems	Dispersed	11-100 m²	Riparian Fen
Pyrola asarifolia	S2S4	32	150	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Pyrola grandiflora	S3	AL5	15	Isolated stems	Dispersed	101-500 m²	Moderatly Weathered Rock Barren
Ranunculus lapponicus	S2S3	MU1	10	Isolated stems	Localised	2-10 m²	Forested Bog
Rhinanthus minor subsp. *groenlandicus*	SNR	31	150	Isolated stems	Localised	11-100 m²	Riparian Fen
Rhinanthus minor subsp. *groenlandicus*	SNR	IA	50	Isolated stems	Dispersed	501-1000 m²	Human Disturbances
Rhinanthus minor subsp. *groenlandicus*	SNR	4	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Rhinanthus minor subsp. *groenlandicus*	SNR	35	100	Isolated stems	Dispersed	501-1000 m²	Shrubland
Rhinanthus minor subsp. *groenlandicus*	SNR	38	100	Isolated stems	Uniforme distribution	101-500 m²	Riparian Fen
Rhinanthus minor subsp. *groenlandicus*	SNR	RV1	15	Isolated stems	Localised	11-100 m²	Shrub Swamp
Salix ballii	S2S4	31	500	Isolated stems	Uniforme distribution	501-1000 m²	Riparian Fen
Salix ballii	S2S4	32	50	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Salix ballii	S2S4	34	50	Isolated stems	Dispersed	101-500 m²	Shrubland
Salix ballii	S2S4	35	1000	Isolated stems	Uniforme distribution	501-1000 m²	Shrubland
Salix ballii	S2S4	37	250	Isolated stems	Localised	101-500 m²	Horizontal Fen
Salix ballii	S2S4	41	100	Isolated stems	Localised	101-500 m²	Horizontal Fen
Salix bebbiana	S2S4	31	5	Isolated stems	Localised	501-1000 m²	Riparian Fen
Salix bebbiana	S2S4	33	25	Isolated stems	Dispersed	101-500 m²	Open Spruce-Lichen Forest
Salix bebbiana	S2S4	17	10	Isolated stems	Dispersed	11-100 m²	Forested Swamp
Salix pedicellaris	S2S4	3	250	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Salix pedicellaris	S2S4	40	+1000	Isolated stems	Dispersed	+1000 m²	Northern Ribbed Fen
Salix pedicellaris	S2S4	DA1	25	Isolated stems	Dispersed	101-500 m²	Slightly Weathered Rock Barren
Salix pedicellaris	S2S4	FE2	250	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Salix pedicellaris	S2S4	OM3	150	Isolated stems	Dispersed	101-500 m²	Flat Bog
Salix pedicellaris	S2S4	5	150	Isolated stems	Uniforme distribution	101-500 m²	Northern Ribbed Fen
Salix pedicellaris	S2S4	7	100	Isolated stems	Dispersed	501-1000 m²	Northern Ribbed Fen
Salix pedicellaris	S2S4	10	25	Isolated stems	Dispersed	11-100 m²	Northern Ribbed Fen
Salix pedicellaris	S2S4	11	250	Isolated stems	Uniforme distribution	501-1000 m²	Northern Ribbed Fen

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Salix pedicellaris	S2S4	20	100	Isolated stems	Localised	101-500 m²	Riparian Fen
Salix pedicellaris	S2S4	21	250	Isolated stems	Dispersed	501-1000 m²	Horizontal Fen
Salix pedicellaris	S2S4	22	250	Isolated stems	Dispersed	101-500 m²	Palsa and Northern Ribbed Fen
Salix pedicellaris	S2S4	23	150	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Salix pedicellaris	S2S4	37	50	Isolated stems	Localised	101-500 m²	Horizontal Fen
Salix pedicellaris	S2S4	41	+1000	Isolated stems	Localised	+1000 m²	Horizontal Fen
Schizachne purpurascens	S2S4	3	25	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Schizachne purpurascens	S2S4	31	100	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Schizachne purpurascens	S2S4	RU1	25	Isolated stems	Localised	101-500 m²	Riparian Fen
Schizachne purpurascens	S2S4	11	25	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Schizachne purpurascens	S2S4	12	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Schizachne purpurascens	S2S4	23	150	Isolated stems	Uniforme distribution	101-500 m²	Riparian Fen
Schizachne purpurascens	S2S4	27	150	Isolated stems	Localised	11-100 m²	Temporary pond
Schizachne purpurascens	S2S4	35	25	Isolated stems	Dispersed	501-1000 m²	Shrubland
Schizachne purpurascens	S2S4	T1	25	Isolated stems	Localised	101-500 m²	Northern Ribbed Fen
Sibbaldia procumbens	SNR	CO1	100	Isolated stems	Localised	11-100 m²	Snow Patch
Spinulum canadense	SNR	AL1	10	Tufted	Dispersed	11-100 m²	Highly Weathered Rock Barren
Spinulum canadense	SNR	1	10	Tufted	Localised	11-100 m²	Open Spuce-Moss Forest and Shrubland
Spinulum canadense	SNR	CL1	25	Tufted	Dispersed	501-1000 m²	Open Spruce-Lichen Forest
Spinulum canadense	SNR	DA1	10	Tufted	Dispersed	501-1000 m²	Slightly Weathered Rock Barren
Spinulum canadense	SNR	DE2	10	Tufted	Dispersed	11-100 m²	Highly Weathered Rock Barren
Spinulum canadense	SNR	EB1	10	Tufted	Dispersed	501-1000 m²	Moderatly Weathered Rock Barren
Spinulum canadense	SNR	IA	50	Tufted	Dispersed	+1000 m²	Human Disturbances
Spinulum canadense	SNR	MU1	10	Tufted	Dispersed	11-100 m²	Forested Bog
Spinulum canadense	SNR	PC1	25	Tufted	Dispersed	501-1000 m²	Open Spruce-Lichen Forest
Spinulum canadense	SNR	TA1	15	Tufted	Dispersed	11-100 m²	Moderatly Weathered Rock Barren
Spinulum canadense	SNR	13	10	Tufted	Localised	11-100 m²	Moderatly Weathered Rock Barren
Spinulum canadense	SNR	15	10	Tufted	Localised	11-100 m²	Shrubland
Spinulum canadense	SNR	CO1	10	Tufted	Dispersed	11-100 m²	Snow Patch
Spinulum canadense	SNR	Te1	20	Tufted	Dispersed	11-100 m²	Temporary pond
Spinulum canadense	SNR	PT1	15	Tufted	Dispersed	501-1000 m²	Shrubland
Taraxacum lapponicum	S3	3	5	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Taraxacum lapponicum	S3	31	25	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Taraxacum lapponicum	S3	34	5	Isolated stems	Dispersed	101-500 m²	Shrubland
Taraxacum lapponicum	S3	4	10	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Taraxacum lapponicum	S3	8	25	Isolated stems	Localised	501-1000 m²	Shrub Swamp
Taraxacum lapponicum	S3	9	5	Isolated stems	Dispersed	11-100 m²	Shrub Swamp

Appendix B: Characteristics of the Rare Plant Occurrences Found during both the 2012 and 2013 Surveys (Continued)

Scientifique Name	S Rank	Plot	Number of individuals	Growth habit	Repartition	Dispersion area	Habitat
Regional Study Area							
Taraxacum lapponicum	S3	12	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Taraxacum lapponicum	S3	21	10	Isolated stems	Dispersed	501-1000 m²	Horizontal Fen
Taraxacum lapponicum	S3	35	3	Isolated stems	Localised	2-10 m²	Shrubland
Taraxacum lapponicum	S3	CO1	10	Isolated stems	Localised	11-100 m²	Snow Patch
Taraxacum lapponicum	S3	RV1	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Taraxacum lapponicum	S3	23	5	Isolated stems	Localised	2-10 m²	Riparian Fen
Triantha glutinosa	S1S3	38	20	Isolated stems	Localised	11-100 m²	Riparian Fen
Vahlodea atropurpurea	S2S4	34	15	Isolated stems	Dispersed	101-500 m²	Shrubland
Vahlodea atropurpurea	S2S4	DE2	5	Isolated stems	Localised	11-100 m²	Highly Weathered Rock Barren
Vahlodea atropurpurea	S2S4	MU1	10	Isolated stems	Dispersed	101-500 m²	Forested Bog
Vahlodea atropurpurea	S2S4	4	25	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Vahlodea atropurpurea	S2S4	7	5	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Vahlodea atropurpurea	S2S4	8	10	Isolated stems	Dispersed	101-500 m²	Shrub Swamp
Vahlodea atropurpurea	S2S4	10	1	Isolated stems	Localised	-1 m²	Northern Ribbed Fen
Vahlodea atropurpurea	S2S4	11	250	Isolated stems	Dispersed	101-500 m²	Northern Ribbed Fen
Vahlodea atropurpurea	S2S4	23	75	Isolated stems	Dispersed	101-500 m²	Riparian Fen
Vahlodea atropurpurea	S2S4	CO1	20	Isolated stems	Dispersed	101-500 m²	Snow Patch
Vahlodea atropurpurea	S2S4	RV1	10	Isolated stems	Localised	11-100 m²	Shrub Swamp
Veronica scutellata	S3S4	27	25	Isolated stems	Localised	11-100 m²	Temporary pond
Veronica scutellata	S3S4	39	15	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Veronica wormskjoldii	SNR	4	15	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Veronica wormskjoldii	SNR	8	10	Isolated stems	Dispersed	11-100 m²	Shrub Swamp
Veronica wormskjoldii	SNR	12	5	Isolated stems	Localised	2-10 m²	Shrub Swamp
Veronica wormskjoldii	SNR	CO1	25	Isolated stems	Localised	11-100 m²	Snow Patch
Viola renifolia	S1S3	31	50	Isolated stems	Dispersed	501-1000 m²	Riparian Fen
Viola renifolia	S1S3	33	25	Isolated stems	Dispersed	101-500 m²	Open Spruce-Lichen Forest
Viola renifolia	S1S3	TA1	10	Isolated stems	Localised	2-10 m²	Moderatly Weathered Rock Barren
Viola renifolia	S1S3	26	35	Isolated stems	Dispersed	11-100 m²	Closed Spruce-Moss Forest
Woodsia alpina	S1	RV1	15	Tufted	Localised	2-10 m²	Shrub Swamp

Appendix C: List of Vascular Plants Found in the 2013 Sampling Plots

Appendix C.1: List of Vascular Plants Found in the 2013 Sampling Plots Located in Upland Habitats

Plot Number	1	6	13	15	19	24	25	26	30	33	34	35	36
Date	2013-08-06	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-10	2013-08-10
Latitude (dg,ddddd)	54,90399	54,92249	54,85664	54,96906	54,97524	55,03891	55,03859	55,03798	54,74273	54,70011	54,70082	54,61848	54,68854
Longitude (dg,ddddd)	66,52566	66,50726	66,25368	66,70735	66,70711	66,75301	66,75257	66,75320	66,15586	66,67207	66,66476	66,71091	66,61514
Altitude (m)	543	581	579	586	532	522	512	513	651	518	497	465	521
Habitat	Open Spuce-Moss Forest and Shrubland	Moderatly Weathered Rock Barren	Moderatly Weathered Rock Barren	Shrubland	Shrubland	Moderatly Weathered Rock Barren	Shrubland	Closed Spruce-Moss Forest	Moderatly Weathered Rock Barren	Open Spruce-Lichen Forest	Shrubland	Shrubland	Slightly Weathered Rock Barren
Dendrolycopodium dendroideum	1			a	1		a						
Diphasiastrum complanatum	1		a	1			1			1			
Diphasiastrum sabinifolium							a						
Diphasiastrum sitchense							1						
Huperzia appressa			a					a					r
Lycopodium lagopus			a										
Spinulum annotinum	2									1			
Spinulum canadense	2		a	1									
Equisetum arvense												1	
Equisetum fluviatile											1		
Equisetum sylvaticum											1	2	
Athyrium filix-femina var. *angustum*													
Larix laricina		1				1				2	2		
Picea glauca	2	1	1				2			2	2		
Juniperus communis var. *depressa*			a				1			1			
Listera auriculata												r	
Juncus filiformis													
Luzula parviflora subsp. *melanocarpa*											1	a	
Carex aquatilis var. *aquatilis*											2		
Carex arcta													
Carex atratiformis								a					
Carex bigelowii subsp. *bigelowii*			a						1				
Carex canescens subsp. *canescens*													
Carex capillaris								1					
Carex deflexa var. *deflexa*		a											
Carex disperma												1	
Carex echinata subsp. *echinata*													
Carex glacialis		a	a			1		a	a				
Carex lenticularis var. *lenticularis*													
Carex saxatilis													
Carex vaginata								1			2		
Carex vesicaria													
Agrostis mertensii			a										
Agrostis scabra													
Alopecurus aequalis var. *aequalis*													
Bromus ciliatus												1	
Calamagrostis canadensis var. *canadensis*								1			2	1	

Appendix C.1: List of Vascular Plants Found in the 2013 Sampling Plots Located in Upland Habitats (Continued)

Plot Number	1	6	13	15	19	24	25	26	30	33	34	35	36
Date	2013-08-06	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-10	2013-08-10
Latitude (dg,ddddd)	54,90399	54,92249	54,85664	54,96906	54,97524	55,03891	55,03859	55,03798	54,74273	54,70011	54,70082	54,61848	54,68854
Longitude (dg,ddddd)	66,52566	66,50726	66,25368	66,70735	66,70711	66,75301	66,75257	66,75320	66,15586	66,67207	66,66476	66,71091	66,61514
Altitude (m)	543	581	579	586	532	522	512	513	651	518	497	465	521
Habitat	Open Spuce-Moss Forest and Shrubland	Moderatly Weathered Rock Barren	Moderatly Weathered Rock Barren	Shrubland	Shrubland	Moderatly Weathered Rock Barren	Shrubland	Closed Spruce-Moss Forest	Moderatly Weathered Rock Barren	Open Spruce-Lichen Forest	Shrubland	Shrubland	Slightly Weathered Rock Barren
Cinna latifolia												a	
Danthonia intermedia subsp. *intermedia*													
Deschampsia cespitosa subsp. *cespitosa*													
Deschampsia flexuosa				1									
Elymus trachycaulus subsp. *trachycaulus*										1	1	1	
Glyceria striata												1	
Poa glauca subsp. *glauca*												a	
Schizachne purpurascens												a	
Vahlodea atropurpurea											a		
Actaea rubra subsp. *rubra*												1	
Anemone parviflora										1			
Ranunculus aquatilis var. *diffusus*													
Ranunculus flammula var. *reptans*													
Thalictrum pubescens												a	
Ribes glandulosum	2											1	
Ribes triste												1	
Mitella nuda												1	
Parnassia kotzebuei											a	a	
Viola blanda												1	
Viola renifolia								1		1			
Salix arctophila											1		
Salix ballii											1	1	
Salix bebbiana										a			
Salix glauca var. *cordifolia*			a										
Salix humilis var. *humilis*										1			
Salix pellita											2	2	
Salix planifolia												3	
Salix vestita								1		1			
Astragalus alpinus var. *alpinus*												a	
Alchemilla filicaulis subsp. *filicaulis*												a	
Amelanchier bartramiana											a		
Dasiphora fruticosa												2	
Fragaria virginiana subsp. *glauca*												1	
Geum rivale											2	1	
Rubus pubescens												2	
Sibbaldia tridentata									a				
Myrica gale												2	

Appendix C.1: List of Vascular Plants Found in the 2013 Sampling Plots Located in Upland Habitats (Continued)

Plot Number	1	6	13	15	19	24	25	26	30	33	34	35	36
Date	2013-08-06	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-10	2013-08-10
Latitude (dg,ddddd)	54,90399	54,92249	54,85664	54,96906	54,97524	55,03891	55,03859	55,03798	54,74273	54,70011	54,70082	54,61848	54,68854
Longitude (dg,ddddd)	66,52566	66,50726	66,25368	66,70735	66,70711	66,75301	66,75257	66,75320	66,15586	66,67207	66,66476	66,71091	66,61514
Altitude (m)	543	581	579	586	532	522	512	513	651	518	497	465	521
Habitat	Open Spuce-Moss Forest and Shrubland	Moderatly Weathered Rock Barren	Moderatly Weathered Rock Barren	Shrubland	Shrubland	Moderatly Weathered Rock Barren	Shrubland	Closed Spruce-Moss Forest	Moderatly Weathered Rock Barren	Open Spruce-Lichen Forest	Shrubland	Shrubland	Slightly Weathered Rock Barren
Alnus viridis subsp. *crispa*	2			2				2				2	
Betula glandulosa	2	2	2	3	2	2	2		2	2	2		
Betula minor	1								1				
Chamerion angustifolium subsp. *angustifolium*			1	a						1	2	1	
Barbarea vulgaris												a	
Cerastium arvense subsp. *strictum*												a	
Minuartia groenlandica			a			a			a				
Stellaria borealis subsp. *borealis*												a	
Stellaria longipes subsp. *longipes*												a	
Cornus canadensis			1							2		1	
Diapensia lapponica subsp. *lapponica*									a				
Arctous alpina	1	2	2		1	2			2				
Empetrum nigrum subsp. *nigrum*	1	2	2	2	1	2			2	2	2		
Kalmia procumbens									2				
Rhododendron groenlandicum	1	2	1	2		1	2	1		2	2		
Vaccinium angustifolium				3			2			2			
Vaccinium uliginosum	2	2	2	2	2	2	2		2	2	2		
Vaccinium vitis-idaea	1	1	1		1	1		2	1				
Galium triflorum												1	
Veronica scutellata													
Castilleja septentrionalis										1			
Rhinanthus minor subsp. *groenlandicus*												1	
Achillea millefolium												1	
Hieracium vulgatum										a			
Petasites frigidus var. *palmatus*												1	
Solidago macrophylla				a			1	1				1	
Solidago multiradiata										2			
Symphyotrichum puniceum var. *puniceum*											a		
Taraxacum lapponicum											a	a	
Heracleum maximum												1	
Viburnum edule										1			
Lonicera villosa												2	
Linnaea borealis subsp. *longiflora*								1		2			

Appendix C.2: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Peat

Plot Number	5	7	10	11	14	20	21	22	23	28	29	31	32	37	38	40	41
Date	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-11	2013-08-11	2013-08-11	2013-08-11
Latitude (dg,ddddd)	54,92339	54,90619	54,89074	54,87630	54,96618	54,98186	55,02263	55,01461	55,03891	54,88373	54,74311	54,69974	54,69844	54,66906	54,62158	54,85798	54,69494
Longitude (dg,ddddd)	66,52663	66,50465	66,47932	66,41208	66,69871	66,84251	66,87000	66,79513	66,75237	66,59947	66,15963	66,66941	66,66773	66,61510	66,46181	66,58010	66,55728
Altitude (m)	485	481	480	482	526	495	529	530	505	495	622	518	512	500	464	474	462
Habitat	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Horizontal Fen	Riparian Fen	Horizontal Fen	Palsa and Northern Ribbed Fen	Riparian Fen	Horizontal Fen	Pond in Bog	Riparian Fen	Riparian Fen	Horizontal Fen	Riparian Fen	Northern Ribbed Fen	Horizontal Fen
Selaginella selaginoides												a				a	
Equisetum arvense					1												1
Equisetum fluviatile			1		1		2									1	
Equisetum variegatum subsp. *variegatum*													a				
Botrychium lunaria												r					
Phegopteris connectilis															a		
Larix laricina	2	1		1	1	1	1					2	1	1		2	
Picea glauca												2					
Picea mariana	2	1	2														
Juniperus communis var. *depressa*												1			a		
Tofieldia pusilla													a		a		
Triantha glutinosa															1		
Scheuchzeria palustris			1														
Triglochin maritima					1											1	
Potamogeton alpinus									1								
Platanthera aquilonis							1						a			a	
Platanthera dilatata var. *dilatata*							1			1		a	a				
Spiranthes romanzoffiana							a					a	a			a	a
Maianthemum trifolium	1	2	2		1	1					2			1		2	1
Sparganium hyperboreum																	a
Juncus brevicaudatus															a		
Juncus castaneus							a										
Juncus filiformis											2				1		
Juncus stygius var. *americanus*			1				1										
Juncus triglumis var. *albescens*										1							
Luzula parviflora subsp. *melanocarpa*											1			a			a
Carex aquatilis var. *aquatilis*				2	4	3	2						2	3	1		
Carex atratiformis												a			a		
Carex canescens subsp. *canescens*						1					1						1
Carex capillaris												a			a		
Carex chordorrhiza					1		2										1

Appendix C.2: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Peat (Continued)

Plot Number	5	7	10	11	14	20	21	22	23	28	29	31	32	37	38	40	41
Date	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-11	2013-08-11	2013-08-11	2013-08-11
Latitude (dg,ddddd)	54,92339	54,90619	54,89074	54,87630	54,96618	54,98186	55,02263	55,01461	55,03891	54,88373	54,74311	54,69974	54,69844	54,66906	54,62158	54,85798	54,69494
Longitude (dg,ddddd)	66,52663	66,50465	66,47932	66,41208	66,69871	66,84251	66,87000	66,79513	66,75237	66,59947	66,15963	66,66941	66,66773	66,61510	66,46181	66,58010	66,55728
Altitude (m)	485	481	480	482	526	495	529	530	505	495	622	518	512	500	464	474	462
Habitat	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Horizontal Fen	Riparian Fen	Horizontal Fen	Palsa and Northern Ribbed Fen	Riparian Fen	Horizontal Fen	Pond in Bog	Riparian Fen	Riparian Fen	Horizontal Fen	Riparian Fen	Northern Ribbed Fen	Horizontal Fen
Carex diandra																	2
Carex echinata subsp. *echinata*			1	1		1									1		
Carex exilis			2				2										
Carex gynocrates							1						1		a		
Carex interior																	a
Carex lenticularis var. *lenticularis*															a	2	2
Carex leptalea							a					a					a
Carex limosa		1	2	2	2		2	3	2	2						2	
Carex livida			1				2	a		2						2	
Carex magellanica subsp. *irrigua*				1		2		2			2						1
Carex michauxiana							1										
Carex pauciflora											1						
Carex rariflora var. *rariflora*	2	2			1									1			
Carex rostrata			2					2	2	2							
Carex saxatilis															1		1
Carex scirpoidea subsp. *scirpoidea*												1					
Carex stylosa																	1
Carex tenuiflora							a							a		a	a
Carex utriculata						2									a		
Carex vaginata							1					1	2				
Carex vesicaria											1				1		
Eriophorum angustifolium subsp. *angustifolium*					1						2				a		
Eriophorum russeolum subsp. *russeolum*		2	2	a	1	a		2		a	2				a	a	
Eriophorum viridicarinatum							1									1	
Trichophorum alpinum							1	1							a	a	a
Trichophorum cespitosum	3	2		2			2	2		2		2			2	2	2
Bromus ciliatus												a					
Calamagrostis canadensis var. *canadensis*	1	1	2	1	1	2	1		1	1		1		1	2	1	
Calamagrostis stricta subsp. *inexpansa*															1		

Appendix C.2: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Peat (Continued)

Plot Number	5	7	10	11	14	20	21	22	23	28	29	31	32	37	38	40	41
Date	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-11	2013-08-11	2013-08-11	2013-08-11
Latitude (dg,ddddd)	54,92339	54,90619	54,89074	54,87630	54,96618	54,98186	55,02263	55,01461	55,03891	54,88373	54,74311	54,69974	54,69844	54,66906	54,62158	54,85798	54,69494
Longitude (dg,ddddd)	66,52663	66,50465	66,47932	66,41208	66,69871	66,84251	66,87000	66,79513	66,75237	66,59947	66,15963	66,66941	66,66773	66,61510	66,46181	66,58010	66,55728
Altitude (m)	485	481	480	482	526	495	529	530	505	495	622	518	512	500	464	474	462
Habitat	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Horizontal Fen	Riparian Fen	Horizontal Fen	Palsa and Northern Ribbed Fen	Riparian Fen	Horizontal Fen	Pond in Bog	Riparian Fen	Riparian Fen	Horizontal Fen	Riparian Fen	Northern Ribbed Fen	Horizontal Fen
Danthonia intermedia subsp. *intermedia*															a		
Deschampsia cespitosa subsp. *cespitosa*															a		
Elymus trachycaulus subsp. *trachycaulus*				1			1		1			1			a		
Festuca prolifera var. *lasiolepis*																	a
Glyceria striata									a								
Piptatheropsis canadensis															a		
Poa alpina subsp. *alpina*												a					
Schizachne purpurascens				a					1			1					
Trisetum spicatum															a		
Vahlodea atropurpurea		a	a	1			a		1								
Anemone parviflora												a	1				
Mitella nuda																	1
Parnassia kotzebuei												a					
Viola renifolia												a		a			
Salix arctophila							a					1	1			1	1
Salix argyrocarpa							1										1
Salix ballii												1	1	2			1
Salix bebbiana												a					
Salix glauca var. *cordifolia*					1		a					1	1				
Salix pedicellaris	2	1	1	1	1	1	1	1	2	1				1		1	2
Salix pellita									2			1					
Salix planifolia					2	1	1		2	1		2		2	2		2
Salix pyrifolia												1					
Salix vestita					a		a		1			1	2	1			1
Comarum palustre					1	1			1					2			
Dasiphora fruticosa												a			2	1	a
Fragaria virginiana subsp. *glauca*									1			2	1	1			
Geum rivale							a		2			1	1	2			
Rubus ×paracaulis												a					
Rubus arcticus subsp. *acaulis*																	a
Rubus chamaemorus		2					2				1		2				
Rubus pubescens									1					1			

Appendix C.2: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Peat (Continued)

Plot Number	5	7	10	11	14	20	21	22	23	28	29	31	32	37	38	40	41
Date	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-11	2013-08-11	2013-08-11	2013-08-11
Latitude (dg,ddddd)	54,92339	54,90619	54,89074	54,87630	54,96618	54,98186	55,02263	55,01461	55,03891	54,88373	54,74311	54,69974	54,69844	54,66906	54,62158	54,85798	54,69494
Longitude (dg,ddddd)	66,52663	66,50465	66,47932	66,41208	66,69871	66,84251	66,87000	66,79513	66,75237	66,59947	66,15963	66,66941	66,66773	66,61510	66,46181	66,58010	66,55728
Altitude (m)	485	481	480	482	526	495	529	530	505	495	622	518	512	500	464	474	462
Habitat	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Horizontal Fen	Riparian Fen	Horizontal Fen	Palsa and Northern Ribbed Fen	Riparian Fen	Horizontal Fen	Pond in Bog	Riparian Fen	Riparian Fen	Horizontal Fen	Riparian Fen	Northern Ribbed Fen	Horizontal Fen
Sanguisorba canadensis															1		1
Sibbaldia tridentata															a		
Myrica gale	3	2	3	2	2	2		1		2					2	2	2
Alnus viridis subsp. *crispa*															2		
Betula glandulosa		1		2		2					2	3					
Betula michauxii										1						1	
Betula minor					a												
Betula pumila var. *pumila*					2	1	2			2			2	2		2	2
Epilobium hornemannii subsp. *hornemannii*							1							a			
Epilobium palustre																	a
Cardamine nymanii							a							a			
Drosera rotundifolia															a		
Bistorta vivipara												a					a
Stellaria borealis subsp. *borealis*							a							a			
Cornus canadensis											1						
Primula mistassinica															a		
Andromeda polifolia var. *latifolia*			1	1	2		2	2		2						1	1
Chamaedaphne calyculata	1	2	2						2	2						2	
Empetrum nigrum subsp. *nigrum*	1											1					
Kalmia polifolia	2	1		1	1		2	1	1	1					1	1	
Moneses uniflora													a				
Pyrola asarifolia													a				
Rhododendron groenlandicum					1			1	1		2						
Vaccinium oxycoccos	1												a			1	
Vaccinium uliginosum	1	1		2	1			1			2	2					
Galium labradoricum														1			
Galium trifidum subsp. *trifidum*																	1
Castilleja septentrionalis												a	1				
Pedicularis groenlandica															a		
Rhinanthus minor subsp. *groenlandicus*												1			1		
Pinguicula vulgaris															a		

Appendix C.2: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Peat (Continued)

Plot Number	5	7	10	11	14	20	21	22	23	28	29	31	32	37	38	40	41
Date	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-09	2013-08-10	2013-08-10	2013-08-11	2013-08-11	2013-08-11	2013-08-11
Latitude (dg,ddddd)	54,92339	54,90619	54,89074	54,87630	54,96618	54,98186	55,02263	55,01461	55,03891	54,88373	54,74311	54,69974	54,69844	54,66906	54,62158	54,85798	54,69494
Longitude (dg,ddddd)	66,52663	66,50465	66,47932	66,41208	66,69871	66,84251	66,87000	66,79513	66,75237	66,59947	66,15963	66,66941	66,66773	66,61510	66,46181	66,58010	66,55728
Altitude (m)	485	481	480	482	526	495	529	530	505	495	622	518	512	500	464	474	462
Habitat	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Northern Ribbed Fen	Horizontal Fen	Riparian Fen	Horizontal Fen	Palsa and Northern Ribbed Fen	Riparian Fen	Horizontal Fen	Pond in Bog	Riparian Fen	Riparian Fen	Horizontal Fen	Riparian Fen	Northern Ribbed Fen	Horizontal Fen
Utricularia intermedia																	a
Menyanthes trifoliata		1	1		1		2			2						2	
Achillea millefolium												a					
Eurybia radula	1	1	1	1			2			1					1	1	1
Packera aurea													a				
Packera indecora												a					
Solidago multiradiata												a					
Solidago uliginosa				1			1			1			1		2	a	1
Symphyotrichum puniceum var. *puniceum*									1						a		
Taraxacum lapponicum							a		a			a					
Heracleum maximum												a		a			
Viburnum edule									1								
Lonicera villosa				1			1									1	

Appendix C.3: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Swamps

Plot Number	2	3	4	8	9	12	16	17	18	27	39
Date	2013-08-06	2013-08-06	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-08	2013-08-09	2013-08-11
Latitude (dg,ddddd)	54,91306	54,91860	54,92405	54,90637	54,88995	54,87722	54,97170	54,97286	54,97809	54,97535	54,78365
Longitude (dg,ddddd)	66,53385	66,53587	66,52675	66,50607	66,47901	66,41121	66,70506	66,69787	66,70410	66,72540	66,46381
Altitude (m)	496	473	480	475	479	477	516	498	486	548	462
Habitat	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Exposed Gravel	Forested Swamp	Temporary pond	Temporary Pond	Shrub Swamp
Huperzia appressa			a				a				
Huperzia selago								1			
Spinulum annotinum								1			
Equisetum arvense		2									
Equisetum fluviatile				1							
Equisetum sylvaticum	2	2		1							
Gymnocarpium dryopteris								1			
Athyrium filix-femina var. *angustum*								a			a
Abies balsamea	1										
Larix laricina		1									
Picea glauca								3			
Picea mariana	2	3									
Juniperus communis var. *depressa*							a				
Streptopus amplexifolius								a			
Platanthera dilatata var. *dilatata*				a							
Juncus filiformis				2	1				2	2	1
Carex arcta									a	a	a
Carex atratiformis							a				
Carex brunnescens subsp. *brunnescens*									a		
Carex canescens subsp. *canescens*		1									a
Carex echinata subsp. *echinata*											a
Carex lenticularis var. *lenticularis*		2	1	1	1		1		a	2	1
Carex rostrata									2		
Carex saxatilis		2		2	1	1					a
Carex stylosa									2	2	
Carex utriculata		2									
Carex vaginata			2								
Carex vesicaria									2	3	1
Eriophorum russeolum subsp. *russeolum*		a	1	2							
Eriophorum scheuchzeri subsp. *scheuchzeri*						a					
Trichophorum cespitosum						2					
Agrostis scabra					a		1		1	2	a

Appendix C.3: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Swamps (Continued)

Plot Number	2	3	4	8	9	12	16	17	18	27	39
Date	2013-08-06	2013-08-06	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-08	2013-08-09	2013-08-11
Latitude (dg,ddddd)	54,91306	54,91860	54,92405	54,90637	54,88995	54,87722	54,97170	54,97286	54,97809	54,97535	54,78365
Longitude (dg,ddddd)	66,53385	66,53587	66,52675	66,50607	66,47901	66,41121	66,70506	66,69787	66,70410	66,72540	66,46381
Altitude (m)	496	473	480	475	479	477	516	498	486	548	462
Habitat	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Exposed Gravel	Forested Swamp	Temporary pond	Temporary Pond	Shrub Swamp
Alopecurus aequalis var. *aequalis*		1									a
Calamagrostis canadensis var. *canadensis*		2	2	1	1	1		1	1		1
Calamagrostis canadensis var. *langsdorfii*							1				
Cinna latifolia								a			
Deschampsia cespitosa subsp. *cespitosa*											a
Deschampsia flexuosa									1		
Elymus trachycaulus subsp. *trachycaulus*		1			a	a					
Poa alpina subsp. *alpina*						a					
Schizachne purpurascens		1				a				1	
Trisetum spicatum				a		a					
Vahlodea atropurpurea			a	a							
Actaea rubra subsp. *rubra*								a			
Anemone parviflora						a					
Coptis trifolia								1			
Ranunculus aquatilis var. *diffusus*				a							a
Ranunculus flammula var. *reptans*										a	a
Ranunculus lapponicus	1										
Ribes glandulosum								2			
Ribes triste								1			
Mitella nuda								1			
Parnassia kotzebuei			a								
Viola labradorica						1					
Viola macloskeyi									1	1	
Salix arctophila						1					
Salix argyrocarpa									1		
Salix bebbiana								1			
Salix glauca var. *cordifolia*					a						
Salix humilis var. *humilis*							1				
Salix pedicellaris		2		a							
Salix pellita				1			1				
Salix planifolia	2	2	3	3	2	2	1				4
Salix vestita							a	1			

Appendix C.3: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Swamps (Continued)

Plot Number	2	3	4	8	9	12	16	17	18	27	39
Date	2013-08-06	2013-08-06	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-08	2013-08-09	2013-08-11
Latitude (dg,ddddd)	54,91306	54,91860	54,92405	54,90637	54,88995	54,87722	54,97170	54,97286	54,97809	54,97535	54,78365
Longitude (dg,ddddd)	66,53385	66,53587	66,52675	66,50607	66,47901	66,41121	66,70506	66,69787	66,70410	66,72540	66,46381
Altitude (m)	496	473	480	475	479	477	516	498	486	548	462
Habitat	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Exposed Gravel	Forested Swamp	Temporary pond	Temporary Pond	Shrub Swamp
Comarum palustre				2							
Geum rivale								1			
Potentilla norvegica							a				
Rubus ×paracaulis									1		
Rubus arcticus subsp. *acaulis*					1				1	1	
Rubus chamaemorus	2	2									
Rubus idaeus subsp. *strigosus*								2			
Rubus pubescens			2	1				2			
Myrica gale		2	3	2	2	2					2
Alnus viridis subsp. *crispa*	2	2	2	2	3	3	1	3			2
Betula cordifolia								a			
Betula glandulosa		2	2				1				
Betula minor							a				
Chamerion angustifolium subsp. *angustifolium*							a				
Bistorta vivipara				1		a					
Cornus canadensis								1			
Primula mistassinica			a								
Trientalis borealis								1			
Empetrum nigrum subsp. *nigrum*		1			2						
Pyrola minor			a								
Rhododendron groenlandicum	1	2	2		2		1				
Vaccinium caespitosum									1		
Vaccinium uliginosum		2	1	1	1	1	1		2	1	1
Galium triflorum								a			
Hippuris vulgaris				1							
Veronica scutellata										a	a
Veronica wormskjoldii			r	a		a					
Castilleja septentrionalis						a					
Rhinanthus minor subsp. *groenlandicus*			a								
Pinguicula vulgaris				a							
Achillea millefolium						a					
Solidago macrophylla			2				1	2			

Appendix C.3: List of Vascular Plants Found in the 2013 Sampling Plots Located in Wetland Swamps (Continued)

Plot Number	2	3	4	8	9	12	16	17	18	27	39
Date	2013-08-06	2013-08-06	2013-08-07	2013-08-07	2013-08-07	2013-08-07	2013-08-08	2013-08-08	2013-08-08	2013-08-09	2013-08-11
Latitude (dg,ddddd)	54,91306	54,91860	54,92405	54,90637	54,88995	54,87722	54,97170	54,97286	54,97809	54,97535	54,78365
Longitude (dg,ddddd)	66,53385	66,53587	66,52675	66,50607	66,47901	66,41121	66,70506	66,69787	66,70410	66,72540	66,46381
Altitude (m)	496	473	480	475	479	477	516	498	486	548	462
Habitat	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Shrub Swamp	Exposed Gravel	Forested Swamp	Temporary pond	Temporary Pond	Shrub Swamp
Solidago multiradiata						a					
Symphyotrichum puniceum var. *puniceum*			1	1	1	1					
Taraxacum lapponicum		a	a	a	a	a					
Heracleum maximum								1			
Viburnum edule			1					2			

Appendix D:
List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys

Scientific Name	Sampling Plot	Specimen Number
Carex deflexa var. *deflexa*	AL1	DL12-377
Agrostis mertensii	AL1	DL12-376
Betula glandulosa	AL1	DL12-378
Betula minor	AL1	DL12-379
Huperzia appressa	AL5	DL12-482
Juncus trifidus	AL5	DL12-485
Luzula confusa	AL5	DL12-486
Carex arctogena	AL5	DL12-494
Carex bigelowii subsp. *bigelowii*	AL5	DL12-487
Carex capillaris	AL5	DL12-484
Carex scirpoidea subsp. *scirpoidea*	AL5	DL12-489
Agrostis mertensii	AL5	DL12-492
Calamagrostis canadensis var. *langsdorfii*	AL5	DL12-493
Poa arctica subsp. *arctica*	AL5	DL12-495
Trisetum spicatum	AL5	DL12-488
Salix glauca var. *cordifolia*	AL5	DL12-480
Salix planifolia	AL5	DL12-478
Salix uva-ursi	AL5	DL12-483
Cardamine bellidifolia var. *bellidifolia*	AL5	DL12-491
Cerastium alpinum subsp. *lanatum*	AL5	DL12-490
Kalmia procumbens	AL5	DL12-479
Pyrola grandiflora	AL5	DL12-481
Luzula multiflora subsp. *frigida*	CO1	DL12-497
Carex lachenalii	CO1	DL12-506
Deschampsia cespitosa subsp. *cespitosa*	CO1	DL12-499
Vahlodea atropurpurea	CO1	DL12-509
Viola macloskeyi	CO1	DL12-502
Salix herbacea	CO1	DL12-496
Salix planifolia	CO1	DL12-498
Sibbaldia procumbens	CO1	DL12-508
Harrimanella hypnoides	CO1	DL12-503
Veronica wormskjoldii	CO1	DL12-500
Bartsia alpina	CO1	DL12-501
Antennaria monocephala subsp. *angustata*	CO1	DL12-504
Omalotheca supina	CO1	DL12-507
Packera pauciflora	CO1	DL12-505
Diphasiastrum sitchense	DA1	DL12-524
Carex deflexa var. *deflexa*	DA1	DL12-525
Cinna latifolia	DA1	DL12-526
Calamagrostis canadensis var. *canadensis*	DA1	DL12-528
Salix pyrifolia	DA1	DL12-527
Lycopodium lagopus	DE2	DL12-577
Agrostis scabra	DE2	DL12-576

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Phyllodoce caerulea	DE2	DL12-575
Antennaria neglecta	DE2	DL12-574
Solidago multiradiata	DE2	DL12-578
Equisetum arvense	FE2	DL12-402
Equisetum sylvaticum	FE2	DL12-394
Carex aquatilis var. *aquatilis*	FE2	DL12-397 and DL12-405
Carex limosa	FE2	DL12-399
Carex rariflora var. *rariflora*	FE2	DL12-395
Carex utriculata	FE2	DL12-404
Ranunculus hyperboreus	FE2	DL12-400
Salix pellita	FE2	DL12-401
Salix pedicellaris	FE2	DL12-398
Salix planifolia	FE2	DL12-403
Chamaedaphne calyculata	FE2	DL12-396
Equisetum fluviatile	FE3	DL12-456
Tofieldia pusilla	FE3	DL12-447
Triglochin maritima	FE3	DL12-451
Platanthera aquilonis	FE3	DL12-446
Spiranthes romanzoffiana	FE3	DL12-448
Carex chordorrhiza	FE3	DL12-459
Carex exilis	FE3	DL12-452
Carex livida	FE3	DL12-460
Carex rostrata	FE3	DL12-457
Agrostis mertensii	FE3	DL12-454
Elymus trachycaulus subsp. *trachycaulus*	FE3	DL12-453
Betula michauxii	FE3	DL12-455
Pyrola asarifolia	FE3	DL12-449
Vaccinium oxycoccos	FE3	DL12-458
Eurybia radula	FE3	DL12-445
Lonicera villosa	FE3	DL12-450
Carex diandra	FE5	DL12-549
Galium labradoricum	FE5	DL12-550
Salix glauca var. *cordifolia*	LC1	DL12-418
Minuartia groenlandica	LC1	DL12-420
Galium trifidum subsp. *trifidum*	LC1	DL12-417
Taraxacum sp.	LC1	DL12-419
Carex arcta	LC2	DL12-510
Carex lenticularis var. *lenticularis*	LC2	DL12-511
Carex vesicaria	LC2	DL12-512
Agrostis scabra	LC2	DL12-513
Ranunculus flammula var. *reptans*	LC2	DL12-515
Salix pellita	LC2	DL12-516
Salix humilis var. *humilis*	LC2	DL12-518

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Salix glauca var. *cordifolia*	LC2	DL12-517
Salix planifolia	LC2	DL12-519
Galium trifidum subsp. *trifidum*	LC2	DL12-514
Potamogeton pusillus subsp. *tenuissimus*	LC3	DL12-565
Potamogeton richardsonii	LC3	DL12-564
Bromus ciliatus	LC3	DL12-560
Poa pratensis subsp. *pratensis*	LC3	DL12-559
Myriophyllum sibiricum	LC3	DL12-563
Parnassia palustris	LC3	DL12-558
Salix ballii	LC3	DL12-551, DL12-552, DL12-553
Sanguisorba canadensis	LC3	DL12-561
Betula pumila var. *pumila*	LC3	DL12-554 and DL12-555
Stellaria borealis subsp. *borealis*	LC3	DL12-557
Pyrola asarifolia	LC3	DL12-556
Callitriche hermaphroditica	LC3	DL12-562
Agrostis scabra	MR1	DL12-543
Cinna latifolia	MR1	DL12-548
Elymus trachycaulus subsp. *trachycaulus*	MR1	DL12-541
Poa glauca subsp. *glauca*	MR1	DL12-542
Ranunculus abortivus	MR1	DL12-545
Fragaria virginiana subsp. *glauca*	MR1	DL12-544
Urtica dioica subsp. *gracilis*	MR1	DL12-546
Stellaria borealis subsp. *borealis*	MR1	DL12-540
Taraxacum lapponicum	MR1	DL12-547
Juncus filiformis	MU1	DL12-415
Luzula parviflora subsp. *melanocarpa*	MU1	DL12-411
Carex brunnescens subsp. *brunnescens*	MU1	DL12-413
Carex canescens subsp. *canescens*	MU1	DL12-408
Carex trisperma	MU1	DL12-409
Carex vesicaria	MU1	DL12-416a
Carex arcta	MU1	DL12-416b
Agrostis mertensii	MU1	DL12-412
Vahlodea atropurpurea	MU1	DL12-410
Ranunculus lapponicus	MU1	DL12-406
Viola macloskeyi	MU1	DL12-414
Salix arctophila	MU1	DL12-407
Equisetum variegatum subsp. *variegatum*	MU2	DL12-475
Carex disperma	MU2	DL12-461
Carex tenuiflora	MU2	DL12-472
Carex vaginata	MU2	DL12-465
Glyceria striata	MU2	DL12-473
Ribes triste	MU2	DL12-464

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Mitella nuda	MU2	DL12-467
Salix ballii	MU2	Dl12-470
Salix glauca var. *cordifolia*	MU2	DL12-471
Salix planifolia	MU2	DL12-474
Geum rivale	MU2	DL12-462
Rubus pubescens	MU2	DL12-466
Epilobium hornemannii subsp. *hornemannii*	MU2	DL12-469
Epilobium palustre	MU2	DL12-468
Symphyotrichum puniceum var. *puniceum*	MU2	DL12-463
Carex oligosperma	OM2	DL12-476
Carex pauciflora	OM2	DL12-477
Scheuchzeria palustris	OM3	DL12-523
Carex rostrata	OM3	DL12-520
Carex utriculata	OM3	DL12-522
Eriophorum russeolum subsp. *russeolum*	OM3	DL12-521
Carex vesicaria	OM4	DL12-529
Eriophorum russeolum subsp. *russeolum*	OM4	DL12-530
Selaginella selaginoides	RU1	DL12-430
Platanthera dilatata var. *dilatata*	RU1	DL12-421
Juncus castaneus	RU1	DL12-424
Juncus triglumis var. *albescens*	RU1	DL12-441
Carex capillaris	RU1	DL12-432
Carex gynocrates	RU1	DL12-437 and DL12-440
Carex interior	RU1	DL12-442
Carex lenticularis var. *lenticularis*	RU1	DL12-427
Carex leptalea	RU1	DL12-425
Eriophorum viridicarinatum	RU1	DL12-439
Glyceria striata	RU1	DL12-426
Parnassia kotzebuei	RU1	DL12-429
Salix arctophila	RU1	DL12-434
Salix vestita	RU1	DL12-423
Dasiphora fruticosa	RU1	DL12-435
Myrica gale	RU1	DL12-438
Betula pumila var. *glandulifera*	RU1	DL12-436
Bistorta vivipara	RU1	DL12-431
Andromeda polifolia var. *latifolia*	RU1	DL12-433
Castilleja septentrionalis	RU1	DL12-443
Pinguicula vulgaris	RU1	DL12-428
Solidago uliginosa	RU1	DL12-444
Lonicera villosa	RU1	DL12-422
Juncus balticus subsp. *littoralis*	RU3	DL12-566
Carex atratiformis	RU4	DL12-570
Actaea rubra subsp. *rubra*	RU4	DL12-567

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Actaea rubra subsp. *rubra* f. *neglecta*	RU4	DL12-568
Viola labradorica	RU4	DL12-569
Salix ballii	RU4	DL12-573
Galium triflorum	RU4	DL12-572
Packera aurea	RU4	DL12-571
Lycopodiella inundata	RV1	120804-12
Cystopteris fragilis	RV1	DL12-261 and 120804-18
Woodsia alpina	RV1	DL12-262
Tofieldia pusilla	RV1	120804-22
Juncus triglumis var. *albescens*	RV1	DL12-242
Carex aquatilis var. *aquatilis*	RV1	120804-08
Carex atratiformis	RV1	DL12-250 and 120804-20
Carex canescens subsp. *canescens*	RV1	DL12-258
Carex gynocrates	RV1	120804-05
Carex oligosperma	RV1	120804-06
Carex scirpoidea subsp. *scirpoidea*	RV1	DL12-259 and 120804-27
Agrostis mertensii	RV1	DL12-254
Agrostis scabra	RV1	DL12-244
Elymus trachycaulus subsp. *trachycaulus*	RV1	DL12-251
Festuca prolifera var. *lasiolepis*	RV1	120804-19
Poa glauca subsp. *glauca*	RV1	DL12-263, DL12-264, 120804-13
Vahlodea atropurpurea	RV1	DL12-247
Parnassia palustris	RV1	DL12-253
Salix glauca var. *cordifolia*	RV1	DL12-255 and 120804-21
Salix pedicellaris	RV1	120804-07
Fragaria virginiana subsp. *glauca*	RV1	120804-16
Cardamine nymanii	RV1	DL12-260
Bistorta vivipara	RV1	DL12-246
Arenaria humifusa	RV1	DL12-241
Minuartia dawsonensis	RV1	DL12-245
Minuartia rubella	RV1	120804-14
Silene acaulis	RV1	120804-18
Primula laurentiana	RV1	DL12-252 and 120804-15
Moneses uniflora	RV1	120804-10
Orthilia secunda	RV1	120804-09
Euphrasia hudsoniana	RV1	DL12-257
Rhinanthus minor subsp. *groenlandicus*	RV1	120804-23
Pinguicula vulgaris	RV1	120804-24
Achillea millefolium	RV1	DL12-256
Antennaria monocephala subsp. *angustata*	RV1	DL12-248
Solidago macrophylla	RV1	120804-25
Solidago multiradiata	RV1	DL12-243

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Taraxacum lapponicum	RV1	DL12-249
Potamogeton richardsonii	RV2	DL12-536
Sparganium angustifolium	RV2	DL12-534
Ranunculus aquatilis var. *diffusus*	RV2	DL12-531
Myriophyllum sibiricum	RV2	DL12-533
Pyrola minor	RV2	DL12-538
Galium trifidum subsp. *trifidum*	RV2	DL12-537
Callitriche palustris	RV2	DL12-535
Hippuris vulgaris	RV2	DL12-532
Pedicularis groenlandica	RV2	DL12-539
Huperzia appressa	TA1	DL12-384
Diphasiastrum complanatum	TA1	DL12-382
Gymnocarpium dryopteris	TA1	DL12-380
Woodsia ilvensis	TA1	DL12-391
Dryopteris campyloptera	TA1	DL12-390
Juniperus communis var. *depressa*	TA1	DL12-389
Agrostis mertensii	TA1	DL12-387
Calamagrostis canadensis var. *langsdorfii*	TA1	DL12-388
Deschampsia flexuosa	TA1	DL12-383
Viola renifolia	TA1	DL12-386
Salix planifolia	TA1	DL12-392
Betula minor	TA1	DL12-393
Moehringia macrophylla	TA1	DL12-381
Orthilia secunda	TA1	DL12-385
Carex arcta	LC2	DL13-218
Salix pellita	LC2	DL13-219
Salix pyrifolia	LC2	DL13-220
Salix humilis var. *humilis*	LC2	DL13-221
Salix glauca var. *cordifolia*	LC2	DL13-222
Salix planifolia	LC2	DL13-223
Salix glauca var. *cordifolia*	LC2	DL13-224
Alnus viridis subsp. *crispa*	1	DL13-225
Vaccinium vitis-idaea	1	DL13-226
Dendrolycopodium dendroideum	1	DL13-227
Diphasiastrum complanatum	1	DL13-228
Spinulum canadense	1	DL13-229
Carex saxatilis	3	DL13-230
Carex lenticularis var. *lenticularis*	3	DL13-231
Carex utriculata	3	DL13-232
Salix pedicellaris	3	DL13-233
Elymus trachycaulus subsp. *trachycaulus*	3	DL13-234
Schizachne purpurascens	3	DL13-235
Equisetum arvense	3	DL13-236

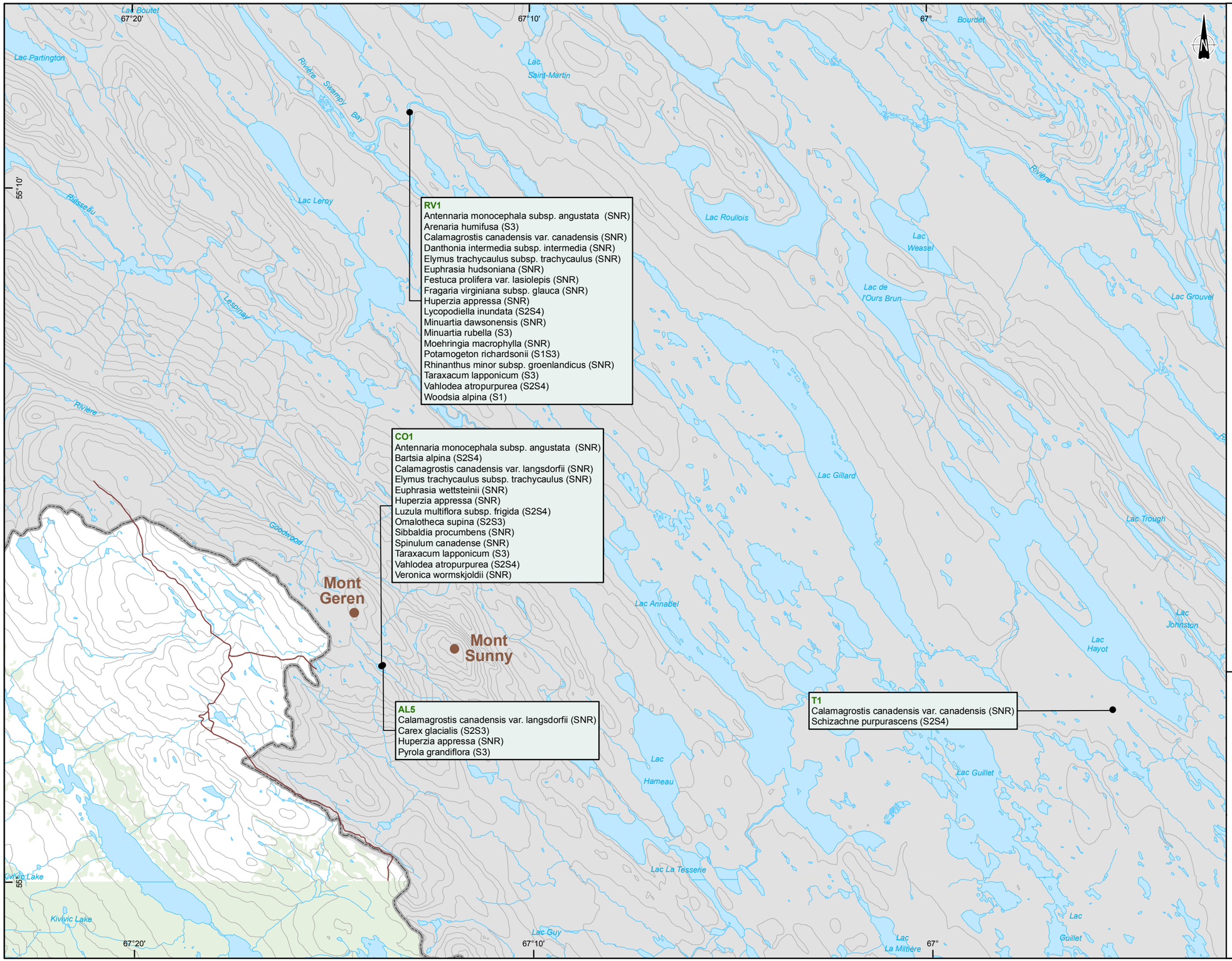
Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Alopecurus aequalis var. *aequalis*	3	DL13-237
Taraxacum lapponicum	4	DL13-238
Veronica wormskjoldii	4	DL13-239
Primula mistassinica	4	DL13-240
Rhinanthus minor subsp. *groenlandicus*	4	DL13-241
Pyrola minor	4	DL13-242
Parnassia kotzebuei	4	DL13-243
Taraxacum lapponicum	8	DL13-244
Trisetum spicatum	8	DL13-245
Salix glauca var. cordifolia	9	DL13-246
Anemone parviflora	12	DL13-247
Solidago multiradiata	12	DL13-248
Achillea millefolium	12	DL13-249
Eriophorum scheuchzeri subsp. *scheuchzeri*	12	DL13-250
Poa alpina subsp. *alpina*	12	DL13-251
Eriophorum angustifolium subsp. *angustifolium*	14	DL13-252
Carex chordorrhiza	14	DL13-253
Salix planifolia	14	DL13-254
Dendrolycopodium dendroideum	15	DL13-255
Salix bebbiana	17	DL13-256
Huperzia selago	17	DL13-257
Carex stylosa	18	DL13-258
Rubus ×paracaulis	18	DL13-259
Carex arcta	18	DL13-260
Calamagrostis canadensis var. *canadensis*	18	DL13-261
Rubus arcticus subsp. *acaulis*	18	DL13-262
Platanthera dilatata var. *dilatata*	21	DL13-263
Platanthera aquilonis	21	DL13-264
Spiranthes romanzoffiana	21	DL13-265
Eriophorum viridicarinatum	21	DL13-266
Juncus castaneus	21	DL13-267
Stellaria borealis subsp. *borealis*	21	DL13-268
Cardamine nymanii	21	DL13-269
Epilobium hornemannii subsp. *hornemannii*	21	DL13-270
Glyceria striata	23	DL13-271
Diphasiastrum sabinifolium	25	DL13-272
Diphasiastrum sitchense	25	DL13-273
Dendrolycopodium dendroideum	25	DL13-274
Solidago multiradiata	31	DL13-275
Salix ballii	31	DL13-276
Parnassia kotzebuei	31	DL13-277
Poa alpina subsp. *alpina*	31	DL13-278
Viola renifolia	31	DL13-279

Appendix D: List of Vascular Plant Specimens Collected during both the 2012 and 2013 Surveys (Continued)

Scientific Name	Sampling Plot	Specimen Number
Fragaria virginiana subsp. *glauca*	31	DL13-280
Achillea millefolium	31	DL13-281
Salix planifolia	31	DL13-282
Salix pyrifolia	31	DL13-283
Carex capillaris	31	DL13-284
Packera indecora	31	DL13-285
Botrychium lunaria	31	DL13-286
Equisetum variegatum subsp. *variegatum*	32	DL13-287
Pyrola asarifolia	32	DL13-288
Platanthera dilatata var. *dilatata*	32	DL13-289
Platanthera aquilonis	32	DL13-290
Packera aurea	32	DL13-291
Hieracium vulgatum	33	DL13-292
Salix bebbiana	33	DL13-293
Barbarea vulgaris	35	DL13-294
Poa glauca subsp. *glauca*	35	DL13-295
Astragalus alpinus var. alpinus	35	DL13-296
Rhinanthus minor subsp. *groenlandicus*	35	DL13-297
Stellaria longipes subsp. *longipes*	35	DL13-298
Cerastium arvense subsp. *strictum*	35	DL13-299
Alchemilla filicaulis subsp. *filicaulis*	35	DL13-300
Thalictrum pubescens	35	DL13-301
Listera auriculata	35	DL13-302
Huperzia appressa	36	DL13-303
Eurybia radula	38	DL13-304
Deschampsia cespitosa subsp. *cespitosa*	38	DL13-305
Pedicularis groenlandica	38	DL13-306
Danthonia intermedia	38	DL13-307
Carex echinata subsp. *echinata*	38	DL13-308
Calamagrostis stricta subsp. *inexpansa*	38	DL13-309
Carex saxatilis	38	DL13-310
Carex vesicaria	38	DL13-311
Triantha glutinosa	38	DL13-312
Symphyotrichum puniceum var. *puniceum*	38	DL13-313
Alopecurus aequalis var. *aequalis*	39	DL13-314
Platanthera aquilonis	40	DL13-315
Festuca prolifera var. *lasiolepis*	41	DL13-316
Carex diandra	41	DL13-317
Galium trifidum subsp. *trifidum*	41	DL13-318
Carex lenticularis var. *lenticularis*	41	DL13-319

Appendix E:
Distribution of Rare Plant Species Found during both the 2012 and 2013 Field Surveys



Project Components

Study Area boundary

Vegetation

Sampling plot

OM2
Calamagrostis canadensis var. canadensis (SNR)

Rare vascular plant species — Status rank

OM2 Sampling plot within the Regional Study Area

2012 survey

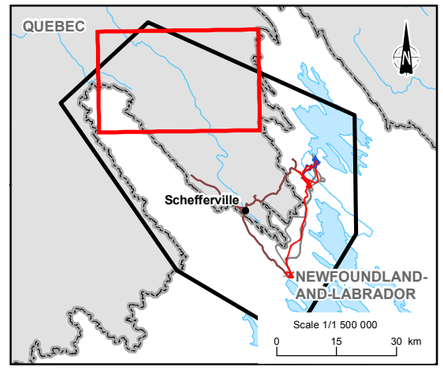
Existing Infrastructure

Main road

Railway

Territory

Provincial boundary



CENTURY IRON MINES CORP.

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plant Species Found during the 2012-2013 Surveys in the Area of Swampy Bay River and Sunny Mountain

Sources:
Base: BDTA, 1: 250 000, MRN Québec, 2002
CanVec, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_AnxE2_VEG_EspeceRareLoin_141118.mxd

Scale 1: 100,000
0 1 2 3 km
UTM, zone 19, NAD83

Appendix E.2

November 2014

WSP

66°40'

66°30'

54°50'

4
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Primula mistassinica (S2)
Rhinanthus minor subsp. groenlandicus (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)
Veronica wormskjoldii (SNR)

3
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Schizachne purpurascens (S2S4)
Taraxacum lapponicum (S3)

2
Ranunculus lapponicus (S2S3)

PN3
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)

OM4
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)

LA2
Spinulum canadense (SNR)

AL6
Carex glacialis (S2S3)

LA3
Spinulum canadense (SNR)

OM2
Calamagrostis canadensis var. canadensis (SNR)

AL7
Spinulum canadense (SNR)

Te1
Spinulum canadense (SNR)

PB1
Spinulum canadense (SNR)

LA1
Spinulum canadense (SNR)

LC1B
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Taraxacum lapponicum (S3)

AL3
Diphasiastrum sabinifolium (SNA)
Huperzia appressa (SNR)

AL4
Carex glacialis (S2S3)

AU1
Carex glacialis (S2S3)

EB1
Spinulum canadense (SNR)

IA
Spinulum canadense (SNR)
Agrostis stolonifera (S2S4)
Calamagrostis canadensis vas. canadensis (SNR)
Juncus bufonius (S2S4)
Populus balsamifera (S3)
Rhinanthus minor subsp. groenlandicus (SNR)

RU1
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Carex interior (S2S4)
Elymus trachycaulus subsp. trachycaulus (SNR)
Schizachne purpurascens (S2S4)
Parnassia kotzebuei (S3S4)

FE3
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Carex chordorrhiza (S3)
Elymus trachycaulus subsp. trachycaulus (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Platanthera aquilonis (S2S3)
Triantha glutinosa (S1S3)
Pyrola asarifolia (S2S4)

MU2
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Equisetum variegatum subsp. variegatum (S3)
Monotropa uniflora (SNR)
Ranunculus lapponicus (S2S3)
Salix ballii (S2S4)
Salix pedicellaris (S2S4)

PN2
Spinulum canadense (SNR)

PN1
Moehringia macrophylla (SNR)

28
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

40
Platanthera aquilonis (S2S3)
Calamagrostis canadensis var. canadensis (SNR)
Salix pedicellaris (S2S4)

FE4
Spinulum canadense (SNR)
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Salix pedicellaris (S2S4)
Vahlodea atropurpurea (S2S4)

RU2
Betula pumila var. glandulifera (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Ranunculus lapponicus (S2S3)
Salix pedicellaris (S2S4)

PN4
Calamagrostis canadensis var. canadensis (SNR)

DA1
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Huperzia appressa (SNR)
Salix pedicellaris (S2S4)

AL8
Arenaria humifusa (S3)
Carex glacialis (S2S3)
Huperzia appressa (SNR)

PC1
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)

OM3
Carex utriculata (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)

5
Calamagrostis canadensis var. canadensis (SNR)
Salix pedicellaris (S2S4)

6
Carex glacialis (S2S3)

1
Spinulum canadense (SNR)

LC2
Calamagrostis canadensis var. canadensis (SNR)
Carex arcta (SNR)

8
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Taraxacum lapponicum (S3)
Vahlodea atropurpurea (S2S4)
Veronica wormskjoldii (SNR)

7
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Salix pedicellaris (S2S4)
Vahlodea atropurpurea (S2S4)

PT1
Spinulum canadense (SNR)

LC1A
Spinulum canadense (SNR)
Calamagrostis canadensis var. canadensis (SNR)
Omalotheca norvegica (S2S3; SDMV)
Taraxacum lapponicum (S3)

AL1
Spinulum canadense (SNR)
Carex glacialis (S2S3)

TE2
Calamagrostis canadensis var. canadensis (SNR)

10
Calamagrostis canadensis var. canadensis (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Juncus stygius var. americanus (S2S4)
Salix pedicellaris (S2S4)
Vahlodea atropurpurea (S2S4)

9
Calamagrostis canadensis var. canadensis (SNR)
Elymus trachycaulus subsp. trachycaulus (SNR)
Taraxacum lapponicum (S3)

FE2
Calamagrostis canadensis var. canadensis (SNR)
Carex utriculata (SNR)
Salix pedicellaris (S2S4)

BO1
Calamagrostis canadensis var. canadensis (SNR)

MU1
Spinulum canadense (SNR)
Eriophorum russeolum subsp. russeolum (SNR)
Vahlodea atropurpurea (S2S4)
Carex arcta (SNR)
Ranunculus lapponicus (S2S3)

CL1
Spinulum canadense (SNR)
Diphasiastrum sabinifolium (SNA)

FE1
Eriophorum russeolum subsp. russeolum (SNR)

TA1
Spinulum canadense (SNR)
Calamagrostis canadensis var. langsdorfii (SNR)
Huperzia appressa (SNR)
Moehringia macrophylla (SNR)
Viola renifolia (S1S3)

Project Components

Study Area boundary

Vegetation

Sampling plot

OM2
Calamagrostis canadensis var. canadensis (SNR)

Rare vascular plant species — Status rank

OM2 — Sampling plot within the Regional Study Area

OM2 — Sampling plot within the Study Area

2012 survey

2013 survey

Existing Infrastructure

Main road

Railway

Territory

Provincial boundary

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plant Species Found during the 2012-2013 Surveys

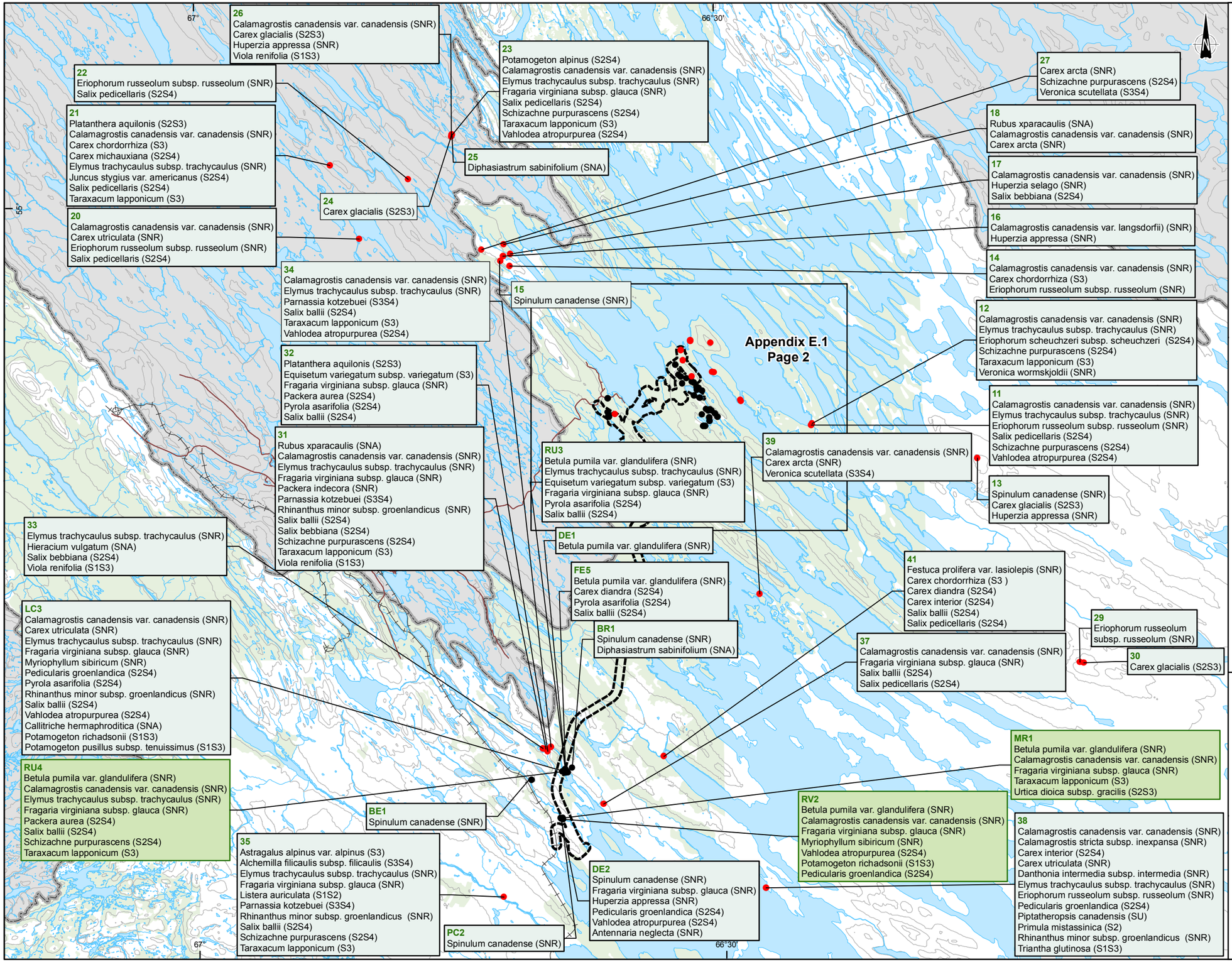
Sources:
Base: BDTA, 1: 250 000, MRN Québec, 2002
CanVec, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_AnxE1_F2de2_VEG_EspeceRareZoom_141118.mxd

Scale 1: 60,000
0 600 1 200 1 800 m
UTM, zone 19, NAD83

Appendix E.1

November 2014



Project Components

Study Area boundary

Vegetation

Sampling plot

OM2
Calamagrostis canadensis var. canadensis (SNR)

Rare vascular plant species — Status rank

OM2 — Sampling plot within the Regional Study Area

OM2 — Sampling plot within the Study Area

2012 survey

2013 survey

Existing Infrastructure

Main road

Railway

Territory

Provincial boundary

CENTURY IRON MINES CORP.

Joyce Lake Direct Shipping Iron Ore Project

- Rare Plant Survey -

Rare Vascular Plant Species Found during the 2012-2013 Surveys

Sources:
Base: BDTA, 1: 250 000, MRN Québec, 2002
CanVec, 1: 50 000, RNCan, 2007

Mapping: WSP
File: 121-18002-01_AnxE1_F1de2_VEG_EspeceRare_141118.mxd

Scale 1: 230,000

0 — 2 300 — 4 600 — 6 900 m

UTM, zone 19, NAD83

Appendix E.1

November 2014

WSP

Appendix F: Photographs

Photo 1. Richardson's Pondweed
Sampling Plot RV1 (2012-08-19)

Photo 2. Sticky False Asphodel
Sampling Plot FE3 (2012-08-18)

Photo 3. Small Pondweed
Sampling Plot LC3 (2012-08-23)

Photo 4. Northern Green Orchid
Sampling Plot FE3 (2012-08-18)

Photo 5. Slender Stinging Nettle
Sampling Plot MR1 (2012-08-22)

Photo 6. Lapland Buttercup
Sampling Plot No. 2 (2013-08-06)

Photo 7. Glacial Sedge
Sampling Plot No. 6 (2013-08-07)

Photo 8. Bog Willow
Sampling Plot FE2 (2012-08-16)

Photo 9. Golden Ragwort
Sampling Plot RU4 (2012-08-23)

Photo 10. Pink Pyrola
Sampling Plot FE3 (2012-08-18)

Photo 11. Elephanthead Lousewort
Sampling Plot RV2 (2012-08-22)

Photo 12. False Melic
Sampling Plot No. 3 (2013-08-06)

Photo 13. Ball's Willow
Sampling Plot MU2 (2012-08-08)

Photo 14. Mountain Hairgrass
Sampling Plot RV1 (2012-08-19)

Photo 15. Lesser Panicled Sedge
Sampling Plot FE5 (2012-08-23)

Photo 16. Variegated Scouring Rush
Sampling Plot MU2 (2012-08-08)

Photo 17. Creeping Sedge
Sampling Plot FE3 (2012-08-18)

Photo 18. Lapland Dandelion
Sampling Plot No. 4 (2013-08-07)

Photo 19. Creeping Sandwort
Sampling Plot RV1 (2012-08-19)

Photo 20. Northern Water-Starwort
Sampling Plot LC3 (2012-08-23)

Photo 21. Cedar Like Clubmoss
Sampling Plot No. 25 (2013-08-09)

Photo 22. Siberian Water-Milfoil
Sampling Plot RV2 (2012-08-22)

Photo 23. Russet Cotton-Grass
Sampling Plot OM3 (2012-08-21)

Photo 24. Northern Bog Birch
Sampling Plot RU1 (2012-08-18)

Photo 25. Northern Interrupted Clubmoss
Sampling Plot No.1 (2013-08-06)

Photo 26. Mountain Firmoss
Sampling Plot TA1 (2012-08-15)

Photo 27. Northwest Territory Sedge
Sampling Plot FE2 (2012-08-16)

Photo 28. Arctic Rattlebox
Sampling Plot No. 4 (2013-08-07)

Photo 29. Virginia Strawberry
Sampling Plot MR1 (2012-08-22)

Photo 30. Slender Wheatgrass
Sampling Plot RV1 (2012-08-19)

Photo 31. Bluejoint
Sampling Plot DA1 (2012-08-21)

Photo 32. Largeleaf Sandwort
Sampling Plot TA1 (2012-08-15)

Photo 33. Northern Cluster Sedge
Sampling Plot LC2 (2013-08-06)

Appendix G: List of Vascular Plant Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Dendrolycopodium dendroideum	Tree groundpine	Lycopodiaceae		Boreal north America and east Asia	G5	N5	S3S4	Secure
Diphasiastrum alpinum	Alpine clubmoss	Lycopodiaceae		Arctic-alpine circumpolar	G5	NNR	S4S5	Secure
Diphasiastrum complanatum	Northern running-pine	Lycopodiaceae		Circumboreal	G5	N5	S5	Secure
Diphasiastrum sabinifolium	Cedar like clubmoss	Lycopodiaceae		Boreal northeastern America	G4	NNR	SNA	Not Assessed
Diphasiastrum sitchense	Sitka clubmoss	Lycopodiaceae		Boreal north America and east Asia	G5	NNR	S3S4	Secure
Huperzia appressa	Mountain firmoss	Lycopodiaceae		Arctic-alpine north America	G4G5	N5	SNR	Undetermined
Huperzia selago	Northern firmoss	Lycopodiaceae		Arctic-alpine circumpolar	G5	N5	SNR	Undetermined
Lycopodiella inundata	Northern bog clubmoss	Lycopodiaceae	Obligate	Circumtemperate disjunct repartition	G5	N5	S2S4	Undetermined
Lycopodium lagopus	One-cone clubmoss	Lycopodiaceae		Circumboreal	G5	N5	S4S5	Secure
Spinulum annotinum	Stiff clubmoss	Lycopodiaceae		Circumboreal	G5	N5	S5	Secure
Spinulum canadense	Northern interrupted clubmoss	Lycopodiaceae		Circumboreal	G4T5T4	NU	SNR	Not Assessed
Isoetes echinospora	Spiny-spored quillwort	Isoëtaceae	Obligate	Circumboreal	G5	N5	S5	Secure
Isoetes lacustris	Lake quillwort	Isoëtaceae	Obligate	Boreal amphi-atlantique	GNR	NNR	S3	Sensitive
Selaginella selaginoides	Northern spikemoss	Selaginellaceae	Facultative	Circumboreal	G5	NNR	S4S5	Secure
Equisetum arvense	Field horsetail	Equisetaceae		Cosmopolitan	G5	N5	S5	Secure
Equisetum fluviatile	River horsetail	Equisetaceae	Obligate	Circumboreal	G5	N5	S3S4	Secure
Equisetum palustre	Marsh horsetail	Equisetaceae	Facultative	Circumboreal	G5	N5	S1	May be at risk
Equisetum pratense	Meadow horsetail	Equisetaceae	Facultative	Circumboreal	G5	N5	S2S3	Sensitive
Equisetum scirpoides	Dwarf scouring rush	Equisetaceae		Circumboreal	G5	N5	S3	Sensitive
Equisetum sylvaticum	Woodland horsetail	Equisetaceae	Facultative	Circumboreal	G5	N5	S5	Secure
Equisetum variegatum subsp. *variegatum*	Variegated scouring rush	Equisetaceae	Facultative	Circumboreal	G5T5	N5	S3	Sensitive
Botrychium lanceolatum subsp. *angustisegmentum*	Narrow triangle moonwort	Ophioglossaceae	Facultative	Boreal cordilleran disjunct in eastern Canada	G5T4	N3N4	SNR	May be at risk
Botrychium lunaria	Common moonwort	Ophioglossaceae		Circumboreal	G5	NNR	S3S4	Secure
Botrychium minganense	Mingan moonwort	Ophioglossaceae		Boreal north America	G4	NNR	S1	May be at risk
Cystopteris fragilis	Brittle fern	Cystopteridaceae		Arctic-alpine circumpolar	G5	N5	S3S4	Secure
Cystopteris montana	Mountain bladder fern	Cystopteridaceae		Circumboreal	G5	NNR	S1S2	May be at risk
Gymnocarpium dryopteris	Common oak fern	Cystopteridaceae		Circumboreal	G5	N5	S5	Secure
Phegopteris connectilis	Northern beech fern	Thelypteridaceae		Circumboreal	G5	N5	S5	Secure
Woodsia alpina	Alpine cliff fern	Woodsiaceae		Arctic-alpine circumpolar	G4	N4	S1	May be at risk
Woodsia glabella	Smooth cliff fern	Woodsiaceae		Arctic-alpine circumpolar	G5	NNR	S2S3	Sensitive
Woodsia ilvensis	Rusty cliff fern	Woodsiaceae		Circumboreal	G5	N5	S3S4	Secure
Athyrium filix-femina var. *angustum*	Northern lady fern	Athyriaceae		Boreal northeastern America	G5T5	N5	S4S5	Secure
Dryopteris campyloptera	Mountain wood fern	Dryopteridaceae		Boreal northeastern America	G5	NNR	S4	Secure
Dryopteris carthusiana	Spinulose wood fern	Dryopteridaceae		Circumtemperate	G5	N5	S4	Secure
Dryopteris expansa	Spreading wood fern	Dryopteridaceae		Circumboreal disjunct in Asia	G5	NNR	S3S5	Secure
Polystichum lonchitis	Holly fern	Dryopteridaceae		Arctic-alpine circumpolar	G5	NNR	S1	May be at risk
Abies balsamea	Balsam fir	Pinaceae		Boreal north America	G5	N5	S5	Secure
Larix laricina	Tamarack	Pinaceae	Facultative	Circumboreal disjunct in Asia	G5	N5	S5	Secure
Picea glauca	White spruce	Pinaceae		Boreal north America	G5	N5	S5	Secure
Picea mariana	Black spruce	Pinaceae	Facultative	Boreal north America	G5	N5	S5	Secure
Juniperus communis var. *depressa*	Common juniper	Cupressaceae		Boreal north America	G5T5	N5	S4S5	Secure
Nuphar variegata	Variegated pond-lily	Nymphaeaceae	Obligate	Boreal north America	G5T5	N5	S5	Secure
Tofieldia pusilla	Scotch false asphodel	Tofieldiaceae		Arctic-alpine circumpolar discontinuous repartition	G5	N5	S4S5	Secure
Triantha glutinosa	Sticky false asphodel	Tofieldiaceae	Facultative	Boreal north America	G4G5	NNR	S1S3	Undetermined

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature (Continued)

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Scheuchzeria palustris	Rannoch-rush	Scheuchzeriaceae	Obligate	Circumboreal	G5	NNR	S3S5	Secure
Triglochin maritima	Seaside arrow-grass	Juncaginaceae	Obligate	Circumboreal	G5	N5	S4S5	Secure
Triglochin palustris	Marsh arrow-grass	Juncaginaceae	Obligate	Circumboreal	G5	N5	S4S5	Secure
Potamogeton alpinus	Alpine pondweed	Potamogetonaceae	Obligate	Circumboreal	G5	N5	S2S4	Undetermined
Potamogeton gramineus	Variableleaf pondweed	Potamogetonaceae	Obligate	Circumboreal	G5	N5	SNR	Undetermined
Potamogeton obtusifolius	Blunt-Leaf pondweed	Potamogetonaceae	Obligate	Circumboreal	G5	NNR	SNA	Not Assessed
Potamogeton perfoliatus	Claspingleaf pondweed	Potamogetonaceae	Obligate	Circumtemperate	G5	NNR	S1S3	Sensitive
Potamogeton praelongus	White-Stem pondweed		Obligate	Circumboreal	G5	NNR	SNR	Undetermined
Potamogeton pusillus subsp. *tenuissimus*	Small pondweed	Potamogetonaceae	Obligate	Circumboreal	G5T5	NNR	S1S3	Undetermined
Potamogeton richardsonii	Richardson's pondweed	Potamogetonaceae	Obligate	Circumboreal	G5	N5	S1S3	Undetermined
Stuckenia filiformis subsp. *alpina*	Fineleaf pondweed	Potamogetonaceae	Obligate	Circumboreal	G5T5	N5	S2S4	Undetermined
Clintonia borealis	Blue bead-lily	Liliaceae		Boreal northeastern America	G5	N5	S5	Secure
Streptopus amplexifolius	Claspingleaf twisted-stalk	Liliaceae		Circumboreal disjunct in Asia	G5	NNR	S5	Secure
Corallorhiza trifida	Early Coralroot	Orchidaceae		Circumboreal	G5	N5	S3S5	Secure
Listera auriculata	Auricled twayblade	Orchidaceae	Facultative	Boreal northeastern America	G3G4	N3	S1S2	May be at risk
Listera cordata var. *cordata*	Heart-leaved twayblade	Orchidaceae	Facultative	Circumboreal	G5T5	N5	S3S5	Secure
Platanthera aquilonis	Northern green orchid	Orchidaceae	Facultative	Boreal north America	G5	N5	S2S3	May be at risk
Platanthera dilatata var. *dilatata*	Scentbottle	Orchidaceae	Facultative	Boreal north America	G5T5	N5	S4S5	Secure
Platanthera obtusata	Bluntleaved orchid	Orchidaceae	Facultative	Boreal north America	G5	N5	S3S4	Secure
Spiranthes romanzoffiana	Hooded lady's-tresses	Orchidaceae	Facultative	Boreal amphi-atlantic	G5	N5	S3S4	Secure
Sisyrinchium montanum var. *crebrum*	Strict blue-eyed grass	Iridaceae		Introduced	G5	N5	SNR	Undetermined
Maianthemum canadense subsp. *canadense*	Canadian may-lily	Asparagaceae		Boreal north America	G5	N5	S5	Secure
Maianthemum stellatum	Starflower Solomon's-Plume	Asparagaceae		Temperate north America	G5	N5	S2S3	Sensitive
Maianthemum trifolium	Three-leaved false Solomon's seal	Asparagaceae	Obligate	Boreal north America and east Asia	G5	N5	S5	Secure
Sparganium angustifolium	Narrow-leaved bur-reed	Typhaceae	Obligate	Circumboreal disjunct in Asia	G5	NNR	S3S5	Secure
Sparganium emersum	Unbranched bur-reed	Typhaceae	Obligate	Circumboreal	G5	N5	S2S4	Undetermined
Sparganium hyperboreum	Northern bur-reed	Typhaceae	Obligate	Circumboreal	G5	NNR	S3S4	Secure
Juncus alpinoarticulatus	Northern green rush	Juncaceae	Obligate	Circumboreal	G5	N5	S3S4	Undetermined
Juncus arcticus var. *balticus*	Baltic rush	Juncaceae	Facultative	Circumboreal	G5	N5	S3S4	Secure
Juncus biglumis	Two-Flowered rush	Juncaceae	Facultative	Arctic-alpine circumpolar	G5	NNR	SU	Undetermined
Juncus brevicaudatus	Narrowpanicle rush	Juncaceae	Obligate	Boreal north America	G5	N5	S3S4	Secure
Juncus bufonius	Toad rush	Juncaceae	Facultative	Cosmopolitan	G5	N5	S2S4	Undetermined
Juncus castaneus	Chestnut rush	Juncaceae		Arctic-alpine circumpolar	G5	NNR	S4	Secure
Juncus filiformis	Thread rush	Juncaceae	Facultative	Circumboreal	G5	NNR	S4S5	Secure
Juncus stygius var. *americanus*	American moor rush	Juncaceae	Obligate	Boreal north America	G5	NNR	S2S4	Undetermined
Juncus subtilis	Greater creeping rush	Juncaceae	Obligate	Boreal northeastern America	G4	N4	SNR	Undetermined
Juncus tenuis	Slender rush	Juncaceae		Cosmopolitan	G5	N5	S2S3	Sensitive
Juncus trifidus	Highland rush	Juncaceae		Arctic-alpine amphi-atlantic	G5	NNR	S4S5	Secure
Juncus triglumis var. *albescens*	Northern white rush	Juncaceae		Arctic-alpine circumpolar	G5	NNR	S3S4	Secure
Luzula arctica	Arctic wood rush	Juncaceae		Circumpolar	G5	NNR	SNR	Undetermined
Luzula confusa	Northern wood rush	Juncaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Secure
Luzula multiflora subsp. *frigida*	Common wood rush	Juncaceae		Circumboreal	G5T5	N5	S2S4	Undetermined
Luzula parviflora subsp. *melanocarpa*	Small-flowered wood rush	Juncaceae		Circumboreal	G5T5	N5	S4S5	Secure
Luzula spicata	Spiked wood rush	Juncaceae		Arctic-alpine circumpolar disjunct in Asia	G5	NNR	S4S5	Secure
Luzula wahlenbergii	Sudetic Mountain wood rush	Juncaceae	Obligate	Circumpolar	G4	NNR	SNR	Undetermined

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature (Continued)

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Carex aquatilis var. *aquatilis*	Water sedge	Cyperaceae	Obligate	Circumboreal	G5T5	N5	S3S5	Secure
Carex arcta	Northern cluster sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	SNR	Undetermined
Carex arctogena	Alpine capitate sedge	Cyperaceae		Arctic amphi-atlantic	G5T4?	NNR	S3S4	Secure
Carex atratiformis	Scrabrous black sedge	Cyperaceae	Facultative	Boreal north America	G5	NNR	S3S5	Secure
Carex bigelowii subsp. *bigelowii*	Bigelow's sedge	Cyperaceae	Facultative	Arctic-alpine circumpolar	G5TNR	NNR	S3S5	Secure
Carex brunnescens subsp. *brunnescens*	Brownish sedge	Cyperaceae	Facultative	Circumboreal	G5T5	N5	S3S5	Secure
Carex buxbaumii	Buxbaum's sedge	Cyperaceae	Obligate	Circumboreal discontinuous repartition	G5	N5	S3	Sensitive
Carex canescens subsp. *canescens*	Silvery sedge	Cyperaceae	Obligate	Circumboreal	G5T5	N5	S3S5	Secure
Carex capillaris	Hairlike sedge	Cyperaceae	Facultative	Circumpolar	G5	N5	S3S5	Secure
Carex castanea	Chestnut sedge	Cyperaceae	Facultative	Boreal northeastern America	G5	N5	S1S2	May be at risk
Carex chordorrhiza	Creeping sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S3	Sensitive
Carex concinna	Northern elegant sedge	Cyperaceae		Boreal north America	G5	N5	S1S2	May be at risk
Carex conoidea	Openfield sedge	Cyperaceae		Boreal northeastern America	G5	N5?	SNR	Not Assessed
Carex crawfordii	Crawford's sedge	Cyperaceae		Boreal north America	G5	N5	S3S4	Undetermined
Carex deflexa var. *deflexa*	Northern sedge	Cyperaceae		Boreal north America	G5	N5	S3S5	Secure
Carex diandra	Lesser panicled sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S2S4	Undetermined
Carex disperma	Softleaf sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S3S5	Secure
Carex echinata subsp. *echinata*	Star sedge	Cyperaceae	Obligate	Circumboreal discontinuous repartition	G5T5	N5	S3S5	Secure
Carex exilis	Meagre sedge	Cyperaceae	Obligate	Boreal northeastern America	G5	N5	S3S5	Secure
Carex foenea	Bronze sedge	Cyperaceae		Boreal north America	G5	N5	S3S5	Secure
Carex garberi	Elk sedge	Cyperaceae	Facultative	Boreal north America	G5	NNR	SNR	Undetermined
Carex glacialis	Glacial sedge	Cyperaceae		Arctic-alpine circumpolar	G5	NNR	S2S3	Sensitive
Carex gynocrates	Northern bog sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S3S4	Secure
Carex heleonastes	Hudson Bay sedge	Cyperaceae	Obligate	Circumboreal discontinuous repartition	G4	NNR	SNR	Not Assessed
Carex interior	Inland sedge	Cyperaceae	Obligate	Boreal north America	G5	N5	S2S4	Undetermined
Carex lachenalii	Twotipped sedge	Cyperaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Secure
Carex lenticularis var. *lenticularis*	Lakeshore sedge	Cyperaceae	Obligate	Boreal north America	G5T5	N5	S4S5	Secure
Carex leptalea	Bristlystalked sedge	Cyperaceae	Obligate	Boreal north America	G5	N5	S3S5	Secure
Carex leptonervia	Nerveless woodland sedge	Cyperaceae		Boreal northeastern America	G4	NNR	S2S3	Sensitive
Carex limosa	Mud sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S5	Secure
Carex livida	Livid sedge	Cyperaceae	Obligate	Circumboreal disjunct repartition	G5	N5	S3S5	Secure
Carex magellanica subsp. *irrigua*	Boreal bog sedge	Cyperaceae	Obligate	Circumboreal	G5T5	N5	S4S5	Secure
Carex media	Closed-head sedge	Cyperaceae		Circumboreal	G5T5?	NNR	S2S4	Undetermined
Carex michauxiana	Michaux's sedge	Cyperaceae	Obligate	Boreal northeastern America and east Asia	G5	N5	S2S4	Undetermined
Carex microglochin subsp. *microglochin*	Fewseeded bog sedge	Cyperaceae	Obligate	Arctic-alpine circumpolar disjunct in Asia	G5?	NNR	S1S2	May be at risk
Carex nardina	Spike sedge	Cyperaceae		Arctic-alpine amphi-atlantic trans-american repartition	G4G5	NNR	S2S3	Sensitive
Carex nigra	Smooth black sedge	Cyperaceae	Facultative	Boreal amphi-atlantique	G5	N5	S3S5	Secure
Carex norvegica	Norway sedge	Cyperaceae		Arctic-alpine amphi-atlantic	G5	NNR	S3S5	Secure
Carex oligosperma	Fewseed sedge	Cyperaceae	Obligate	Boreal northeastern America	G5	N5	S5	Secure
Carex pauciflora	Fewflower sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S4S5	Secure
Carex rariflora var. *rariflora*	Loose-flowered alpine sedge	Cyperaceae		Circumboreal	G5	N5	S4S5	Secure
Carex rostrata	Swollen beaked sedge	Cyperaceae	Obligate	Circumboreal	G5	NNR	S4S5	Secure
Carex saxatilis	Rock sedge	Cyperaceae	Facultative	Circumpolar	G5	N5	S4S5	Secure
Carex scirpoidea subsp. *scirpoidea*	Northern singlespike sedge	Cyperaceae		Arctic-alpine north America and east Asia	G5	N5	S3S5	Secure
Carex stylosa	Variegated sedge	Cyperaceae		Boreal cordilleran	G5	NNR	S4S5	Secure

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Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Carex tenuiflora	Sparseflower sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S3S5	Secure
Carex trisperma	Threeseeded sedge	Cyperaceae	Obligate	Boreal north America	G5	N5	S4S5	Secure
Carex utriculata	Northwest Territory sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	SNR	Undetermined
Carex vaginata	Sheathed sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S3S5	Secure
Carex vesicaria	Blister sedge	Cyperaceae	Obligate	Circumboreal	G5	N5	S4S5	Secure
Carex viridula subsp. *viridula*	Little green sedge	Cyperaceae	Obligate	Circumboreal	G5T5	N5	S1	May be at risk
Carex williamsii	Williams' sedge	Cyperaceae		Arctic north America and east Asia	G4	NNR	S2S4	Undetermined
Eleocharis acicularis	Needle spike-rush	Cyperaceae	Obligate	Cosmopolitan	G5	N5	S3S4	Secure
Eleocharis nitida	Neat spike-rush	Cyperaceae		Boreal north America discontinuous repartition	G4	N3N4	SNR	Undetermined
Eriophorum angustifolium subsp. *angustifolium*	Tall cotton-grass	Cyperaceae	Obligate	Circumboreal	G5T5	N5	S4S5	Secure
Eriophorum brachyantherum	Closed-sheath cotton-grass	Cyperaceae		Circumboreal	G5	N5	SNR	Undetermined
Eriophorum russeolum subsp. *russeolum*	Russet cotton-grass	Cyperaceae		Circumboreal	G5	N5	SNR	Not Assessed
Eriophorum scheuchzeri subsp. *scheuchzeri*	White cotton-grass	Cyperaceae		Arctic circumpolar	G5	N5	S2S4	Undetermined
Eriophorum vaginatum	Tussock cotton-grass	Cyperaceae	Obligate	Boreal north America	G5	N5	S5	Secure
Eriophorum viridicarinatum	Thinleaf cotton-sedge	Cyperaceae	Obligate	Boreal north America	G5	N5	S3S4	Secure
Trichophorum alpinum	Alpine clubrush	Cyperaceae	Obligate	Circumboreal	G5	N5	S3S5	Secure
Trichophorum cespitosum	Tufted clubrush	Cyperaceae		Circumboreal	G5	N5	S5	Secure
Agrostis mertensii	Northern bentgrass	Poaceae		Circumboreal discontinuous repartition	G5	NNR	S3S5	Secure
Agrostis scabra	Rough bentgrass	Poaceae		Boreal north America	G5	N5	S3S5	Secure
Agrostis stolonifera	Creeping bentgrass	Poaceae	Facultative	Introduced	G5	N5	S2S4	Exotic/Alien
Alopecurus aequalis var. *aequalis*	Shortawn foxtail	Poaceae	Obligate	Circumboreal	G5T5?	NNR	S3S5	Secure
Anthoxanthum monticola subsp. *alpinum*	Alpine sweetgrass	Poaceae		Arctic-alpine circumpolar	G5T5	N5	SNR	Undetermined
Bromus ciliatus	Fringed brome	Poaceae	Facultative	Boreal north America	G5T5	N5	S3S5	Secure
Bromus inermis	Smooth brome	Poaceae		Introduced	G5TNR	NNA	SNA	Exotic/Alien
Calamagrostis canadensis var. *canadensis*	Bluejoint	Poaceae	Facultative	Boreal north America	G5T5	N5	SNR	Undetermined
Calamagrostis canadensis var. *langsdorfii*	Bluejoint	Poaceae		Circumboreal	G5T5	N5	SNR	Undetermined
Calamagrostis lapponica	Lapland reedgrass	Poaceae		Circumpolar	G5	NNR	SNR	Undetermined
Calamagrostis stricta subsp. *inexpansa*	Northern reedgrass	Poaceae	Facultative	Boreal north America	G5T5	N5	SNR	Undetermined
Cinna latifolia	Drooping woodreed	Poaceae		Circumboreal	G5	N5	S3S5	Secure
Danthonia intermedia subsp. *intermedia*	Timber oatgrass	Poaceae		Boreal north America and east Asia	G5	NNR	SNR	Undetermined
Danthonia spicata	poverty oatgrass	Poaceae		Boreal north America	G5	N5	SNR	Undetermined
Deschampsia cespitosa subsp. *cespitosa*	Tufted hairgrass	Poaceae	Facultative	Circumboreal	G5	N5	S3S5	Secure
Deschampsia flexuosa	Northern interrupted club moss	Poaceae		Circumboreal disjunct repartition	G5	N5	S4S5	Secure
Elymus repens	Quackgrass	Poaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Elymus trachycaulus subsp. *trachycaulus*	Slender wheatgrass	Poaceae		Boreal north America	G5T5	N5	SNR	Undetermined
Festuca brachyphylla subsp. *brachyphylla*	Alpine fescue	Poaceae		Arctic-alpine circumpolar	G5T5?	NNR	S3S5	Secure
Festuca prolifera var. *lasiolepis*	Proliferous fescue	Poaceae		Circumboreal disjunct repartition	GU	NNR	SNR	Undetermined
Festuca rubra subsp. *rubra*	Red fescue	Poaceae		Circumboreal	G5T5	N5	S4S5	Secure
Festuca saximontana var. *saximontana*	Rocky Mountain fescue	Poaceae		Boreal north America	G5	NNR	S1	May be at risk
Glyceria canadensis var. *canadensis*	Rattlesnake mannagrass	Poaceae	Obligate	Temperate northeastern America	G5	N4N5	S1S3	Undetermined
Glyceria striata	Ridged glyceria	Poaceae	Obligate	Boreal north America	G5	N5	S3S5	Secure
Hordeum jubatum subsp. *jubatum*	Foxtail barley	Poaceae		Introduced	G5T5	N5	S2S4	Exotic/Alien
Lolium perenne	Perennial ryegrass	Poaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Phleum alpinum subsp. *alpinum*	Alpine timothy	Poaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Secure

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature (Continued)

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Phleum pratense subsp. *pratense*	Timothy	Poaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Piptatheropsis canadensis	Canada ricegrass	Poaceae		Boreal north America	G5	N4N5	SU	Undetermined
Piptatheropsis pungens	Slender ricegrass	Poaceae		Boreal north America	G5	N5	SNA	Not Assessed
Poa alpina subsp. *alpina*	Alpine bluegrass	Poaceae		Arctic-alpine circumpolar discontinuous repartition	G5	NNR	S3S4	Secure
Poa annua	Annual bluegrass	Poaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Poa arctica subsp. *arctica*	Arctic bluegrass	Poaceae		Circumpolar	G5T4T5	NNR	S3S4	Secure
Poa compressa	Canada bluegrass	Poaceae		Introduced	GNR	NNR	SNA	Exotic/Alien
Poa glauca subsp. *glauca*	Glaucous bluegrass	Poaceae		Arctic-alpine circumpolar	G5T5	N5	S3S4	Secure
Poa nemoralis	Woodland bluegrass	Poaceae		Circumboreal	G5TU	NNA	SNA	Exotic/Alien
Poa palustris	Fowl bluegrass	Poaceae	Facultative	Circumboreal	G5	N5	SNA	Undetermined
Poa pratensis subsp. *alpigena*	Alpigene bluegrass	Poaceae	Facultative	Circumpolar	G5T5	N5	SNR	Undetermined
Poa pratensis subsp. *pratensis*	Kentucky bluegrass	Poaceae		Introduced	G5T5	N5	SNA	Exotic/Alien
Schizachne purpurascens	False melic	Poaceae		Circumboreal disjunct repartition	G5	N5	S2S4	Undetermined
Trisetum spicatum	Spike trisetum	Poaceae		Circumboreal	G5	NNR	S3S5	Secure
Vahlodea atropurpurea	Mountain hairgrass	Poaceae		Boreal amphi-atlantic	G5	NNR	S2S4	Undetermined
Capnoides sempervirens	Pale corydalis	Papaveraceae		Temperate north America	G4G5	NNR	S2S3	Sensitive
Actaea rubra subsp. *rubra*	Red baneberry	Ranunculaceae		Boreal north America	G5T5	NNR	S3S4	Secure
Actaea rubra subsp. *rubra* f. *neglecta*	White baneberry	Ranunculaceae		Boreal north America	G5T5	NNR	S3S4	Secure
Anemone parviflora	Small-flowered anemone	Ranunculaceae		Boreal north America	G5	NNR	S3S4	Secure
Coptis trifolia	Goldthread	Ranunculaceae		Boreal north America	G5	N5	S5	Secure
Ranunculus abortivus	Littleleaf buttercup	Ranunculaceae	Facultative	Boreal north America	G5	NNR	S3S4	Undetermined
Ranunculus acris	Tall buttercup	Ranunculaceae		Introduced	G5	NNA	SNA	Exotic/Alien
Ranunculus allenii	Allen's buttercup	Ranunculaceae		Arctic-alpine northeastern America	G3G4	N3N4	S2S3	Sensitive
Ranunculus aquatilis var. *diffusus*	White water crowfoot	Ranunculaceae	Obligate	Circumboreal	G5	NNR	S3S5	Secure
Ranunculus flammula var. *reptans*	Creeping spearwort	Ranunculaceae	Facultative	Circumboreal	G5T5	N5	S4S5	Secure
Ranunculus hyperboreus	High northern buttercup	Ranunculaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Secure
Ranunculus lapponicus	Lapland buttercup	Ranunculaceae	Obligate	Circumboreal	G5	NNR	S2S3	Sensitive
Ranunculus pedatifidus var. *affinis*	Northern buttercup	Ranunculaceae		Arctic-alpine circumpolar	G5T5	NNR	S2S3	May be at risk
Thalictrum pubescens	King-of-the-meadow	Ranunculaceae	Facultative	Boreal northeastern America	G5	NNR	S4S5	Secure
Myriophyllum alterniflorum	Alternateflower watermilfoil	Haloragaceae	Obligate	Boreal amphi-atlantique	G5	NNR	SNR	Undetermined
Myriophyllum sibiricum	Siberian water-milfoil	Haloragaceae	Obligate	Circumboreal discontinuous repartition	G5	NNR	SNR	May be at risk
Ribes glandulosum	Skunk currant	Grossulariaceae	Facultative	Boreal north America	G5	N5	S5	Secure
Ribes triste	Red currant	Grossulariaceae	Obligate	Boreal north America and east Asia	G5	NNR	S3S4	Secure
Mitella nuda	Naked miterwort	Saxifragaceae	Facultative	Boreal north America and east Asia	G5	NNR	S3S4	Secure
Saxifraga paniculata subsp. *neogaea*	White Mountain saxifrage	Saxifragaceae		Arctice-alpine amphi-atlantic	G5	N4N5	S3S4	Secure
Parnassia kotzebuei	Kotzebue's grass of Parnassus	Celastraceae	Facultative	Arctic-alpine north America and east Asia	G5	N5	S3S4	Sensitive
Parnassia palustris	Marsh-grass-of-Parnassus	Celastraceae	Obligate	Arctic-alpine circumpolar	G5	NNR	S3S5	Undetermined
Viola blanda	sweet white violet	Violaceae	Facultative	Boreal northeastern America	G4G5	NNR	S3S4	Secure
Viola labradorica	Labrador violet	Violaceae		Boreal north America	G5	NNR	S4S5	Secure
Viola macloskeyi	Smooth white violet	Violaceae	Obligate	Boreal north America	G5	NNR	S5	Secure
Viola palustris	Marsh violet	Violaceae	Facultative	Boreal amphi-atlantique	G5	NNR	S2S4	Undetermined
Viola renifolia	White violet	Violaceae		Boreal north America	G5	NNR	S1S3	Undetermined
Populus balsamifera	Balsam poplar	Salicaceae	Facultative	Boreal north America	G5	N5	S3	Sensitive
Populus tremuloides	Quaking aspen	Salicaceae		Boreal north America	G5	NNR	S4	Secure
Salix arctophila	Northern willow	Salicaceae		Arctic-alpine north America	G5	NNR	S4S5	Secure

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Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Salix argyrocarpa	Labrador willow	Salicaceae		Boreal northeastern America	G4	N4	S4S5	Secure
Salix ballii	Ball's willow	Salicaceae		Boreal northeastern America	G5?	NNR	S2S4	Undetermined
Salix bebbiana	Bebb willow	Salicaceae	Facultative	Boreal north America	G5	NNR	S2S4	Undetermined
Salix discolor	Pussy willow	Salicaceae	Facultative	Temperate north America	G5	NNR	S3S4	Secure
Salix glauca var. *cordifolia*	Beautiful willow	Salicaceae		Boreal northeastern America	G5T3T5	NNR	S5	Secure
Salix herbacea	Snowbed willow	Salicaceae		Arctic-alpine amphi-atlantic	G5	NNR	S4S5	Secure
Salix humilis var. *humilis*	Prairie willow	Salicaceae		Boreal northeastern America	G5T5	NNR	S3S5	Secure
Salix lucida subsp. *lucida*	Shining willow	Salicaceae	Facultative	Boreal north America and cordilleran	G5	NNR	S3S4	Secure
Salix pedicellaris	Bog willow	Salicaceae	Obligate	Boreal north America	G5	NNR	S2S4	Sensitive
Salix pellita	Satiny willow	Salicaceae	Obligate	Boreal northeastern America	G5	NNR	S3S4	Secure
Salix planifolia	Tea-leaved willow	Salicaceae		Boreal north America	G5	NNR	S5	Secure
Salix pyrifolia	Balsam willow	Salicaceae	Facultative	Boreal north America	G5	NNR	S3S5	Secure
Salix uva-ursi	Bearberry willow	Salicaceae		Arctic-alpine northeastern America	G5	NNR	S4S5	Secure
Salix vestita	Hairy willow	Salicaceae		Boreal north America	G5	NNR	S3S4	Secure
Astragalus alpinus var. *alpinus*	Alpine milkvetch	Fabaceae		Arctic-alpine circumpolar	G5T5	NNR	S3	Sensitive
Hedysarum alpinum	Alpine sweetvetch	Fabaceae		Arctic-alpine circumpolar	G5	NNR	S2	May be at risk
Lotus corniculatus	Bird's-foot trefoil	Fabaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Trifolium hybridum	Alsike clover	Fabaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Trifolium pratense	Red clover	Fabaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Trifolium repens	White clover	Fabaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Vicia cracca	Bird vetch	Fabaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Alchemilla filicaulis subsp. *filicaulis*	Thinstem lady's mantle	Rosaceae		Boreal amphi-atlantique	G4T3?	N2N3	S2S4	Undetermined
Amelanchier bartramiana	Oblongfruit serviceberry	Rosaceae		Boreal northeastern America	G5	NNR	S3S5	Secure
Comarum palustre	Purple marshlocks	Rosaceae	Obligate	Circumboreal	G5	NNR	S3S5	Secure
Dasiphora fruticosa	Shrubby cinquefoil	Rosaceae	Facultative	Circumboreal	G5	NNR	S3S4	Secure
Dryas integrifolia subsp. *integrifolia*	Entireleaf mountain-avens	Rosaceae		Arctic-alpine north America	G5T5?	N5?	S3S5	Secure
Fragaria virginiana subsp. *glauca*	Virginia strawberry	Rosaceae		Boreal north America	G5T5?	N5?	SNR	Undetermined
Geum macrophyllum var. *perincisum*	Incised large-leaved avens	Rosaceae	Facultative	Boreal north America	G5	N5	SNR	Undetermined
Geum rivale	Purple avens	Rosaceae	Obligate	Boreal amphi-atlantic	G5	NNR	S3S4	Undetermined
Potentilla argentea var. *argentea*	Silver cinquefoil	Rosaceae		Introduced	GNRTNR	NNA	SNA	Exotic/Alien
Potentilla nivea	Snow cinquefoil	Rosaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Sensitive
Potentilla norvegica	Rough cinquefoil	Rosaceae		Circumboreal	G5	NNR	S3S5	Secure
Prunus pensylvanica	Pin cherry	Rosaceae		Boreal north America	G5	NNR	S3S4	Undetermined
Rubus ×paracaulis	Short-shoot dwarf rasberry	Rosaceae		Boreal north America	GNA	NNA	SNA	Not Assessed
Rubus arcticus subsp. *acaulis*	Dwarf raspberry	Rosaceae		Boreal north America	G5T5	N5	S3S5	Secure
Rubus chamaemorus	Cloudberry	Rosaceae	Facultative	Circumboreal	G5	NNR	S5	Secure
Rubus idaeus subsp. *strigosus*	Grayleaf red raspberry	Rosaceae		Boreal north America and east Asia	G5T5	N5	S4S5	Secure
Rubus pubescens	Dwarf red blackberry	Rosaceae	Facultative	Boreal north America	G5	NNR	S4S5	Secure
Sanguisorba canadensis	Canadian burnet	Rosaceae	Facultative	Boreal northeastern America	G5	NNR	S3S5	Secure
Sibbaldia procumbens	Creeping sibbaldia	Rosaceae		Arctic-alpine circumpolar	G5	NNR	SNR	Undetermined
Sibbaldia tridentata	Shrubby fivefingers	Rosaceae		Boreal north America	G5	NNR	S3S5	Secure
Sorbus decora	Northern mountain ash	Rosaceae		Boreal northeastern America	G4G5	NNR	S3S5	Secure
Urtica dioica subsp. *gracilis*	Slender stinging nettle	Urticaceae	Facultative	Boreal north America	G5T5	N5	S2S3	Sensitive
Myrica gale	Sweet gale	Myricaceae	Obligate	Circumboreal disjunct repartition in Asia	G5	NNR	S5	Secure
Alnus viridis subsp. *crispa*	American green alder	Betulaceae		Boreal north America and Asia	G5TNR	N5	S5	Secure

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Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Betula cordifolia	Heartleaf birch	Betulaceae		Boreal northeastern America	G5T5	NNR	S4S5	Secure
Betula glandulosa	Resin birch	Betulaceae	Facultative	Boreal north America	G5	N5	S5	Secure
Betula michauxii	Newfoundland dwarf birch	Betulaceae		Boreal northeastern America	G3G4	N2N4	S5	Secure
Betula minor	Dwarf white birch	Betulaceae		Boreal northeastern America	G4Q	N4	S4S5	Secure
Betula pumila var. *glandulifera*	Northern bog birch	Betulaceae	Obligate	Boreal north America	G5T5	N5	SNR	Not Assessed
Betula pumila var. *pumila*	Southern bog birch	Betulaceae	Obligate	Boreal north America	G5T5?	N4	SNR	Secure
Chamerion angustifolium subsp. *angustifolium*	Fireweed	Onagraceae		Circumboreal	G5T5	N5	S5	Secure
Chamerion latifolium	Dwarf fireweed	Onagraceae		Arctic-alpine circumpolar	G5	NNR	S5	Secure
Circaea alpina subsp. *alpina*	Small enchanter's nightshade	Onagraceae	Facultative	Circumboreal	G5T5	NNR	S4S5	Secure
Epilobium anagallidifolium	Pimpernel willowherb	Onagraceae		Arctic-alpine circumpolar	G5	NNR	S3S4	Secure
Epilobium davuricum	Dahurian willowherb	Onagraceae		Circumboreal	G5	N4N5	SNR	Not Assessed
Epilobium hornemannii subsp. *hornemannii*	Hornemann's willowherb	Onagraceae		Circumboreal	G5T5	NNR	S3S4	Secure
Epilobium lactiflorum	Milkflower willowherb	Onagraceae		Boreal cordilleran disjunct in eastern America and Europe	G5	NNR	S3	Sensitive
Epilobium palustre	Marsh willowherb	Onagraceae	Obligate	Circumboreal	G5	N5	S5	Secure
Arabis alpina	Alpine rockcress	Brassicaceae		Arctic-alpine amphi-atlantic	G5	NNR	S3S4	Secure
Arabis arenicola var. *arenicola*	Sand rockcress	Brassicaceae		Arctic northeastern America	G4G5	N4N5	S4	Secure
Barbarea orthoceras	American yellowrocket	Brassicaceae	Facultative	Circumboreal	G5	NNR	S3	Sensitive
Barbarea vulgaris	Garden yellowrocket	Brassicaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Cardamine bellidifolia var. *bellidifolia*	Alpine bittercress	Brassicaceae		Arctic-alpine circumpolar	G5	NNR	S3S4	Secure
Cardamine nymanii	Nyman's Cuckooflower	Brassicaceae		Circumboreal	G5T5	N4N5	S3S4	Secure
Draba arabisans	Rock draba	Brassicaceae		Boreal northeastern America	G4	NNR	SNR	Not Assessed
Draba glabella var. *glabella*	Smooth draba	Brassicaceae		Arctic-alpine circumpolar	G4G5	N4?	S3S4	Secure
Draba nivalis	Yellow arctic draba	Brassicaceae		Arctic-alpine circumpolar	G5	NNR	S3S5	Undetermined
Draba norvegica var. *norvegica*	Norwegian draba	Brassicaceae		Arctice-alpine amphi-atlantic	G5	NNR	SNR	Undetermined
Erysimum cheiranthoides subsp. *cheiranthoides*	Wormseed wallflower	Brassicaceae		Introduced	G5	N5	SU	Exotic/Alien
Lepidium densiflorum var. *densiflorum*	Common pepperweed	Brassicaceae		Introduced	G5T5	N4N5	SNA	Exotic/Alien
Raphanus raphanistrum	Wild radish	Brassicaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Sinapis arvensis	Charlock mustard	Brassicaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Subularia aquatica subsp. *americana*	American waterawlwort	Brassicaceae	Obligate	Boreal north America	G5T5	NNR	S3S4	Secure
Thlaspi arvense	Field pennycress	Brassicaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Geocaulon lividum	False toadflax	Santalaceae		Boreal north America	G5	NNR	S5	Secure
Drosera anglica	English sundew	Droseraceae	Obligate	Circumboreal	G5	NNR	S5	Secure
Drosera intermedia	Spoonleaf sundew	Droseraceae	Obligate	Circumtemperate	G5	NNR	S4S5	Secure
Drosera rotundifolia	Roundleaf sundew	Droseraceae	Obligate	Circumboreal	G5	N5	S5	Secure
Bistorta vivipara	Alpine bistort	Polygonaceae		Arctic-alpine circumpolar	G5	NNR	S5	Secure
Fallopia convolvulus	Black bindweed	Polygonaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Oxyria digyna	Alpine mountain-sorrel	Polygonaceae		Arctic-alpine circumpolar	G5	NNR	S4	Secure
Rumex acetosella	Sheep sorrel	Polygonaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Rumex crispus	Curly dock	Polygonaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Arenaria humifusa	Creeping sandwort	Caryophyllaceae		Arctic-alpine amphi-atlantic trans-american repartition	G4	NNR	S3	Sensitive
Cerastium alpinum subsp. *lanatum*	Alpine mouse-ear chickweed	Caryophyllaceae		Arctic-alpine amphi-atlantic	G5?TNR	NNR	S3S5	Undetermined
Cerastium arvense subsp. *strictum*	Field chickweed	Caryophyllaceae		Circumboreal	G5T5	N5	S3S4	Secure

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Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Cerastium fontanum subsp. *vulgare*	Big chickweed	Caryophyllaceae		Introduced	GNRTNR	NNA	SNA	Exotic/Alien
Minuartia biflora	Mountain stitchwort	Caryophyllaceae		Arctic-alpine circumpolar	G5	NNR	S1S2	Sensitive
Minuartia dawsonensis	Rock stitchwort	Caryophyllaceae		Boreal north America	G5	NNR	SNR	Undetermined
Minuartia groenlandica	Greenland stitchwort	Caryophyllaceae		Boreal northeastern America	G5	NNR	S3S4	Secure
Minuartia rubella	Beautiful sandwort	Caryophyllaceae		Arctic-alpine circumpolar	G5	NNR	S3	Sensitive
Moehringia macrophylla	Largeleaf sandwort	Caryophyllaceae		Boreal north America	G5	NNR	SNR	Undetermined
Silene acaulis	Moss campion	Caryophyllaceae		Arctic-alpine circumpolar disjunct in Asia	G5	NNR	S4S5	Secure
Silene vulgaris	Bladder campion	Caryophyllaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Stellaria borealis subsp. *borealis*	Boreal starwort	Caryophyllaceae	Obligate	Circumboreal discontinuous repartition	G5T5	N5	S4S5	Secure
Stellaria graminea	Grasslike starwort	Caryophyllaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Stellaria longipes subsp. *longipes*	Goldie's starwort	Caryophyllaceae		Boreal north America and east Asia	G5T5	N5	S4S5	Secure
Montia fontana	Water blinks	Montiaceae	Facultative	Circumpolar disjunct repartition	G5	NNR	S3S4	Secure
Cornus canadensis	Bunchberry	Cornaceae		Boreal north America	G5	N5	S5	Secure
Cornus sericea	Redosier dogwood	Cornaceae		Boreal north America	G5	NNR	S5	Secure
Primula egaliksensis	Greenland primrose	Primulaceae		Arctic north America	G4	NNR	S1S3	Undetermined
Primula laurentiana	Birdeye primrose	Primulaceae		Boreal northeastern America	G5	NNR	S3S4	Secure
Primula mistassinica	Mistassini primrose	Primulaceae	Facultative	Boreal north America	G5	NNR	S2	Sensitive
Trientalis borealis	Starflower	Primulaceae		Boreal north America	G5	NNR	S5	Secure
Diapensia lapponica subsp. *lapponica*	Pincushion plant	Diapensiaceae		Arctic-alpine amphi-atlantic	G5T3T5	NNR	S4S5	Secure
Andromeda polifolia var. *latifolia*	Glaucous-leaved bog rosemary	Ericaceae	Obligate	Boreal northeastern America	G5T5	NNR	S4S5	Secure
Arctous alpina	Alpine bearberry	Ericaceae		Arctic-alpine circumpolar	G5	NNR	S5	Secure
Cassiope tetragona var. *tetragona*	White arctic mountain heather	Ericaceae		Circumpolar	G5T5	NNR	S3S4	Secure
Chamaedaphne calyculata	Leatherleaf	Ericaceae	Obligate	Circumboreal	G5	N5	S5	Secure
Empetrum nigrum subsp. *nigrum*	Black crowberry	Ericaceae		Circumboreal	G5T3T5	NNR	S4S5	Secure
Gaultheria hispidula	Creeping snowberry	Ericaceae		Boreal north America	G5	NNR	S5	Secure
Harrimanella hypnoides	Mossplant	Ericaceae		Arctic-alpine amphi-atlantic	G5	NNR	S4S5	Secure
Kalmia polifolia	Bog laurel	Ericaceae	Obligate	Boreal north America	G5	NNR	S5	Secure
Kalmia procumbens	Alpine azalea	Ericaceae		Arctic-alpine circumpolar	G5	NNR	S4S5	Secure
Moneses uniflora	Single delight	Ericaceae		Circumboreal	G5	NNR	S4S5	Secure
Monotropa uniflora	Indianpipe	Ericaceae		Temperate north America and Asia	G5	N5	SNR	Undetermined
Orthilia secunda	Sidebells wintergreen	Ericaceae		Circumboreal	G5	NNR	S5	Secure
Phyllodoce caerulea	Blue mountainheath	Ericaceae		Arctic-alpine circumpolar discontinuous repartition in Europe	G5	NNR	S4	Secure
Pyrola asarifolia	Pink pyrola	Ericaceae		Boreal north America	G5	NNR	S2S4	Undetermined
Pyrola grandiflora	Largeflowered wintergreen	Ericaceae		Arctic-alpine circumpolar	G5	NNR	S3	Sensitive
Pyrola minor	Snowline wintergreen	Ericaceae		Circumboreal	G5	NNR	S4	Secure
Rhododendron groenlandicum	Common Labrador tea	Ericaceae	Obligate	Boreal north America	G5	N5	S5	Secure
Rhododendron lapponicum var. *lapponicum*	Lapland rosebay	Ericaceae		Arctic-alpine circumpolar discontinuous repartition in Eurasia	G5	NNR	S4S5	Secure
Vaccinium angustifolium	Early lowbush blueberry	Ericaceae		Boreal northeastern America	G5	N5	S5	Secure
Vaccinium boreale	Northern blueberry	Ericaceae		Boreal north America	G4	N4	S4S5	Secure
Vaccinium caespitosum	Dwarf bilberry	Ericaceae		Boreal north America	G5	NNR	S4S5	Secure
Vaccinium myrtilloides	Velvetleaf huckleberry	Ericaceae		Boreal north America	G5	N5	S4	Secure
Vaccinium oxycoccos	Small cranberry	Ericaceae	Obligate	Circumboreal	G5	N5	S5	Secure
Vaccinium uliginosum	Alpine bilberry	Ericaceae		Circumboreal	G5	NNR	S5	Secure

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature (Continued)

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Vaccinium vitis-idaea	Mountain cranberry	Ericaceae		Circumboreal	G5	NNR	S5	Secure
Galium labradoricum	Northern bog bedstraw	Rubiaceae	Obligate	Boreal north America	G5	NNR	S3S4	Secure
Galium trifidum subsp. *trifidum*	Threepetal bedstraw	Rubiaceae	Facultative	Circumboreal	G5T5	N5	S3S5	Secure
Galium triflorum	Fragrant bedstraw	Rubiaceae		Circumboreal	G5	NNR	S3S4	Secure
Gentianella amarella subsp. *acuta*	Autumn dwarf gentian	Gentianaceae		Circumboreal	G5T5	N5	S2S3	Sensitive
Callitriche hermaphroditica	Northern water-starwort	Plantaginaceae	Obligate	Circumboreal	G5	N5	SNA	Not Assessed
Callitriche heterophylla subsp. *heterophylla*	Twoheaded water-starwort	Plantaginaceae	Obligate	Boreal north America	G5T5	NNR	SNR	Undetermined
Callitriche palustris	Vernal water-starwort	Plantaginaceae	Obligate	Circumboreal	G5	NNR	S3S5	Secure
Hippuris vulgaris	Common mare's-tail	Plantaginaceae	Obligate	Circumboreal	G5	N5	S4S5	Secure
Linaria vulgaris	Butter and eggs	Plantaginaceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Plantago major	Common plantain	Plantaginaceae		Introduced	G5	NNA	SNA	Exotic/Alien
Veronica scutellata	Skullcap speedwell	Plantaginaceae	Obligate	Circumboreal discontinuous repartition in Asia	G5	NNR	S3S4	Sensitive
Veronica serpyllifolia subsp. *serpyllifolia*	Thymeleaf speedwell	Plantaginaceae		Introduced	G5TNR	NNA	SNA	Exotic/Alien
Veronica wormskjoldii	American alpine speedwell	Plantaginaceae		Boreal north America	G4G5	NNR	SNR	Undetermined
Bartsia alpina	Alpine bartsia	Orobanchaceae		Arctic-alpine amphi-atlantic	G5	NNR	S2S4	Undetermined
Castilleja septentrionalis	Labrador Indian paintbrush	Orobanchaceae		Boreal northeastern America	G5	NNR	S4	Secure
Euphrasia hudsoniana	Hudson Bay eyebright	Orobanchaceae		Boreal north America	G5?	NNR	SNR	Undetermined
Euphrasia wettsteinii	Wettstein's eyebright	Orobanchaceae		Arctic-alpine amphi-atlantic	GNR	NNR	SNR	Undetermined
Pedicularis flammea	Redtipped lousewort	Orobanchaceae		Arctic-alpine amphi-atlantic	G3G5	NNR	S4	Secure
Pedicularis groenlandica	Elephanthead lousewort	Orobanchaceae		Boreal north America	G4G5	NNR	S2S4	Undetermined
Pedicularis labradorica	Labrador lousewort	Orobanchaceae		Boreal north America and east Asia	G5	NNR	S3S5	Secure
Rhinanthus minor subsp. *groenlandicus*	Arctic rattlebox	Orobanchaceae		Circumboreal	G5T5?	N5?	SNR	Undetermined
Pinguicula vulgaris	Common butterwort	Lentibulariaceae	Obligate	Circumboreal disjunct in Asia	G5	NNR	S4	Secure
Utricularia intermedia	Flatleaf bladderwort	Lentibulariaceae	Obligate	Circumboreal	G5	NNR	S4S5	Secure
Utricularia minor	Lesser bladderwort	Lentibulariaceae	Obligate	Circumboreal	G5	NNR	S3S4	Secure
Utricularia vulgaris subsp. *macrorhiza*	Common bladderwort	Lentibulariaceae	Obligate	Boreal north America	G5	NNR	S4S5	Secure
Menyanthes trifoliata	Bog buckbean	Menyanthaceae	Obligate	Boreal northeastern America	G5	NNR	S5	Secure
Achillea millefolium	Common yarrow	Asteraceae		Boreal north America	G5	N5	S3S4	Secure
Ambrosia artemisiifolia	Annual ragweed	Asteraceae		Introduced	G5	N5	SNR	Exotic/Alien
Antennaria alpina	Alpine pussytoes	Asteraceae		Arctic-alpine circumpolar	G5	NNR	S3	Sensitive
Antennaria monocephala subsp. *angustata*	Pygmy pussytoes	Asteraceae		Arctic-alpine north America	G4G5TNR	NNR	SNR	Undetermined
Antennaria neglecta	Field pussytoes	Asteraceae		Temperate north America	G5	N5	SNR	Not Assessed
Arnica angustifolia subsp. *angustifolia*	Narrowleaf arnica	Asteraceae		Arctic north America and western Europe (Iceland)	G5T5	N5	S2S3	Sensitive
Arnica chamissonis	Chamisso arnica	Asteraceae		Arctic-alpine north America disjunct repartition	G5	N5	SNR	Not Assessed
Cirsium arvense	Field thistle	Asteraceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Crepis tectorum	Narrowleaf hawksbeard	Asteraceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Eurybia radula	Low rough aster	Asteraceae	Obligate	Boreal northeastern America	G5	NNR	S4S5	Secure
Euthamia graminifolia	Common goldentop	Asteraceae		Boreal north America	G5	N5	SNR	Not Assessed
Hieracium ×floribundum	Yellow devil hawkweed	Asteraceae		Introduced	GNA	NNA	SNR	Exotic/Alien
Hieracium caespitosum	Meadow hawkweed	Asteraceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Hieracium umbellatum	Narrowleaf hawkweed	Asteraceae		Boreal north America	G5	N5	S2S4	Secure
Hieracium vulgatum	Common hawkweed	Asteraceae		Circumboreal discontinuous repartition	GNR	NNA	SNA	May be at risk
Leucanthemum vulgare	Ox-eye daisy	Asteraceae		Introduced	GNR	NNA	SNA	Exotic/Alien
Matricaria discoidea	Disc mayweed	Asteraceae		Introduced	G5	NNR	SNA	Exotic/Alien
Oclemena nemoralis	Bog aster	Asteraceae	Obligate	Boreal northeastern America	G5	N5	S5	Secure

Appendix G: List of Vascular Plant Species Occurring in the Schefferville Area Based on the 2012-2013 Surveys and on the Existing Literature (Continued)

Scientific Name	English Name	Family	Wetland Status	Phytogeography	G Rank[1]	N Rank[2]	S Rank[3]	General Status[4]
Omalotheca norvegica	Norwegian Arctic-cudweed	Asteraceae		Arctic-alpine amphi-atlantic	G5	N2N3	S2S3	Sensitive
Omalotheca supina	Alpine arctic cudweed	Asteraceae		Arctice-alpine amphi-atlantic	G5	NNR	S2S3	Sensitive
Packera aurea	Golden ragwort	Asteraceae	Facultative	Boreal northeastern America	G5	N5	S2S4	Undetermined
Packera indecora	Elegant groundsel	Asteraceae	Facultative	Boreal north America	G5	N5	SNR	Undetermined
Packera pauciflora	Alpine groundsel	Asteraceae		Boreal north America disjunct repartition	G4G5	NNR	S4	Secure
Packera paupercula	Balsam groundsel	Asteraceae		Boreal north America	G5	N5	SNR	Undetermined
Petasites frigidus var. *×vitifolius*	Grapeleaf sweet coltsfoot	Asteraceae	Facultative	Boreal north America	GNA	NNA	SNA	Not Assessed
Petasites frigidus var. *palmatus*	Palmate coltsfoot	Asteraceae	Facultative	Boreal north America	G5T5	N5	S4S5	Secure
Petasites frigidus var. *sagittatus*	Arrowleaf sweet coltsfoot	Asteraceae	Facultative	Boreal north America	G5	N5	S2S4	Undetermined
Solidago macrophylla	Large-leaved goldenrod	Asteraceae		Boreal northeastern America	G5	NNR	S5	Secure
Solidago multiradiata	Rocky Mountain goldenrod	Asteraceae		Boreal north America	G5	N5	S3S4	Secure
Solidago uliginosa	Bog goldenrod	Asteraceae	Obligate	Boreal north America	G4G5	N5	S5	Secure
Symphyotrichum novi-belgii var. *novi-belgii*	New York aster	Asteraceae	Facultative	Temperate northeastern America	G5T5	N5	S4S5	Secure
Symphyotrichum puniceum var. *puniceum*	Purplestem aster	Asteraceae	Facultative	Boreal north America	G5T5	N5	S4	Secure
Taraxacum lapponicum	Lapland dandelion	Asteraceae		Arctic-alpine amphi-atlantic	GNR	NNR	S3	Sensitive
Taraxacum officinale	Common dandelion	Asteraceae		Introduced	G5	N5	SNA	Exotic/Alien
Heracleum maximum	Common cowparsnip	Apiaceae		Boreal north America and east Asia	G5	N5	S3S4	Secure
Viburnum edule	Squashberry	Adoxaceae	Facultative	Boreal north America	G5	NNR	S5	Secure
Lonicera villosa	Mountain fly honeysuckle	Caprifoliaceae		Boreal north America	G5	NNR	S5	Secure
Linnaea borealis subsp. *longiflora*	Longtube twinflower	Linnaeaceae		Boreal north America	G5T5	NNR	S5	Secure

[1] Globally (G Rank)

[2] Nationally (N Rank)

[3] Labrador (S Rank),

[4] NL DOEC Wildlife Division General status

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