Appendix V4-8C

Species Account of Rare Plants and Lichens Documented in the Local Study Area

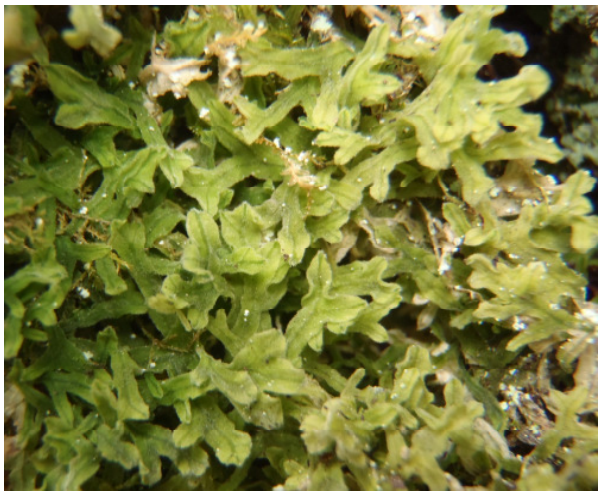
MAC RESOURCES

Species Accounts of Rare Plants and Lichens Documented in the Local Study Area

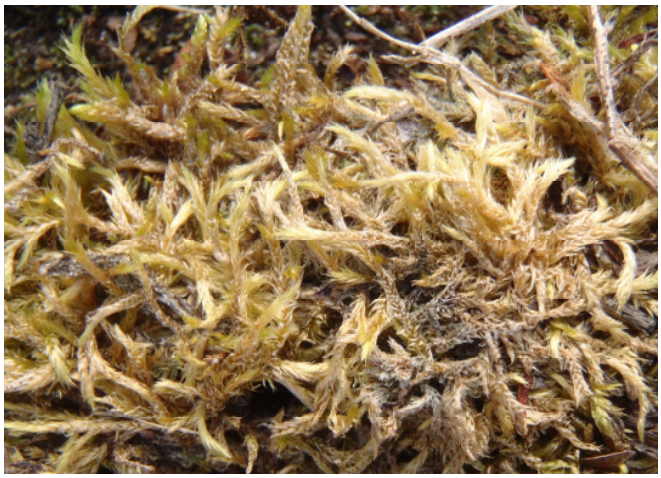
***Allocetraria madreporiformis* (Ach.) Kärnefelt & Thell**	**LICHEN**
	Conservation Rank: S1S3 (May be at risk).
	Habitat: Over rocks, gravel, and sand in open tundra; calciphilic.
	This distinctive species appears somewhat similar to *Dactylina ramulosa*, from which it differs in having a solid, chalky medulla (thallus interior), and a more consistently coloured, creamy whitish outer surface. Photo from the Project area.

***Aloina rigida* (Hedw.) Limpr.**	**MOSS**
	Conservation Rank: Not ranked, previously documented in Nunavut from very few records.
	Habitat: On clay soil that is dry and sparsely vegetated.
	Aloina is a distinctive genus of mosses, having leaves thickened with a dense pad of papillae on the upper surface, and margins curved over the upper surface even at the apex. *A. rigida* is distinct from other species in the genus in having ligulate leaves with echlorophyllous margins near the base, and no awn (Zander 2007). Photo from British Columbia.

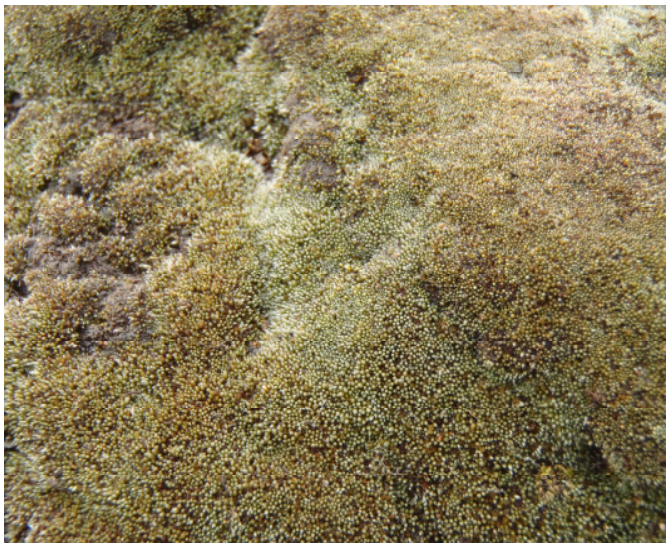
Anaptychia crinalis (Schleich.) Vězda	**LICHEN**
	Conservation Rank: S1 (at risk). Habitat: Variously strongly calcareous and guano-enriched sites, usually where cool, well ventilated, well lit, and humid. This species is distinguished by its ciliate margins, matte upper cortex, felt-like lower surface with parallel hyphae, colour, sub-shrubby growth form, and size. *Phaeophyscia constipata* is the only similar lichen species in the Project area. It is of a much smaller size, browner colour, and has a distinct lower as well as upper cortex. Photo from the Project area.

Apometzgeria pubescens (Schrank) Kuwah.	**LIVERWORT**
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Cool, humid, shaded vertical rock faces. The genus *Apometzgeria* has not previously been found in the North American Arctic. *Apometzgeria pubescens* is a temperate to boreal species found primarily in forested regions. There are no similar species in the Arctic. Photo from British Columbia.

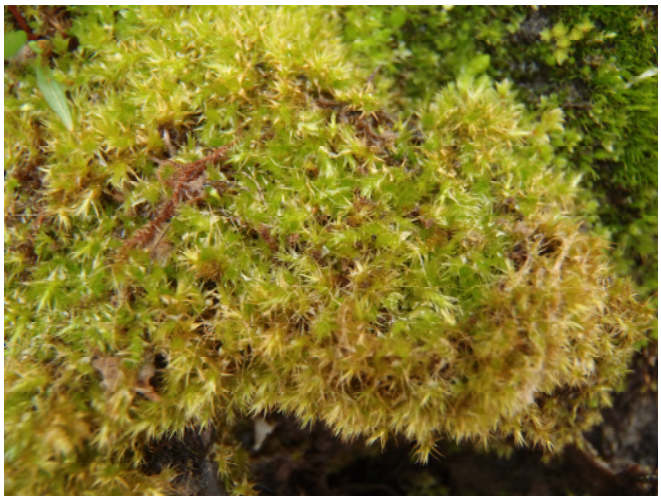
***Astragalus australis* var. *lepagei* (Hultén) S.L. Welsh**	**VASCULAR PLANT**
	Conservation Rank: The species is ranked GS3 (Sensitive), regardless of variety.
	Habitat: Rocky, gravelly, and sandy ground where moderately sparsely vegetated.
	A. australis differs from other *Astragali* in western Nunavut in having long aerial stems; stalked, hairless fruits; and notched wing petals. Variety *glabriusculus* is reported to occur in Nunavut; it differs from var. *lepagei* in its smaller flowers and more widespread distribution. Variety *lepagei* is found in American Beringia east to Hope Bay. Photo from the Project area.

***Brachythecium udum* I. Hagen**	**MOSS**
	Conservation Rank: Not ranked, new discovery in Nunavut, previously known definitively in North America in only one locality.
	Habitat: Cliff ledges.
	Brachythecium is notorious among botanists as being difficult to identify to species. The present species is rather easily named though, being one of few members of the genus to have distinctly enlarged, nearly colourless alar cells (cells at the corners of the leaf base). It is also distinctive in having poorly branched, ascending stems, and in having an appearance similar to that of *B. albicans* (Ignatov 2011). Photo from the Project area.

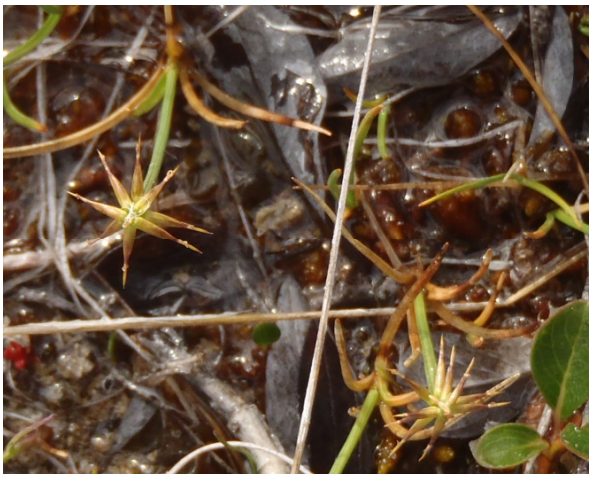
Braya glabella ssp. *glabella* Richardson	**VASCULAR PLANT**
	Conservation Rank: Not ranked at the level of subspecies; subspecies *purpurascens* is common and widespread, ssp. *glabella* is rare. Habitat: Sandy and gravelly ground, also on seep rock faces; calciphilic and perhaps also nitrophilic. *Braya glabella* ssp. *glabella* reaches its easternmost range extent near the Project area, being predominately Beringian in distribution. Also present in the Project area is the much more widespread and common *B. glabella* ssp. *purpurascens*, which differs in having shorter fruits in a denser cluster at the stem tip (Harris 2010). Photo from the Project area.

Bryum blindii Bruch & Schimp.	**MOSS**
	Conservation Rank: Not ranked, known from few localities throughout its range. Habitat: Nitrogen-rich soil in cool, humid sites. Among *Bryum* sensu stricto in North America, *B. blindii* differs by its elongated distal leaf cells, its non-hyaline leaf apex, and by its frequently reddish leaf base. At the Project location, this species forms extensive carpets (see photo). *Bryum oblongifolium* and *B. veronense* also both occur in the Project area and appear similar at a small scale. However, these species have not been found to form extensive carpets. Photo from the Project area.

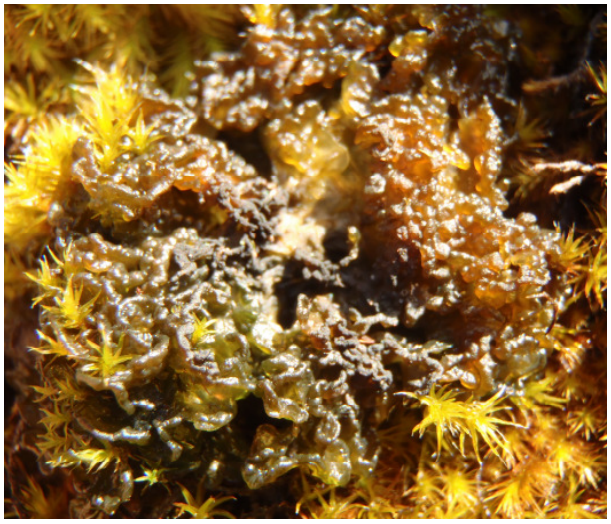
Calamagrostis deschampsioides Trin.	VASCULAR PLANT
	Conservation Rank: GS3 (Sensitive). Habitat: Marshes having moderately to strongly saline soil. Species of *Calamagrostis* characteristically have dense, spike-like or nodding inflorescences. Among northern members of the genus, *C. deschampsioides* is unusual in having its inflorescence diffuse, erect, and with stiffly divaricate branches. *Agrostis* species may appear similar, but these are consistently single flowered and have no or only short hairs at the lemma bases. Photo from Nunavut (Bathurst Inlet).

Campylium laxifolium Engelmark & Hedenäs	MOSS
	Conservation Rank: Not ranked, new discovery in Nunavut, known previously in North America from three records. Habitat: Cliff ledges and crevices, mossy cutbanks and other cool, humid sites; calciphilic. This species differs from the more widespread *C. stellatum* and *C. protensum* in having more erect or weakly spreading leaves, shorter indistinct leaf acumen, usually broader leaf base, and in its autoicous reproduction (Hedenäs 2000b). Photo from the Project area.

Campylophyllum sommerfeltii (Myrin) Hedenäs	**MOSS**
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Rock faces and cliff ledges, calciphilic. *C. sommerfeltii* differs from *Campylophyllum halleri*, a more widespread and common species, in its less widely spreading, narrower leaves; proportionally longer leaf acumen; and larger alar region. From *C. hispidulum*, which also is more widespread, this species differs in having leaf cells of a quadrate shape or elongated with the long axis parallel to the leaf axis, and a smaller alar region (Hedenäs 2000a). Photo from the Project area.

Carex microglochin Wahlenb.	**VASCULAR PLANT**
	Conservation Rank: GS4 (Secure, though the ranking appears to be erroneous; known from very few sites in Nunavut). Habitat: Saline soil of marine shores. This species is highly distinctive among sedges of Nunavut. Its single, unbranched cluster of flowers, subulate widely spreading perigynia with protruding styles, short stature, and brackish habitat are all distinctive. *Carex pauciflora*, a similar and related species of bogs, has fewer, sharply reflexed perigynia. Photo from the Project area.

***Chrysosplenium rosendahlii* Packer**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system, known from few localities worldwide.
	Habitat: Among mosses and gravelly sites along shores of lakes and creeks.
	This species differs from *Chrysosplenium tetrandrum*, the only other species of the genus in Nunavut, in its stamen number (4 to 8 versus consistently 4), and in its small size and habitat preference (*C. tetrandrum* is more strongly nitrophilic). Photo from the Project area.

***Collema auriforme* (With.) Coppins & J.R. Laundon sensu lato**	**LICHEN**
	Conservation Rank: Not ranked, new discovery in Nunavut.
	Habitat: Cool, humid sites, rich in mineral nutrients and nitrogen.
	An ongoing study in the *Collema tenax* group has resulted in the detection of more than one undescribed species that can be mistaken for the European *Collema auriforme*. The species detected in the Project area differs from *C. tenax* in its flattened isidia, and from *C. auriforme* sensu stricto in its smaller size. Photo from British Columbia.

Collema ceraniscum Nyl.	LICHEN
	Conservation Rank: S2S3 (Sensitive). Habitat: On high-pH soil over cliffs or on the ground; calciphilic. *C. ceraniscum* differs from other *Collema* species due to its jet-black colour; coralloid lobes that grow densely, forming a dense cushion; and small, bowl-shaped apothecia. Species of the family Lichinaceae may appear similar, but these have simple spores, while those of *C. ceraniscum* are muriform (with multiple cells divided by longitudinal and transverse cross-walls; Goward et al. 1994; Jørgensen 2007a). Photo from Nunavut (Bathurst Inlet).

Collema fuscovirens (With.) J.R. Laundon	LICHEN
	Conservation Rank: S1S2 (At risk). Habitat: Seep rock faces, calciphilic. Similar to *Collema undulatum* in colour and growth form, this species differs in its blistered upper surface. From other *Collema* species in the Project area, it differs in its brown colour, and typically ascending, undulate lobes (Jørgensen 2007a). Photo from British Columbia.

***Collema polycarpum* (Schaer.) Kremp.**	**LICHEN**
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Rock surfaces, calciphilic. This species differs from all other *Collema* in northern North America in its dense apothecia, produced on the raised edges of its lobes, and in the reddish colour and gloss of its apothecial disks (Goward et al. 1994). Further, it is one of few abundantly fertile *Collema* species that grow directly on rock. Photo from British Columbia.

***Collema tenax* var. *expansum* Degel.**	**LICHEN**
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Over mosses on cliff ledges, strongly calciphilic. This taxon is likely misplaced under *Collema tenax* (Jørgensen 2007a). Further, North American material of the taxon, attributed to var. *expansum* by Jørgensen, differs from typical, European material. Differences include being consistently isidiate, non-fertile, and densely hairy throughout the lower surface. Known otherwise from very few locations in British Columbia. Photo from British Columbia.

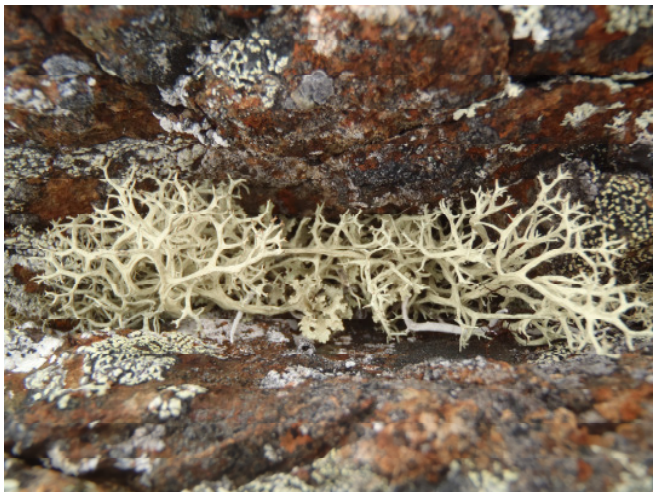
Coptidium pallasii (Schltdl.) Tzvelev	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive), ranked under the name *Ranunculus pallasii*.
	Habitat: Shallow water and mud of lake, pond and creek shores.
	This species is without any close parallels in the Arctic, with its succulent, paddle shaped leaves; creeping stems; polypetalous, showy white flowers; and its muddy habitat. It is unmistakable. Photo from the Project area.

Draba arabisans Michx.	**VASCULAR PLANT**
	Conservation Rank: Not ranked; first found in Nunavut in 2012 (Bathurst Inlet).
	Habitat: Various open sites.
	Among the taller *Draba* species in the Project area, *D. arabisans* stands out in having many-branched hairs on the leaf lower surface, toothed leaf margins, branched hairs on the often twisted fruits, and long styles. A very large number of *Draba* species occurs in the Project area, including two that appear to be undescribed and new to science. Much work remains on the taxonomy of the group and to determine rarity and distribution of *Draba* species in the territory. *Draba arabisans* is one that is relatively easily identified and with a certain taxonomic definition. Photo from Nunavut (Bathurst Inlet).

***Encalypta vittiana* Horton**	**MOSS**
	Conservation Rank: Not ranked, newly discovered for Nunavut.
	Habitat: Cliff ledges and crevices, calciphilic.
	Several *Encalypta* species occur in the Project area. The most similar to *E. vittiana* are the common and widespread *E. rhaptocarpa*, which differs in having no distinct fringe at the base of the calyptra, and leaves mostly with short awns. Also similar are *E. brevicollis* and *E. longicollis*, both of which have smooth, not ribbed spore capsules (Magill 2007). Photo from Nunavut (Bathurst Inlet).

***Endocarpon pulvinatum* Th. Fr.**	**LICHEN**
	Conservation Rank: S1S3 (May be at risk).
	Habitat: Rock faces where sheltered from rain splash, calciphilic.
	Dermatocarpon species are larger with broadly expanded lobes. *Staurothele areolata* is fully crustose. Otherwise, no similar species occur in Nunavut. Easily recognized by the ascending, often branching lobes, most of which are terminated by a single embedded perithecium (spherical, chamber-like spore-bearing structure) (Goward et al. 1994). Photo from the Project area.

Endocarpon pusillum Hedw.	**LICHEN**
	Conservation Rank: S1S2 (At risk). Habitat: Sparsely vegetated loamy or clay soil, also on cliff ledges; moderately calciphilic. Similar to *Placidium*, but usually with a paler thallus, muriform spores, and presence of algal cells in the hymenium. *Endocarpon pulvinatum* has a bullate or coralloid growth form and grows on rock surfaces. Photo from British Columbia.

Evernia perfragilis Llano	**LICHEN**
	Conservation Rank: S2S3 (Sensitive). Habitat: Sparsely vegetated rocky, gravelly or sandy ground; calciphilic. This species is similar to *Evernia mesomorpha*, which can grow in similar habitats in the Arctic, but which is non-sorediate/isidiate and grows unattached. *Evernia divaricata* usually has longer stems and branches, and has flexible, articulated joints. *Ramalina almquistii* (the local morph) has a perforated thin, glossy cortex; more slender stems and branches; and minute coils at the branch tips. Photo from the Project area.

Festuca richardsonii Hook.	VASCULAR PLANT
	Conservation Rank: Not ranked in the GS system. Habitat: Sandy soil along or near marine shores. This species is easily identified among Arctic *Festuca* by its shortly rhizomatous growth, its stout spikelets, and its conspicuous dense pubescence on the lemmas. It has been confused by some with hairier forms of the *Festuca rubra* complex (i.e., Darbyshire & Pavlick 2007). Arctic forms of that species differ in having finer leaves and less stout lemmas with shorter, sparser hairs. Photo from the Project area.

Frullania brittoniae A. Evans	LIVERWORT
	Conservation Rank: Not ranked, previously known in Nunavut from a single site (Wilberforce Falls). Habitat: Sheltered humid rock faces; elsewhere also epiphytic. *Frullania* is found mostly in the temperate to tropical regions, and its occurrence in the Arctic was unexpected. From other North American species of the genus, *F. brittoniae* differs in having its leaf lobules helmet shaped and flattened, except where they are slightly swollen near the apex, in its relatively small, shallowly divided, more or less dentate underleaves, and in its dioicous reproduction (Hong 1989). Photo from the Project area.

Gentianella tenella (Rottb.) Börner	VASCULAR PLANT
	Conservation Rank: GS4 (Secure), but this appears to be in error; known from very few localities in Nunavut.
	Habitat: Various open, sparsely vegetated sites, especially on sand; calciphilic.
	This species is easily differentiated from *G. propinqua,* which also grows in the Project area, by its wide-spreading, pale bluish corolla lobes, and its calyx, which only loosely clasps the corolla. Additionally, the growth form of *G. tenella* is more diffuse, with more numerous branches from lower on the stem (Porsild & Cody 1980). Photo from the Project area.

Halerpestes cymbalaria (Pursh) Greene	VASCULAR PLANT
	Conservation Rank: Not ranked in NatureServe's General Status Ranks.
	Habitat: Muddy, saline soil of shorelines and marshes.
	This small buttercup is easily identified by its creeping, stoloniferous growth form; shallow, roundly lobed leaves; small flowers; and saline habitat. *Ranunculus hyperborea* is somewhat similar, but has, among other differences, floating stems when submerged, and more deeply divided leaves with a different leaf lobe shape. Photo from Saskatchewan.

***Hedwigia ciliata* (Hedw.) P. Beauv.**	**MOSS**
	Conservation Rank: Not ranked, previously known in Nunavut from a single locality (Schultz Lake). Habitat: Rock faces, mostly where acidic, but likely also nitrophilic. This unmistakable genus is identified by the unpigmented, hence white, distal portion of its leaves. *Hedwigia stellaris* is a species of warmer climates that differs from *H. ciliata* in its singly papillose leaf cells. Those papillae are frequently branched in *H. stellaris*, which can cause them to appear similar to those of *H. ciliata*. However, at high magnification, the multiple papillae of *H. ciliata* can be seen to be free to the base (Eckel 2012). Photo from British Columbia.

***Hypogymnia imshaugii* Krog sensu lato**	**LICHEN**
	Conservation Rank: Not ranked, first found in Nunavut in 2012, known (even in the broad sense) in the Arctic only from the Hope Bay and Bathurst Inlet areas. Habitat: Tangled among mosses and other lichens, or growing directly on rock. The local species is part of *Hypogymnia imshaugii* sensu lato, and an ongoing study in the complex will likely result in the Nunavut populations being raised as a new species for science. Non-sorediate forms of *H. physodes* may appear similar, but lack the gaping pores on the lobe tips, and have flatter, more consistently appressed lobes. Non-sorediate forms of *H. vittata* may also be confused with this species, but have numerous small side-lobes and a lead-grey colour. Photo from the Project area.

Kobresia sibirica (Turcz. ex Ledeb.) Boeckeler	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive). Habitat: Loamy soil in tundra, calciphilic. *Kobresia* species may be mistaken for *Carex*, but differ in that their perigynia are unfused, with overlapping margins free nearly to the base. Within *Kobresia,* which is represented in North America by three or four species, *K. sibirica* differs from the others by the large size of its flowering and fruiting structures. The North American form may be endemic and the name *K. sibirica* misapplied. If so, then the correct name for the present plants would be *K. hyperborea* A.E. Porsild (Ball 2002) Photo from the Project area.

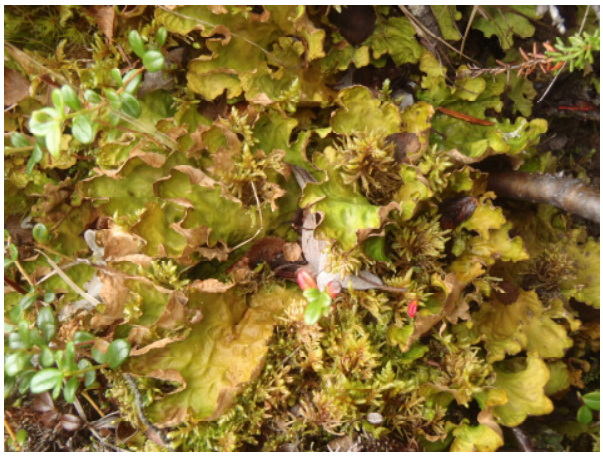
Leciophysma finmarkicum Th. Fr.	**LICHEN**
	Conservation Rank: S2S3 (Sensitive). Habitat: Seep rock faces and rock pools; calciphilic. Distinguished from other gel lichens by the presence of *Nostoc* as the photosynthetic symbiotic partner; its spherical black apothecia; its coralloid thallus; and its broadly elliptic, simple spores (Jørgensen 2007a). Photo from the Project area.

***Lempholemma radiatum* (Sommerf.) Henssen**	**LICHEN**
	Conservation Rank: S1 (At risk)
	Habitat: Over sandy or loamy soil, calciphilic.
	Lempholemma is a morphologically incoherent genus of species groups that are probably not closely related. The present species is one of the standouts in the genus, having elongated, strap-shaped lobes and an adnate growth form in contrast to the foliose or microfruticose form of the other species groups of *Lempholemma*. A very rare species worldwide, *L. radiatum* is known from few collections worldwide. Photo from the Project area.

***Leptogium schraderi* (Bernh.) Nyl.**	**LICHEN**
	Conservation Rank: SU (Not ranked due to lack of supporting specimens; the record obtained on this Project is the first documented from Nunavut).
	Habitat: On soil in sparsely vegetated sites, calciphilic.
	This peculiar species is easily identified by its columnar growth and wrinkled surface when dry. It is related to *L. turgidum* (see next species account), which along with *L. plicatile* differs in having a rosettiform growth of adnate lobes, and isidia present over its upper surface in the centres of the thalli. Photo from the Project area.

Leptogium turgidum (Ach.) Cromb.	LICHEN
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Over soil and mosses, calciphilic. From *Leptogium plicatile*, this species (in its North American species concept) differs in its terricole habitat, duller gloss, and broader lobes. A world-wide study is needed to elucidate species boundaries in the complex. North American populations may be distinct species in contrast to Eurasian ones. Photo from British Columbia.

Lichinella nigritella (Lettau) P.P. Moreno & Egea	LICHEN
	Conservation Rank: Not ranked, first discovered for Nunavut in 2012 (Bathurst Inlet), and now known from only two localities in Nunavut. Habitat: Calcareous rock faces. *Lichinella nigritella* has a jet-black colour and glossy upper surface, giving it an appearance quite distinct from nearly all other cyanolichens in the Arctic. The specimen collected in the study area is abundantly fertile (unusual in this species), confirming the identification by the observation of thallinocarp type apothecia. Photo from British Columbia.

***Lobaria linita* (Ach.) Raben.**	**LICHEN**
	Conservation Rank: S1S2 (At risk). Habitat: Among mosses and other lichens in mossy tundra. This species is easily identified by the warm green colour and reticulate texture of its upper surface, and by the patchy bare portions of its whitish hairy lower surface. *Nephroma expallidum* may appear similar, but its upper surface is less glossy, it has a bluer green colour above, and a nearly hairless lower surface. Photo from the Northwest Territories.

***Lobaria scrobiculata* (Scop.) DC.**	**LICHEN**
	Conservation Rank: S1 (At risk). Habitat: On rock faces; elsewhere also epiphytic. *Lobaria scrobiculata* is extremely rare in the Canadian Arctic. In Nunavut it was previously known only from two collections. Most occurrences of this species are in mild, oceanic climates or humid sub-boreal forest. It has no close lookalikes in Nunavut, and differs from all other lichens in the territory in the combination of its velvety upper and lower surfaces, creamy yellowish to light gray-purple colouration, its patches of soredia (asexual reproductive structures), and in having a cyanobacterium as the photosynthetic lichen partner rather than a green alga (Goward et al. 1994). Photo from Nunavut (Bathurst Inlet).

***Oxytropis deflexa* var. *foliolosa* (Hook.) Barneby**	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive). Habitat: Various open sites, especially where sandy or gravelly; calciphilic. Other *Oxytropis* in Nunavut lack leaves on their stems. *Astragalus* species differ in having their flower keel (two fused lower petals) lacking a recurved tooth. In the absence of flowers, similar-appearing *Astragalus* species in the Project area can be distinguished from *O. deflexa* by their green leaves with more widely spaced leaflets and taller, leafier stems. Photo from the Project area.

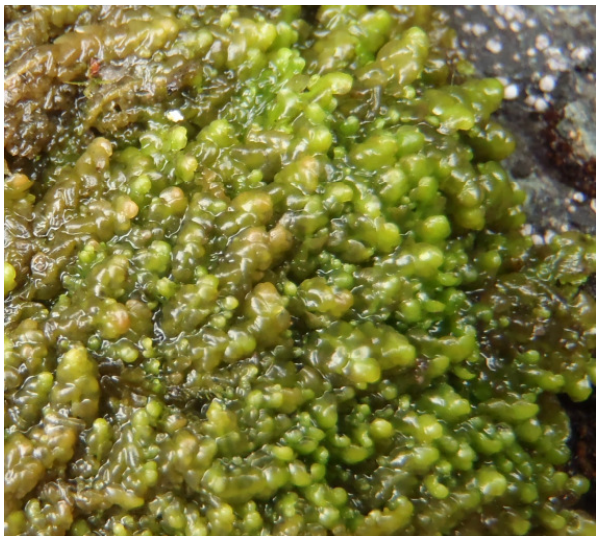
***Oxytropis nigrescens* var. *uniflora* (Hook.) Barneby (non *O. arctobia*)**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system. Habitat: Locally found on sandy marine beach. *Oxytropis* in North America remain poorly understood. The distinctions between species are often difficult to observe on herbarium specimens, leading to misinterpretations of type specimens and misapplication of names. The *O. nigrescens* complex is no exception. In Nunavut, *Oxytropis arctobia* (also found in the Project area) and *O. nigrescens* ssp. *pygmaea* are the only other members of the complex known. From the former, the present plants differ in having more elongated stems and a non-pulvinate growth form, and a different leaflet shape. The latter may be misapplied in Nunavut, and is a less densely hairy plant and a pulvinate growth form. Photo from the Project area, shown with *Oxytropis Arctica* (upper, greener plant).

Petasites sagittatus **(Banks ex Pursh) A. Gray**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system, apparently overlooked. Habitat: Marshes and shores, moderately calciphilic. An unmistakable species, with its large, arrow-shaped leaves, rhizomatous growth, and its subumbellate inflorescence. There are no similar species in the Arctic. Other *Petasites* species have lobed or more prominently toothed leaves of a more or less round or ovate shape. Photo from the Project area.

Plantago canescens **Adams**	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive). Habitat: Sandy marine shores, calciphilic and/or halophilic. *Plantago canescens* is a highly distinctive plant within the Nunavut flora, not likely to be confused with anything else due to its distinctive whisker-like leaf hairs, spike of inconspicuous brownish flowers, and habitat. The only other *Plantago* known in the territory is *P. maritima*, which has much narrower, hairless leaves. Photo from the Project area.

***Potentilla uschakovii* Jurtzev sensu lato**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system. Habitat: Sandy and gravelly marine shores. This plant is one of two that have been erroneously named as *P. rubricaulis* in earlier Arctic work. *P. uschakovii* differs from that species in its softer, silky hairs and more northerly distribution. Similar is *P. pedersenii*, which has more numerous flowers per stem, narrower petals, and non-marcescent leaves. From typical *P. uschakovii* (from Wrangel Island, Russia), and what is usually referred to as *P. uschakovii* in the Canadian Arctic (Elven et al. 2014, Ertter et al. 2008), the plants in the Project area differ in having a less dense growth form, without the characteristic column-like stems, and the flowers are more numerous per stem (though fewer than in *P.* pedersenii). These plants are highlighted as a conservation priority due to their distinct morphology, which suggests that they may be yet another to be delimited from *P. rubricaulis*, constituting a rare species. Photo from the Project area.

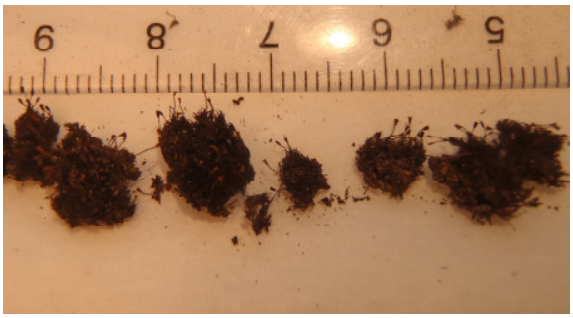
***Puccinellia Arctica* (Hook.) Fernald & Weath.**	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive). Habitat: Brackish clay and mud along or near marine shores. *Puccinellia* is well represented in the Arctic with numerous species, many of which are difficult to differentiate. *P. Arctica* is distinct from similar species by the combination of having lemmas hairy over the back, but smooth or nearly so along the margins; panicles with three to five branches at the lowest node; and anthers 1.2 to 2.2 mm long. Photo from the Project area, showing several tufts of *P. Arctica* on a nearly bare clay mound of marine sediments left stranded by isostatic rebound.

***Radula holtii* Spruce**	**LIVERWORT**
	Conservation Rank: Not ranked, new discovery in Nunavut. Habitat: Cool, humid, sheltered rock faces. *Radula* is rarely encountered in regions so far north, being mostly a temperate genus. Compared to the more widespread *R. complanata*, *R. holtii* is a darker, smaller plant with smaller leaves. It also tends to grow in wetter sites than *R. complanta*. Photo from the Project area.

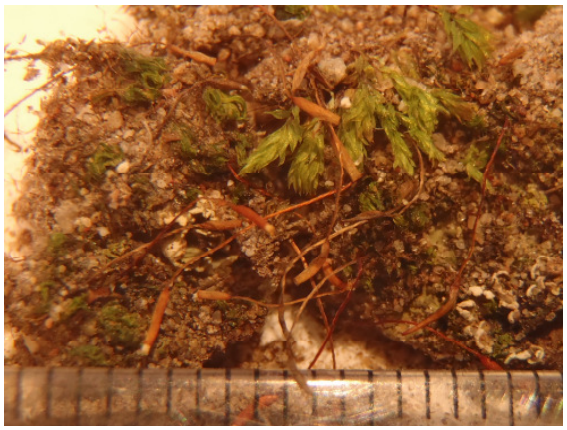
***Ramalina almquistii* Vain.**	**LICHEN**
	Conservation Rank: S1S2 (At risk). Habitat: Rocky, open, windblown sites. This species differs from other *Ramalina* of the Arctic in its thin, weak cortex, which disintegrates in eroding fissures and holes, and in its lack of soredia. It is morphologically diverse, and probably represents more than one species, each of which would be conservation priorities for their rarity. Photo from the Project area.

***Salix ovalifolia* var. *ovalifolia* Trautv.**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system, first found in NU in 2012 (Bathurst Inlet).
	Habitat: Moist ground where rather densely vegetated and moderately saline.
	This species is distinguished based on its low-growing, but not dwarf growth form, with stems mostly 20 to 30 cm tall. Its leaves are hairless and broadly ovate to broadly elliptical, with a blunt to rounded apex, a reticulated and glossy upper surface, and a whitish waxy coating on the lower side. They are held on short petioles with only inconspicuous stipules at the base. The branches are yellow-brown and hairless. The fruits also are hairless (Argus 2010). Photo from the Project area.

***Salix* sp. 1**	**VASCULAR PLANT**
	Conservation Rank: Not ranked in the GS system, a species discovered new for science in 2012 (Bathurst Inlet area).
	Habitat: Sandy or gravelly ground, especially on eskers.
	This new species of willow is similar to *S. sphenophylla* in having catkins from lateral buds; leaves reddish, especially when young; relatively long catkins; and gradually tapering, hairy ovary. *Salix* sp. 1 differs in its brown to red-brown branches (as opposed to brown to yellow-brown), its consistently evenly hairy ovaries, and its more eastern range. Additionally, its styles are shorter than those of *S. sphenophylla*. Photo from the Project area.

***Seligeria subimmersa* Lindb.**	**MOSS**
	Conservation Rank: Not ranked, new discovery in Nunavut.
	Habitat: Rock crevices, calciphilic.
	This tiny species differs from other North American *Seligeria* in the combination of its blackish colour, subulate leaves with a long-excurrent costa, abruptly contracted capsule base, and small spores (Vitt 2007). Photo of specimen from the Project area.

***Sphagnum platyphyllum* (Lindb.) Warnst.**	**MOSS**
	Conservation Rank: Not ranked, new discovery in Nunavut.
	Habitat: Marshes and shores, often submerged or floating.
	This species is easily recognized by its lax stems; brown colour; prominent apical bud; and its broad stem and branch leaves, which, unlike nearly all other *Sphagna*, are only weakly differentiated (Laine et al. 2009). It is also often recognizable by its habitat when growing submerged or floating along lake shores. Photo from British Columbia.

Tortula cuneifolia (Dicks.) Turner	**MOSS**
	Conservation Rank: Not ranked. Previously known in Nunavut from a single locality (Cornwallis Island).
	Habitat: Loamy soil on cliff ledges.
	T. cuneifolia differs from other *Tortula* species in North America in the combination of its 32 filiform, twisted peristome teeth, shorter capsule, and smooth leaf cells. The specimen gathered in the Project area does not agree with the Nunavut-endemic *T. cuneifolia* var. *blissii* (known only from the type collection, Cornwallis Island), differing in having longer green, not blackish leaves; longer capsules; and slender seta (Zander 2007b). Photo from the Project area.

Tuckermanopsis americana (Spreng.) Hale	**LICHEN**
	Conservation Rank: S1S2 (At risk).
	Habitat: Epiphytic, especially on twigs.
	This species is unique among North American *Tuckermanopsis* in its ciliate lobe margins and broad lobe shape. *T. ciliaris* is very similar but usually has narrower lobes. Further, *T. americana* contains alectoronic acid, lacking in *T. ciliaris*, which contains olivetoric acid instead. Photo from British Columbia.

Utricularia intermedia Hayne	**VASCULAR PLANT**
	Conservation Rank: GS3 (Sensitive). Habitat: Submerged aquatic, moderately calciphilic. *U. intermedia* can be distinguished from similar species of *Utricularia* by the combination of bristle tipped leaf segments and by having its bladders (complex traps on the leaves that capture and digest invertebrates) on thin, pallid, leafless stems, and never on green, leafy stems. Photo from Nunavut (Bathurst Inlet).