

Appendix 15-B

List of Potential Rare Plants Occurring in the Local Study Area

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /
Environmental Impact Statement**

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Species	BC List ¹	SARA ²	COSEWIC ³	BC Status ⁴	Global Status ⁵
Vascular Plants					
<i>Agoseris lackschewitzii</i> (pink agoseris)	Blue			S2S3	G4
<i>Antennaria corymbosa</i> (flat-top pussytoes)	Red			S1	G5
<i>Azolla mexicana</i> (Mexican mosquito fern)	Red	1-T	T	S2	G5
<i>Botrychium ascendens</i> (upswept moonwort)	Red			S2	G3
<i>Botrychium crenulatum</i> (dainty moonwort)	Blue			S2S3	G3
<i>Botrychium hesperium</i> (western moonwort)	Blue			S2S3	G4
<i>Botrychium lineare</i> (Linear-leaf moonwort)	Red			S1	G2?
<i>Botrychium montanum</i> (mountain moonwort)	Red			S1S2	G3
<i>Botrychium paradoxum</i> (two-spiked moonwort)	Red			S1S2	G3G4
<i>Botrychium pedunculatum</i> (stalked moonwort)	Red			S2	G2G3
<i>Botrychium simplex var. compositum</i> (least moonwort)	Blue			S2S3	G5TNR
<i>Botrychium spathulatum</i> (spoon-shaped moonwort)	Red			S1	G3
<i>Carex adusta</i> (lesser brown sedge)	Red			S1	G5
<i>Carex comosa</i> (bearded sedge)	Red			S2	G5
<i>Carex praeceptorum</i> (teacher's Sedge)	Red			S1S3	G4G5
<i>Carex scopulorum var. prionophylla</i> (saw-leaved sedge)	Red			S2	G5T3?
<i>Carex tenera</i> (tender sedge)	Blue			S2S3	G5
<i>Draba cinerea</i> (gray-leaved draba)	Blue			S2S3	G5
<i>Draba densifolia</i> (Nuttall's draba)	Blue			S2S3	G5
<i>Draba fladnizensis</i> (Austrian draba)	Blue			S2S3	G4

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<i>Draba lonchocarpa</i> var. <i>vestita</i> (lance-fruited draba)	Blue			S2S3	G5T3Q
<i>Draba ruaxes</i> (coast mountain draba)	Blue			S2S3	G4
<i>Draba ventosa</i> (Wind River draba)	Blue			S2S3	G3
<i>Dryopteris cristata</i> (crested wood fern)	Blue			S2S3	G5
<i>Epilobium davuricum</i> (northern swamp willowherb)	Red			S1S3	G5
<i>Epilobium halleanum</i> (Hall's willowherb)	Blue			S2S3	G5
<i>Epilobium oregonense</i> (Oregon willowherb)	Blue			S2S3	G5
<i>Epilobium saximontanum</i> (Rocky Mountain willowherb)	Red			S1S3	G5
<i>Impatiens aurella</i> (orange touch-me-not)	Blue			S2S3	G4?
<i>Isoetes bolanderi</i> (Bolander's quillwort)	Red		T	S1S2	G4
<i>Juncus stygius</i> (bog rush)	Blue			S2S3	G5
<i>Mitella caulescens</i> (leafy mitrewort)	Blue			S2S3	G5
<i>Pellaea gastonyi</i> (Gastony's cliff-brake)	Blue			S2S3	G2G3
<i>Pinus albicaulis</i> (whitebark pine)	Blue	1-E	E	S2S3	G3G4
<i>Salix boothii</i> (Booth's willow)	Blue			S2S3	G5
<i>Stellaria obtusa</i> (blunt-sepaled starwort)	Blue			S2S3	G5
Mosses					
<i>Andreaea sinuosa</i> (small-spored rock-moss)	Red			S1S2	G2
<i>Atrichum tenellum</i> (slender smoothcap)	Blue			S2S3	G4G5
<i>Bartramia halleriana</i> (Haller's apple-moss)	Red	1-T	T	S2	G4G5
<i>Claopodium pellucinerøe</i> (no common name)	Red			S1S2	G3G5

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<i>Dicranum flagellare</i> (whip heron's-bill moss)	Blue			S3	G5
<i>Dicranum montanum</i> (mountain heron's-bill moss)	Blue			S3	G5
<i>Encalypta brevipes</i> (no common name)	Blue			S2S3	G3
<i>Grimmia mollis</i> (no common name)	Blue			S2S3	G5
<i>Orthotrichum cupulatum</i> (hooded bristle-moss)	Blue			S2S3	G4G5
<i>Orthotrichum hallii</i> (no common name)	Red			S2	G4
<i>Schistidium venetum</i> (no common name)	Red			S1	GNR
<i>Sphagnum jensenii</i> (no common name)	Red			S1S2	GU
<i>Stereocleus serrulatus</i> (no common name)	Red			S1S2	G5
<i>Ulotia curvifolia</i> (no common name)	Blue			S3	G3G5
<i>Warnstorfia tundrae</i> (no common name)	Red			S2	GU
Lichens					
<i>Ahtiana sphaerosporella</i> (whitebark candlewax)	Blue			S2S3	G5
<i>Baeomyces carneus</i> (scale beret)	Red			S1	GNR
<i>Catolechia wahlenbergii</i> (tundra lemon)	Red			S1	G3G5
<i>Cladonia cyanipes</i> (greater greenhorn)	Blue			S2S4	GNR
<i>Cladonia luteoalba</i> (lemon thatch)	Blue			S2S3	G2G3
<i>Cladonia parasitica</i> (fence-rail thatch)	Red			S1S2	G3G5
<i>Collema bachmanianum</i> (tar tarpaper)	Red			S2	GNR
<i>Collema cristatum</i> var. <i>marginale</i> (fingered tarpaper)	Red			S2	G3G5TNR
<i>Collema polycarpon</i> (shaly tarpaper)	Red			S2	GNR

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<i>Dermatocarpon atrogranulosum</i> (charred stippleback)	Red			S1	GNR
<i>Dermatocarpon leptophyllodes</i> (jigsaw stippleback)	Blue			S2S4	GNR
<i>Dermatocarpon moulinsii</i> (shag stippleback)	Red			S1	GNR
<i>Fuscopannaria aurita</i> (eared crackers)	Blue			S2S3	G3G5
<i>Hypogymnia canadensis</i> (canuckle bone)	Blue			S3	GNR
<i>Hypogymnia recurva</i> (recoiling bone)	Red			S1S3	GNR
<i>Lasallia pensylvanica</i> (blistered rocktripe)	Blue			S3	G3G5
<i>Lempholemma polyanthes</i> (chewing-gum tar)	Blue			S2S3	GNR
<i>Leptogium intermedium</i> (fourty-five vinyl)	Blue			S2S3	GNR
<i>Leptogium plicatile</i> (starfish vinyl)	Blue			S3?	G3?
<i>Leptogium tenuissimum</i> (lilliput vinyl)	Red			S2?	GNR
<i>Nephroma helveticum</i> ssp. <i>helveticum</i> (dog's paw)	Blue			S3	G4G5TNR
<i>Parmeliella parvula</i> (poor-man's crisps)	Blue			S2S3	GNR
<i>Peltigera castanea</i> (chestnut pelt)	Red			S1	GNR
<i>Peltigera gowardii</i> (waterfan)	Red		SC	S1S2	G4GNR
<i>Phaeophyscia adiastrum</i> (granulated shadow)	Red			S1	G4?
<i>Phaeophyscia decolor</i> (lesser eye shadow)	Blue			S2S3	G3G5
<i>Phaeophyscia kairamoi</i> (whiskered shadow)	Blue			S3	G3G4
<i>Phaeophyscia nigricans</i> (one-horse shadow)	Red			S1	G4
<i>Physciella chloantha</i> (downside shade)	Blue			S3	G5?

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<i>Placynthium stenophyllum</i> var. <i>isidiatum</i> (sepia ink)	Blue			S3	G2G4T2T4
<i>Santessoniella saximontana</i> (mountain dust bunnies)	Red			S1	G1
<i>Solorina bispora</i> (lesser tundra owl)	Blue			S2S3	G3G5
<i>Solorina octospora</i> (greater tundra owl)	Blue			S3	G3G5
<i>Solorina spongiosa</i> (fringed owl)	Red			S2	G4G5
<i>Stereocaulon glareosum</i> (alpine soil-foam)	Blue			S2S3	G5
<i>Stereocaulon symphycheilum</i> (two-toned foam)	Red			S1S2	G3
<i>Synalissa symphorea</i> (eyed rockgorgon)	Blue			S3	GNR
<i>Thallinocarpon nigritellum</i> (black rocklicorice)	Blue			S3	G4G5
<i>Thyrea confusa</i> (candied gummybear)	Blue			S2S3	G3G5
<i>Umbilicaria lambii</i> (windward rocktripe)	Blue			S3	G2G4

Table Notes

BC List¹ (BC Conservation Data Centre 2014a):

Red List: Includes any ecological community, and indigenous species and subspecies that is extirpated, endangered, or threatened in British Columbia. Extirpated elements no longer exist in the wild in British Columbia, but do occur elsewhere. Endangered elements are facing imminent extirpation or extinction. Threatened elements are likely to become endangered if limiting factors are not reversed. Red-listed species and sub-species may be legally designated as, or may be considered candidates for legal designation as Extirpated, Endangered or Threatened under the Wildlife Act. Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation.

Blue List: Includes any ecological community, and indigenous species and subspecies considered to be of special concern (formerly vulnerable) in British Columbia. Elements are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed elements are at risk, but are not Extirpated, Endangered or Threatened.

SARA² – Species at Risk Act (Government of Canada 2002):

1-E: Schedule 1 Endangered – the species is “...facing imminent extirpation or extinction”

1-T: Schedule 1 Threatened – the species is “...likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction”

1-SC: Special Concern – the species “...may become threatened or endangered because of a combination of biological characteristics and identified threats.”

COSEWIC³ – Committee on the Status of Endangered Wildlife in Canada (COSEWIC 2012b):

E: Endangered – the species is “...facing imminent extirpation or extinction.”

T: Threatened – the species is “...likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.”

SC: Special Concern – the species “...may become threatened or endangered because of a combination of biological characteristics and identified threats.”

PREP: Status report for the species is in preparation

BC Status⁴ and Global Status⁵: BCCDC and NatureServe rankings. ‘S’ ranks refer to the taxon’s status in BC, while ‘G’ ranks refer to the taxon’s global status. ‘T’ ranks are reserved for infraspecific taxa (subspecies and varieties). The number or letter following the ‘S’, ‘G’, or ‘T’ rank indicates the taxon’s degree of rarity based on the following scale (NatureServe 2011):

X: Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.

H: Possibly Extinct – Missing; known from only historical occurrences but still some hope of rediscovery.

1: Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

2: Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

3: 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.

4: Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

5: Secure – Common; widespread and abundant.

U: Unrankable

NR: Unranked