

## A VASCULAR FLORA OF THE CARIBOU RANGE, NORTHWEST TERRITORIES, CANADA<sup>1</sup>

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Only in recent years has access to large areas of the Canadian western subarctic become possible to ecologists and botanists. Since 1972 we have been carrying on ecological investigations on the role of forest fires in a 105,000 sq km area of subarctic forest (Figure 1). The region extends from 60° N latitude north to tree line and from longitude 104° W to 112° W. It is called the Caribou Range because it serves as the primary wintering ground for the Beverley caribou population, the largest caribou population in Canada.

Only three other floristic reports deal with parts of this area: Harper (1931), Raup (1936), and Scotter (1966). Of these Scotter is the most pertinent. Because of the nature of our ecological research, collections reflect the uplands and peatlands with only cursory collections in aquatic and strand habitats. Figure 1 shows the locations in which collections were made; all transportation in the region is by boat or float equipped aircraft as there are no roads.

The Caribou Range is located on the Precambrian Shield and consists mainly of an Archaean crystalline basement with Proterozoic intrusives. The bedrock is covered to varying thicknesses by an assortment of glacial formed features. East of approximately longitude 109° W the landscape is covered with molded till with many extensive esker trains. West of longitude 109° W the till becomes thinner with much bedrock exposed.

Climatically the region has short cool summers and long cold winters. The mean January temperature at Fort Smith on the southern edge of the region is -26° C and mean July temperature is 17° C. The annual precipitation for the region is approximately 250 mm. Snow occurs first in early October and melts in May. Snow patches in protected locations can be found into July.

The Caribou Range includes small patches of tundra and parts of two forest sections in the Halliday classification (Rowe 1972), viz. from southwest to northeast, the Northwestern Transition (B.27) and the Forest-Tundra (B.32). These vegetation belts correspond

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<sup>1</sup>This paper is dedicated to the memory of Prof. A. R. Hodgdon.





approximately to what Hustich (1949) and Hare (1950) recognized east of Hudson Bay as "Open Boreal Woodland" or "Taiga" and "Forest-Tundra Ecotone" or "Forest Tundra".

The general physiognomy of the vegetation in the Caribou Range is as follows: Upland sites are mostly dominated by closed or open forests of black spruce (*Picea mariana*) and jack pine (*Pinus banksiana*). White spruce (*Picea glauca*) is a common component of forests on coarse-textured materials, for example on outwash sand plains and esker ridges. It is also the prominent tree adjacent to moving water, reaching a large size on alluvium. It is very common on areas adjacent to Great Slave Lake. Aspen (*Populus tremuloides*) is not a conspicuous tree except in areas of pronounced relief in the south and west. White birch (*Betula neoalaskana* Sarg.), on the other hand, is common throughout the forested area and extends to the tundra.

Peatland sites are generally dominated by open forests of black spruce. Tamarack (*Larix laricina*) occurs infrequently with the black spruce. Treeless lichen-covered peat plateaus become more common and polygonally patterned towards tree line. Aquatic sphagna and/or sedges are common in wet depressions within these peatland sites. Meadows with *Carex* and *Eriophorum* also occur on mucky or peaty lake margins.

More detailed vegetation and floristic studies relevant to this region are Argus (1966), Maini (1966), Larsen (1971), Johnson and Rowe (1975), and Johnson (1975, 1977a,b). Nomenclature follows Hultén (1968) except in *Betula* which follows Dugle (1966) and in *Salix* which follows Argus (1973). Other species not found in Hultén follow the nomenclature of Moss (1959). Numbers in the annotated list are collection numbers of one of the authors (E.A.J.). All specimens cited here are deposited in the W. P. Fraser Herbarium, University of Saskatchewan. Coordinates are given for unnamed lakes. The lake locally known as Forestry Lake is near Andrech Lake. All other lakes can be located on National Topographic Surveys Maps of 1:250,000 scale.

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#### ANNOTATED LIST OF SPECIES

##### LYCOPODIACEAE

**Lycopodium annotinum** L. ssp. **annotinum**. Porter Lake — common in black spruce-lichen woodland, 610. Forestry Lake — uncommon with *Alnus crispa*, *Betula glandulosa*, 1224.

**Lycopodium complanatum** L. Porter Lake — uncommon in recently burned area, 617, 641. Snowdrift — uncommon in white spruce woodland. Forestry Lake — common in black spruce-lichen woodland, 879; recently burned area, 1289.

**Lycopodium obscurum** L. var. **dendroideum** (Michx.) D.C. Eat. Porter Lake — rare on edge of sphagnum bog.

##### EQUISETACEAE

**Equisetum arvense** L. Common throughout area on wet sandy or peaty sites. Rutledge Lake, 1141.

**Equisetum fluviatile** L. ampl. Ehrh. Common throughout area in protected sandy bays of lakes and rivers. Rutledge Lake, 1134.

**Equisetum scirpoides** Michx. Porter Lake — common in moist feather moss forests. Snowdrift — common in moist black spruce, white spruce-lichen woodlands. Found on east-facing slope, 718.



**Equisetum silvaticum** L. Common throughout area in moist upland and lowland sites and recently burned areas. Forestry Lake, 894.

#### CRYPTOGRAMMACEAE

**Cryptogramma crispa** (L.) R. Br. var. **acrostichoides** (R. Br.) Clarke. Snowdrift — common in moist crevices of rock outcroppings, 745. D'Aoust Lake — common on top of esker, 1030.

#### ATHYRIACEAE

**Cystopteris fragilis** (L.) Bernh. Snowdrift — uncommon on rock outcroppings.

**Woodsia ilvensis** (L.) R. Br. Uncommon on rock outcroppings. Porter Lake, 656, 1064. Snowdrift, 786.

#### ASPIDIACEAE

**Dryopteris fragrans** (L.) Schott. Porter Lake — common in crevices of rock outcroppings and among boulders, 645, 1064. Snowdrift.

**Gymnocarpium dryopteris** (L.) Newm. Rare in moist birch stand. Porter Lake.

**Gymnocarpium robertianum** (Hoffm.) Newm. Forestry Lake — rare in crevices of exposed bedrock in a recently burned lichen woodland, 881.

#### POLYPODIACEAE

**Polypodium vulgare** L. var. **virginianum** (L.) Eaton. Uncommon on rock outcroppings. Snowdrift. Porter Lake, 634.

#### PINACEAE

**Pinus Banksiana** Lamb. Common throughout area on sandy uplands and rocky ridges. Porter Lake, 608.

**Larix laricina** (DuRoi) K. Koch. Uncommon throughout area in bog forests with black spruce. Forestry Lake, 888.

**Picea glauca** (Moench) Voss. Common throughout area on coarse-textured materials of outwash plains and esker ridges and along streams. Porter Lake — common on esker, 896. Forestry Lake — common on esker, 1232. Rutledge Lake, 923.

**Picea mariana** (Mill.) Britt., Sterns & Pogg. Common throughout area on mineral soil, rock outcroppings and peatlands. Porter Lake — common in lichen woodland, 609.

#### CUPRESSACEAE

**Juniperus communis** L. ssp. **nana** (Willd.) Syme. Common throughout area on south-facing sandy or rocky slopes. Porter Lake — common with *Picea glauca*, 600.

**Juniperus horizontalis** Moench. Snowdrift — common on south-facing rock outcroppings, 721.

#### TYPHACEAE

**Typha latifolia** L. Porter Lake — rare along edge of marsh with *Carex* spp.

#### SPARGANIACEAE

**Sparganium angustifolium** Michx. Common in water 2–4 feet deep. Snowdrift, 840. Forestry Lake, 871.

**Sparganium minimum** (Hartm.) E. Fries. Snowdrift — common in water 2–3 feet deep, 842.

#### POTAMOGETONACEAE

**Potamogeton alpinus** Balb. Snowdrift — rare submerged in shallow water, 858.

**Potamogeton filiformis** Pers. Snowdrift — rare in water 3 feet deep, 860.

**Potamogeton perfoliatus** L. ssp. **Richardsonii** (Bennett) Hult. Snowdrift — common in 2–3 feet of water, 861. Porter Lake, Forestry Lake — uncommon in shallow water.

JUNCAGINACEAE

**Triglochin maritimum** L. Rutledge Lake — uncommon along lakeshore, 1127.

GRAMINEAE

**Phalaris arundinacea** L. Snowdrift — rare in shallow water along sandy shore, 854.

**Hierochloë alpina** (Sw.) Roem. & Schult. Forestry Lake — common on sandy esker in white spruce-lichen woodland, 1243.

**Oryzopsis pungens** (Torr.) Hitchc. Snowdrift — rare in sandy jack pine area, 766.

**Agrostis scabra** Willd. Snowdrift — rare on moist slope, 777. Forestry Lake — common in recently burned area, 1293. D'Aoust Lake — uncommon in burned area top of esker, 1031.

**Calamagrostis canadensis** (Michx.) Beauv. Snowdrift — common along lakeshore, 811; uncommon in white spruce-lichen woodland on bedrock, 733. Unnamed lake (60° 18'N, 107° 20'W) — common in recently burned area, 1274.

**Calamagrostis canadensis** (Michx.) Beauv. ssp. **Langsdorffi** (Link) Hult. Common throughout area along lakeshores and in open upland forests. Forestry Lake, 876.

**Calamagrostis inexpansa** Gray. Unnamed lake (60° 18'N, 107° 20'W) — common in recently burned area, 1292.

**Calamagrostis lapponica** (Wahlenb.) Hartm. MacInnis Lake — common on bedrock slope, 1033.

**Calamagrostis neglecta** (Ehrh.) Gaertn., Mey. & Schreb. Common in recently burned upland areas. Siltaza Lake, 1016. Porter Lake, 1041, 1067. Forestry Lake, 1285. Uncommon in wet depressions. Porter Lake, 952, 973. Uncommon in black spruce-lichen woodland. Wholdaia Lake, 1282.

**Calamagrostis purpurascens** R. Br. ssp. **purpurascens**. Snowdrift — common in white spruce and jack pine-lichen woodland, 729, 782. Forestry Lake — uncommon on sandy ridge, 877. D'Aoust Lake — uncommon in recent burn, 1054. Alcantara Lake, 1296.



**Deschampsia caespitosa** (L.) Beauv. ssp. **caespitosa**. Snowdrift — rocky sand shore, 812.

**Trisetum spicatum** (L.) Richter ssp. **majus** (Vasey) Hult. Common in lichen woodland on bedrock. Porter Lake, 659. Snowdrift, 696, 697, 833.

**Beckmannia erucaeformis** (L.) Host. Snowdrift — rare on sandy shore with *Agrostis*, 838.

**Poa alpigena** (E. Fries) Lindm. Rare on exposed bedrock in lichen woodland. Snowdrift, 781. Porter Lake, 665.

**Poa alpina** L. Snowdrift — rare on recently burned exposed bedrock, 831.

**Poa glauca** M. Vahl. Common throughout area on dry upland sites, moister slopes, burned areas. Porter Lake, 631, 642, 663. Snowdrift, 700, 707. Siltaza Lake, 1015. D'Aoust Lake, 1052. Forestry Lake, 1242.

**Glyceria borealis** (Nash) Batchelder. Snowdrift — rare on sandy shore of river, 846.

**Festuca saximontana** Rydb. Common throughout area on dry sandy areas and exposed bedrock. Snowdrift, 778, 779. Forestry Lake. Porter Lake, 661. D'Aoust Lake — uncommon on recently burned area on top of esker, 1032.

**Agropyron subsecundum** (Link) Hitchc. Snowdrift — uncommon in open black spruce-lichen woodland, 794.

**Agropyron violaceum** (Hornem.) Lange. Snowdrift — rare on exposed bedrock, 832.

**Hordeum jubatum** L. Snowdrift — common in disturbed areas around settlement, 847.

#### CYPERACEAE

**Eriophorum angustifolium** Honck. Porter Lake — common in *Sphagnum recurvum* bog pools with *Carex* spp., 897, 920, 977.

**Eriophorum brachyantherum** Trautv. & Mey. Common throughout area in *Sphagnum riparium* — *S. recurvum* bog pools. Porter Lake, 962. Forestry Lake, 1082, 1089.



**Eriophorum russeolum** E. Fries. Common throughout area in bog pools of *Sphagnum recurvum* and *Carex* species. Porter Lake, 902, 962, 897, 966. Forestry Lake, 1080, 1089.

**Eriophorum vaginatum** L. ssp. **spissum** (Fern.) Hult. Forestry Lake — uncommon on lichen-covered peat plateau, 1082.

**Eriophorum vaginatum** L. ssp. **vaginatum**. Porter Lake — uncommon in *Sphagnum fuscum* bog forests with ericaceous shrubs, 1057. Uncommon on *Sphagnum balticum*, *S. magellanicum* mounds, 963.

**Trichophorum caespitosum** (L.) Hartm. Porter Lake — uncommon with *Carex* sp. on collapsed palsa, 985. Unnamed lake (60°23'N, 108°05'W) — common in sphagnum bog with *Chamaedaphne calyculata* and *Andromeda polifolia*, 1253.

**Eleocharis palustris** (L.) Roem. & Schult. Porter Lake — rare in slow moving water.

**Carex aenea** Fern. Common in recently burned black spruce-lichen upland forests. Porter Lake, 642. Forestry Lake, 882. Siltaza Lake, 1020. Unnamed lake (61°42'N, 108°14'W), 1068.

**Carex albo-nigra** Mack. Snowdrift — rare in open jack pine-lichen woodland on bedrock, 783.

**Carex aquatilis** Wahlenb. Porter Lake — common in *Sphagnum fuscum* bog forests, 936, 945, 947, 948, 974, 984, 987, 1060. Common in *Sphagnum recurvum* bog pool with *Carex* spp., 976. Forestry Lake — common in *Sphagnum recurvum* — *S. riparium* bog pools with *Carex* spp., 1094, 1095. Snowdrift — common on rocky sand shore, 810.

**Carex brunnescens** (Pers.) Poir. Uncommon in recently burned areas. Unnamed lake (60°42'N, 108°14'W), 1069A. Porter Lake, 1073. Unnamed lake (60°18'N, 107°20'W), 1275. Uncommon in black spruce upland forest. Flett Lake, 1279.

**Carex canescens** L. Porter Lake — common in *Sphagnum recurvum* bog pools, 910. Common in fen pool with brown mosses, 958. Rare on collapsed palsa mound with *Scirpus caespitosus*, 986.

**Carex capillaris** L. Porter Lake — rare on exposed bedrock in open black spruce-lichen woodland, 660.

**Carex deflexa** Hornem. Common in recently burned upland areas. MacInnis Lake, 1034. Unnamed lake (60°50'N, 110°07'W), 1040. Porter Lake, 1074. Alcantara Lake, 1300.

**Carex foena** Willd. Common throughout area on sandy eskers and recent upland burns. Porter Lake, 663. Siltaza Lake, 1026. D'Aoust Lake, 1062. Forestry Lake, 1241. Alcantara Lake, 1294, 1299.

**Carex gynocrates** Wormsk. Porter Lake — common on treeless lichen-covered peat plateau, 913.

**Carex lasiocarpa** Ehrh. Rutledge Lake — found in shallow water, 1138.

**Carex limosa** L. Common in *Sphagnum recurvum* — *S. riparium* bog pools. Porter Lake, 907, 916, 925, 956, 960, 961, 965. Forestry Lake, 1097.

**Carex magellanica** Lam. Common throughout area in *Sphagnum riparium* — *S. recurvum* bog pools. Forestry Lake, 1090, 1093, 1096, 1200. Common throughout area on *S. balticum*, *S. magellanicum* mounds with ericaceae. Porter Lake, 922, 964. Found in fen pool with brown mosses. Porter Lake, 959.

**Carex norvegica** Retz. Rutledge Lake — found along lakeshore, 1139.

**Carex praticola** Rydb. Selwyn Lake — uncommon in recent burn, 1287.

**Carex rariflora** (Wahlenb.) J. E. Sm. Forestry Lake — common in *Sphagnum riparium* and *S. recurvum* pools, 1083, 1214.

**Carex rostrata** Stokes. Common in shallow water along lakes. Forestry Lake, 895, 1244.

**Carex rotundata** Wahlenb. Common in *Sphagnum recurvum* bog pools on peat plateaus. Porter Lake, 905. Forestry Lake, 1078, 1215.

**Carex saxatilis** L. var. **major** Olney. Snowdrift — rare on rocky sand shore, 809, 814. Rutledge Lake — found along lakeshore, 1140.

**Carex scirpoidea** Michx. Snowdrift — uncommon in open white spruce-lichen woodland, 709.



**Carex supina** Willd. ssp. **spaniocarpa** (Steud.) Hult. Snowdrift — uncommon in open jack pine-lichen woodland on bedrock, 784.

**Carex vaginata** Tausch. Snowdrift — common in white spruce-lichen woodland, 698, 701, 710. Porter Lake — uncommon in bog forest, 946.

#### ARACEAE

**Calla palustris** L. Forestry Lake — uncommon in shallow water along a stream, 868.

#### LEMNACEAE

**Lemna trisulca** L. Snowdrift — rare in bay of Great Slave Lake, 857.

#### JUNCACEAE

**Juncus arcticus** Willd. Snowdrift — rare in shallow water and along lake shore.

**Juncus filiformis** L. Snowdrift — rare along sandy shore of Snowdrift River, 843. Forestry Lake — uncommon on sandy beach, 1210.

#### LILIACEAE

**Tofieldia pusilla** (Michx.) Pers. Porter Lake — rare in sphagnum bog with open black spruce, 647, 934. Snowdrift — common in sphagnum bogs and moist slopes, 705.

**Allium schoenoprasum** L. var. **sibiricum** (L.) Hartm. Snowdrift — uncommon on gravel shores of river and on sandbars, 765, 799.

**Smilacina trifolia** (L.) Desf. Selwyn Lake — rare in moist area in black spruce woods, 885. Forestry Lake — common in *Sphagnum recurvum* bog pools, 1091.

#### ORCHIDACEAE

**Cypripedium passerinum** Richards. Snowdrift — common in moist areas on north-facing slopes with *Picea mariana* or *P. glauca*, 823.

**Amerorchis rotundifolia** (Banks) Hult. Snowdrift — common in moist areas on north-facing slopes with *Picea mariana* or *P. glauca*.

**Platanthera obtusata** (Pursh) Lindl. Snowdrift — common in moist areas on north-facing slopes with *Picea mariana* and *P. glauca*, 703.

**Corallorrhiza trifida** Châtelain. Snowdrift — rare in moist areas on north-facing slope with *Picea mariana* and *P. glauca*, 704, 780.

**Calypso bulbosa** (L.) Rchb. f. Snowdrift — uncommon in white spruce lichen-woodland, 715, 815.

#### SALICACEAE

**Populus balsamifera** L. ssp. **balsamifera**. Porter Lake — rare on sandy beach. Snowdrift — common along sandy and rocky shore.

**Populus tremuloides** Michx. Porter Lake — rare on exposed bedrock in black spruce-lichen woodland, 653. Snowdrift — uncommon on exposed bedrock slopes, 720. Forestry Lake.

**Salix alaxensis** (Anderss.) Cov. var. **alaxensis**. Snowdrift — found on rocky sand beach, 836.

**Salix arctophila** Cock. ex Heller. Porter Lake — found in open black spruce-lichen woodland on exposed bedrock, 651. Found on *Sphagnum fuscum* hummocks with *Carex* spp., 933, 1059.

**Salix bebbiana** Sarg. Common in recently burned areas. Porter Lake, 611, 635. Sparks Lake, 1045. Unnamed lake (60°19'N, 107°07'W), 1267. Flett Lake, 1284A. Alcantara Lake, 1295. Found along lake shore. Unnamed lake (60°10'N, 108°30'W), 1258. Found in black spruce-lichen woodland. Flett Lake, 1280.

**Salix glauca** L. Common throughout area in recently burned areas. Porter Lake, 615, 1072. Snowdrift, 807, 808. Siltaza Lake, 1013, 1014, 1021. Unnamed lake (61°49'N, 110°04'W), 1043. Unnamed lake (60°18'N, 107°06'W), 1271, 1272. Flett Lake, 1284B. Alcantara Lake, 1298. Found in black spruce, white spruce-lichen woodland. Snowdrift, 788. Found in black spruce-feather moss forest. Porter Lake, 931. Found in black spruce-glandular birch woodland. Sandy Lake, 1277. Unnamed lake (60°18'N, 107°06'W), 1286. MacInnis Lake, 1035.



**Salix myrtillofolia** Anderss. Porter Lake — common in bog forest on *Sphagnum fuscum* hummocks with ericaceous shrubs and sedges, 949.

**Salix planifolia** Pursh ssp. **planifolia**. Porter Lake — found in depression with *Sphagnum recurvum* and sedges, 975. Flett Lake — found in black spruce-birch-lichen woodland, 1283.

**Salix scouleriana** Barr. Forestry Lake — rare in black spruce-birch forest, 1276.

#### MYRICACEAE

**Myrica gale** L. var. **tomentosa** C.DC. Common throughout area along lake shores on peat or sand. Forestry Lake, 892, 1245.

#### BETULACEAE

**Betula glandulosa** Michx. Common throughout area on upland spruce-lichen woodlands. Forestry Lake — common on esker with *Picea glauca*, *Stereocaulon paschale*, *Empetrum nigrum*, 1234. Porter Lake — common in recently burned area, 640.

**Betula neoalaskana** Sarg. Porter Lake — common in open black spruce, white spruce-lichen woodland, 601, 603, 618, 625, 629, 672; common in recently burned areas, 616, 636. Forestry Lake — common on esker with *Picea glauca*, *Empetrum nigrum*, *Stereocaulon paschale*, 1233.

**Betula papyrifera** Marsh. Uncommon throughout area along streams and on upland mineral soils. Snowdrift — found in open black spruce-white spruce-lichen woodland, 789.

**Betula** × **sargentii** Dugle. Snowdrift — found in open white spruce-lichen woodland, 690.

**Betula** × **uliginosa** Dugle. Porter Lake — uncommon in recently burned area, 614; uncommon in open black spruce-lichen woodland, 671.

**Alnus crispa** (Ait.) Pursh. Common throughout area on upland mineral soils and peatland sites. Porter Lake 613, 652. Snowdrift, 722.

***Alnus incana*** (L.) Moench. ssp. ***tenuifolia*** (Nutt.) Breitung. Snowdrift — uncommon along shoreline in sandy locations. Rare on moist uplands, 805.

## URTICACEAE

***Urtica gracilis*** Ait. Snowdrift — rare around townsite, 862.

## SANTALACEAE

***Geocaulon lividum*** (Richards.) Fern. Common throughout area on eskers and rock outcroppings. Porter Lake, 602. Snowdrift, 692. Forestry Lake, 1238.

## POLYGONACEAE

***Rumex mexicanus*** Meisn. Snowdrift — uncommon along the Snowdrift River, 849.

***Polygonum achoreum*** Blake. Snowdrift — common around townsite, 848.

***Polygonum viviparum*** L. Siltaza Lake — rare in bog forest, 1012.

## CHENOPODIACEAE

***Chenopodium album*** L. Snowdrift — rare around townsite, 853.

***Chenopodium capitatum*** (L.) Aschers. Snowdrift — rare in disturbed areas near townsite and on burns, 821.

## CARYOPHYLLACEAE

***Stellaria monantha*** Hult. Snowdrift — rare in open white spruce-lichen woodland on bedrock, 711.

***Minuartia dawsonensis*** (Britt.) Mattf. Snowdrift — uncommon in moist areas of white spruce-lichen woodland on bedrock, 712.

***Moehringia lateriflora*** (L.) Fenzl. Snowdrift — uncommon in open white spruce-lichen woodland on bedrock, 764.



NYMPHEAECEAE

**Nuphar variegatum** Engelm. Common along streams and lake-shores in shallow water. Porter Lake. Forestry Lake, 887, 1087. Unnamed lake (60° 50'N, 110° 07'W), 1036.

RANUNCULACEAE

**Aquilegia brevistyla** Hook. Snowdrift — uncommon on rocky shore with *Populus balsamifera*, 714.

**Anemone multifida** Poir. Snowdrift — found in open white spruce-lichen woodland on bedrock, 713.

**Pulsatilla patens** (L.) Mill. Common on south-facing slopes in lichen woodland. Porter Lake, Snowdrift, Whirlwind Lake.

**Ranunculus lapponicus** L. Porter Lake — rare along stream with *Picea glauca* overstory.

**Ranunculus reptans** L. Snowdrift — common along lakeshore, 801. Forestry Lake — uncommon in wet peaty area, 1211.

**Ranunculus trichophyllus** Chaix. var. **trichophyllus**. Forestry Lake — common in shallow water, 869.

FUMARIACEAE

**Corydalis aurea** Willd. Snowdrift — uncommon in one-year old burn near townsite, 817.

**Corydalis sempervirens** (L.) Pers. Common in dry lichen woodland on exposed bedrock slopes and disturbed area. Porter Lake, 649, 955. Snowdrift, 772.

CRUCIFERAE

**Capsella bursa-pastoris** (L.) Medic. Snowdrift — rare around townsite, 851.

**Draba aurea** Vahl. Snowdrift — uncommon in recently burned area, 835; rare in open white spruce-lichen woodland on bedrock, 732.

**Descurainia pinnata** (Walt.) Britt. var. **brachycarpa** (Richards.) Fern. Snowdrift — rare around townsite, 864.

**Descurainia sophia** (L.) Prantl. Snowdrift — rare around townsite, 852.

**Arabis arenicola** (Richards.) Gelert. Alcantara Lake — rare in recent burn on sandy esker, 1297.

**Arabis Drummondii** Gray. Snowdrift — found in recently burned area, 834.

**Arabis Holboellii** Hornem. Snowdrift — uncommon in lichen woodland with *Arctostaphylos uva-ursi*, 792.

#### DROSERACEAE

**Drosera anglica** Huds. Porter Lake — uncommon in *Carex aquatilis* — aquatic sphagna bog pools, 991.

**Drosera rotundifolia** L. Unnamed lake (60°23'N, 108°05'W) — common in *Sphagnum fuscum* bog forests, 1255.

#### SAXIFRAGACEAE

**Saxifraga aizoides** L. Snowdrift — common on dry rock outcroppings with *Picea glauca*, 702.

**Saxifraga nivalis** L. Snowdrift — uncommon growing in crevices in rock outcroppings, 744A.

**Saxifraga tricuspidata** Rottb. Common on sandy eskers. Porter Lake, 638, 996. Forestry Lake, 1239.

**Parnassia Kotzebuei** Cham. & Schlecht. Porter Lake — rare along rocky beach.

**Parnassia palustris** L. ssp. **neogaea** (Fern.) Hult. Snowdrift — uncommon along sandy-rock beach, 855. Unnamed lake (60°23'N, 108°05'W) — common in sphagnum bog bordering lake growing with *Trichophorum caespitosum*, *Eriophorum*, 1254. Rutledge Lake — uncommon along sandy shores, 1137.

**Ribes glandulosum** Grauer. Uncommon on recently burned upland sites with *Betula papyrifera* and *Vaccinium vitis-idaea*. Porter Lake, 612, Siltaza Lake, 1022. Unnamed lake (60°18'N, 107°20'W), 1273.



**Ribes hudsonianum** Richards. Porter Lake — uncommon along streams. Snowdrift — uncommon in recently burned areas with dense *Alnus* cover, 803.

**Ribes oxyacanthoides** L. Porter Lake — uncommon on dry rocky slopes and recently burned areas. Snowdrift — common on dry uplands.

**Ribes triste** Pall. Snowdrift — uncommon in recently burned area, 804.

#### ROSACEAE

**Amelanchier alnifolia** (Nutt.) Nutt. Snowdrift — common on dry rock slopes, 723. Conway Lake — common in sandy area, 1055.

**Rubus arcticus** L. ssp. **acaulis** (Michx.) Focke. Uncommon in sphagnum bogs. Porter Lake, 930. Unnamed lake (60°23'N, 108°05'W), 1256.

**Rubus chamaemorus** L. Common throughout area in *Sphagnum fuscum* bogs. Forestry Lake, 891, 1248. Porter Lake, 909, 1039.

**Rubus idaeus** L. ssp. **melanolasius** (Dieck) Focke. Uncommon in recently burned areas on rocky slopes and bedrock areas. Siltaza Lake, 1053. Snowdrift, 802, 806.

**Fragaria virginiana** Duchesne ssp. **glauc**a (S. Wats.) Staudt. Snowdrift — common in open areas on stony slopes and exposed bedrock with *Picea glauca*, 731.

**Potentilla fruticosa** L. Snowdrift — found in recently burned area, 819.

**Potentilla nivea** L. Snowdrift — common in white spruce and jack pine-lichen woodlands on exposed bedrock, 728, 776.

**Potentilla norvegica** L. Snowdrift — common on sandy shore of Snowdrift River, 844. Porter Lake — uncommon in open black spruce-lichen woodland in sandy area, 675.

**Potentilla palustris** (L.) Scop. Forestry Lake — common along edge of *Sphagnum riparium* — *Carex limosa* bog pool, 1092. Rutledge Lake — common in moist areas along shore, 1136. Snowdrift — uncommon in open white spruce-lichen woodland on bedrock, 735.

**Potentilla tridentata** Ait. Unnamed lake (60°04'N, 108°30'W) — rare in boulder area near shore, 1259.

**Dryas Drummondii** Richards. Snowdrift — rare on rock outcroppings, 795.

**Dryas integrifolia** M. Vahl ssp. **integrifolia**. Snowdrift — common in open white spruce-lichen woodland on north-facing slope, 688.

**Rosa acicularis** Lindl. Porter Lake — common on dry south-facing slopes of eskers with *Picea glauca* overstory. Snowdrift — common in white spruce-lichen woodland on exposed bedrock, 724.

**Prunus pensylvanica** L. f. Snowdrift — rare in recently burned bedrock area, 796. Alcantara Lake — uncommon on sandy esker with *Populus tremuloides* and *Pinus Banksiana*, 1291.

#### LEGUMINOSAE

**Oxytropis splendens** Dougl. Snowdrift — uncommon in open white spruce-lichen woodland on bedrock, 713.

**Hedysarum alpinum** L. ssp. **americanum** (Michx.) Fedtsch. Snowdrift — common in white spruce-lichen woodland on exposed bedrock, 685.

#### GERANIACEAE

**Geranium Bicknellii** Britt. Snowdrift — rare on one-year-old burn around townsite, 828.

#### CALLITRICHACEAE

**Callitriche verna** L. emend. Lönnr. Forestry Lake — rare in shallow water at mouth of stream, 870.

#### VIOLACEAE

**Viola renifolia** Gray var. **Brainerdii** (Greene) Fern. Porter Lake — rare along small stream in moist *Betula papyrifera* woods.

#### ELAEAGNACEAE

**Shepherdia canadensis** (L.) Nutt. Snowdrift — common in white spruce and black spruce-lichen woodlands, 790, 691. Conway Lake, 1048.



## ONAGRACEAE

**Epilobium adenocaulon** Haussk. Snowdrift — rare on one-year old burn, 829. Rutledge Lake — common in recently burned areas, 1142, 1143.

**Epilobium angustifolium** L. ssp. **angustifolium**. Common throughout area in recently burned upland sites and rock outcroppings. Porter Lake — common on black spruce rock outcropping, 674; common on beach ridge, 997. Snowdrift — common in black spruce-white spruce-lichen woodland, 771.

**Epilobium glandulosum** Lehm. Unnamed lake (60° 10'N, 108° 30'W) — uncommon in recently burned area on rocky slope with *Pinus Banksiana*, *Betula papyrifera*, 1263. Snowdrift — found in recently burned area, 829.

**Epilobium latifolium** L. Common along sandy beaches and sandbars. Snowdrift. D'Aoust Lake, 1029.

## HALORAGACEAE

**Hippuris vulgaris** L. Common in shallow water. Forestry Lake, 866. Porter Lake, 1118.

## UMBELLIFERAE

**Cicuta Douglasii** (DC.) Coult. & Rose. Rutledge Lake — found in shallow water along stream, 1144.

**Cicuta mackenziana** Raup. Rutledge Lake — found in shallow water along stream, 1145.

## CORNACEAE

**Cornus canadensis** L. Selwyn Lake — rare in moist black spruce woods, 884. Conway Lake, 1049.

## PYROLACEAE

**Pyrola asarifolia** Michx. var. **asarifolia**. Conway Lake, 1050.

**Pyrola grandiflora** Radius. Snowdrift — uncommon along rocky shoreline, 856. Siltaza Lake — common in recently burned area, 1019.

**Pyrola minor** L. Snowdrift — common in white spruce-lichen woodland, 695.

**Pyrola secunda** L. ssp. **obtusata** (Turcz.) Hult. Snowdrift — common in moist areas of white spruce-lichen woodland, 726. Conway Lake, 1051.

**Moneses uniflora** (L.) Gray. Snowdrift — uncommon in black spruce-feather moss wood, 746.

#### EMPETRACEAE

**Empetrum nigrum** L. Common throughout area on dry upland sites and sphagnum bogs. Porter Lake — common on southeast-facing slope of esker, 604. Forestry Lake — common on esker, 1235.

#### ERICACEAE

**Ledum palustre** L. ssp. **decumbens** (Ait.) Hult. Common throughout area in sphagnum bogs and dry upland sites. Forestry Lake — common in sphagnum bog forest, 893; common in black spruce-feather moss forest, 1250.

**Ledum palustre** L. ssp. **groenlandicum** (Oeder) Hult. Common throughout area in sphagnum bogs and upland sites. Porter Lake — common in white spruce and black spruce-lichen woodland, 606, 630, 998. Forestry Lake — common in bog forest, 1249.

**Rhododendron lapponicum** (L.) Wahlenb. Snowdrift — common in white spruce-lichen woodland, 689.

**Loiseleuria procumbens** (L.) Desv. Forestry Lake — common in white spruce woods on esker, 1247. Porter Lake — uncommon on open sandy ridges, 632; rare on lichen covered peat plateau, 1075.

**Kalmia polifolia** Wang. ssp. **polifolia**. Porter Lake — uncommon in sphagnum bogs, 904.

**Andromeda polifolia** L. Common in moist areas in lichen woodland. Porter Lake, 669. Snowdrift, 708. Common in lichen covered bog forest. Porter Lake, 911. Common in *Sphagnum recurvum* - *S. riparium* bog pool. Forestry Lake, 1246.



**Chamaedaphne calyculata** (L.) Moench. Common throughout area in sphagnum bogs. Forestry Lake, 889, 1251.

**Arctostaphylos rubra** (Rehd. & Wilson) Fern. Porter Lake — rare in black spruce-sphagnum bog, 670. Snowdrift — common in black spruce-sphagnum bog, 699.

**Arctostaphylos uva-ursi** (L.) Spreng. Common throughout area on dry upland sites. Porter Lake — common on southeast-facing slope, 607. Forestry Lake — common on esker with *Picea glauca*, *Stereocaulon paschale*, *Empetrum nigrum*, 1240.

**Vaccinium caespitosum** Michx. Snowdrift — rare in black spruce-sphagnum bog.

**Vaccinium myrtilloides** Michx. Forestry Lake — common in recently burned upland areas, 1269. Selwyn Lake — rare on recently burned upland, 883.

**Vaccinium uliginosum** L. ssp. **alpinum** (Bigel.) Hult. Common throughout area on upland and peatland sites. Porter Lake — common in moist upland areas with *Picea mariana*, 639, 664. Snowdrift — common on north-facing bedrock slope, 693. Forestry Lake — common on esker with *Picea glauca*, *Stereocaulon paschale*, *Empetrum nigrum*, 1237.

**Vaccinium vitis-idaea** L. ssp. **minus** (Lodd.) Hult. Common throughout area on upland and peatland sites. Porter Lake — common on southeast-facing esker slope and open lichen woodland, 605, 637, 970. Forestry Lake — common on esker with *Picea glauca*, *Stereocaulon paschale*, *Empetrum nigrum*, 1236.

**Oxycoccus microcarpus** Turcz. Common throughout area in black spruce-sphagnum bogs. Porter Lake, 898. Forestry Lake, 1252. Common on recently burned bog forest. Porter Lake, 903.

**Oxycoccus palustris** Pers. Rutledge Lake — rare in black spruce-sphagnum bog, 1128. Forestry Lake — rare in *Sphagnum riparium* - *S. recurvum* bog mat, 1081.

#### PRIMULACEAE

**Androsace septentrionalis** L. Snowdrift — uncommon on disturbed soil around townsite and on recent burns.

## GENTIANACEAE

**Menyanthes trifoliata** L. Porter Lake — uncommon in small *Sphagnum recurvum* pools with *Carex* and *Eriophorum*, 899, 912.

## HYDROPHYLLACEAE

**Phacelia Franklinii** (R.Br.) Gray. Snowdrift — uncommon on disturbed areas around townsite, beaches and recent burns, 727, 830. Unnamed lake — rare on recently burned rocky slopes with *Pinus Banksiana*, *Betula papyrifera*, 1264.

## LABIATAE

**Dracocephalum parviflorum** Nutt. Snowdrift — rare in recently burned area, 818.

## SCROPHULARIACEAE

**Veronica scutellata** L. Rutledge Lake — found in shallow water, 1146.

**Castilleja Raupii** Pennell. Snowdrift — common in white spruce-lichen woodland, 686.

**Pedicularis labradorica** Wirsing. Snowdrift — common in moist areas of white spruce-lichen woodland, 706. Porter Lake — uncommon in mineral-influenced bog forest, 932.

## OROBANCHACEAE

**Boschniakia rossica** (Cham. & Schlecht.) Fedtsch. Snowdrift — uncommon on moist upland areas with *Picea mariana* and *P. glauca*, 725.

## LENTIBULARIACEAE

**Pinguicula villosa** L. Snowdrift — uncommon in sphagnum bogs with *Picea mariana*, 736. Porter Lake — common on *Sphagnum fuscum* hummocks, 971.

**Utricularia vulgaris** L. ssp. **macrorhiza** (Le Conte) Clausen. Forestry Lake — uncommon in slow moving water with *Nuphar variegatum*, 890.



PLANTAGINACEAE

**Plantago major** L. var. **major**. Snowdrift — rare on disturbed areas around townsite.

RUBIACEAE

**Galium boreale** L. Snowdrift — uncommon in open lichen woodland and recently burned area, 769, 824.

**Galium trifidum** L. Rutledge Lake — found in moist places, 1147.

**Viburnum edule** (Michx.) Raf. Rare on moist upland sites and along stream channels. Snowdrift — common in black spruce-white spruce-lichen woodland, 787. Nonacho Lake — uncommon in white birch-black spruce woods, 1038. Unnamed lake (60° 10'N, 108° 30'W) — uncommon along lakeshore in open jack pine woods, 1260. Porter Lake — uncommon in recently burned area, 630.

CAPRIFOLIACEAE

**Linnaea borealis** L. ssp. **borealis**. Common throughout area in feather moss forests. Snowdrift — common in white spruce-lichen woodland on bedrock, 719.

CAMPANULACEAE

**Campanula rotundifolia** L. Unnamed lake (60° 10'N, 108° 30'W) — rare in recently burned boulder area, 1257.

LOBELIACEAE

**Lobelia Dortmanna** L. Rutledge Lake — rare in two feet of water, 1130.

COMPOSITAE

**Solidago decumbens** Greene var. **oreophila** (Rydb.) Fern. Snowdrift — common on exposed bedrock, 773. Unnamed lake (60° 04'N, 108° 30'W) in open jack pine-lichen woodland, 1261.

**Aster sibiricus** L. Snowdrift — rare in recently burned lichen woodland on exposed bedrock, 820.

**Erigeron acris** L. ssp. **politus** (E. Fries) Schinz & Keller. Siltaza Lake — rare in recent burn, 1023. Snowdrift — found around townsite, 863.

**Erigeron elatus** Greene. Snowdrift — uncommon on sandy shores of Snowdrift River, 845.

**Antennaria rosea** Greene. Snowdrift — uncommon on south-facing exposed bedrock slopes or sandy areas, 770.

**Achillea lanulosa** Nutt. Snowdrift — common in open white spruce or jack pine-lichen woodland on exposed bedrock, 716, 775.

**Matricaria matricarioides** (Less.) Porter. Snowdrift — rare in disturbed areas around townsite, 865.

**Artemisia borealis** Pall. Snowdrift — uncommon in crevices in granite outcropping, 797. D'Aoust Lake — uncommon in recently burned sandy area, 1056.

**Artemisia campestris** L. Snowdrift — uncommon in open white spruce-lichen woodland on bedrock, 734.

**Petasites frigidus** (L.) Franch. Snowdrift — rare in moist area under *Alnus crispa* in recent burn, 816.

**Petasites sagittatus** (Banks) Gray. Rutledge Lake — rare in moist area along lakeshore, 1131.

**Arnica alpina** (L.) Olin. Porter Lake — uncommon on exposed bedrock in open black spruce-lichen woodland, 648, 650. Snowdrift — uncommon in recent burn, 826, 827.

**Arnica lonchophylla** Greene. Snowdrift — common in open lichen woodland, 785.

**Senecio congestus** (R.Br.) DC. Rutledge Lake — uncommon along lakeshore, 1132.

**Senecio cymbalarioides** Nutt. Snowdrift — common in open jack pine-lichen woodland on exposed bedrock and rocky sand shore, 774, 813.

**Senecio cymbalarioides** Nutt. var. **borealis** (Torr. & Gray) Greenm. Snowdrift — common on bedrock, 730, 744b; common in recently



burned area, 825. Unnamed lake (60°04'N, 108°30'W) — found in open jack pine-lichen woodland, 1262.

**Senecio pauciflorus** Pursh var. **fallax** Greenm. Porter Lake — found in black spruce-lichen woodland on bedrock, 666.

**Taraxacum ceratophorum** (Ledeb.) DC. Porter Lake — found in black spruce-lichen woodland on bedrock, 654; found on rocky shore of lake, 643.

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