

## APPENDIX A - PLANTS OF KOOTENAY NATIONAL PARK

This list is based on collections made during the ecological land classification and those in the KNP herbarium. Nomenclature for vascular plants follows primarily Packer (1983) and Hitchcock and Cronquist (1973), for liverworts Stotler and Crandall-Stotler (1977), for mosses Crum *et al.* (1973), and for lichens Hale and Culberson (1970) and Hawksworth *et al.* (1980). KNP has a total of 677 vascular taxa, 27 liverwort taxa, 133 moss taxa and 156 lichen taxa.

### LYCOPODIOPHYTA

#### LYCOPodiACEAE

- Lycopodium alpinum* L.  
*Lycopodium annotinum* L.  
*Lycopodium clavatum* L.  
*Lycopodium complanatum* L.  
\* *Lycopodium selago* L. <sup>V&E, M, J, P</sup>  
*Lycopodium sitchense* Rupr.

#### SELAGINELLACEAE

- Selaginella densa* Rydb.  
*Selaginella selaginoides* (L.) Link

### EQUISETOPHYTA

#### EQUISETACEAE

- Equisetum arvense* L.  
*Equisetum fluviatile* L.  
*Equisetum hyemale* L.  
*Equisetum pratense* Ehrh.  
*Equisetum scirpoides* Michx.  
*Equisetum sylvaticum* L.  
*Equisetum variegatum* Schleich.

### POLYPODIOPHYTA

#### OPHIOGLOSSACEAE

- Botrychium lunaria* (L.) Sw.  
*Botrychium matricariaefolium* (Doell) A. Br.  
*Botrychium virginianum* (L.) Sw.

#### POLYPODIACEAE

- Asplenium viride* Huds.  
*Athyrium filix-femina* (L.) Roth  
\* *Cheilanthes feei* Moore

- ✓ *Cystopteris fragilis* (L.) Bernh.
- ✗ *Cystopteris montana* (Lam.) Desv.
- Dryopteris assimilis* S. Walker
- Gymnocarpium dryopteris* (L.) Newm.
- Pellaea glabella* Mett. ex Kuhn
- Polystichum lonchitis* (L.) Roth
- Woodsia oregana* Eat.
- Woodsia scopulina* Eat.

## PINOPHYTA

### CUPRESSACEAE

- Juniperus communis* L.
- Juniperus horizontalis* Moench
- Juniperus scopulorum* Sarg.
- Thuja plicata* Don

### PINACEAE

- Abies lasiocarpa* (Hook.) Nutt.
- Larix lyallii* (DuRoi) Koch
- Larix occidentalis* Nutt.
- Picea engelmannii* Parry
- Picea glauca* (Moench) Voss
- Pinus albicaulis* Engelm.
- Pinus contorta* Loud. var. *latifolia* Engelm.
- ✗ *Pinus flexilis* James
- Pinus ponderosa* Dougl. ex Lawson
- Pseudotsuga menziesii* (Mirb.) Franco var. *glaucoides* (Beissn.) Franco
- Tsuga heterophylla* (Raf.) Sarg.

## MAGNOLIOPHYTA

### MAGNOLIATAE

### ACERACEAE

- Acer glabrum* Torr. var. *douglasii* (Hook.) Dippel

### APOCYNACEAE

- Apocynum androsaemifolium* L.

### ARALIACEAE

- Aralia nudicaulis* L.
- Oplopanax horridum* (Sm.) Miq.

## BERBERIDACEAE

*Berberis repens* Lindl.

## BETULACEAE

*Alnus crispa* (Ait.) Pursh = *A. viridis* (Chaix) DC. ssp. *crispa* (Ait.) Turr.  
*Betula glandulosa* Michx.  
*Betula occidentalis* Hook.  
*Betula papyrifera* Marshall  
*Betula pumila* L. var. *glandulifera* Regel  
*Betula x sargentii* Dugle

## BORAGINACEAE

*Cynoglossum officinale* L.  
♦ *Hackelia floribunda* (Lehm.) Johnston  
*Hackelia jessicae* (McGreg.) Brand  
*Lappula echinata* Gilib. = *L. squarrosa* (Retz.) Dumort.  
\* *Lithospermum incisum* Lehm.  
*Lithospermum ruderale* Douglas ex Lehm.  
*Mertensia longiflora* Greene  
*Myosotis alpestris* Schm.

## CAMPANULACEAE

*Campanula rotundifolia* L.

## CAPRIFOLIACEAE

*Linnaea borealis* L.  
♦ *Lonicera dioica* L.  
*Lonicera involucrata* (Rich.) Banks  
*Lonicera utahensis* Wats.  
*Sambucus coerulea* Raf.  
*Sambucus racemosa* L. var. *melanocarpa* (Gray) McMinn  
*Symporicarpos albus* (L.) Blake  
*Symporicarpos occidentalis* Hook.  
*Viburnum edule* (Michx.) Raf.

## CARYOPHYLLACEAE

*Arenaria capillaris* Poir.  
*Arenaria lateriflora* L. = *Moehringia lateriflora* (L.) Fenzl.  
*Cerastium arvense* L.  
*Cerastium beeringianum* Cham. & Schl.  
*Cerastium vulgatum* L.  
*Minuartia biflora* (L.) Schinz. & Thell. = *Arenaria sajanensis* Willd.  
\* *Minuartia dawsonensis* (Britt.) House  
*Minuartia elegans* (C. & S.) Schischk. = *Arenaria rossii* R.Br.  
\* *Minuartia nuttallii* (Pax) Briq. = *Arenaria nuttallii* Pax  
*Minuartia obtusiloba* (Rydb.) House = *Arenaria obtusiloba* (Rydb.) Fern.

- Minuartia rubella* (Wahl.) Graebn. = *Arenaria rubella* (Wahl.) Smith  
*Silene acaulis* L.  
 ✕ *Silene drummondii* Hook. = *Lychnis drummondii* (Hook.) Wats.  
*Silene menziesii* Hook.  
*Silene parryi* (Wats.) Hitchc. & Mag.  
*Silene scouleri* Hook.  
 ✕ *Silene uralensis* (Rupr.) Bocq. = *Lychnis apetala* L. subsp  
*Stellaria calycantha* (Ledeb.) Bong.  
 ✕ *Stellaria longipes* Goldie var. ?

## CELASTRACEAE

*Pachystima myrsinoides* (Pursh) Raf.

## CHENOPodiaceae

- Chenopodium album* L.  
*Chenopodium capitatum* (L.) Aschers.  
*Chenopodium fremontii* Wats.

## COMpositae

- Achillea millefolium* L.  
*Agoseris aurantiaca* (Hook.) Greene  
*Agoseris glauca* (Pursh) Raf.  
*Anaphalis margaritacea* (L.) Benth. & Hook.  
*Antennaria alpina* (L.) Gaertn.  
*Antennaria anaphaloides* Rydb.  
*Antennaria corymbosa* Nels.  
*Antennaria lanata* (Hook.) Greene  
 ✕ *Antennaria neglecta* Greene y<sup>h</sup> R.  
*Antennaria nitida* Greene = *A. microphylla* Rydb.  
*Antennaria parvifolia* Nutt.  
*Antennaria pulcherrima* (Hook.) Greene  
*Antennaria racemosa* Hook.  
*Antennaria rosea* Greene  
*Antennaria umbrinella* Rydb.  
*Anthemis tinctoria* L.  
*Arnica alpina* (L.) Olin = *A. angustifolia* Vahl  
*Arnica cordifolia* Hook.  
*Arnica latifolia* Bong.  
 ✕ *Arnica louseana* Fatt sub sp.  
*Arnica mollis* Hook.  
*Arnica parryi* Gray  
*Arnica rydbergii* Greene  
*Arnica sororia* Greene  
*Artemisia campestris* L.  
 ✕ *Artemisia cana* Pursh  
*Artemisia dracunculus* L.  
*Artemisia frigida* Willd.  
*Artemisia michauxiana* Bess.  
*Aster alpinus* L. var. *vierhapperi* Onno  
*Aster borealis* (Torr. & Gray) Prov.  
*Aster campestris* Nutt.  
*Aster ciliolatus* Lindl.  
*Aster conspicuus* Lindl.  
*Aster ericoides* L.

- Aster engelmannii* (D.C. Eat.) Gray  
*Aster foliaceus* Lindl. = *A. subspicatus* Nees  
*Aster laevis* L.  
*Aster laevis* Lindl.  
*Aster sibiricus* L.  
*Balsamorhiza sagittata* (Pursh) Nutt.  
*Chrysanthemum leucanthemum* L.  
*Chrysopsis villosa* (Pursh) Nutt. = *Heterotheca villosa* (Pursh) Shinners  
*Chrysantheminus nauseosus* (Pall.) Britt.  
*Cirsium arvense* (L.) Scop.  
*Cirsium hookerianum* Nutt.  
*Cirsium undulatum* (Nutt.) Spreng.  
*Crepis atrabarba* Heller  
*Crepis elegans* Hook.  
*Crepis nana* Richards.  
*Erigeron acris* L.  
*Erigeron aureus* Greene  
*Erigeron compositus* Pursh *var.* ?  
*Erigeron corymbosus* Nutt.  
*Erigeron elatus* Hook.  
*Erigeron filifolius* (Hook.) Nutt.  
*Erigeron glabellus* Nutt.  
*Erigeron humilis* Graham  
*Erigeron lanatus* Hook.  
*Erigeron lonchophyllus* Hook.  
*Erigeron pallens* Cronq. = *E. purpuratus* Greene ssp. *pallens* (Cronq.) G. Douglas  
*Erigeron peregrinus* (Pursh) Greene  
*Erigeron pumilus* Nutt.  
*Gaillardia aristata* Pursh  
*Haplopappus lyallii* Gray  
*Helenium autumnale* L. var. *grandiflorum* (Nutt.) Torr. & Gray  
*Hieracium albertinum* Farr = *H. cynoglossoides* Arv.-Touv.  
*Hieracium albiflorum* Hook.  
*Hieracium canadense* Michx.  
*Hieracium triste* Willd. ssp. *gracile* (Hook.) Calder and Taylor = *H. gracile* Hook.  
*Hieractum umbellatum* L.  
*Lactuca pulchella* (Pursh) DC. = *L.p.* ssp. *tatarica* (Pursh) Stebbins  
*Lactuca serriola* L.  
*Lygodesmia juncea* (Pursh) Don  
*Matricaria matricarioides* (Less.) Porter  
*Petasites palmatus* (Ait.) Gray  
*Petasites sagittatus* (Banks) Gray  
*Petasites vitifolius* Greene  
*Rudbeckia hirta* L.  
*Saussurea densa* (Hook.) Rydb. = *S. nuda* Ledeb. var. *densa* (Hook.) Hult.  
*Senecio canus* Hook.  
*Senecio congestus* (R. Br.) DC.  
*Senecio fremontii* Torr. & Gray  
*Senecio integrerrimus* Nutt. var. *exaltatus* (Nutt.) Cronq.  
*Senecio lugens* Richards.  
*Senecio pauperculus* Michx.  
*Senecio pseudoaureus* Rydb.  
*Senecio streptanthifolius* Greene  
*Senecio triangularis* Hook.  
*Solidago canadensis* L.  
*Solidago missouriensis* Nutt.  
*Solidago multiradiata* Ait.  
*Solidago nemoralis* Ait. *var.* ?  
*Solidago rigida* L. var. *humilis* Porter  
*Solidago spathulata* DC. var. *nana* (Gray) Cronq. = *S. decumbens* Greene  
*Solidago spathulata* DC. var. *neomexicana* (Gray) Cronq.  
*Sonchus arvensis* L.  
*Sonchus uliginosus* Bieb.

- Stephanomeria tenuifolia* (Torr.) Hall = *S. runcinata* Nutt.  
*Taraxacum ceratophorum* (Ledeb.) DC.  
*Taraxacum laevigatum* (Willd.) DC.  
*Taraxacum lyratum* (Ledeb.) DC.  
*Taraxacum officinale* Weber  
\* *Townsendia hookeri* Beaman  
*Tragopogon dubius* Scop.

#### CORNACEAE

- Cornus canadensis* L.  
*Cornus stolonifera* Michx.

#### CRASSULACEAE

- Sedum lanceolatum* Torr.  
*Sedum roseum* (L.) Scop.

#### CRUCIFERAE

- Arabis divaricarpa* Nels.  
*Arabis drummondii* Gray  
*Arabis glabra* (L.) Bernh.  
*Arabis hirsuta* (L.) Scop.  
*Arabis holboellii* Hornem.  
*Arabis lemmonii* Wats.  
*Arabis lyallii* Wats.  
*Arabis lyrata* L.  
\* *Arabis nuttallii* Robins.  
*Brassica campestris* L.  
*Braya humilis* (C.A. Meyer) Robins.  
*Capsella bursa-pastoris* (L.) Medic.  
*Cardamine breweri* Wats.  
*Cardamine oligosperma* Nutt.  
*Descurainia pinnata* (Walt.) Britt.  
*Descurainia richardsonii* (Sweet) O.E. Schulz  
*Descurainia sophia* (L.) Webb  
*Draba albertina* Greene  
*Draba aurea* Vahl  
*Draba borealis* DC.  
*Draba cana* Rydb.  
*Draba crassifolia* Grah.  
*Draba incerta* Payson  
*Draba lonchocarpa* Rydb. var. *lonchocarpa*  
*Draba oligosperma* Hook.  
*Draba paysonii* Macbr.  
\* *Draba porsildii* Mulligan  
*Draba praealta* Greene  
*Draba stenoloba* Ledeb.  
*Erucastrum gallicum* (Willd.) Schulz  
*Erysimum asperum* (Nutt.) DC.  
*Erysimum cheiranthoides* L.  
*Erysimum inconspicuum* (Wats.) MacM.  
*Lepidium densiflorum* Schrad.  
*Lepidium ramosissimum* Nels.  
*Lesquerella douglasii* Wats.  
*Physaria didymocarpa* (Hook.) Gray

*Rorippa islandica* (Oeder) Borbas. = *R. palustris* (L.) Besser  
*Sisymbrium altissimum* L.

DROSERACEAE

*Drosera anglica* Huds.

ELAEAGNACEAE

*Elaeagnus commutata* Bernh. ex Rydb.  
*Shepherdia canadensis* (L.) Nutt.

EMPETRACEAE

*Empetrum nigrum* L.

ERICACEAE

*Arctostaphylos rubra* Rehd. & Wils.  
*Arctostaphylos uva-ursi* (L.) Spreng.  
*Cassiope mertensiana* (Bong.) Don  
*Cassiope tetragona* (L.) Don var. *saximontana* (Small) Hitchc.  
*Gaultheria hispidula* (L.) Muhl.  
▲ *Gaultheria humifusa* (Graham) Rydb.  
*Gaultheria ovatifolia* Gray  
*Kalmia polifolia* Wang. var. *microphylla* (Hook.) Heller  
*Ledum glandulosum* Nutt.  
*Ledum groenlandicum* Oeder  
*Menziesia glabella* Gray = *M. ferruginea* Smith var. *glabella* (Gray) Peck  
*Oxycoccus microcarpus* Turcz.  
*Phyllodoce empetrifolia* (Sm.) Don  
*Phyllodoce glanduliflora* (Hook.) Coville  
*Phyllodoce x intermedia* (Hook.) Camp  
*Rhododendron albiflorum* Hook.  
*Vaccinium caespitosum* Michx.  
*Vaccinium membranaceum* Dougl. ex Hook.  
*Vaccinium myrtilloides* Michx.  
➤ *Vaccinium myrtillus* L.  
*Vaccinium ovalifolium* Sm.  
*Vaccinium scoparium* Leiberg  
*Vaccinium vitis-idaea* L.

FUMARIACEAE

*Corydalis aurea* Willd.

GENTIANACEAE

*Gentianella amarella* (L.) Borner  
*Gentianella propinqua* (Richards.) Gillett  
*Halenia deflexa* (Sm.) Griseb.

## GERANIACEAE

*Geranium bicknellii* Britt.  
*Geranium richardsonii* Fisch. & Trautv.  
*Geranium viscosissimum* Fisch. & Mey.

## HALORAGACEAE

*Myriophyllum exalbescens* Fern.

## HYDROPHYLACEAE

*Phacelia hastata* Dougl. ex Lehm. = *P. heterophylla* Pursh  
*Phacelia sericea* (Graham) Gray  
*Romanzoffia sitchensis* Bong.

## LABIATAE

*Mentha arvensis* L.  
*Prunella vulgaris* L.

## LEGUMINOSAE

\**Astragalus aboriginum* Richards.  
*Astragalus alpinus* L.  
*Astragalus americanus* (Hook.) Jones  
+*Astragalus bourgovii* Gray  
*Astragalus dasycnemus* Fisch. ex DC. = *A. agrestis* Dougl. ex Hook.  
*Astragalus eucosmus* Robins.  
+*Astragalus lotiflorus* Hook.  
*Astragalus miser* Dougl. var. *serotinus* (Gray) Barneby = *A. decumbens* (Nutt.) Gray  
+*Astragalus Robbinsii* (Oakes) Gray var. *occidentalis* Wats.  
*Hedysarum boreale* Nutt.  
*Hedysarum sulphurescens* Rydb.  
*Lathyrus ochroleucus* Hook.  
*Lupinus polyphyllus* Lindley  
*Medicago lupulina* L.  
*Medicago sativa* L.  
*Melilotus alba* Desr.  
*Melilotus officinalis* (L.) Lam.  
+*Oxytropis campestris* (L.) DC. *VAR. ANDRO*  
*Oxytropis deflexa* (Pall.) DC.  
*Oxytropis leucantha* (Pall.) Pers.  
\**Oxytropis podocarpa* Gray  
*Oxytropis sericea* Nutt.  
+*Thermopsis rhombifolia* (Nutt.) Richards.  
*Trifolium aureum* Poll. = *T. agrarium* L.  
*Trifolium hybridum* L.  
*Trifolium pratense* L.  
*Vicia americana* Muhl.  
*Vicia cracca* L.

## LENTIBULARIACEAE

✗ *Pinguicula vulgaris* L. ✓ *Pinguicula minor* L.

## LINACEAE

*Linum lewisii* Pursh

## LOBELIACEAE

*Lobelia kalmii* L.

## MENYANTHACEAE

*Menyanthes trifoliata* L.

## ONAGRACEAE

*Circaeа alpina* L.

*Epilobium alpinum* L. var. *alpinum* = *E. anagallidifolium* Lam.

*Epilobium alpinum* L. var. *clavatum* (Trel.) Hitchc. = *E. clavatum* Trel.

*Epilobium alpinum* L. var. *lactiflorum* (Haussk.) Hitchc. = *E. lactiflorum* Haussk.

*Epilobium alpinum* L. var. *nutans* (Hornem.) Hitchc. = *E. hornemannii* Reichenb.

*Epilobium angustifolium* L.

✓ *Epilobium glaberrimum* Barbey ✓ *Epilobium glaberrimum* Barbey

*Epilobium glandulosum* Lehm. = *E. ciliatum* Raf.

*Epilobium latifolium* L.

*Epilobium palustre* L.

*Epilobium paniculatum* Nutt.

*Epilobium watsonii* (Trel.) Hitchc. var. *occidentale* Barbey

## OROBANCHACEAE

*Orobanche fasciculata* Nutt.

## PLANTAGINACEAE

*Plantago major* L.

## POLEMONIACEAE

*Polemonium pulcherrimum* Hook.

## POLYGONACEAE

*Eriogonum umbellatum* Torr. = *E. subalpinum* Greene  
*Oxyria digyna* (L.) Hill  
*Polygonum amphibium* L. var. *stipulaceum* (Coleman) Fern.  
*Polygonum viviparum* L.

## PORTULACACEAE

*Claytonia lanceolata* Pursh

## PRIMULACEAE

*Androsace septentrionalis* L.  
*Dodecatheon conjugens* Greene  
*Dodecatheon pulchellum* (Raf.) Merr. = *D. radicatum* Greene  
*Primula mistassinica* Michx.

## PYROLACEAE

*Chimaphila umbellata* (L.) Bart.  
*Moneses uniflora* (L.) Gray  
*Pyrola asarifolia* Michx.  
↗ *Pyrola chlorantha* Sw. = *P. virens* Schweig.  
↗ *Pyrola elliptica* L.  
*Pyrola minor* L.  
↗ *Pyrola secunda* L. = *Orthilia secunda* (L.) House

## RANUNCULACEAE

*Actaea rubra* (Ait.) Willd.  
*Anemone drummondii* Wats.  
*Anemone multifida* Poir.  
*Anemone occidentalis* Wats.  
*Anemone parviflora* Michx.  
*Anemone patens* L.  
*Aquilegia brevistyla* Hook.  
*Aquilegia flavescens* Wats.  
↗ *Caltha leptosepala* DC. — *Yerba Amarga?*  
*Clematis tangutica* (Max.) Korsh.  
*Clematis verticillaris* DC. var. *columbiana* (Nutt.) Gray  
↗ *Delphinium bicolor* Nutt.  
*Delphinium glaucum* Wats.  
*Delphinium nuttallianum* Pritz. ex Walp.  
*Ranunculus abortivus* L.  
*Ranunculus acris* L.  
*Ranunculus cymbalaria* Pursh  
↗ *Ranunculus eschscholtzii* Schlecht. ✓  
↗ *Ranunculus inamoenus* Greene  
*Ranunculus occidentalis* Nutt.  
↗ *Ranunculus pedatifidus* J.E. Smith  
↗ *Ranunculus pygmaeus* Wahl.  
*Ranunculus reptans* L. = *R. flammula* L.  
↗ *Ranunculus verecundus* B.L. Robins.

*Thalictrum occidentale* Gray  
*Thalictrum venulosum* Trel.  
*Trollius albiflorus* (Gray) Rydb.

#### RHAMNACEAE

*Ceanothus sanguineus* Pursh  
*Ceanothus velutinus* Dougl. ex Hook.

#### ROSACEAE

*Amelanchier alnifolia* Nutt.  
*Dryas drummondii* Richards.  
*Dryas octopetala* L. var. *hookeriana* (Juz.) Breit.  
*Fragaria virginiana* Duchesne var. *glaucia* Wats.  
*Geum allepicum* Jacq.  
*Geum macrophyllum* Willd. var. *perincisum* (Rydb.) Raup  
*Geum triflorum* Pursh  
*Luetkea pectinata* (Pursh) Kuntze  
*Potentilla anserina* L.  
*Potentilla diversifolia* Lehm.  
*Potentilla fruticosa* L.  
*Potentilla gracilis* Dougl. ex Hook.  
↗ *Potentilla hyperborea* Malte  
*Potentilla nivea* L.  
*Potentilla norvegica* L.  
*Potentilla palustris* (L.) Scop.  
*Potentilla pensylvanica* L.  
*Prunus virginiana* L.  
*Rosa acicularis* Lindl.  
*Rosa woodsii* Lindl.  
*Rubus acaulis* Michx. = *R. arcticus* L. ssp. *acaulis* (Michx.) Focke  
*Rubus idaeus* L. = *R. strigosus* Michx.  
*Rubus parviflorus* Nutt.  
*Rubus pedatus* Smith  
*Rubus pubescens* Raf.  
*Sibbaldia procumbens* L.  
*Sorbus scopulina* Greene  
*Spiraea lucida* Dougl. = *Spiraea betulifolia* Pallas var. *lucida* (Dougl.) Hitchc.

#### RUBIACEAE

*Galium boreale* L.  
*Galium trifidum* L.  
*Galium triflorum* Michx.

#### SALICACEAE

*Populus x brayshawii* Boivin (*Populus angustifolia* James x *Populus balsamifera* L.)  
*Populus balsamifera* L. ssp. *trichocarpa* (Torr. & Gray) Brayshaw  
*Populus tremuloides* Michx.  
*Salix arctica* Pallas  
*Salix barclayi* Anders.  
*Salix barrattiana* Hook.  
*Salix bebbiana* Sarg.

*Salix brachycarpa* Nutt. ssp. *brachycarpa*  
*Salix candida* Fleuge ex Willd.  
*Salix commutata* Bebb  
*Salix drummondiana* Barr. ex Hook.  
*Salix farriae* Ball  
*Salix glauca* L. var. *villosa* (Hook.) Anders.  
*Salix melanopsis* Nutt.  
*Salix myrtillifolia* Anders.  
*Salix nivalis* Hook. = *S. reticulata* L. var. *nivalis* (Hook.) Anders.  
*Salix prolixa* Anders.  
*Salix pseudomonticola* Ball  
*Salix scouleriana* Barr. ex Hook.  
*Salix vestita* Pursh

#### SANTALACEAE

*Commandra pallida* A. DC.  
*Geocaulon lividum* (Richards.) Fern.

#### SAXIFRAGACEAE

*Heuchera cylindrica* Dougl. ex Hook.  
*Leptarrhena pyrolifolia* (Don) R. Br.  
*Lithophragma parviflora* (Hook.) Nutt.  
*Mitella breweri* Gray  
*Mitella nuda* L.  
*Mitella pentandra* Hook.  
*Mitella trifida* Graham  
*Parnassia fimbriata* Konig  
*Parnassia palustris* L.  
*Parnassia parviflora* DC.  
*Ribes hirtellum* Michx.  
*Ribes hudsonianum* Richards.  
*Ribes lacustre* (Pers.) Poir.  
*Ribes laxiflorum* Pursh  
Ribes oxyacanthoides L. <sup>var. angustifolium</sup>  
*Ribes viscosissimum* Pursh  
*Saxifraga adscendens* L.  
*Saxifraga aizoides* L.  
*Saxifraga bronchialis* L.  
*Saxifraga caespitosa* L.  
*Saxifraga cernua* L.  
*Saxifraga debilis* Engelm. = *S. rivularis* L.  
*Saxifraga ferruginea* Graham  
*Saxifraga lyallii* Engl.  
*Saxifraga occidentalis* Wats.  
*Saxifraga oppositifolia* L.  
*Saxifraga rhomboidea* Greene  
*Tiarella unifoliata* Hook.

#### SCROPHULARIACEAE

\**Castilleja cervina* Greenm.  
*Castilleja hispida* Benth.  
*Castilleja miniata* Dougl. ex Hook.  
† *Castilleja occidentalis* Torr.  
‡ *Castilleja rhexifolia* Rydb.

*Castilleja septentrionalis* Lindl. = *C. lutescens* (Greenm.) Rydb.  
*Collinsia parviflora* Dougl.  
*Melampyrum lineare* Desr.  
*Pedicularis bracteosa* Benth.  
\* *Pedicularis contorta* Benth.  
*Pedicularis racemosa* Dougl.  
*Penstemon confertus* Dougl.  
*Penstemon ellipticus* Coulter. & Fish.  
\* *Penstemon eriantherus* Pursh  
*Penstemon fruticosus* (Pursh) Greene  
*Veronica alpina* L.  
*Veronica americana* (Raf.) Schw.

#### UMBELLIFERAE

*Cicuta maculata* L. = *C. douglasii* (DC.) Coulter. & Rose  
*Heracleum lanatum* Michx.  
*Lomatium dissectum* (Nutt.) Math. & Const.  
*Lomatium macrocarpum* (Hook. & Arn.) Coulter. & Rose  
*Lomatium triternatum* (Pursh) Coulter. & Rose  
*Osmorhiza chilensis* Hook. & Arn.  
*Osmorhiza depauperata* Phil.  
*Osmorhiza purpurea* (Coulter. & Rose) Suksd.  
*Sanicula marilandica* L.

#### URTICACEAE

*Urtica dioica* L. ssp. *gracilis* (Ait.) Selander

#### VALERIANACEAE

\* *Valeriana sitchensis* Bong. *VATERIA*

#### VIOLACEAE

*Viola adunca* J.E.Smith  
*Viola glabella* Nutt.  
*Viola nephrophylla* Greene  
*Viola orbiculata* Geyer ex Hook.  
*Viola palustris* L.  
*Viola renifolia* Gray  
*Viola rugulosa* Greene = *V. canadensis* L. var. *rugulosa* (Greene) Hitchc.

#### LILIATAE

#### CYPERACEAE

*Carex aenea* Fern.  
*Carex albo-nigra* Mack.  
*Carex aquatilis* Wahl.  
*Carex atherodes* Spreng.  
*Carex atrosquama* Mack.

- Carex aurea* Nutt.  
*Carex bebbii* Olney ex Fern.  
*Carex brunneescens* (Pers.) Poir.  
*Carex buxbaumii* Wahl.  
*Carex capillaris* L.  
*Carex concinna* R.Br.  
*Carex concinnoides* Mack.  
 $\nwarrow$  *Carex crawei* Dewey  
*Carex deweyana* Schw.  
*Carex diandra* Schrank  
*Carex disperma* Dewey  
*Carex eburnea* Boott  
*Carex flava* L.  
*Carex garberi* Fern. var. *bifaria* Fern.  
*Carex gynocrates* Wormskj.  
*Carex haydeniana* Olney  
*Carex hoodii* Boott  
*Carex interior* Bailey  
*Carex lasiocarpa* Ehrh.  
*Carex leptalea* Wahl.  
*Carex limosa* L.  
*Carex livida* (Wahl.) Willd.  
*Carex macloviana* D'Urv.  
 $\nwarrow$  *Carex microglochin* Wahl.  
*Carex nardina* Fries  
*Carex nigricans* Meyer  
*Carex norvegica* Retz.  
*Carex pachystachya* Cham.  
*Carex paupercula* Michx.  
*Carex petasata* Dewey  
*Carex phaeocephala* Piper  
*Carex physocarpa* Presl. = *C. saxatilis* L.  
*Carex platylepis* Mack.  
*Carex praticola* Rydb.  
*Carex pyrenaica* Wahl.  
*Carex raymondii* Calder  
*Carex rossii* Boott  
*Carex rostrata* Stokes  
 $\nwarrow$  *Carex sartwellii* Dewey  
*Carex scirpoidea* Michx.  
*Carex scoparia* Schk.  
*Carex spectabilis* Dewey  
*Carex vaginata* Tausch.  
*Eleocharis acicularis* (L.) Roem. & Schul.  
*Eleocharis palustris* (L.) Roem. & Schul.  
 $\nwarrow$  *Eleocharis quinqueflora* (Hartm.) Schwartz  
*Eriophorum angustifolium* Honck. = *E. polystachion* L.  
*Eriophorum chamissonis* Meyer  
*Eriophorum viridi-carinatum* (Engelm.) Fern.  
*Kobresia myosuroides* (Vill.) Fiori & Paol. = *K. bellardii* (All.) Degl.  
*Kobresia simpliciuscula* (Wahl.) Mack.  
*Scirpus acutus* Muhl. ex Bigel.  
*Scirpus caespitosus* L.  
 $\nwarrow$  *Scirpus pumilis* Vahl  
*Scirpus validus* Vahl

## GRAMINEAE

- Agropyron pectiniforme* Roem. & Schul.  
*Agropyron repens* (L.) Beauv.  
*Agropyron spicatum* (Pursh) Scribn. & Sm.

- Agropyron trachycaulum* (Link) Malte var. *trachycaulum*  
*Agropyron violaceum* (Hornem.) Lange  
*Agrostis exarata* Trin.  
*Agrostis scabra* Willd.  
*Agrostis stolonifera* L.  
*Agrostis variabilis* Rydb.  
*Bromus carinatus* Hook. & Arn. = *B. marginatus* Nees  
*Bromus ciliatus* L.  
*Bromus inermis* Leyss. ssp. *inermis*  
*Bromus inermis* Leyss. ssp. *pumpellianus* (Scribn.) Wagnon  
*Bromus tectorum* L.  
*Bromus vulgaris* (Hook.) Shear  
*Calamagrostis canadensis* (Michx.) Beauv.  
*Calamagrostis inexpansa* Gray  
*Calamagrostis montanensis* Scribn.  
*Calamagrostis purpurascens* R. Br.  
*Calamagrostis rubescens* Buckl.  
*Cinna latifolia* (Trev.) Griseb.  
*Danthonia spicata* (L.) Beauv.  
*Deschampsia atropurpurea* (Wahl.) Scheele = *Vahlodea atropurpurea* (Wahl.) Fries  
*Deschampsia caespitosa* (L.) Beauv.  
*Elymus glaucus* Buckl.  
*Elymus innovatus* Beal  
*Festuca baffinensis* Polunin  
*Festuca campestris* Rydb.  
*Festuca occidentalis* Hook.  
*Festuca ovina* L. var. *brachyphylla* (Schultes) Piper  
*Festuca rubra* L.  
*Festuca scabrella* Torr. = *F. altaica* Trin.  
*Glyceria elata* (Nash) Hitchc.  
*Glyceria pulchella* (Nash) Schum.  
*Glyceria striata* (Lam.) Hitchc.  
*Hierochloe odorata* (L.) Beauv.  
*Hordeum jubatum* L.  
*Koeleria cristata* (L.) Pers. = *K. macrantha* (Ledeb.) Schul.  
*Melica smithii* (Porter) Vasey  
\* *Muhlenbergia glomerata* (Willd.) Trin.  
*Oryzopsis asperifolia* Michx.  
*Oryzopsis hymenoides* (Roem. & Schul.) Ricker  
\* *Oryzopsis micrantha* (Trin. & Rupr.) Thurb.  
*Oryzopsis pungens* (Torr.) Hitchc.  
*Phleum alpinum* L. = *P. commutatum* Gaudin  
*Phleum pratense* L.  
*Poa alpina* L.  
*Poa annua* L.  
*Poa arctica* R. Br.  
*Poa canbyi* (Scribn.) Piper  
*Poa compressa* L.  
*Poa epilis* Scribn.  
*Poa interior* L.  
*Poa leptocoma* Trin.  
*Poa nervosa* (Hook.) Vasey  
*Poa palustris* L.  
*Poa pratensis* L.  
*Poa rupicola* Nash = *P. glauca* Vahl  
*Poa sandbergii* Vasey  
*Poa stenantha* Trin.  
*Schizachne purpurascens* (Torr.) Swallen  
*Stipa columbiana* Macoun  
*Stipa comata* Trin. & Rupr.  
*Stipa richardsonii* Link  
*Trisetum spicatum* (L.) Richt.

## IRIDACEAE

*Sisyrinchium montanum* Greene

*Sisyrinchium sarmentosum* Suksd. = *S. septentrionale* Bicknell

## JUNCACEAE

*Juncus alpinus* Vill. = *J. alpinoarticulatus* Chaix

*Juncus balticus* Willd.

*Juncus drummondii* Meyer

*Juncus dudleyi* Wieg. = *J. tenuis* Willd. var. *dudleyi* (Wieg.) Herm.

*Juncus hallii* Engelm.

*Juncus nodosus* L.

*Juncus parryi* Engelm.

*Juncus saximontanus* Nels. = *J. ensifolius* Wikstr.

\* *Juncus triglumis* L. = *J. albescens* (Lange) Fern.

*Luzula hitchcockii* L. Hamet-Ahti = *L. glabrata* (Hoppe) Desv.

*Luzula piperi* (Cov.) Jones = *L. wahlenbergii* Rupr.

*Luzula parviflora* (Ehrh.) Desv.

*Luzula spicata* (L.) DC.

## JUNCAGINACEAE

*Triglochin maritima* L.

*Triglochin palustris* L.

## LILIACEAE

*Allium cernuum* Roth

*Allium schoenoprasum* L. var. *sibiricum* (L.) Hartm.

*Calochortus macrocarpus* Dougl.

*Clintonia uniflora* (Schult.) Kunth

*Disporum trachycarpum* (Wats.) Benth. & Hook.

*Erythronium grandiflorum* Pursh

\* *Lilium philadelphicum* L. var. *andinum* (Nutt.) Ker.

*Smilacina racemosa* (L.) Desf. var. *amplexicaulis* (Nutt.) Wats.

*Smilacina stellata* (L.) Desf.

*Stenanthium occidentale* Gray

*Streptopus amplexifolius* (L.) DC. var. *amplexifolius*

*Streptopus roseus* Michx. var. *curvipes* (Vail) Fassett

*Tofieldia glutinosa* (Michx.) Pers.

*Tofieldia pusilla* (Michx.) Pers.

*Veratrum eschscholtzii* Gray = *V. viride* Ait.

*Zygadenus elegans* Pursh

*Zygadenus gramineus* Rydb. = *Z. venenosus* Wats. var. *gramineus* (Rydb.) Walsh

## ORCHIDACEAE

*Calypso bulbosa* (L.) Oakes

*Corallorrhiza maculata* Raf.

*Corallorrhiza striata* Lindl.

*Corallorrhiza trifida* Chat.

\* *Cypripedium montanum* Dougl.

\* *Cypripedium passerinum* Richards.

- Goodyera oblongifolia* Raf.  
*Goodyera repens* (L.) R. Br.  
*Habenaria dilatata* (Pursh) Hook.  
*Habenaria hyperborea* (L.) R. Br.  
*Habenaria obtusata* (Pursh) Richards.  
*Habenaria orbiculata* (Pursh) Torr.  
*Habenaria saccata* Greene  
<sup>+</sup>*Habenaria undulascensis* (Spreng.) Wats. <sup>VERATRUM?</sup>  
*Habenaria viridis* (L.) R. Br. var. *bracteata* (Muhl.) Gray  
*Listera borealis* Morong  
*Listera cordata* (L.) R. Br.  
*Orchis rotundifolia* Banks  
*Spiranthes romanzoffiana* Cham. & Schlect.

#### POTAMOGETONACEAE

- Potamogeton alpinus* Balbis  
*Potamogeton berchtoldii* Fieber = *P. pusillus* L.  
*Potamogeton gramineus* L.  
*Potamogeton praelongus* Wulf.

#### SPARGANIACEAE

- Sparganium minimum* (Hartm.) Fries

#### TYPHACEAE

- Typha latifolia* L.

#### LIVERWORTS

- Anastrophyllum hellerianum* (Nees) Schust.  
*Barbilophozia hatcheri* (Evans) Loeske  
*Barbilophozia lycopodioides* (Wallr.) Loeske  
*Blepharostoma tricophyllum* (L.) Dum.  
*Calypogeja muelleriana* (Schiffn.) K. Muell.  
*Cephalozia biarspidata* (L.) Dum.  
*Clevea hyalina* (Somm.) Lindb. = *Athalamia hyalina* (Somm.) Hatt.  
*Geocalyx graveolens* (Schrad.) Nees  
*Gymnomitrion concinnum* (Lightf.) Corda  
*Lepidozia reptans* (L.) Dum.  
*Lophozia excisa* (Dicks.) Dum.  
*Lophozia floerkii* (Web. & Mohr) Schiffn.  
*Lophozia incisa* (Schrad.) Dum.  
*Lophozia kunzeana* (Hueb.) Evans  
*Lophozia longidens* (Lindb.) Macoun  
*Lophosia obtusata* (Lindb.) Evans  
*Lophozia porphyroleuca* (Nees) Schiffn.  
*Lophozia ventricosa* (Dicks.) Dum.  
*Lophozia wenzelii* (Nees) Steph.  
*Marchantia polymorpha* L.  
*Plagiochila asplenoides* (L.) Dum.  
*Preissia quadrata* (Scop.) Nees  
*Ptilidium californicum* (Aust.) Underw.  
*Ptilidium pulcherrimum* (G. Web.) Hampe

*Scapania undulata* (L.) Dum.  
*Tritomaria exsectiformis* (Breidl.) Loeske  
*Tritomaria polita* (Nees) Joerg.

## MOSSES

- Amblystegium serpens* (Hedw.) B.S.G.  
*Atrichum selwynii* Aust.  
*Aulacomnium androgynum* (Hedw.) Schwaegr.  
*Aulacomnium palustre* (Hedw.) Schwaegr.  
*Barbula acuta* (Brid.) Brid.  
*Barbula convoluta* Hedw.  
*Brachythecium albicans* (Hedw.) B.S.G.  
*Brachythecium collinum* (Schleich. ex C. Muell.) B.S.G.  
*Brachythecium curtum* (Lindb.) Limpr.  
*Brachythecium groenlandicum* (C. Jens.) Schljak.  
*Brachythecium hylotapetum* B. Hig. & N. Hig.  
*Brachythecium leibergii* Grout  
*Brachythecium populeum* (Hedw.) B.S.G.  
*Brachythecium salebrosum* (Web. & Mohr) B.S.G.  
*Brachythecium starkei* (Brid.) B.S.G. = *B. curtum* (Lindb.) Limpr.  
*Brachythecium turgidum* (C.J. Hartm.) Kindb.  
*Brachythecium velutinum* (Hedw.) B.S.G.  
*Bryoerythrophyllum recurvirostrum* (Hedw.) Chen  
*Bryum caespiticium* Hedw.  
*Bryum cuspidatum* (B.S.G.) Schimp. = *B. creberrimum* Tayl.  
*Bryum pallescens* Schleich. ex Schwaegr.  
*Bryum pseudotriquetrum* (Hedw.) Gaertn., Meyer & Schreb.  
*Bryum stirtonii* Schimp.  
*Calliergon cordifolium* B.S.G.  
*Calliergon giganteum* (Schimp.) Kindb.  
*Calliergon trifarium* (Web. & Mohr) Kindb.  
*Campylium chrysophyllum* (Brid.) J. Lange  
*Campylium halleri* (Hedw.) Lindb.  
*Campylium hispidulum* (Brid.) Mitt.  
*Campylium stellatum* (Hedw.) C. Jens.  
*Catoscopium nigritum* (Hedw.) Brid.  
*Ceratodon purpureus* (Hedw.) Brid.  
*Cratoneuron commutatum* (Hedw.) Roth  
*Desmatodon latifolius* (Hedw.) Brid.  
*Dicranoweisia crispula* (Hedw.) Lindb. ex Milde  
*Dicranum acutifolium* (Lindb. & Arnell) C. Jens ex Weinm.  
*Dicranum brevifolium* Kindb.  
*Dicranum flagellare* Hedw.  
*Dicranum fragili folium* Lindb.  
*Dicranum fuscescens* Turn.  
*Dicranum muehlenbeckii* B.S.G.  
*Dicranum pallidisetum* (Bail. ex Holz.) Lindb.  
*Dicranum polysetum* Sw.  
*Dicranum scoparium* Hedw.  
*Dicranum spadiceum* Zett.  
*Dicranum tauricum* Sapeh.  
*Dicranum undulatum* Brid.  
*Distichium capillaceum* (Hedw.) B.S.G.  
*Ditrichum flexicaule* (Schwaegr.) Hampe  
*Drepanocladus exannulatus* (B.S.G.) Warnst.  
*Drepanocladus revolvens* (Sw.) Warnst.  
*Drepanocladus uncinatus* (Hedw.) Warnst.  
*Drepanocladus sendtneri* (Schimp.) Warnst.  
*Drepanocladus uncinatus* (Hedw.) Warnst.  
*Drepanocladus vernicosus* (Lindb. ex C. Hartm.) Warnst.

*Encalypta affinis* R. Hedw.  
*Encalypta procera* Bruch  
*Encalypta rhaftocarpa* Schwaegr.  
*Eurhynchium pulchellum* (Hedw.) Jenn.  
*Grimmia apocarpa* Hedw.  
*Homalothecium aeneum* (Mitt.) Lawt.  
*Hylocomium pyrenaicum* (Spruce) Lindb.  
*Hylocomium splendens* (Hedw.) B.S.G.  
*Hypnum bambergeri* Schimp.  
*Hypnum circinale* Hook.  
*Hypnum cupressiforme* Hedw.  
*Hypnum lindbergii* Mitt.  
*Hypnum revolutum* (Mitt.) Lindb.  
*Hypnum vaucherianum* Lesq.  
*Isopterygium pulchellum* (Hedw.) Jaeg. & Sauerb.  
*Leptobryum pyriforme* (Hedw.) Wils.  
*Lescurea incurvata* (Hedw.) Lawt.  
*Lescurea radicosa* (Mitt.) Moenck.  
*Mnium arizonicum* Amann  
*Mnium blyttii* B.S.G.  
*Mnium lycopodioides* Schwaegr.  
*Mnium nudum* Williams ex Britt. & Williams  
*Mnium spinulosum* B.S.G.  
*Mnium thompsonii* Schimp.  
*Orthothecium chryseum* (Schwaegr. ex Schultes) B.S.G.  
*Orthotrichum obtusifolium* Brid.  
*Orthotrichum pallens* Bruch. ex Brid.  
*Pellia endiviifolia* (Dicks.) Dum.  
*Philonotis fontana* (Hedw.) Brid.  
*Plagiothecium denticulatum* (Hedw.) B.S.G.  
*Plagiommium ellipticum* (Brid.) Koponen  
*Plagiommium medium* B.S.G.  
*Plagiothecium denticulatum* (Hedw.) B.S.G.  
*Plagiothecium laetum* B.S.G.  
*Platydictya jungermannioides* (Brid.) Crum  
*Pleurozium schreberi* (Brid.) Mitt.  
*Pogonatum alpinum* (Hedw.) Roehl.  
*Pohlia cruda* (Hedw.) Lindb.  
*Pohlia elongata* Hedw.  
*Pohlia nutans* (Hedw.) Lindb.  
*Pohlia prolifera* (Kindb. ex Limpr.) Lindb. ex Arnell  
*Pohlia wahlenbergii* (Web. & Mohr) Andr.  
*Polytrichadelphus lyallii* Mitt.  
*Polytrichum commune* Hedw.  
*Polytrichum formosum* Hedw.  
*Polytrichum juniperinum* Hedw.  
*Polytrichum piliferum* Hedw.  
*Polytrichum strictum* Brid.  
*Pseudoleskeia radicosa* (Mitt.) Macoun & Kindb. var. *compacta* Best  
*Ptilium crista-castrensis* (Hedw.) DeNot.  
*Pylaisiella polyantha* (Hedw.) Grout  
*Rhacomitrium canescens* (Hedw.) Brid.  
*Rhacomitrium heterostichum* (Hedw.) Brid. var. *heterostichum*  
*Rhizomnium magnifolium* (Horik.) Koponen  
*Rhizomnium nudum* (Williams) Koponen  
*Rhizomnium pseudopunctatum* (Bruch & Schimp.) Koponen  
*Rhytidadelphus robusta* (Hedw.) Broth.  
*Rhytidadelphus triquetrus* (Hedw.) Warnst.  
*Rhytidium rugosum* (Hedw.) Kindb.  
*Roellia roellii* (Broth. ex Roell) Andr. ex Crum  
*Scorpidium scorpioides* (Hedw.) Limpr.  
*Scorpidium turgescens* (T. Jens.) Loeske  
*Seligeria campylopoda* Kindb.

*Sphagnum fuscum* (Schimp.) Klinggr.  
*Sphagnum nemoreum* Scop.  
*Sphagnum subsecundum* Nees ex Sturm.  
*Sphagnum warnstorffii* Russ.  
*Tetraphis pellucida* Hedw.  
*Thuidium abietinum* (Hedw.) B.S.G.  
*Thuidium recognitum* (Hedw.) Lindb.  
*Timmia austriaca* Hedw.  
*Timmia megapolitana* Hedw.  
*Tomentypnum nitens* (Hedw.) Loeske  
*Tortella fragilis* (Drumm.) Limpr.  
*Tortella inclinata* (R. Hedw.) Limpr.  
*Tortella tortuosa* (Hedw.) Limpr.  
*Tortula norvegica* (Web.) Wahlenb. ex Lindb.  
*Tortula ruralis* (Hedw.) Gaertn., Meyer & Schreb.

## LICHENS

*Acarospora chlorophana* (Wahlenb. ex Ach.) Mass.  
*Acarospora heppii* (Naeg.) Naeg.  
*Alectoria sarmentosa* (Ach.) Ach.  
*Aspicilia albopruinosa* Loom.  
*Aspicilia caesiocinerea* (Nyl. ex Malbr.) Arn.  
*Bacidia obscurata* (Somm.) Zahlbr.  
*Baeomyces rufus* (Huds.) Rebent.  
*Bryoria abbreviata* (Muell. Arg.) Brodo & D. Hawksw.  
*Bryoria capillaris* (Ach.) Brodo & D. Hawksw.  
*Bryoria fremontii* (Tuck.) Brodo & D. Hawksw.  
*Bryoria fuscescens* (Gyeln.) Brodo & D. Hawksw.  
*Bryoria glabra* (Mot.) Brodo & D. Hawksw.  
*Bryoria lanestris* (Ach.) Brodo & D. Hawksw.  
*Bryoria oregana* (Tuck.) Brodo & D. Hawksw.  
*Bryoria pseudofuscescens* (Gyeln) Brodo & D. Hawksw.  
*Buellia triphragmioides* Anzi  
*Calicium salicinum* Pers.  
*Calicium viride* Pers.  
*Caloplaca holocarpa* (Hoffm.) Wade  
*Caloplaca jungermanniae* (Vahl) Th. Fr.  
*Caloplaca saxicola* (Hoffm.) Nordin  
*Caloplaca sinapisperma* (Lam.) Mah. & Gill.  
*Candelaria concolor* (Dicks.) B. Stein  
*Cetraria canadensis* (Raes.) Raes.  
*Cetraria chlorophylla* (Willd.) Vain.  
*Cetraria cucullata* (Bell.) Ach.  
*Cetraria ericetorum* Opiz  
*Cetraria islandica* (L.) Ach.  
*Cetraria merrillii* DuRietz  
*Cetraria nivalis* (L.) Ach.  
*Cetraria pinastri* (Scop.) S.Gray  
*Cetraria platyphylla* Tuck.  
*Cetraria subalpina* Imsh.  
*Cetraria tilesii* Ach.  
*Cladonia arbuscula* (Wallr.)  
*Cladonia bacillaris* (Ach.) Nyl.  
*Cladonia botrytes* (Hag.) Willd.  
*Cladonia cariosa* (Ach.) Spreng.  
*Cladonia carneola* (Fr.) Fr.  
*Cladonia cenotea* (Ach.) Schaeer.  
*Cladonia cervicornis* (Ach.) Flot. ssp. *verticillata* (Hoffm.) Ahti  
*Cladonia chlorophaea* (Floerke ex Somm.) Spreng.  
*Cladonia coccifera* (L.) Willd.

- Cladonia coniocraea* (Floerke) Spreng.  
*Cladonia cornuta* (L.) Hoffm.  
*Cladonia crispata* (Ach.) Flot.  
*Cladonia deformis* (L.) Hoffm.  
*Cladonia ecmocyna* (Ach.) Nyl.  
*Cladonia fimbriata* (L.) Fr.  
*Cladonia furcata* (Huds.) Schrad.  
*Cladonia gracilis* (L.) Willd.  
*Cladonia mitis* Sandst.  
*Cladonia multiformis* Merr.  
*Cladonia phyllophora* Ehrh. ex Hoffm.  
*Cladonia pleurota* (Floerke) Schaer.  
*Cladonia pocillum* (Ach.) O. Rich.  
*Cladonia polydactyla* (Floerke) Spreng.  
*Cladonia pyxidata* (L.) Hoffm.  
*Cladonia robbinsii* Evans  
*Cladonia subulata* (L.) Wigg.  
*Cladonia sulphurina* (Michx.) Fr.  
*Coelocaulon aculeatum* (Schreb.) Link  
*Coniocybe furfuracea* (L.) Ach.  
*Dactylina ramulosa* (Hook.) Tuck.  
*Dermatocarpon weberi* (Ach.) Mann.  
*Diploschistes scruposus* (Schreb.) Norm.  
*Evernia divaricata* (L.) Ach.  
*Hypocenomyce scalaris* (Ach.) Choisy  
*Hypogymnia austrodes* (Nyl.) Raes.  
*Hypogymnia enteromorpha* (Ach.) Nyl.  
*Hypogymnia imshaugii* Krog  
*Hypogymnia physodes* (L.) Nyl.  
*Hypogymnia tubulosa* (Schaer.) Hav.  
*Icmadophila ericetorum* (L.) Zahlbr.  
*Lecanora coilocarpa* (Ach.) Nyl.  
*Lecanora epibyon* (Ach.) Ach.  
*Lecanora melanophthalma* (Ram.) Ram.  
*Lecanora polytropa* (Hoffm.) Rabenh.  
*Lecanora rupicola* (L.) Zahlbr.  
*Lecidea berengeriana* (Mass.) Nyl.  
*Lecidea cinnabarina* Somm.  
*Lecidea fuscescens* Somm.  
*Lecidea granulosa* (Hoffm.) Ach.  
*Lecidea lericida* (Ach.) Ach.  
*Lecidea nigrocruenta* Anzi  
*Lecidea tornensis* Nyl.  
*Lepraria incana* (L.) Ach.  
*Lepraria membranacea* (Dicks.) Vain.  
*Lepraria neglecta* (Nyl.) Lett.  
*Leptogium burnetiae* var. *hirsutum* (Sierk) P.M. Jorg.  
*Letharia columbiana* (Nutt.) Thoms.  
*Letharia vulpina* (L.) Hue  
*Lobaria pulmonaria* (L.) Hoffm.  
*Mycoblastus affinis* (Schaer.) Schauer  
*Mycoblastus sanguinarius* (L.) Norman  
*Nephroma arcticum* (L.) Torss.  
*Nephroma bellum* (Spreng.) Tuck.  
*Nephroma expallidum* (Nyl.) Nyl.  
*Nephroma helveticum* Ach.  
*Nephroma parile* (Ach.) Ach.  
*Nephroma resupinatum* (L.) Ach.  
*Ochrolechia inaequatula* (Nyl.) Zahlbr.  
*Pachyospora verrucosa* (Ach.) Mass  
*Pannaria pezizoides* (G. Web.) Trev.  
*Parmelia exasperata* Nyl.  
*Parmelia sphaerospora* Muell. Arg.

- Parmelia subolivacea* Nyl.  
*Parmelia sulcata* Tayl.  
*Parmeliopsis aleurites* (Ach.) Nyl.  
*Parmeliopsis ambigua* (Wulf.) Nyl.  
*Parmeliopsis hyperopta* (Ach.) Arn.  
*Peltigera aphthosa* (L.) Willd.  
*Peltigera canina* (L.) Willd.  
*Peltigera elizabethae* Gyeln.  
*Peltigera horizontalis* (Huds.) Baumg.  
*Peltigera malacea* (Ach.) Funck  
*Peltigera polydactyla* (Neck.) Hoffm.  
*Peltigera rufescens* (Weis.) Humb  
*Peltigera spuria* (Ach.) DC.  
*Peltigera venosa* (L.) Hoffm.  
*Pertusaria ophthalmiza* (Nyl.) Nyl.  
*Physcia aipolia* (Ehrh. ex Humb.) Fuernrohr  
*Platismatia glauca* (L.) W. Culb. & C. Culb.  
*Psora decipiens* (Hedw.) Hoffm.  
*Psora rubiformis* (Ach.) Hook.  
*Psoroma hypnorum* (Vahl) S. Gray  
*Ramalina pollinaria* (Westr.) Ach.  
*Rhizocarpon geographicum* (L.) DC.  
*Rhizocarpon macrosporum* Raes.  
*Rhizocarpon riparium* Raes.  
*Rinodina roscida* (Somm.) Arn.  
*Rinodina turfacea* (Wahl.) Koerb.  
*Solorina bispora* Nyl.  
*Solorina crocea* (L.) Ach.  
*Solorina octospora* Arn.  
*Solorina saccata* (L.) Ach.  
*Solorina spongiosa* (Sm.) Anzi  
*Sphaerophorus globosus* (Huds.) Vain.  
*Stereocaulon alpinum* Laur.  
*Stereocaulon tomentosum* Fr.  
*Thamnolia subuliformis* (Ehrh.) W. Culb.  
*Toninia caeruleonigricans* (Lightf.) Th. Fr.  
*Umbilicaria deusta* (L.) Baumg.  
*Umbilicaria hyperborea* (Ach.) Hoffm.  
*Umbilicaria krascheninnikovii* (Sav.) Schol.  
*Umbilicaria virginis* Schaer.  
*Usnea alpina* Mot.  
*Usnea cavernosa* Tuck.  
*Usnea glabrescens* (Nyl. ex Vain.) Vain.  
*Usnea scabrata* Nyl.  
*Usnea sorediifera* (Arn.) Lynge = *U. fulvoreagens* (Raes.) Raes.  
*Usnea subfloridana* Stirt.  
*Verrucaria muralis* Ach.  
*Verrucaria virens* Nyl.  
*Xanthoria elegans* (Link) Th. Fr.  
*Xanthoria fallax* (Hepp) Arn.

## APPENDIX B - ANIMALS OF KOOTENAY NATIONAL PARK

### INTRODUCTION

Nomenclature for this checklist is based on Stebbins (1966), American Ornithologists' Union (1982), and Banfield (1974). Records are based on observations made by the wildlife crew during the ecological land classification and information in the Warden Service and Interpretive Service files at KNP. Further details are in Poll *et al.* (1984). Names in brackets are hypothetical species for which there is no verified record for the park. KNP has a total of 4 amphibian species, 2 reptile species (plus one hypothetical), 182 bird species (plus 9 hypothetical), and 58 mammal species.

### AMPHIBIANS

Long-toed salamander *Ambystoma macrodactylum*  
Western toad *Bufo boreas*  
Wood frog *Rana sylvatica*  
Spotted frog *Rana pretiosa*

### REPTILES

Rubber boa *Charina bottae*  
[Common (red-sided) garter snake *Thamnophis sirtalis parietalis*]  
Western terrestrial (wandering) garter snake *Thamnophis elegans vagrans*

### BIRDS

Common Loon *Gavia immer* (Brünnich)  
Pied-billed Grebe *Podilymbus podiceps* (Linnaeus)  
Horned Grebe *Podiceps auritus* (Linnaeus)  
Red-necked Grebe *Podiceps grisegena* (Boddaert)  
Eared Grebe *Podiceps nigricollis* Brehm  
Western Grebe *Aechmophorus occidentalis* (Lawrence)  
Great Blue Heron *Ardea herodias* Linnaeus  
Tundra Swan *Cygnus columbianus* (Ord)  
[Trumpeter Swan *Cygnus buccinator* (Richardson)]  
Snow Goose *Chen caerulescens* (Linnaeus)  
Canada Goose *Branta canadensis* (Linnaeus)  
Green-winged Teal *Anas crecca* Linnaeus  
Mallard *Anas platyrhynchos* Linnaeus  
Northern Pintail *Anas acuta* Linnaeus  
Blue-winged Teal *Anas discors* Linnaeus  
Cinnamon Teal *Anas cyanoptera* Vieillot  
Northern Shoveler *Anas clypeata* Linnaeus  
American Wigeon *Anas americana* Gmelin  
Redhead *Aythya americana* (Eyton)  
Ring-necked Duck *Aythya collaris* (Donovan)  
Lesser Scaup *Aythya affinis* (Eyton)  
Harlequin Duck *Histrionicus histrionicus* (Linnaeus)  
Surf Scoter *Melanitta perspicillata* (Linnaeus)  
White-winged Scoter *Melanitta fusca* (Linnaeus)  
Common Goldeneye *Bucephala clangula* (Linnaeus)  
Barrow's Goldeneye *Bucephala islandica* (Gmelin)

Bufflehead *Bucephala albeola* (Linnaeus)  
Hooded Merganser *Lophodytes cucullatus* (Linnaeus)  
Common Merganser *Mergus merganser* Linnaeus  
Red-breasted Merganser *Mergus serrator* Linnaeus  
Ruddy Duck *Oxyura jamaicensis* (Gmelin)  
Osprey *Pandion haliaetus* (Linnaeus)  
Bald Eagle *Haliaeetus leucocephalus* (Linnaeus)  
Northern Harrier *Circus cyaneus* (Linnaeus)  
Sharp-shinned Hawk *Accipiter striatus* Vieillot  
Cooper's Hawk *Accipiter cooperii* (Bonaparte)  
Northern Goshawk *Accipiter gentilis* (Linnaeus)  
Swainson's Hawk *Buteo swainsoni* Bonaparte  
Red-tailed Hawk *Buteo jamaicensis* (Gmelin)  
Rough-legged Hawk *Buteo lagopus* (Pontoppidan)  
Golden Eagle *Aquila chrysaetos* (Linnaeus)  
American Kestrel *Falco sparverius* Linnaeus  
Merlin *Falco columbarius* Linnaeus  
[Prairie Falcon *Falco mexicanus* Schlegel]  
Spruce Grouse *Dendragapus canadensis* (Linnaeus)  
Blue Grouse *Dendragapus obscurus* (Say)  
White-tailed Ptarmigan *Lagopus leucurus* (Richardson)  
Ruffed Grouse *Bonasa umbellus* (Linnaeus)  
Sora *Porzana carolina* (Linnaeus)  
American Coot *Fulica americana* Gmelin  
[Sandhill Crane *Grus canadensis* (Linnaeus)]  
Killdeer *Charadrius vociferus* Linnaeus  
[Greater Yellowlegs *Tringa melanoleuca* (Gmelin)]  
Lesser Yellowlegs *Tringa flavipes* (Gmelin)  
Solitary Sandpiper *Tringa solitaria* Wilson  
Spotted Sandpiper *Actitis macularia* (Linnaeus)  
Least Sandpiper *Calidris minutilla* (Vieillot)  
Baird's Sandpiper *Calidris bairdii* (Couch)  
[Short-billed Dowitcher *Limnodromus griseus* (Gmelin)]  
Common Snipe *Gallinago gallinago* (Linnaeus)  
Wilson's Phalarope *Phalaropus tricolor* (Vieillot)  
Red-necked Phalarope *Phalaropus lobatus* (Linnaeus)  
Long-tailed Jaeger *Stercorarius longicaudus* Vieillot  
Bonaparte's Gull *Larus philadelphicus* (Ord)  
Mew Gull *Larus canus* Linnaeus  
Ring-billed Gull *Larus delawarensis* Ord  
California Gull *Larus californicus* Lawrence  
Rock Dove *Columba livia* Gmelin  
Mourning Dove *Zenaida macroura* (Linnaeus)  
[Flammulated Owl *Otus flammeolus* (Kaup)]  
Western Screech-Owl *Otus kennicottii* (Elliot)  
Great Horned Owl *Bubo virginianus* (Gmelin)  
Northern Hawk-Owl *Surnia ulula* (Linnaeus)  
Northern Pygmy-Owl *Glaucidium gnoma* Wagler  
Barred Owl *Strix varia* Barton  
Great Gray Owl *Strix nebulosa* Forster  
Short-eared Owl *Asio flammeus* (Pontoppidan)  
Boreal Owl *Aegolius funereus* (Linnaeus)  
Northern Saw-whet Owl *Aegolius acadicus* (Gmelin)  
Common Nighthawk *Chordeiles minor* (Forster)  
Black Swift *Cypseloides niger* (Gmelin)  
Vaux's Swift *Chaetura vauxi* (Townsend)  
[Black-chinned Hummingbird *Archilochus alexandri* (Bourcier & Mulsant)]  
Calliope Hummingbird *Stellula calliope* (Gould)  
Rufous Hummingbird *Selasphorus rufus* (Gmelin)  
Belted Kingfisher *Ceryle alcyon* (Linnaeus)  
Yellow-bellied Sapsucker *Sphyrapicus varius* (Linnaeus)  
Downy Woodpecker *Picoides pubescens* (Linnaeus)  
Hairy Woodpecker *Picoides villosus* (Linnaeus)

Three-toed Woodpecker *Picoides tridactylus* (Linnaeus)  
 Black-backed Woodpecker *Picoides arcticus* (Swainson)  
 Northern Flicker *Colaptes auratus* (Linnaeus)  
 Pileated Woodpecker *Dryocopus pileatus* (Linnaeus)  
 Olive-sided Flycatcher *Contopus borealis* (Swainson)  
 Western Wood Pewee *Contopus sordidulus* Sclater  
 Alder Flycatcher *Empidonax alnorum* Brewster  
 Willow Flycatcher *Empidonax traillii* (Audubon)  
 Least Flycatcher *Empidonax minimus* (Baird & Baird)  
 Hammond's Flycatcher *Empidonax hammondi* (Xantus de Vesey)  
 Dusky Flycatcher *Empidonax oberholseri* Phillips  
 Western Flycatcher *Empidonax difficilis* Baird  
 Western Kingbird *Tyrannus verticalis* Say  
 Eastern Kingbird *Tyrannus tyrannus* (Linnaeus)  
 Horned Lark *Eremophila alpestris* (Linnaeus)  
 Tree Swallow *Tachycineta bicolor* (Vieillot)  
 Violet-green Swallow *Tachycineta thalassina* (Swainson)  
 Northern Rough-winged Swallow *Stelgidopteryx serripennis* (Audubon)  
 Bank Swallow *Riparia riparia* (Linnaeus)  
 Cliff Swallow *Hirundo pyrrhonota* Vieillot  
 Barn Swallow *Hirundo rustica* Linnaeus  
 Gray Jay *Perisoreus canadensis* (Linnaeus)  
 Steller's Jay *Cyanocitta stelleri* (Gmelin)  
 Clark's Nutcracker *Nucifraga columbiana* (Wilson)  
 Black-billed Magpie *Pica pica* (Linnaeus)  
 American Crow *Corvus brachyrhynchos* Brehm  
 Common Raven *Corvus corax* Linnaeus  
 Black-capped Chickadee *Parus atricapillus* Linnaeus  
 Mountain Chickadee *Parus gambeli* Ridgway  
 Boreal Chickadee *Parus hudsonicus* Forster  
 Red-breasted Nuthatch *Sitta canadensis* Linnaeus  
 White-breasted Nuthatch *Sitta carolinensis* Latham  
 Brown Creeper *Certhia americana* Bonaparte  
 Rock Wren *Salpinctes obsoletus* (Say)  
 Winter Wren *Troglodytes troglodytes* (Linnaeus)  
 American Dipper *Cinclus mexicanus* Swainson  
 Golden-crowned Kinglet *Regulus satrapa* Lichtenstein  
 Ruby-crowned Kinglet *Regulus calendula* (Linnaeus)  
 Mountain Bluebird *Sialia currucoides* (Bechstein)  
 Townsend's Solitaire *Myadestes townsendi* (Audubon)  
 [Veery *Catharus fuscesens* (Stephens)]  
 Swainson's Thrush *Catharus ustulatus* (Nuttall)  
 Hermit Thrush *Catharus guttatus* (Pallas)  
 American Robin *Turdus migratorius* Linnaeus  
 Varied Thrush *Ixoreus naevius* (Gmelin)  
 Water Pipit *Anthus spinolletta* (Linnaeus)  
 Bohemian Waxwing *Bombycilla garrulus* (Linnaeus)  
 Cedar Waxwing *Bombycilla cedrorum* Vieillot  
 Northern Shrike *Lanius excubitor* Linnaeus  
 [Loggerhead Shrike *Lanius ludovicianus* Linnaeus]  
 European Starling *Sturnus vulgaris* Linnaeus  
 Solitary Vireo *Vireo solitarius* (Wilson)  
 Warbling Vireo *Vireo gilvus* (Vieillot)  
 Red-eyed Vireo *Vireo olivaceus* (Linnaeus)  
 Tennessee Warbler *Vermivora peregrina* (Wilson)  
 Orange-crowned Warbler *Vermivora celata* (Say)  
 Yellow Warbler *Dendroica petechia* (Linnaeus)  
 Magnolia Warbler *Dendroica magnolia* (Wilson)  
 Cape May Warbler *Dendroica tigrina* (Gmelin)  
 Yellow-rumped Warbler *Dendroica coronata* (Linnaeus)  
 Townsend's Warbler *Dendroica townsendi* (Townsend)  
 Blackpoll Warbler *Dendroica striata* (Forster)  
 American Redstart *Setophaga ruticilla* (Linnaeus)

Northern Waterthrush *Seiurus noveboracensis* (Gmelin)  
 MacGillivray's Warbler *Oporornis tolmiei* (Townsend)  
 Common Yellowthroat *Geothlypis trichas* (Linnaeus)  
 Wilson's Warbler *Wilsonia pusilla* (Wilson)  
 Western Tanager *Piranga ludoviciana* (Wilson)  
 Black-headed Grosbeak *Pheucticus melanocephalus* (Swainson)  
 Lazuli Bunting *Passerina amoena* (Say)  
 Chipping Sparrow *Spizella passerina* (Bechstein)  
 Clay-colored Sparrow *Spizella pallida* (Swainson)  
 Brewer's Sparrow *Spizella breweri* Cassin  
 Vesper Sparrow *Pooecetes gramineus* (Gmelin)  
 Lark Bunting *Calamospiza melanocorys* Stejneger  
 Savannah Sparrow *Passerculus sandwichensis* (Gmelin)  
 Le Conte's Sparrow *Ammodramus leconteii* (Audubon)  
 Fox Sparrow *Passerella iliaca* (Merrem)  
 Song Sparrow *Melospiza melodia* (Wilson)  
 Lincoln's Sparrow *Melospiza lincolnii* (Audubon)  
 Golden-crowned Sparrow *Zonotrichia atricapilla* (Gmelin)  
 White-crowned Sparrow *Zonotrichia albicollis* (Forster)  
 Dark-eyed Junco *Junco hyemalis* (Linnaeus)  
 Snow Bunting *Plectrophenax nivalis* (Linnaeus)  
 Red-winged Blackbird *Agelaius phoeniceus* (Linnaeus)  
 Western Meadowlark *Sturnella neglecta* Audubon  
 Yellow-headed Blackbird *Xanthocephalus xanthocephalus* (Bonaparte)  
 Rusty Blackbird *Euphagus carolinus* (Muller)  
 Brewer's Blackbird *Euphagus cyanocephalus* (Wagler)  
 Brown-headed Cowbird *Molothrus ater* (Boddaert)  
 Rosy Finch *Leucosticte arctoa* (Pallas)  
 Pine Grosbeak *Pinicola enucleator* (Linnaeus)  
 Purple Finch *Carpodacus purpureus* (Gmelin)  
 Cassin's Finch *Carpodacus casinii* Baird  
 Red Crossbill *Loxia curvirostra* Linnaeus  
 White-winged Crossbill *Loxia leucoptera* Gmelin  
 Common Redpoll *Carduelis flammea* (Wilson)  
 Pine Siskin *Carduelis pinus* (Wilson)  
 American Goldfinch *Carduelis tristis* (Linnaeus)  
 Evening Grosbeak *Coccothraustes vespertinus* (Cooper)  
 House Sparrow *Passer domesticus* (Linnaeus)

## MAMMALS

Masked shrew *Sorex cinereus* Kerr  
 Dusky shrew *Sorex monticolus* (Merriam)  
 Water shrew *Sorex palustris* Richardson  
 Pygmy shrew *Sorex hoyi* (Baird)  
 Little brown bat *Myotis lucifugus* (Le Conte)  
 Northern long-eared bat *Myotis septentrionalis* Merriam  
 Long-eared bat *Myotis evotis* (H. Allen)  
 California bat *Myotis californicus* (Audubon & Bachman)  
 Silver-haired bat *Lasionycteris noctivagans* (Le Conte)  
 Big brown bat *Eptesicus fuscus* (Palisot de Beauvois)  
 Hoary bat *Lasiurus cinereus* (Palisot de Beauvois)  
 American pika *Ochotona princeps* (Richardson)  
 Snowshoe hare *Lepus americanus* Erxleben  
 Least chipmunk *Eutamias minimus* (Bachman)  
 Yellow-pine chipmunk *Eutamias amoenus* (J.A. Allen)  
 Woodchuck *Marmota monax* (Linnaeus)  
 Hoary marmot *Marmota caligata* (Eschscholtz)  
 Columbian ground squirrel *Spermophilus columbianus* (Ord)  
 Golden-mantled ground squirrel *Spermophilus lateralis* (Say)

Red squirrel *Tamiasciurus hudsonicus* (Erxleben)  
Northern flying squirrel *Glaucomys sabrinus* (Shaw)  
Beaver *Castor canadensis* Kuhl  
Deer mouse *Peromyscus maniculatus* (Wagner)  
Bushy-tailed wood rat *Neotoma cinerea* (Ord)  
Gapper's red-backed vole *Clethrionomys gapperi* (Vigors)  
Northern bog lemming *Synaptomys borealis* (Richardson)  
Heather vole *Phenacomys intermedius* Merriam  
Muskrat *Ondatra zibethicus* (Linnaeus)  
Richardson's water vole *Arvicola richardsoni* DeKay  
Meadow vole *Microtus pennsylvanicus* (Ord)  
Long-tailed vole *Microtus longicaudus* (Merriam)  
Western jumping mouse *Zapus princeps* J.A. Allen  
Porcupine *Erethizon dorsatum* (Linnaeus)  
Coyote *Canis latrans* Say  
Wolf *Canis lupus* Linnaeus  
Red fox *Vulpes vulpes* (Linnaeus)  
Black bear *Ursus americanus* Pallas  
Grizzly bear *Ursus arctos* Linnaeus  
Marten *Martes americana* (Turton)  
Fisher *Martes pennanti* (Erxleben)  
Short-tailed weasel *Mustela erminea* Linnaeus  
[Long-tailed weasel *Mustela frenata* Lichtenstein]  
Mink *Mustela vison* Schreber  
Wolverine *Gulo gulo* (Linnaeus)  
Badger *Taxidea taxus* (Schreber)  
Striped skunk *Mephitis mephitis* (Schreber)  
River otter *Lontra canadensis* (Schreber)  
Cougar *Felis concolor* Linnaeus  
Canada lynx *Lynx lynx* (Linnaeus)  
Bobcat *Lynx rufus* (Schreber)  
Mule deer *Odocoileus hemionus* (Rafinesque)  
White-tailed deer *Odocoileus virginianus* (Zimmermann)  
Moose *Alces alces* (Linnaeus)  
Elk *Cervus elaphus* Linnaeus  
Mountain goat *Oreamnos americanus* (de Blainville)  
Bighorn sheep *Ovis canadensis* Shaw

