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# PLANTS

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## A FLORISTIC INVENTORY OF THE MCLENNAN LAKE AREA, SASKATCHEWAN

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In June of 1998 I was able to explore the McLennan Lake area, north of La Ronge, Saskatchewan. This part of the province is in the Boreal Shield ecoregion.<sup>2</sup> The Shield is much different in appearance than the Boreal Plain ecoregion to the south, which is covered by thick glacial till. The Boreal Shield has greater topographical changes, and exposed Precambrian rock outcrops and cliffs. The soils are thin relative to those in the Boreal Plain, especially near tops of hills. While exploring rock outcrops it often amazed me that there was such

a diversity of flora growing in such little soil.

Black spruce (*Picea glauca*) and trembling aspen (*Populus tremuloides*) dominate the forests in the McLennan Lake area. Jack pine (*Pinus banksiana*) is the other most common tree -species. White spruce (*Picea glauca*) and tamarack (*Larix laricina*), while present, are relatively uncommon. An incredible diversity of understory vegetation is present including attractive mosses and lichens too numerous to count. Dry ground cranberry (*Vaccinium vitis-idaea*



**Figure 1 - Stemless lady's-slipper and associated habitat**

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**Figure 2 - Lichen-covered rock outcrop**

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var. *minor*) is the most common understory plant. This species produces large quantities of berries that are an important food source for mammals indigenous to the area like the Black Bear and Western Chipmunk. Other common understory vascular plants are club mosses (*Lycopodium* spp.), wintergreens (*Pyrola* spp.), bunchberry (*Cornus canadensis*), cloudberry (*Rubus chamaemorus*) and western Canada violet (*Viola rugulosa*). The beautiful stemless lady's-slipper (*Cypripedium acaule*) can sometimes be found in open jack pine stands among the reindeer moss (*Cladina* spp.) and dry ground cranberry (Figure 1). In ravines connecting lakes together, beautiful communities of ferns, (three of them considered rare in the province), berry-producing shrubs and sweet scented mints abound.

By far the most amazing places in the area are the granitic cliffs and hill tops—they are a lichen lover's paradise. Crustose (crust-forming), foliose (leaf-forming) and fruticose (branchlike) lichens of yellow, orange, brown, black

and green cover nearly every square inch of rock (Figure 2). Hardy vascular plants like three-toothed saxifrage (*Saxifraga tricuspidata*), blueberry (*Vaccinium angustifolium* var. *myrtilloides*), bristly sarsaparilla (*Aralia hispida*), rusty woodsia (*Woodsia ilvensis*) and parsley fern (*Cryptogramma acrostichoides*) grow in tiny pockets of soil present in the rock cracks of cliffs (Figure 3).

My floristic survey revealed that there were 109 species of vascular plants present in the area. However, there are likely more species present since later blooming plants would not have been visible when I visited the area. Thus, this list should not be considered complete; merely a starting point for further study. Some of the moss and lichen genera and species discovered while exploring this area were also recorded. Since only a brief study of the bryophytes and lichens was conducted many more species are likely present.

All vascular plant species were collected, except those marked with an asterisk, and were donated to the W.P.





**Figure 3 - A lichen and fern covered cliff**  
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Fraser Herbarium at the University of Saskatchewan in Saskatoon. The lichen specimens were donated to Dr. John Sheard's lichen herbarium at the University of Saskatchewan. Nomenclature follows Kartesz and Kartesz.<sup>1</sup> Plants considered rare by the Saskatchewan Conservation Data Centre are in bold-faced type.

### **CHECKLIST OF THE FLORA OF THE MCLENNAN LAKE AREA**

PLANTAE - PLANT KINGDOM

**TRACHEOPHYTA - Vascular Plants**

PTERIDOPHYTA - Ferns and Fern Allies

POLYPODIACEAE - Fern Family

***Athyrium filix-femina* (L.) Roth - Lady fern**

*Cryptogramma acrostichoides* R.Br. - Parsley fern

*Cystopteris fragilis* (L.) Bernh. - Fragile fern

***Dryopteris cristata* (L.) Gray - Crested shield fern**

***Dryopteris phegopteris* (L.) Schott - Beech-fern**

*Gymnocarpium dryopteris* (L.) Newm. - Oak fern

*Polypodium virginianum* (L.) D.C. Eaton - Common rock tripe

*Woodsia ilvensis* (L.) R.Br. - Rusty woodsia

**EQUISETACEAE - Horsetail Family**

*Equisetum hyemale* L. - Common scouring-rush

*Equisetum sylvaticum* L. - Woodland horsetail

**LYCOPODIACEAE - Club-moss Family**

*Lycopodium annotinum* L. - Stiff club-moss

*Lycopodium clavatum* L. - Running-pine

*Lycopodium complanatum* L. - Trailing club-moss

*Lycopodium obscurum* L. - Ground-pine

### **SPERMATOPHYTA - Seed-bearing Plants**

#### TREES

PINACEAE - Pine Family

*Larix laricina* (DuRoi) K. Koch - Tamarack \*

*Picea glauca* (Moench) Voss - White spruce \*

*Picea mariana* (Mill.) BSP. - Black spruce

*Pinus banksiana* Lamb. - Jack pine

**SALICACEAE - Willow Family**

*Populus balsamifera* L. - Balsam poplar

*Populus tremuloides* Michx, Trembling aspen

BETULACEAE - Birch Family

*Betula occidentalis* Hook. - River birch

*Betula papyrifera* Marsh. - White birch

#### SHRUBS

CUPRESSACEAE - Cypress Family

*Juniperus communis* L. - Low juniper

BETULACEAE - Birch Family



*Alnus viridis* (Chaix) DC. - Green alder  
MYRICACEAE - Bayberry Family  
*Myrica gale* L. - Sweet gale  
CORNACEAE - Dogwood Family  
*Cornus sericea* L. - Red-osier dogwood  
ERICACEAE - Heath Family  
*Arctostaphylos uva-ursi* (L.) Spreng. -  
Bearberry  
*Chamaedaphne calyculata* (L.) Moench.  
- Leatherleaf  
*Gaultheria hispidula* (L.) Muhl. -  
Creeping snowberry  
*Kalmia polifolia* Wang. - Pale laurel  
*Ledum groenlandicum* Oeder -  
Labrador-tea  
*Oxycoccus microcarpus* Turcz. - Small  
bog cranberry  
*Vaccinium vitis-idaea* L. var. *minus*  
Lodd. - Dry ground cranberry  
*Vaccinium angustifolium* Ait. var.  
*myrtilloides* (Michx.) House - Blueberry

**CAPRIFOLIACEAE** - Honeysuckle  
Family

*Viburnum edule* (Michx.) Raf - Low  
bush-cranberry  
*Viburnum opulus* L. var. *americanum*  
(Mill.) Ait. - High bush-cranberry  
ROSACEAE - Rose Family  
*Prunus pensylvanica* L. - Pin cherry  
*Rosa acicularis* Lindl. - Prickly rose  
*Rubus idaeus* L. - Wild red raspberry  
SAXIFRAGACEAE - Saxifrage Family  
*Ribes hudsonianum* Richards. -  
Northern black currant  
*Ribes oxycanthoides* L. - Northern  
gooseberry  
SALICACEAE - Willow Family  
*Salix bebbiana* Sarg. - Beaked willow  
*Salix discolor* Muhl. - Pussy willow  
*Salix monticola* Bebb. - Mountain willow  
*Salix pedicellaris* Pursh - Bog willow

HERBS

TYPHACEAE - Cattail Family  
*Typha latifolia* L. - Common cattail  
**ARACEAE** - Arum. Family  
*Calla palustris* L. - Water calla

ORCHIDACEAE - Orchid Family  
*Cypripedium acaule* Ait. - Stemless  
lady's-slipper  
*Goodyera repens* var. *repens* (L.) Br. -  
Lesser rattlesnake-plantain  
LILIACEAE - Lily Family  
*Maianthemum canadense* Desf - Two-  
leaved Solomon's-seal  
SANTALACEAE - Sandalwood Family  
*Geocaulon lividum* (Richards.) Fern -  
Northern bastard toad-flax  
POLYGONACEAE - Buckwheat Family  
*Polygonum cilinode* Michx. - Bindweed  
RANUNCULACEAE - Crowfoot Family  
*Ranunculus reptans* L. - Creeping  
buttercup  
CORNACEAE - Dogwood Family  
*Cornus canadensis* L. - Bunchberry  
ONAGRACEAE - Evening-primrose  
Family  
*Epilobium angustifolium* L. - Fireweed  
FUMARIACEAE - Fumitory Family  
*Corydalis sempervirens* (L.) Pers. - Pink  
corydalis  
MENYANTHACEAE - Buck-bean Family  
*Menyanthes trifoliata* L. - Buck-bean  
ARALIACEAE - Ginseng Family  
*Aralia hispida* Vent. - Bristly sarsaparilla  
*Aralia nudicaulis* L. - Wild sarsaparilla  
RUBIACEAE - Madder Family  
*Galium trifidum* L. - Small bedstraw  
LAMIACEAE - Mint Family  
*Lycopus virginicus* L. var. *pauciflorus*  
Benth - Northern water-horehound  
*Mentha arvensis* L. - Wild mint  
LORANTHACEAE - Mistletoe Family  
*Arceuthobium* Bieb. spp. \* - Mistletoe  
CARYOPHYLLACEAE - Pink Family  
*Stellaria calycantha* (Ledeb.) Bong -  
Northern stitchwort.  
POTAMOGETONACEAE - Pondweed  
Family  
*Potamogeton praelongus* Wulf - White-  
stem pondweed  
PRIMULACEAE - Primrose Family  
*Trientalis borealis* Raf - Northern  
Starflower  
ROSACEAE - Rose Family  
*Comarum palustre* L. - Marsh cinquefoil  
*Potentilla norvegica* L. - Rough

cinquefoil

*Rubus chamaemorus* L. - Cloudberry

*Rubus pubescens* Raf - Dewberry

*Sibbaldiopsis tridentata* (Aiton) Rydb. -

Three-toothed cinquefoil

SAXIFRAGACEAE - Saxifrage Family

*Heuchera richardsonii* R.Br - Alumroot

*Saxifraga tricuspidata* Rottb. - Three-toothed saxifrage

VIOLACEAE - Violet Family

*Viola canadensis* L. - Western Canada violet

**HYDROPHYLLACEAE** - Waterleaf Family

*Phacelia franklinii* (R.Br.) Gray - Franklin's scorpionweed

NYMPHAEACEAE - Water-lily Family

*Nuphar lutea* (L.) Sm. - Yellow pond lily

LENTIBULARIACEAE - Bladderwort Family

*Utricularia vulgaris* L. - Greater bladderwort

HALORAGACEAE - Water-milfoil Family

*Myriophyllum spicatum* L. - Spiked water-milfoil

PYROLACEAE - Wintergreen Family

*Moneses uniflora* (L.) Gray - One-flowered wintergreen

*Orthilia secunda* (L.) House - One-sided wintergreen

*Pyrola asarifolia* Michx. - Pink wintergreen

*Pyrola chlorantha* Sw. - Greenish-flowered wintergreen

CAPRIFOLIACEAE - Honeysuckle Family

*Linnaea borealis* L. - Twinflower

ASTERACEAE - Aster Family

*Achillea millefolium* L. - Woolly yarrow

*Antennaria parvifolia* Nutt. - Small-leaved pussytoes

*Leucanthemum vulgare* Lam. - Ox-eye daisy

*Matricaria discoidea* DC. - Pineappleweed

*Petasites frigidus* (L.) Fr. - Palmate-leaved colt's-foot

*Senecio pauperculus* Michx. - Balsam

groundsel

*Solidago spathulata* DC. - Mountain goldenrod

**GRAMINOIDS - Grasses and Grass-like Plants**

POACEAE - Grass Family

*Alopecurus aequalis* Sobol. - Short-awned foxtail

*Calamagrostis canadensis* (Michx.) Beauv. - Marsh reed grass

*Oryzopsis pungens* (Torr.) Hitchc. - Northern rice grass

*Poa glauca* Vahl - Glaucous blue grass

*Poa nemoralis* L. - Wood blue grass

CYPERACEAE - Sedge Family

*Carex aquatilis* Wahl. - Water sedge

*Carex atherodes* Spreng. - Awned sedge

*Carex brevior* (Dewey) Mack. - Sedge

*Carex buxbaumii* Wahl. - Brown sedge

*Carex canescens* L. - Short sedge

*Carex deflexa* Hornem. - Bent sedge

*Carex disperma* Dewey - Two-seeded sedge

*Carex leptalea* Wahl. - Bristle-stalked sedge

*Eriophorum brachyantherum* Trautv. - Close-sheathed cotton-grass

JUNCACEAE - Rush Family

*Juncus balticus* Willd. - Baltic rush

*Juncus longistylis* Torn - Long-styled rush

**BRYOPHYTA - Non-vascular Plants (Mosses & Liverworts)**

MOSSES

*Ceratodon* spp. \*

*Dicranum* spp. \*

*Hylocomium* spp.

*Pleurozium schreberi*

*Polytrichum* spp.

*Ptilium* spp. \*

*Pylaisiella* spp. \*

*Sphagnum* spp. \*



## LIVERWORTS

*Ptilidium* spp. \*

## MYCETEAE - FUNGI KINGDOM

## LICHENS

*Actinogyra muhlenbergii*

*Bryoria* spp.

*Cetraria* spp.

*Cladina mites*

*Cladina stellaris*

*Cladonia amaurocrea*

*Cladonia gracilis*

*Cladonia coccifera*

*Flavocetraria* spp.

*Hypnogymania* spp.

*Nephroma bellum*

*Parmelia* spp. \*

*Peltigera canina*

*Stereocaulon tomentosum*

*Umbilicaria deusta*

*Usnea* spp. \*

*Xanthoparmelia taractica*

\* = No voucher specimen collected

Bold = plants are rare according to the Saskatchewan Conservation Data Center.

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***Tiger Salamander***

***George Tosh***