PLANTS

A FLORISTIC INVENTORY OF THE MCLENNAN LAKE AREA, SASKATCHEWAN

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In June of 1998 1 was able to explore the McLennan Lake area, north of La Ronge, Saskatchewan. This part of the province is in the Boreal Shield ecoregion. ² 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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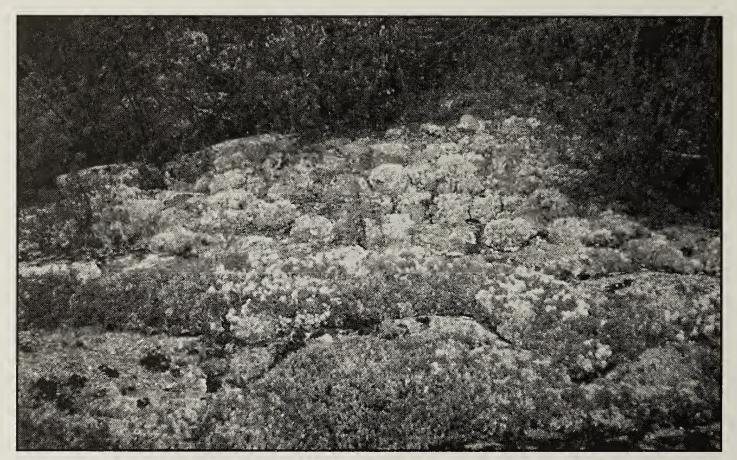


Figure 2 - Lichen-covered rock outcrop

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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 (leafforming) 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.

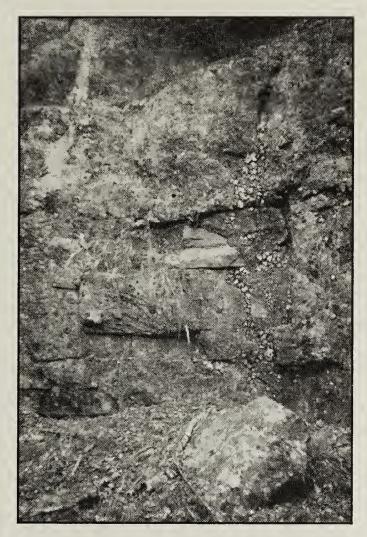


Figure 3 - A lichen and fern covered cliff Diana Bizecki Robson

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. 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 Iaricina (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

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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 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

Alnus viridis (Chaix) DC. - Green alder

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 oxyacanthoides 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

Cypripedium acaule Ait. - Stemless lady's-slipper Goodyera repens var. repens (L.) Br. -Lesser rattlesnake-plantain LILIACEAE - Lily Family Maianthemum canadense Desf - Twoleaved 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 - Furnitory 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 - Whitestem pondweed PRIMULACEAE - Primrose Family Trientalis borealis Raf - Northern Starflower **ROSACEAE - Rose Family** Comarum palustre L. - Marsh cinquefoil Potentilla norvegica L. - Rough

ORCHIDACEAE - Orchid Family

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. - Threetoothed 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. - Greenishflowered 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. - Palmateleaved colt's-foot

Senecio pauperculus Michx. - Balsam

groundsel

Solidago spathulata DC. - Mountain goldenrod

GRAMINOIDS - Grasses and Grasslike Plants

Alopecurus aequalis Sobol. - Shortawned foxtail

Calamagrostis canadensis (Michx.)

Beauv. - Marsh reed grass

POACEAE - Grass Family

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. *

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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. Hypnogymnia 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.

Acknowledgements

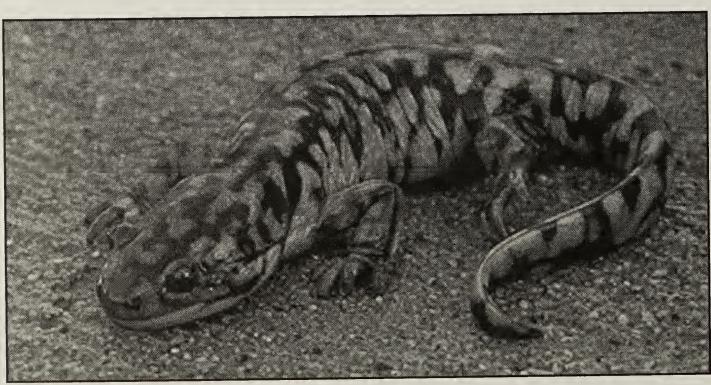
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Tiger Salamader

George Tosh