

## **Vascular Plants of the Moose River Plains and Vicinity: A Taxonomic Checklist**

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This checklist summarizes the 522 species of vascular plants of 254 genera and 86 families that we found in a six-year study of a 200 square kilometer site in the southwest Adirondack Mountains. The study area is centered in the Moose River Plains, southeast of Inlet, New York, and includes portions of Hamilton and Herkimer Counties. The study site ranges in elevation from about 550 to 900 meters and is largely forested, with a number of streams and small lakes. The area is relatively undisturbed except in the immediate vicinities of the few gravel roads and the campsites found along them.

The taxonomic designations given below are taken, with only minor reformatting, from:

Mitchell, R. S. & G. C. Tucker, Revised Checklist of New York State Plants, Edition II. In *Microsoft Word*<sup>™</sup>, 332 pp. Distributed in CD-ROM format. New York State Museum.

The asterisk symbol (\*) preceding an entry indicates that Mitchell and Tucker consider the taxon to be non-native in New York State. Approximately 85% of the species found in the study are native.

The study area is broken up into 50 2×2-km blocks. Statements of abundance are based on the percentage of blocks in which the species is found. Terrestrial species are designated as follows: rare ( $\leq 6\%$ ), uncommon (7–20%), common (21–60%), and abundant ( $> 60\%$ ). Although all 50 blocks contain at least some terrestrial habitat, only about 24 blocks contain accessible, permanent, still or slowly flowing water. If obligate aquatic species were rated using the same scale, many of the plants seen most frequently on canoeing trips would be considered uncommon. To avoid this misleading situation, the designations are redefined as follows for floating-leaved or submersed aquatic species: rare ( $\leq 4\%$ ), uncommon (5–10%), common (11–30%), and abundant ( $> 30\%$ ). Somewhat arbitrarily, emergent wetlands species occurring along shorelines are treated using the same scale as terrestrial species.

Approximate flowering periods are provided for most native wildflowers, but it is often possible to find species in flower outside the ranges indicated. The following seasonal terms are sometimes used in describing flowering periods: spring (May to early June), summer (mid-June through August), and fall (September and early October). Because the Moose River Recreation Area normally does not open to vehicular traffic until Memorial Day weekend, species indicated as flowering in late May may start somewhat earlier. Other than asters and a few other composites, there are few species flowering after mid-September.

Locations are given for many native species that are rare to uncommon in the study area, provided that they are not vulnerable to collecting and do not occur in particularly fragile areas, such as calcareous swamps. Coordinates are given in the form [12.34 56.78]. These are the number of kilometers east and north, respectively, that must be added to the base Universal Transverse Mercator (UTM) coordinates of Zone 18, 500 km E, 4800 km N. For example, the coordinates of the Spring [21.63 3.49] correspond to UTM Zone 18, 521.63 km E, 4836.49 km N, which may also be denoted as 18<sup>5</sup>21630<sup>48</sup>36490 in units of meters. Coordinates were determined from global positioning system (GPS) readings and comparison with topographic maps, using the 1927 North American Datum (NAD27), to which a GPS should be set to use the coordinates given.

The roads of the Moose River Plains and vicinity are not named consistently on current maps. The following road and place names are used in location descriptions in this document:

Limekiln Gate Rd.: runs from the NW entrance gate, near Limekilm L., SE to the Red R. Junction [20.02 37.25]

Rock Dam Rd.: runs from the Red R. Junction SW to a locked gate just past the Rock Dam Trail area, through Camping Area 1

Spring Rd.: runs mostly E from the Red R. Junction past the Spring [21.63 3.49], which has potable water, to the Plains Junction [23.49 35.19], passing through Camping Area 2.

Otter Brook Rd.: runs roughly S from the Plains Junction through Camping Area 5 to the Moose R. Bridge [24.05 33.84], then approximately E through Camping Area 6 to the Otter Brook Bridge [26.11 33.06], and finally mostly SW through Camping Area 7 to the locked gate at Indian L. (a small lake, not to be confused with the very large lake and town of the same name E of the study area)

Cedar R. Gate Rd.: runs mostly E from the Plains Junction through Camping Areas 3 and 4 to the Cedar R. (E) entrance gate, by the Cedar R. Flow.

Finally, the Moose River Plains proper are the flat, sandy areas south and east of the Plains Junction, including the areas around Helldiver and Icehouse Ponds, in total comprising about 4 square km.

The Camping Areas and ranges of site numbers are given on the map available at the entrance stations. It is hoped that the campsites are not renumbered in the future!

**Division: Lycopodiophyta**

**Class: Lycopodiopsida**

**Order: Lycopodiales**

**LYCOPODIACEAE (CLUBMOSS FAMILY)**

***Huperzia* Bernh.**

***Huperzia lucidula* (Michx.) Trev.** SHINING FIRMOSS, SHINING FIR CLUBMOSS

Abundant (41/50), in essentially all forested habitats.

***Lycopodiella* Holub**

***Lycopodiella inundata* (L.) Holub** NORTHERN BOG CLUBMOSS, MARSH CLUBMOSS

Common (21/50), in poorly drained, sandy or sphagnous areas.

***Lycopodium* L.**

***Lycopodium annotinum* L.** BRISTLY CLUBMOSS, STIFF CLUBMOSS

Common (17/50), in mostly drier forests.

***Lycopodium clavatum* L.** RUNNING-CEDAR, STAGHORN CLUBMOSS, WOLF'S-CLAWS, BUCKHORN, CORAL CLUBMOSS

Abundant (35/50), especially along sunny edges in sandy areas, often with mosses.

***Lycopodium dendroideum* Michx.** NORTHERN TREE CLUBMOSS, GROUND-PINE

Abundant (34/50), in essentially all forested habitats.

***Lycopodium digitatum* Dill. ex A. Br.** RUNNING-PINE, SOUTHERN GROUND-CEDAR, STAGHORN EVERGREEN, WOLF'S-CLAWS

Common (20/50), often in sandy soil, in shade or sun.

***Lycopodium hickeyi* Wagner, Beitel & Moran** HICKEY'S CLUBMOSS, GROUND-PINE, PRINCE'S PINE

Status unknown; a single collection from a sunny, sandy clearing on the south side of the Moose R., at the Sly Pond trailhead (by the old bridge abutments) [29.69, 36.50]. This species was not distinguished from *L. obscurum sensu stricto* until fieldwork was complete. It is possible that a number of the records attributed to the latter actually pertain to this species.

***Lycopodium obscurum* L.** GROUND-PINE, TREE CLUBMOSS

Common (31/50), in all forested habitats and sometimes in more open areas. Two collections are definitely of this taxon, but some of the many sight records of the *L. hickeyi* – *L. obscurum* group that have arbitrarily been assigned here may pertain to the latter species instead.

***Lycopodium tristachyum* Pursh** GROUND-PINE, GROUND-CEDAR

Uncommon (9/50), in dry, sandy openings. Grows with several other clubmosses on the Spring Road, across from Site 75 [20.48 36.77].

**Class: Isoëtopsida**

**Order: Isoëtales**

**ISOËTACEAE (QUILLWORT FAMILY)**

*Isoëtes* L.

*Isoëtes echinospora* Durieu STIFF QUILLWORT, SPINY-SPORED QUILLWORT

Uncommon (3/50) in sluggishly flowing water; found in the Red R., Moose R., and Sumner Stillwater.

**Division: Equisetophyta**

**Class: Equisetopsida**

**Order: Equisetales**

**EQUISETACEAE (HORSETAIL FAMILY)**

*Equisetum* L.

*Equisetum arvense* L. FIELD HORSETAIL, COMMON HORSETAIL, BOTTLEBRUSH, SCOURING RUSH

Common (25/50), in damp to dry, usually sunny, often sandy areas.

*Equisetum fluviatile* L. WATER HORSETAIL, PIPES

Rare(2/50) in the study area, but not uncommon in nearby areas. In shallow, still water in W. Lost Pond [26.25 36.94] and W. Mitchell Pond.

*Equisetum hyemale* L. SCOURING RUSH, PIPES (HORSETAIL)

Rare (2/50) in the study area, but often encountered nearby. Found along the faint trail south of W. Lost Pond [26.30 36.85] and past the gate at the SW end of the Rock Dam Rd. (on private property).

*Equisetum sylvaticum* L. WOODLAND HORSETAIL, BOTTLEBRUSH

Common (13/50), in moist areas in either shade or partial sun. Can be seen along the Otter Brook Rd., 0.1 km W of the Otter Brook Bridge [26.05 33.04].

*Equisetum variegatum* Schleich. ex Weber & Mohr VARIEGATED HORSETAIL

One station, in wet soil in an open calcareous past the gate at the SW end of the Rock Dam Rd. (on private property) This is also the only location for *Populus balsamifera* and *Salix eriocephala* in the study area.

**Division: Polypodiophyta**

**Class: Polypodiopsida**

**Order: Ophioglossales**

**OPHIOGLOSSACEAE (ADDER'S-TONGUE FAMILY)**

***Botrychium Sw.***

Three species in this genus, *B. matricariifolium*, *B. multifidum*, and *B. simplex*, have been found only in small numbers in the dry, calcareous areas near the wooden bridge on the Lost Ponds Tr. This is also the only location in the study area for *Carex vulpinoidea*, *Malaxis unifolia*, *Juncus alpinoarticulatus*, *Solidago bicolor*, and *S. hispida*.

***Botrychium dissectum* Spreng.** CUT-LEAF GRAPE-FERN, DISSECTED GRAPE FERN

Uncommon (7/50), often in shaded calcareous areas. The more and less dissected forms are approximately equally common, and are often found growing together.

***Botrychium matricariifolium* (A. Br. ex Döll) A. Br. ex Koch** MATRICARY GRAPE-FERN, DAISY-LEAF GRAPE-FERN

***Botrychium multifidum* (Gmel.) Rupr.** LEATHERY GRAPE-FERN

***Botrychium simplex* E. Hitchc.** LEAST MOONWORT, DWARF GRAPE-FERN

***Botrychium virginianum* (L.) Sw.** RATTLESNAKE FERN

Uncommon (10/50), in woodlands, often over calcareous substrates. Nine of 10 blocks with known occurrences are contiguous, forming a swath running from Mitchell Ponds east to Lost Ponds, and encompassing most of the marble outcrops in the study area.

**Order: Polypodiales**

**OSMUNDACEAE (ROYAL-FERN FAMILY)**

***Osmunda L.***

***Osmunda cinnamomea* L.** CINNAMON FERN

Common (21/50), in moist areas in either shade or sun.

***Osmunda claytoniana* L.** INTERRUPTED FERN

Abundant (38/50), in forested areas and sometimes in clearings.

***Osmunda regalis* L.** ROYAL FERN, FLOWERING-FERN

Abundant (31/50), in moist areas, growing best in sunny areas, often along water.

**PTERIDACEAE (MAIDENHAIR FAMILY)**

***Adiantum L.***

*Adiantum pedatum* L. MAIDENHAIR FERN, NORTHERN MAIDENHAIR

Uncommon (4/50), but some colonies vigorous; in forested areas, always over calcareous substrates.

**DENNSTAEDTIACEAE (BRACKEN FAMILY)**

***Dennstaedtia* Bernh.**

*Dennstaedtia punctilobula* (Michx.) Moore HAY-SCENTED FERN

Abundant (43/50), forming dense colonies in sunny, disturbed locations, but also invading forested areas.

***Pteridium* Gled. ex Scop.**

*Pteridium aquilinum* (L.) Kuhn ex Decken BRACKEN, BRAKE-FERN, BRAKE

Abundant (35/50), especially in sandy areas in partial or full sun.

**THELYPTERIDACEAE (MARSH FERN FAMILY)**

***Phegopteris* Fée**

*Phegopteris connectilis* (Michx.) Watt NORTHERN BEECH FERN, LONG BEECH FERN, NARROW BEECH FERN

Abundant (44/50), mostly in shady areas, and frequently on rocks, but also on sunny banks above water.

***Thelypteris* Schmid.**

*Thelypteris noveboracensis* (L.) Nieuwl. NEW YORK FERN

Abundant (43/50), in moist areas in either shade or partial sun.

*Thelypteris palustris* Schott MARSH FERN

Uncommon (8/50), in moist but sunny areas. Can be seen on the isthmus between the two Mitchell Ponds [20.36 35.04] and at the north end of Helldiver Pond, from a canoe.

*Thelypteris simulata* (Davenp.) Nieuwl. MASSACHUSETTS FERN, BOG FERN

One small colony in the drainage SW of Indian L., at the edge of a sphagnum bog.

**DRYOPTERIDACEAE (WOOD FERN FAMILY)**

***Athyrium* Roth**

*Athyrium filix-femina* (L.) Roth ex Mertens var. *angustum* (Willd.) Lawson NORTHERN LADY-FERN

Common (23/50), in forested areas and clearings, often near surface water.

***Cystopteris* Bernh.**

All three species of this genus occur only on calcareous rocks or slopes in one (*C. fragilis*), two (*C. bulbifera*), or three (*C. tenuis*) of four blocks between Mitchell Ponds and Lost Ponds. Nearly all sites are shaded and moist.

***Cystopteris bulbifera* (L.) Bernh. BULBLET FERN**

Can be seen from the road on the marble outcrops on the N side of the Spring Rd., 1.7 km E of the Spring [23.36 36.62].

***Cystopteris fragilis* (L.) Bernh. FRAGILE FERN, BRITTLE FERN**

A single collection was made from calcareous outcrops north of the Spring Rd., where *C. tenuis* is much more numerous. Subsequent attempts to locate this species were not successful.

***Cystopteris tenuis* (Michx.) Desv. FRAGILE FERN**

Can be found on calcareous outcrops along the Spring Rd., e.g., just W of Campsite 68 [22.97 36.55].

***Deparia* Hooker & Grev.**

***Deparia acrostichoides* (Sw.) Kato SILVERY SPLEENWORT, SILVERY GLADE FERN**

Uncommon (7/50), in moister, shady areas, often near surface water, and frequently in calcareous areas. Can be seen along the Spring Rd., 1.7 km E of the Spring [23.36 36.62].

***Dryopteris* Adans.**

***Dryopteris campyloptera* (Kunze) Clarkson MOUNTAIN WOOD FERN, SPREADING WOOD FERN, SPREADING SHIELD FERN**

Uncommon (8/50), with most stations having only a few individual plants. This is one of only a few species that is noticeably commoner at the higher elevations within the study area (which varies in elevation by only about 350 m). Lower elevation occurrences are often along watercourses. Half of the blocks of occurrence are along the eastern edge of the study area, which may be explained by the presence of high densities of this species on Wakely Mt., just 6 km away.

***Dryopteris carthusiana* (Vill.) Fuchs SPINULOSE WOOD FERN**

Uncommon (6/50), in wet soil near water, usually in sunny areas.

***Dryopteris clintoniana* (D. Eaton ex A. Gray) Dowell CLINTON'S SHIELD FERN**

Uncommon (5/50), in moist, shaded areas, often over calcareous substrates.

***Dryopteris cristata* (L.) A. Gray CRESTED WOOD FERN, CRESTED SHIELD FERN**

Common (12/50), in wet areas in either shade or sun.

***Dryopteris cristata* × *intermedia* = *D.* × *boottii* (Tuckerm.) Underw. BOOTT'S WOOD FERN**

Uncommon (4/50), occurring as isolated plants, in habitats like those of the parent *D. cristata*.

***Dryopteris goldiana* (Hooker ex Goldie) A. Gray GIANT WOOD FERN, GOLDIE'S WOOD FERN**

Rare (2/50), in shaded, calcareous, dry to moist soils.

***Dryopteris intermedia* (Mühl. ex Willd.) A. Gray** FANCY FERN, COMMON WOOD FERN

Abundant (50/50), in nearly all terrestrial habitats but less common in open sun. Some forested slopes are blanketed with this species, which remains green through the winter.

***Dryopteris marginalis* (L.) A. Gray** MARGINAL WOOD FERN

Uncommon (5/50), on shaded calcareous rocks and slopes. This species occurs only in five contiguous blocks running from Mitchell Ponds east to Lost Ponds, the region where most of our marble outcrops are found.

### ***Gymnocarpium* Newm.**

***Gymnocarpium dryopteris* (L.) Newm.** OAK FERN

Common (14/50), usually in moist shaded forests, but also on river banks. Can be found on the roadside of the fire road 0.1 km E of the Otter Brook Bridge [26.20 33.01].

### ***Matteuccia* Todaro**

***Matteuccia struthiopteris* (L.) Todaro** OSTRICH FERN, FIDDLEHEADS

Rare (2/50), in stands in wet, mostly shaded, calcareous areas.

### ***Onoclea* L.**

***Onoclea sensibilis* L.** SENSITIVE FERN

Abundant (37/50), in moist to wet areas, both in shade and open sun.

### ***Polystichum* Roth ex Roemer**

***Polystichum acrostichoides* (Michx.) Schott** CHRISTMAS FERN, SHIELD FERN

Uncommon (4/50), in dry forests on calcareous rock or rubble.

### ***Woodsia* R.Br.**

***Woodsia ilvensis* (L.) R. Br.** RUSTY WOODSIA, RUSTY CLIFF FERN

Rare (2/50), on calcareous cliffs in partial to full sun. Most easily seen on the outcrops of W. Lost Pond [26.50 36.98].

## **POLYPODIACEAE (POLYPODY FAMILY)**

### ***Polypodium* L.**

***Polypodium appalachianum* Haufler & Windham** APPALACHIAN POLYPODY, ROCK POLYPODY

Common (27/50), usually growing in dense colonies in moss on large glacial erratics or rubble. Found on both marble and gneiss substrates. Measurement of spores from seven specimens collected from different locations indicated the presence of only this diploid taxon, and no *P. virginianum* or hybrids.



**Division: Pinophyta**

**Class: Pinopsida**

**Order: Taxales**

**TAXACEAE (YEW FAMILY)**

***Taxus* L.**

***Taxus canadensis* Marsh.** AMERICAN YEW, GROUND-HEMLOCK

Uncommon (4/50), in dry forests, occurring in colonies of only a few individuals.

**Order: Pinales**

**PINACEAE (PINE FAMILY)**

***Abies* Mill.**

***Abies balsamea* (L.) Mill.** BALSAM FIR, CANADA BALSAM, BLISTERS

Abundant (47/50), in mostly dry woods and clearings.

***Larix* Mill.**

***Larix laricina* (DuRoi) Koch** LARCH, TAMARACK, HACKIMACK, HACKMATAACK

Abundant (40/50), in partial to full sun in soils ranging from dry sand to sphagnum bogs. The peak fall color usually occurs around October 17; good displays may be seen along the Red River, in the Moose River Plains proper, as near Helldiver Pond, at Indian Lake (by canoe), and along the Moose River (from the cliffs of Mitchell Ponds Mt.).

***Picea* Dietr.**

***Picea glauca* (Moench) Voss** WHITE SPRUCE, CAT SPRUCE

Occurs only as scattered trees in the shrubby area along the road 0.6 km E of the Red River Junction. This seems unlikely to be a native occurrence.

***Picea mariana* (Mill.) BSP.** BLACK SPRUCE, BOG SPRUCE

Common (17/50), often in sphagnous or sandy soils, growing in bogs or drier openings, along watercourses, and in moist forests, often forming dense stands. In the Helldiver Pond area, this species hosts the mistletoe *Arceuthobium pusillum*.

***Picea rubens* Sarg.** RED SPRUCE, HE-BALSAM

Abundant (50/50), in all terrestrial habitats.

***Pinus* L.**

***Pinus strobus* L.** WHITE PINE

Abundant (38/50), in dry forests and near lakes and rivers. Some large trees grow along the road 1 km north of the main road intersection in the Moose River Plains proper.

**\**Pinus sylvestris* L.** SCOTCH PINE, SCOTS PINE

Uncommon (6/50), in dry soils in partial or full sun.

### ***Tsuga Carrière***

***Tsuga canadensis* (L.) Carr.** EASTERN OR NORTHERN HEMLOCK, TANBARK

Common (31/50), in moister forests, with smaller trees along edges of openings.

## **CUPRESSACEAE (CYPRESS FAMILY)**

### ***Thuja* L.**

***Thuja occidentalis* L.** NORTHERN WHITE CEDAR, ARBOR-VITAE

Rare (3/50), probably because of deer browsing. Large trees grow on the shore of Limekiln L., near the inlet, and along Sumner Stillwater, but there seems to be little regeneration. The species is commonly encountered outside but near the study area.

## **Division Magnoliophyta**

### **Class: Magnoliidae**

### **Subclass: Magnoliopsida**

### **Order Nymphaeales**

The four floating-leaved species in this order all occur in still or sluggishly flowing, shallow to moderately deep water. Each species occurs in 6–8 blocks and so is classified as common. The flowering periods are very extensive, spanning summer and early fall months.

## **NYMPHAEACEAE (WATERLILY FAMILY)**

### ***Nuphar* J. Smith ex Sibth. & Sm.**

***Nuphar microphylla* (Pers.) Fern.** SMALL YELLOW POND LILY, SMALL YELLOW COWLILY, DWARF SPATTERDOCK

***Nuphar variegata* Engelm. ex Durand in Clinton** COMMON YELLOW COWLILY, YELLOW POND LILY, SPATTERDOCK

### ***Nymphaea* L.**

***Nymphaea odorata* Dryand. ex Ait.** WHITE WATERLILY, FRAGRANT WATERLILY, POND LILY, LILYPADS

## **CABOMBACEAE (WATER-SHIELD FAMILY)**

***Brasenia* Schreb.**

***Brasenia schreberi* Gmel.** WATER-SHIELD, PURPLE WEN-DOCK

This species frequently turns a deep red color in fall. The stems have an unusual gelatinous coating.

**Order: Ranunculales**

**RANUNCULACEAE (CROWFOOT FAMILY)**

***Actaea* L.**

The baneberries flower in spring, and the fruits are conspicuous in mid- to late summer.

***Actaea pachypoda* Ell.** WHITE BANEBERRY, WHITE COHOSH, DOLL'S-EYES

Common (12/50), in dry forests.

***Actaea spicata* L.** BANEBERRY, BLACK COHOSH

Uncommon (10/50), in dry forests, with 8 of 10 blocks contiguous in the marble band from Mitchell Ponds to Lost Ponds.

***Anemone* L.**

***Anemone canadensis* L.** CANADA ANEMONE, WIND-FLOWER

One station, in sandy soil in full sun, along the Rock Dam Rd., 0.6 km SW of the Red. R. Junction [19.51 36.90]. In flower during the last half of June.

***Anemone quinquefolia* L.** WOOD ANEMONE, SNOWDROPS

Uncommon (4/50), in dry woods near the western edge of the study area. Flowering at the end of May.

***Aquilegia* L.**

**\**Aquilegia vulgaris* L.** BLUE COLUMBINE, PURPLE COLUMBINE, EUROPEAN COLUMBINE, GARDEN COLUMBINE

One station, in Campsite 127, by the fire pit [16.69 35.48].

***Caltha* L.**

***Caltha palustris* L.** MARSH MARIGOLD, COWSLIP, MAY-BLOB, KING-CUP

One station, on wet ground in full sun, along a small lead off the Red .R., by a natural spring [17.14 33.72]. This location is also the only station in the study area for *Stellaria borealis*, and one of only two areas each where *Carex projecta* and *C. vesicaria* have been found. Flowering in early June.

***Clematis* L.**

***Clematis occidentalis* (Hornem.) DC.** PURPLE CLEMATIS, PURPLE VIRGIN'S-BOWER, MOUNTAIN CLEMATIS

One station, growing on the open cliffs near the east end of W. Lost Pond in a calcareous area [26.50 36.98]. This location is also our only station for *Elymus trachycaulus*, *Toxicodendron radicans*, and *Saxifraga virginensis*. Flowers briefly in late May and early June.

***Clematis virginiana* L.** VIRGIN'S-BOWER, TRAVELLER'S-JOY

Common (17/50), climbing over shrubs in sunny locations, often along watercourses. Flowering in late July and early August, after which the fluffy fruits make it easy to find.

### ***Coptis* Salisb.**

***Coptis trifolia* (L.) Salisb.** GOLDTHREADS, CANKER-ROOT, GOLDEN-THREAD

Abundant (44/50), in moist, usually shaded locations, often growing in moss. Flowering in late May and early June.

### ***Ranunculus* L.**

**\**Ranunculus acris* L.** COMMON BUTTERCUP, TALL BUTTERCUP, FIELD BUTTERCUP, FIELD CROWFOOT

Common (14/50) in disturbed areas.

***Ranunculus flammula* L. var. *filiformis* (Michx.) Hooker** CREEPING SPEARWORT, LESSER SPEARWORT

Rare (2/50), in very shallow water or frequently inundated soil along the Moose R. One site is about 4 km downstream from the bridge [21.36 33.87]. Flowering in July.

***Ranunculus hispidus* Michx.** BUTTERCUP, CROWFOOT

Rare (3/50) in wet soils by watercourses; occurs along the Moose R. and the Red R. [17.14 33.72]. Flowering in early June.

***Ranunculus recurvatus* Poir. ex Lam.** HOOKED BUTTERCUP, ROUGH BUTTERCUP, HOOKED CROWFOOT

Uncommon (9/50), in moist, shaded locations. Flowering in the first half of June.

**\**Ranunculus repens* L.** CREEPING BUTTERCUP, SPOTTED-LEAF BUTTERCUP, MEG-MANY-FEET, TOAD-TETHER

Rare (3/50), in disturbed areas.

### ***Thalictrum* L.**

***Thalictrum pubescens* Pursh** TALL MEADOW-RUE, LATE MEADOW-RUE

Abundant (40/50) in moist areas, especially openings. Flowering in June and July.

## **BERBERIDACEAE (BARBERRY FAMILY)**

### ***Caulophyllum* Michx.**

***Caulophyllum thalictroides* (L.) Michx.** (not *C. giganteum* (Farw.) LeConte & Blackwell)  
BLUE COHOSH, PAPOOSE-ROOT

One station, on a shady calcareous slope on the north side of the trail into Mitchell Ponds [21.79 35.19]. This general area also hosts our only *Carex pedunculata*, *Dicentra canadensis*, *Milium effusum*, and *Schizachne purpurascens*. Flowering in late May.

## Order: Papaverales

### FUMARIACEAE (FUMITORY FAMILY)

#### *Corydalis* Vent.

***Corydalis sempervirens* (L.) Pers.** PINK CORYDALIS, ROCK HARLEQUIN, PINK HARLEQUIN, PURPLE HARLEQUIN, PALE HARLEQUIN

One station, on south-facing granitic cliff tops north of Mitchell Ponds [19.75 35.32]. Threatened *Solidago simplex* grows nearby and is also restricted to this distinct habitat. Typically flowering in July but a few flowers may be open later in summer and in early fall.

#### *Dicentra* Bernh.

***Dicentra canadensis* (Goldie) Walp.** SQUIRREL-CORN, TURKEY-CORN

One station, on a shady calcareous slope on the north side of the trail into Mitchell Ponds [21.79 35.19]. This area also hosts our only *Carex pedunculata*, *Caulophyllum thalictroides*, *Milium effusum* and *Schizachne purpurascens*. Flowering in late May.

***Dicentra cucullaria* (L.) Bernh.** DUTCHMAN'S-BREECHES

Rare (2/50), in richer deciduous woods. A few grow along the roadside of Otter Brook Rd., 0.7 km SW of the Otter Brook Bridge [25.51 32.89]. Flowering in late May.

## Subclass: Hamamelidae

## Order: Urticales

### ULMACEAE (ELM FAMILY)

#### *Ulmus* L.

***Ulmus americana* L.** AMERICAN ELM, WHITE ELM

Rare (2/50), in calcareous, moist to wet soils.

### URTICACEAE (NETTLE FAMILY)

#### *Laportea* Gaud. ex Freyc.

***Laportea canadensis* (L.) Wedd.** WOOD-NETTLE, GIANT STINGING-NETTLE

Uncommon (4/50), in moist situations under rich or calcareous woodlands. Can be seen near the end of the Squaw L. Trail. Flowering in August.

*Urtica L.*

*Urtica dioica L.* STINGING NETTLE, GREAT NETTLE

Rare (2/50), occurring in the open, sandy areas of the Moose River Plains proper, as in Campsite 57 [24.93 35.45].

**Order: Myricales**

**MYRICACEAE (BAYBERRY FAMILY)**

*Myrica L.*

*Myrica gale L.* SWEET-GALE, MEADOW-FERN

Common (24/50) in open areas, especially shorelines and heath bogs.

**Order: Fagales**

**FAGACEAE (BEECH FAMILY)**

*Fagus L.*

*Fagus grandifolia Ehrh.* AMERICAN BEECH, BEECHNUT

Abundant (44/50), forming an important forest component in many woodlands on richer soil.

*Quercus L.*

*Quercus velutina Lam.* BLACK OAK, DYER'S OAK, YELLOW-BARK OAK

A single 30-cm high plant found in nearly pure sand along a logging road near the Moose R., on private property. Vehicle-assisted dispersal of the acorn seems likely.

**BETULACEAE (BIRCH FAMILY)**

*Alnus Mill.*

*Alnus incana (L.) Moench ssp. rugosa (DuRoi) Clausen* HAZEL ALDER

Abundant (32/50), especially in open areas along watercourses.

*Betula L.*

*Betula alleghaniensis Britt.* YELLOW BIRCH

Abundant (50/50) and a major component of the deciduous and mixed forests in the region.

*Betula cordifolia Regel* MOUNTAIN PAPER BIRCH

Common (19/50) and sometimes a significant component of mixed forests. This species is usually found at higher elevations in the Adirondacks, but the closely related and more expected taxon, *Betula papyrifera*, does not appear to occur in the study area.

***Betula populifolia* Marsh.** GRAY BIRCH, FIRE BIRCH, OLD-FIELD BIRCH, WHITE BIRCH

Common (20/50), principally in open areas, and often in sandy soil.

***Corylus* L.**

***Corylus cornuta* Marsh.** BEAKED HAZEL

Common (11/50), often in richer woods. One easily accessible location is in Campsite 44, on the Cedar R. Gate Rd. just E of the Lost Ponds Rd. [26.56 36.05].

***Ostrya* Scop.**

***Ostrya virginiana* (Mill.) Koch** HOP HORNBEAM, IRONWOOD

Uncommon (4/50) and restricted to wooded, calcareous areas. Easily seen in Campsite 67 [23.87 36.70].

**Subclass: Caryophyllidae**

**Order: Caryophyllales**

**CHENOPODIACEAE (GOOSEFOOT FAMILY)**

***Chenopodium* L.**

**\**Chenopodium album* L.** LAMB'S-QUARTERS, GOOSEFOOT, PIGWEED

One station, at the Lost Ponds Trailhead parking area [26.83 36.36], where associated with five other weeds species not found elsewhere in the study area: *Avena fatua*, *Helianthus annuus*, *Poa nemoralis*, *Raphanus raphanistrum*, and *Stellaria media*. This concentration of alien species probably arose from the presence of hay in the parking area, which is popular with equestrians.

**PORTULACACEAE (PURSLANE FAMILY)**

***Claytonia* L.**

***Claytonia caroliniana* Michx.** CAROLINA SPRING-BEAUTY

Uncommon (10/50), in richer woods. Flowering in late May and early June.

**CARYOPHYLLACEAE (PINK FAMILY)**

***Cerastium* L.**

**\**Cerastium fontanum* Baumg. emend Jalas** COMMON MOUSE-EAR, LARGE CHICKWEED, COMMON CHICKWEED

Uncommon (4/50), in disturbed areas.

***Dianthus* L.**

**\**Dianthus deltoides* L.** MAIDEN PINK, MEADOW PINK

Rare (2/50). Numbers grow in the sandy soil around the concrete Moose River Bridge.

***Silene* L.**

**\**Silene latifolia* Poir.** WHITE CHAMPION, WHITE COCKLE

Uncommon (4/50) in disturbed areas, with three of four blocks contiguous and within the area of marble bedrock.

**\**Silene vulgaris* (Moench) Garcke** BLADDER-CAMPION, MAIDEN'S-TEARS

One station, at the spring, which is also the only site for the alien *Armoracia rusticana*, *Linaria vulgaris*, *Tragopogon pratensis*, and the native *Muhlenbergia sylvatica* and *Verbena hastata*. As a natural stopping point for nearly all travelers through the area, the number of unique weeds at the spring is not surprising.

***Stellaria* L.**

***Stellaria borealis* Bigel.** NORTHERN STARWORT, STITCHWORT

One station, in a cold water pool from a natural spring, growing intermixed with *Chrysosplenium americanum* and the moss *Philonotis fontana*. Located by a small lead off the Red .R.[17.14 33.72], this location is also the only station in the study area for *Caltha palustris*, and one of only two areas each where *Carex projecta* and *C. vesicaria* have been found. Flowering in mid-August.

**\**Stellaria graminea* L.** COMMON STITCHWORT, LESSER STITCHWORT

Uncommon (4/50), in disturbed, sunny areas.

**\**Stellaria media* (L.) Vill.** COMMON CHICKWEED

One station, at the Lost Ponds Trailhead parking area, where associated with five other weeds species not found elsewhere in the study area: *Avena fatua*, *Chenopodium album*, *Helianthus annuus*, *Poa nemoralis*, and *Raphanus raphanistrum*. This concentration of alien species probably arose from the presence of hay in the parking area, which has been frequently used by equestrians.

**Order: Polygonales**

**POLYGONACEAE (BUCKWHEAT FAMILY)**

***Polygonella* Michx.**

***Polygonella articulata* (L.) Meisn.** JOINTWEED, HEATHER

A single site behind the maintenance area E of Helldiver Rd. [24.85 35.31]. Growing in pure sand in open sun. This is also the only station for *Bulbostylis capillaris*. One of our latest species, flowering until the end of September.

***Polygonum* L.**



**\**Polygonum aviculare* L.** KNOTWEED, KNOTGRASS

Rare (2/50), in campsites.

**\**Polygonum bellardii* All.** NARROW-LEAF KNOTWEED, NEEDLE-LEAF KNOTWEED

Rare (2/50), in disturbed, sandy soil.

***Polygonum cilinode* Michx.** FRINGED BINDWEED, FALSE BUCKWHEAT

Common (11/50), climbing over soil or other plants, often along edges. Flowering in late summer and early fall.

**\**Polygonum hydropiper* L.** COMMON SMARTWEED, WATER-PEPPER, POOR-MAN'S PEPPER, EYEBANE

Rare (2/50), in moist, disturbed habitats.

**\**Polygonum persicaria* L.** LADY'S-THUMB, HEART'S-EASE, SMARTWEED

Uncommon (5/50), in disturbed areas, in partial to full sun.

***Polygonum punctatum* Ell.** WATER SMARTWEED, DOTTED SMARTWEED

One station containing a few small plants, along an oxbow of the Moose R., west of Benedict Brook [22.25 33.84]. This general region is the only part of the study area with *Ludwigia palustris* and *Potamogeton spirillus*, and one of only two areas with the Threatened *Myriophyllum farwellii*.

***Polygonum sagittatum* L.** TEARTHUMB, ARROW-VINE, SCRATCH-GRASS

Uncommon (5/50), usually in moist areas with some sun. Flowering in late summer and early fall. Occurs within sight of the pipe at the Spring.

### ***Rumex* L.**

**\**Rumex acetosella* L.** SHEEP SORREL, RED SORREL, SOURGRASS

Common (20/50) in sandy soil in sun.

**\**Rumex obtusifolius* L.** BITTER-DOCK, RED-VEINED DOCK

Uncommon (8/50), in weedy areas.

## **Subclass Dilleniidae**

### **Order: Theales**

#### **CLUSIACEAE (MANGOSTEEN FAMILY)**

Most of the native members of this family are widespread in occurrence and are found primarily in damp or wet, sunny areas along shorelines, including on beaver lodges and floating logs, often associated with *Drosera* spp. Flowering is primarily in July and August.

### ***Hypericum* L.**

***Hypericum boreale* (Britt.) Bickn.** NORTHERN DWARF ST. JOHN'S-WORT

Uncommon (9/50), sometimes submersed, as in Fawn L. [17.95 39.97].

***Hypericum canadense* L.** CANADIAN ST. JOHN'S-WORT

Common (23/50), often associated with *Gentiana linearis*.

***Hypericum ellipticum* Hooker** PALE ST. JOHN'S-WORT

Common (25/50), often occurring in large stands.

**\**Hypericum perforatum* L.** ST. JOHN'S-WORT, KLAMATH-WEED, GOATWEED

Abundant (32/50), along roadsides and other dry, mostly open, disturbed, areas.

***Hypericum punctatum* Lam.** ST. JOHN'S-WORT

Uncommon (6/50), in dry to moist, shaded to sunny habitats. Found several places along the White's Pond Tr., including near the outlet of the pond [15.42 37.05].

#### ***Triadenum* Raf.**

***Triadenum fraseri* (Spach) Gleason** MARSH ST. JOHN'S WORT, PINK-FLOWERED ST. JOHN'S-WORT

Abundant (32/50), often in sphagnum. The foliage turns deep red in fall.

### **Order: Malvales**

#### **TILIACEAE (LINDEN FAMILY)**

##### ***Tilia* L.**

***Tilia americana* L.** BASSWOOD, WHITEWOOD, AMERICAN LINDEN

Occurring in calcareous areas along the Spring Rd., mostly from 0.5 to 0.9 km E of the Spring.

#### **MALVACEAE (MALLOW FAMILY)**

##### ***Malva* L.**

**\**Malva moschata* L.** MUSK-MALLOW

Rare (2/50), in sunny, disturbed areas. .

### **Order: Nepenthales**

#### **SARRACENIACEAE (PITCHER-PLANT FAMILY)**

##### ***Sarracenia* L.**

***Sarracenia purpurea* L.** PITCHER-PLANT, SIDE-SADDLE PLANT

Common (13/50), usually growing in sunny or shaded bogs, especially in sphagnum. One easily accessible location is along the Helldiver Pond Tr. [24.65 34.97]. Flowers of the year are

persistent and usually are present from late June on; earlier in the year, dessicated flowers from the previous year can usually be found.

## **DROSERACEAE (SUNDEW FAMILY)**

### ***Drosera* L.**

Both species occur in sunny, moist locations, such as shoreline sand, mud, and sphagnum, and on floating logs. All areas where the less widespread (common, 15/50) *Drosera intermedia* occur also have *D. rotundifolia* (abundant, 37/50), but the species are not found growing intermixed very often, with *D. rotundifolia* often in slightly drier areas, and *D. intermedia* sometimes submersed along the edges of islands and under logs. One location where the two do occur together is on the E shore of W. Mitchell Pond [19.81 34.94], which is an excellent location for a number of interesting species, such as *Carex lasiocarpa* (only station), *Lobelia dortmanna*, *Myriophyllum tenelleum* (one of two stations), *Rhynchospora fusca*, and *Utricularia resupinata*. Flowering from mid-July to late August.

Flowering is in July and often is restricted to a rather brief period in a given location.

***Drosera intermedia* Hayne** SUNDEW, NARROW-LEAF SUNDEW

***Drosera rotundifolia* L.** SUNDEW, ROUND-LEAF SUNDEW

## **Order: Violales**

## **VIOLACEAE (VIOLET FAMILY)**

### ***Viola* L.**

Our violets all flower in late May and early June; except *V. rotundifolia*, which usually drops its petals by the time the roads open in late May, and is our earliest flowering herb.

***Viola cucullata* Ait.** BLUE MARSH VIOLET

Common (13/50), in moist woods and openings. One station is Campsite 122 on the Rock Dam Rd. [18.33 36.64].

***Viola lanceolata* L.** LANCE-LEAF VIOLET, STRAP-LEAF VIOLET, WATER VIOLET

Uncommon (5/50), usually in damp, sandy soil in full sun. Most easily seen along the shore of Fawn L. [17.78 39.88].

***Viola macloskeyi* Lloyd** WHITE VIOLET

Abundant (40/50), in damp to wet woods, sometimes in partial sun.

***Viola pubescens* Ait.** YELLOW VIOLET, SMOOTH YELLOW VIOLET, DOWNY YELLOW VIOLET

Uncommon (7/50), in richer or even calcareous woods. Some grow along the roadside of Otter Brook Rd., 0.7 km SW of the Otter Brook Bridge [25.51 32.89].

***Viola rotundifolia* Michx.** ROUND-LEAF VIOLET, EARLY YELLOW VIOLET

Uncommon (10/50), in richer woods, frequently on banks and slopes with exposed soil. Grows a number of places along the sides of the first few km of the Limekiln Gate Rd. from the entrance gate [e.g., 2.3 km in at 18.81 40.31].

***Viola septentrionalis* Greene** NORTHERN BLUE VIOLET

Uncommon (7/50), mostly in the northwestern portion of the study area. One occurrence is in Site 129 on the Rock Dam Rd. [16.65 35.06].

**Order: Salicales**

**SALICACEAE (WILLOW FAMILY)**

***Populus* L.**

***Populus balsamifera* L.** BALSAM POPLAR, TACAMAHAC, HACKMATAK

One station, in the calcareous area past the gate at the SW end of Rock Dam Rd. (on private property), which is also the only station for *Equisetum variegatum* and *Salix eriocephala*.

***Populus grandidentata* Michx.** BIG-TOOTHED ASPEN, LARGE-TOOTHED ASPEN

Common (26/50), mostly as individual trees and small stands. In early spring, when the silvery leaves unfold, the trees are easily recognized at great distances, and their widespread occurrence is evident.

***Populus tremuloides* Michx.** QUAKING ASPEN, TREMBLING ASPEN

Abundant (34/50), often in extensive successional stands. Leaves turn bright yellow in late fall, providing, with the birches and tamaracks, much of the mid-October color.

***Salix* L.**

Willows are surprisingly uncommon in the study area. The most frequently encountered species is the alien *S. atrocinerea*, which is usually found in dry areas; the native *S. sericea* is the most common species in wet areas.

**\**Salix atrocinerea* Brot.** ASHY WILLOW

Common (11/50), as scattered individuals in mostly in partly sunny, dry areas, especially along trails and roads. This alien species is not treated in most manuals; it would most likely key to *S. bebbiana*, which does not have such ashy gray leaves, and has not been found in the study area. If bark is carefully peeled off small green branches (ca. 5 mm diameter), the diagnostic ridges one to several cm long and parallel with the branch axis may be seen. The small but well-formed willow tree across from the parking area at the Spring [21.60 36.48] is this species.

***Salix discolor* Mühl.** PUSSY-WILLOW, GLAUCOUS WILLOW

One station with a few individuals, in the open wetlands N of the Cedar R. Gate Rd., where the cliffs are seen opposite Silver Run [31.98 37.82].

***Salix eriocephala* Michx.** STIFF WILLOW, DIAMOND WILLOW, HEARTLEAF WILLOW

One station, in the calcareous area past the gate at the SW end of Rock Dam Rd. (on private property), which is also the only station for *Equisetum variegatum* and *Populus balsamifera*.

***Salix petiolaris* Sm.** SLENDER WILLOW, MEADOW WILLOW

Rare (2/50). Found in Site 80 on the Otter Brook Rd. [23.26 34.17], a rather dry site, and W of first streamlet crossing on Lost Ponds Tr. [26.89 36.50], in a wet area. Occurs at the latter location with the Threatened *S. pyrifolia*.

***Salix pyrifolia* Anderss.** BALSAM WILLOW [Threatened]

Rare (3/50), in sunny, wet areas. The most extensive colony is in a boggy area just off the snowmobile trail between Silver Run and the Moose R., due S of the sand pit on the Cedar R. Gate Rd. [33.91 37.97]. There are a few individuals just W of first streamlet crossing on Lost Ponds Tr. [26.89 36.50], which grow near *S. petiolaris*. Finally, two saplings were found in the calcareous area past the gate at the SW end of Rock Dam Rd. (on private property).

***Salix sericea* Marsh.** SILKY WILLOW

Uncommon (8/50), along shorelines, with the most extensive colonies on sand banks on the Moose R. [22.26 33.91].

**Order: Capparales**

**BRASSICACEAE (MUSTARD FAMILY)**

***Alliaria* Heist. ex Fabr.**

**\**Alliaria petiolata* (Bieb.) Cav. & Grande** GARLIC MUSTARD, HEDGE-GARLIC

Mercifully rare (2/50).

**Gaertn., Meyer & Scherb.**

**\**Armoracia rusticana* (Lam.) Gaertn., Meyer & Scherb.** HORSE-RADISH

One station, at the spring, which is also the only site for the alien *Linaria vulgaris*, *Silene vulgaris*, and *Tragopogon pratensis*, and the native *Muhlenbergia sylvatica* and *Verbena hastata*. As a natural stopping point for nearly all travelers through the area, the number of unique weeds at the spring is not surprising.

***Barbarea* R. Br. ex Ait.**

**\**Barbarea vulgaris* R. Br. ex Ait.** CRESS, YELLOW ROCKET, WINTER-CRESS

Uncommon (8/50), in open, disturbed areas.

***Capsella* Medik.**

**\**Capsella bursa-pastoris* (L.) Medik.** SHEPHERD'S-PURSE, SHEPHERD'S-POUCH, PICK-POCKET

A few plants occur in Campsite 119A on the Rock Dam Rd.

***Cardamine* L.**

All three species flower in late May and early June.

***Cardamine diphylla* (Michx.) Wood** TWO-LEAF TOOTHWORT, PEPPERWORT

Uncommon (5/50), in rich woods. One station is on Otter Brook Rd, 1.5 km E of the Moose R Bridge [25.10 33.63].

***Cardamine pensylvanica* Mühl. ex Willd.** PENNSYLVANIA BITTERCRESS

Uncommon (4/50), along open shorelines, as at the NW corner of W Lost Pond [26.02 37.10] and in the south-trending oxbow on the Moose R. W of Benedict Brook [22.25 33.84].

***Cardamine pratensis* L.** CUCKOO-FLOWER, LADY'S-SMOCK

One station, in Campsite 101 on the Otter Brook Rd. [24.64 33.54], growing in disturbed soil with *Ranunculus repens*; does not appear to be of native occurrence.

***Raphanus* L.**

**\**Raphanus raphanistrum* L.** WILD RADISH, JOINTED CHARLOCK, WHITE CHARLOCK, RAPE

One station, at the Lost Ponds Trailhead parking area [26.83 36.36], where associated with five other weeds species not found elsewhere in the study area: *Avena fatua*, *Chenopodium album*, *Helianthus annuus*, *Poa nemoralis*, and *Stellaria media*. This concentration of alien species probably arose from the presence of hay in the parking area, which is popular with equestrians.

***Turritis* L.**

***Turritis glabra* L.** TOWER-MUSTARD, TOWER-CRESS

One station, in sandy soil at the edge of Campsite 87, near the Moose R. Bridge [24.10 33.89]. Flowering in mid-July.

**Order: Ericales**

**ERICACEAE (HEATH FAMILY)**

This family is well represented in the study area, with 16 species of 10 genera. Most species flower in late May and early June, the exceptions being *Kalmia angustifolia* and the two cranberries, *Vaccinium macrocarpon* and *V. oxycoccos*, which bloom in mid-summer, and *Pyrola elliptica*, *Gaultheria procumbens*, and *Monotopa uniflora*, which flower later in summer.

***Andromeda* L.**

***Andromeda glaucophylla* Link** BOG ROSEMARY, WILD ROSEMARY, MOORWORT

Uncommon (8/50), in bogs and along lake shorelines.

***Chamaedaphne* Moench**

***Chamaedaphne calyculata* (L.) Moench** LEATHERLEAF, CASSANDRA

Common (24/50), especially along lake shorelines.

***Epigaea* L.**

***Epigaea repens* L.** TRAILING ARBUTUS, MAYFLOWER, GROUND-LAUREL

Growing only in the vicinity of W Lost Pond [e.g., at 26.52 36.88], in sandy soils under mixed forests.

***Gaultheria* L.**

***Gaultheria hispidula* (L.) Mühl. ex Bigel.** CREEPING SNOW-BERRY, MOXIE-PLUM, MAIDENHAIR-BERRY

Abundant (43/50) ground cover, in shaded mixed and coniferous woodlands, and in moist soils and sphagnum in more open situations.

***Gaultheria procumbens* L.** WINTERGREEN, CHECKERBERRY, TEABERRY, MOUNTAIN-TEA, IVORY-LEAF

Uncommon (10/50), in drier soils under deciduous and mixed forests and in openings. One convenient station is along the short trail out of Campsite 73 (staminate plants), E of the Red R. Junction [21.03 36.50].

***Gaylussacia* Kunth**

***Gaylussacia baccata* (Wang.) Koch** BLACK HUCKLEBERRY, Highbush Huckleberry

Uncommon (5/50), occurring in five contiguous blocks in the SW portion of the study area. Usually found on shorelines of, and islands in, larger lakes, such as Indian L. [19.63 29.46]. Foliage turns deep red in fall, making a particularly colorful display on islands in Squaw L.

***Kalmia* L.**

***Kalmia angustifolia* L.** SHEEP LAUREL, LAMBKILL, DWARF LAUREL, SHEEPKILL, PIGKILL

Abundant (32/50), especially in sandy soil in full sun, but also occurring in moist soils and bogs.

***Kalmia polifolia* Wang.** BOG LAUREL, SWAMP LAUREL, PALE LAUREL

Uncommon (9/50), in bogs, shorelines, and other moist, sunny locations.

***Monotropa* L.**

***Monotropa uniflora* L.** INDIAN-PIPE, CONVULSION-ROOT

Abundant (32/50), in deciduous and mixed forests.

***Pyrola* L.**

***Pyrola elliptica* Nutt.** SHINLEAF, WILD LILY-OF-THE-VALLEY

Abundant (35/50), in all forest types, in dry soil.

***Rhododendron* L.**

***Rhododendron groenlandicum* (Oeder) Kron & Judd** LABRADOR TEA

Common (30/50), in moist, mostly sunny locations, often growing in sphagnum areas. .

***Rhododendron prinophyllum* (Small) Millais** EARLY AZALEA, MOUNTAIN AZALEA, ROSE-HONEYSUCKLE, ELECTION-PINK

One station, near the SW end of Muskrat Pond, along the steep, rocky shoreline [21.11 29.38].

### ***Vaccinium* L.**

***Vaccinium angustifolium* Ait.** LOWBUSH BLUEBERRY, LOW SWEET BLUEBERRY, LATE SWEET BLUEBERRY, SWEET-HURTS

Abundant (36/50), in sunny areas with sandy soil, or even in rocky areas.

***Vaccinium macrocarpon* Ait.** CRANBERRY, LARGE CRANBERRY

Common (12/50) in bogs and along shorelines, especially in sphagnum. Can be seen by canoe with the smaller cranberry, *V. oxycoccos*, along the shore of Icehouse Pond [23.98 34.48].

***Vaccinium myrtilloides* Michx.** SOUR-TOP BLUEBERRY, VELVET-LEAF BLUEBERRY, CANADA BLUEBERRY

Abundant (38/50), in a wide range of dry habitats.

***Vaccinium oxycoccos* L.** SMALL CRANBERRY

Uncommon (9/50), in bogs and along shorelines, usually growing in sphagnum. Grows with the larger cranberry, *V. macrocarpon*, along the shore of Icehouse Pond [23.84 34.60].

## **Order: Primulales**

### **PRIMULACEAE (PRIMROSE FAMILY)**

#### ***Lysimachia* L.**

***Lysimachia ciliata* L.** FRINGED LOOSESTRIFE

Rare (2/50). Grows along side of Otter Brook Rd. 1.6 km SE of the Moose R. Bridge [25.10 33.63]. Flowering in mid-July.

***Lysimachia terrestris* (L.) BSP.** SWAMP-CANDLES, YELLOW LOOSESTRIFE

Abundant (33/50), growing in moist to wet, sunny areas. Flowering in mid-summer.

#### ***Trientalis* L.**

***Trientalis borealis* Raf.** STARFLOWER, CHICKWEED-WINTERGREEN, STAR-OF-SEVEN

Abundant (44/50) in all types of dry forests, flowering in late May and early June.

## **Subclass: Rosidae**

### **Order: Rosales**



## GROSSULARIACEAE (GOOSEBERRY FAMILY)

### *Ribes* L.

All four of our species flower in late May and early June.

***Ribes glandulosum* Grauer** SKUNK CURRANT, FETID GOOSEBERRY, STINKING GOOSEBERRY

Common (28/50), in sun or shade, but usually in moist locations.

***Ribes hirtellum* Michx.** NORTHERN GOOSEBERRY, CURRANT

Uncommon (4/50) in open, sandy areas. Most easily seen at the intersection of the Cedar R. Gate Rd. with the spur road to Helldiver Pond [24.80 35.40]. Flowering in late May and early June.

***Ribes lacustre* (Pers.) Poir.** BRISTLY BLACK CURRANT, SWAMP BLACK CURRANT

Uncommon (8/50), mostly in forested areas with calcareous bedrock. See next species.

***Ribes triste* Pallas** SWAMP RED CURRANT, WILD RED CURRANT

Rare (2/50), in swamp openings. Occurs near the beginning of the snowmobile trail to Mitchell Ponds [20.35 36.34], which starts from the Spring Rd., 0.6 km SE of the Red R. Junction, and just E of Campsite 66. The previous species occurs just upslope [20.28 36.24] from this one.

## SAXIFRAGACEAE (SAXIFRAGE FAMILY)

All three members of this family flowers in late May and early June.

### *Chrysosplenium* L.

***Chrysosplenium americanum* Schwein. ex Hooker** GOLDEN SAXIFRAGE, WATER-MAT, WATER-CARPET

Uncommon (6/50), in saturated soil or cold, shallow water.

### *Saxifraga* L.

***Saxifraga virginiensis* Michx.** EARLY SAXIFRAGE

One station, growing on the open cliffs near the east end of W. Lost Pond in a calcareous area [26.50 36.98]. This location is also our only station for *Clematis occidentalis*, *Elymus trachycaulus*, and *Toxicodendron radicans*.

### *Tiarella* L.

***Tiarella cordifolia* L.** FOAMFLOWER, FALSE MITERWORT

Abundant (41/50), in moist woodlands.

## ROSACEAE (ROSE FAMILY)

### *Agrimonia* L.

***Agrimonia gryposepala* Wallr.** COMMON AGRIMONY, STICKSEED, COCKLEBUR, HARVEST LICE

Rare (3/50), in dry mixed forest and openings. Easily found in Campsite 122 on the Rock Dam Rd. [18.33 36.64] and along the Lost Ponds Tr. just before the bridge [26.88 36.81]. Flowering in late July and early August.

***Amelanchier* Medik.**

Our species have finished flowering by the first week in June.

***Amelanchier arborea* (Michx. f.) Fern.** SHADBUSH, SERVICEBERRY

One station, on south-facing cliffs on the ridge north of W Mitchell Pond [19.72 35.34].

***Amelanchier arborea* × *sanguinea* = *A.* × *interior* Nielsen** SERVICEBERRY

Common (12/50), usually occurring as scattered individuals.

***Amelanchier bartramiana* (Tausch) Roemer** MOUNTAIN JUNE BERRY

Uncommon (8/50), usually along edges of dry openings. Can be seen along the Otter Brook Rd. just N of the Sumner Stream crossing [23.44 35.54].

***Amelanchier humilis* Wieg.** BUSH JUNE BERRY

Common (19/50), with extensive stands in the sandy soil of the Moose R. Plains proper. The foliage of our plants may be atypically robust, possibly intergrading with *A. sanguinea*.

***Aronia* Medik.**

***Aronia melanocarpa* (Michx.) Ell.** BLACK CHOKEBERRY

Common (14/50), often in sandy soil in the sun, but also in richer soils and tolerating some shade. The peak of the flowering season is in the second week of June, when there are impressive displays in the Moose R. Plains proper.

***Crataegus* L.**

***Crataegus macrosperma* Ashe *sensu lato*** HAWTHORN, BIG-FRUITED HAW

Uncommon (6/50), mostly in sandy soil in sunny locations. Specimens from the Beaver L. parking area [23.77 33.74] were kindly identified by J. B. Phipps. Other material, such as that from the NE end of the Rock Dam Rd. [19.80 37.14] (by the normally open gate), are essentially identical in appearance and are assumed to be the same species. Flowering in the first half of June.

***Dalibarda* L.**

***Dalibarda repens* L.** FALSE-VIOLET, ROBIN-RUN-AWAY, DEWDROP

Abundant (34/50) in moist areas, especially under conifers. Flowering in mid- to late summer.

***Fragaria* L.**

***Fragaria virginiana* Dcne.** WILD STRAWBERRY, VIRGINIA STRAWBERRY

Abundant (37/50), in a range of open, often sandy habitats. Flowering mostly in spring but some flowers present through much of the summer.

***Geum L.***

***Geum aleppicum Jacq.* YELLOW AVENS**

Uncommon (5/50), in openings, often in calcareous areas. Can be seen in Campsite 70 [22.13 36.58] on the Spring Rd. and Campsite 108 [26.04 33.64] on the Otter Brook Rd. Flowering in August.

***Geum canadense Jacq.* WHITE AVENS**

Uncommon (4/50), often in sandy soil. Can be seen in Campsite 67 [23.87 36.70] on the Spring Rd. and Campsite 87 [24.10 33.89] just N of the Moose R. Bridge. Flowering in July.

***Geum rivale L.* PURPLE AVENS, CHOCOLATE-ROOT, WATER AVENS**

Uncommon (8/50), in swamps and bogs. Can be seen just south of the Mitchell Ponds Tr. about 0.6 km before the first pond [21.53 36.08]. Flowering in June.

***Malus P. Mill.***

**\**Malus pumila Mill.* COMMON APPLE, PARADISE APPLE**

One station, in a previously inhabited clearing on the Otter Brook Rd.

***Potentilla L.***

Our four native cinquefoils flower in early summer, whereas the alien *Potentilla recta* blooms in late summer.

***Potentilla norvegica L.* ROUGH CINQUEFOIL, THREE-LEAF CINQUEFOIL**

Uncommon (10/50), often along roadsides or in campsites. Can be seen along Rock Dam Rd., 0.6 km from the Red R. Junction [19.51 36.90].

***Potentilla palustris (L.) Scop.* MARSH CINQUEFOIL, FIVE-FINGERS, PURPLE CINQUEFOIL**

Rare (3/50), despite a number of areas having seemingly suitable habitat. Found at Muskrat Pond [21.65 29.73] and Balsam L. [16.57 30.41].

**\**Potentilla recta L.* SULFER CINQUEFOIL, FIVE-FINGERS**

Uncommon (5/50), occurring in disturbed areas in five adjacent blocks from the Red R. Junction to Helldiver and Lost Ponds.

***Potentilla simplex Michx.* COMMON CINQUEFOIL, OLD-FIELD CINQUEFOIL, FIVE-FINGERS**

Common (27/50), in sunny situations, in dry and sandy to moist and sphagnum areas.

***Potentilla tridentata Soland. ex Ait.* THREE-TOOTHED CINQUEFOIL**

One station, in washed out area on the north side of the Cedar R. Gate Rd., just W of the Cellar Brook crossing [33.97 38.90]. At 685 m, this is an unusually low-elevation occurrence of the species.

***Prunus* L.**

***Prunus pensylvanica* L. f.** PIN-CHERRY, FIRE-CHERRY, WILD RED CHERRY, BIRD-CHERRY, PIGEON-CHERRY

Uncommon (10/50), in brushy, open areas with sandy soil, mostly in the triangle between the Red R. Junction, Lost Ponds, and the Moose R. Bridge. The period of flowering is very brief and occurs near the end of May.

***Prunus serotina* Ehrh.** BLACK CHERRY, WILD CHERRY, RUM-CHERRY

Abundant (42/50), in deciduous forests and along edges.

***Prunus virginiana* L.** CHOKE-CHERRY

Common (15/50), in sunny areas.

***Rosa* L.**

***Rosa palustris* Marsh.** SWAMP ROSE

One station, along the shoreline of Indian L., at its SW corner [19.65 28.63]. There is considerable similar habitat not occupied by the species. Flowering in the first half of August.

***Rubus* L.**

*Rubus pubescens* flowers in late May and early June; the other three species in early to mid-summer.

***Rubus allegheniensis* Porter ex Bailey *sensu lato*** NORTHERN BLACKBERRY, SOW-TEAT BLACKBERRY, HIGHBUSH BLACKBERRY

Abundant (47/50), both in shaded forests and openings, even occurring in loose sand.

***Rubus hispidus* L. *sensu lato*** SWAMP DEWBERRY, RUNNING BLACKBERRY

Common (19/50), especially in moist areas, including sphagnum bogs.

***Rubus idaeus* L. *ssp. strigosus* (Michx.) Focke** RED RASPBERRY

Abundant (34/50) in deciduous woodlands and openings.

***Rubus pubescens* Raf.** DWARF RASPBERRY, PLUMBOY

Abundant (32/50), usually in shaded deciduous and mixed woodlands.

***Sanguisorba* L.**

***Sanguisorba canadensis* L.** CANADIAN BURNET, AMERICAN BURNET, GREAT BURNET

Uncommon (9/50), in wet openings and along shorelines of lakes and rivers. The best displays of this attractive species are found on the path into Indian L. [20.10 28.91] and along its shoreline. The species flowers in August.

***Sorbus* L.**

***Sorbus americana* Marsh.** AMERICAN MOUNTAIN ASH, ROWAN, DOGBERRY, ROUNDWOOD, MISSY-MOOSEY (MOZAMIZE)

Abundant (46/50), in woodlands and along edges. Flowering in early summer; the orange fruits persist late into fall, providing a striking contrast after an early snowfall.

***Spiraea* L.**

***Spiraea alba* DuRoi** MEADOW-SWEET

Abundant (42/50), in sunny, usually moist areas. Flowering in early to mid-summer.

***Spiraea tomentosa* L.** HARDHACK, STEEPLE-BUSH, CANADA TEA

Common (22/50), the best colonies growing in full sun. Flowering in mid-summer.

**Order: Fabales**

**FABACEAE (BEAN FAMILY)**

***Melilotus* Mill.**

**\**Melilotus alba* Desr. ex Lam.** WHITE SWEET-CLOVER, WHITE MELILOTUS

One station, just NW of the Moose R. bridge, in loose, sandy soil, in full sun.

***Trifolium* L.**

**\**Trifolium aureum* Pollich** YELLOW CLOVER, HOP-CLOVER

Uncommon (4/50), in sandy, disturbed areas.

**\**Trifolium hybridum* L.** ALSIKE CLOVER

One station, by the wooden fish dam at the end of the Lost Ponds trail. This location is one of only two for the alien *Hypochaeris radicata*; these species may have been introduced during the construction of the dam.

**\**Trifolium pratense* L.** RED CLOVER

Uncommon (6/50), in campsites; probably more frequent than indicated.

**\**Trifolium repens* L.** WHITE CLOVER, LAWN-CLOVER, DUTCH-CLOVER

Uncommon (9/50), mostly in campsites; probably more frequent than indicated.

***Vicia* L.**

***Vicia cracca* L.** COW-VETCH, TUFTED-VETCH, CANADA-PEA

Uncommon (9/50), in weedy areas. Flowering in late June and early July.

## Order: Haloragales

### HALORAGACEAE (WATER MILFOIL FAMILY)

#### *Myriophyllum* L.

***Myriophyllum farwellii* Morong** WATER MILFOIL, (FARWELL'S) MILFOIL [Threatened]

Rare (2/50), in sluggishly flowing, acidic waters. Small numbers in the Moose R. oxbows west of Benedict Brook [22.63 33.85 and downstream], and larger colonies in Sumner Stillwater [26.95 37.07 and upstream]. Fruiting in August.

***Myriophyllum tenellum* Bigel.** SLENDER WATER MILFOIL

Rare (2/50). Grows in very shallow water along the Moose R. NW of Beaver L, and on the E shore of W Mitchell Pond [20.36 35.07], which is an excellent location for a number of interesting species, such as *Carex lasiocarpa* (only station), both *Drosera*, *Lobelia dortmanna*, and *Rhynchospora fusca*, and *Utricularia resupinata*, and also . The inconspicuous but intricate flowers can be seen on emerged stems in August.

## Order: Myrtales

### ONAGRACEAE (EVENING-PRIMROSE FAMILY)

#### *Circaea* L.

***Circaea alpina* L.** DWARF ENCHANTER'S NIGHTSHADE

Uncommon (4/50), in moist, rich woods, usually in calcareous areas. Flowering in early July.

***Circaea lutetiana* L.** ENCHANTER'S NIGHTSHADE

Rare (2/50), occurring in rich woods, e.g., along the Lost Ponds trail near its high point, before the bridge [26.90 36.89]. Flowering in late August.

#### *Epilobium* L.

***Epilobium angustifolium* L.** WILLOW-HERB, FIREWEED, WICKUP

Common (12/50), especially along roadsides in sandy areas. Flowering in late June and early July, the fluffy white fruits obvious in late summer.

***Epilobium ciliatum* Raf.** WILLOW-HERB

Uncommon (10/50), in moist or wet, usually at least partially sunny locations. Flowering in late July and early August.

#### *Ludwigia* L.

***Ludwigia palustris* (L.) Ell.** WATER PURSLANE, MARSH PURSLANE

One station, along the south-trending oxbow from the Moose R., west of Benedict Brook [22.25 33.84] .This general region is the only part of the study area with *Polgonum punctatum* and *Potamogeton spirillus*, and one of only two areas with the Threatened *Myriophyllum farwellii*.

***Oenothera* L.**

***Oenothera biennis* L.** COMMON EVENING-PRIMROSE, GARDEN EVENING PRIMROSE

Uncommon (6/50), along roadsides, e.g., on the Spring Rd., 0.3 km E of the Spring [21.82 36.49]. Flowering in August.

***Oenothera perennis* L.** SUNDROPS

Uncommon (4/50), often in moist, sandy areas. Found on the Otter Brook Rd., 0.4 km SW of Falls Pond Outlet [24.49 32.15]. Flowering in late June and early July.

**Order: Cornales**

**CORNACEAE (DOGWOOD FAMILY)**

***Cornus* L.**

***Cornus alternifolia* L. f.** GREEN OSIER, PAGODA DOGWOOD

Common (20/50), in woodlands and along edges.

***Cornus canadensis* L.** BUNCHBERRY, DWARF CORNEL, PUDDING-BERRY

Abundant (44/50), in all woodlands but especially those with coniferous components. Flowering in spring.

***Cornus sericea* L.** RED OSIER, RED DOGWOOD, AMERICAN DOGWOOD

Common (11/50), especially along sandy river banks and lakeshores.

**Order: Santalales**

**VISCACEAE (MISTLETOE FAMILY)**

***Arceuthobium* Bieb.**

***Arceuthobium pusillum* C. Peck** DWARF MISTLETOE

Found sparingly, growing on branches of *Picea mariana* between Helldiver Pond and the Cedar R. Gate Rd. [e.g., at 24.80 35.05] It seems likely that this inconspicuous mistletoe occurs elsewhere on black spruce; trees with "witches' brooms" (deformed clusters of branches) are particularly worth checking.

**Order: Celastrales**

**AQUIFOLIACEAE (HOLLY FAMILY)**

***Ilex* L.**

***Ilex verticillata* (L.) A. Gray** BLACK ALDER, WINTERBERRY

Uncommon (8/50), usually growing along lakeshores. Flowering in July; good displays of the orange berries can be seen in August on the N shore of the SW cove of Indian L [19.59 29.43].

***Nemopanthus* Raf.**

***Nemopanthus mucronatus* (L.) Loesener ex Koehne** MOUNTAIN HOLLY, CATBERRY

Common (23/50), especially along lakeshores, often growing on rocky shorelines or islands. Flowering is early in June; the summertime berries are a unique and striking color, a dark wine red with a bluish glaucous cast. This interesting shrub can be seen conveniently where the trail ends by the campsite on the E shore of E Mitchell Pond [20.83 35.12] (mostly pistillate plants) and at the edge of the opening reached from a short trail out of Campsite 73 (staminate plants), E of the Red R. Junction [21.03 36.50].

**Order: Polygales**

**POLYGALACEAE (MILKWORT FAMILY)**

***Polygala* L.**

***Polygala sanguinea* L.** ROSE MILKWORT, FIELD MILKWORT, BLOOD MILKWORT

One station, by a sandy pull-out on the north side of the Limekilm Gate Rd., above Fawn L. [18.26 40.24]. The beautiful carmine-colored flowers may be seen in late August and early September.

**Order: Sapindales**

**ACERACEAE (MAPLE FAMILY)**

***Acer* L.**

***Acer pensylvanicum* L.** STRIPED MAPLE, MOOSEWOOD, GREEN-STRIPED MAPLE, WHISTLEWOOD

Abundant (45/50) in woodlands.

***Acer rubrum* L.** RED MAPLE, SOFT MAPLE, SCARLET MAPLE, SWAMP MAPLE

Abundant (46/50), in all woodlands and dry or wet open areas. In sunnier locations, this species starts showing good fall color in mid-August. Because of the combination of its protracted season, intense red color, and frequent growth along edges and in open areas where it is more easily appreciated, this species, rather than the next, provides most of the better displays of fall color in the study area.

***Acer saccharum* Marsh.** SUGAR MAPLE, ROCK MAPLE, HARD MAPLE

Abundant (49/50) in all woodlands. The best fall color display in the study area is along the NW shore of Indian L., which is easily viewed from the end of the short trail to its shore. This area reseeded densely with maple after a forest fire in the 1950s.



***Acer spicatum* Lam.** MOUNTAIN MAPLE

Common (19/50) in moist woodlands and openings. Flowering in early June. Easily seen around the Spring.

**ANACARDIACEAE (SUMAC FAMILY)**

***Toxicodendron* Mill.**

***Toxicodendron radicans* (L.) Kuntze** POISON IVY, POISON OAK

One station, growing on the open cliffs near the east end of W. Lost Pond in a calcareous area [26.50 36.98]. This location is also our only station for *Clematis occidentalis*, *Elymus trachycaulus*, and *Saxifraga virginensis*.

**Order: Geraniales**

**OXALIDACEAE (OXALIS FAMILY)**

***Oxalis* L.**

***Oxalis montana* Raf.** COMMON WOOD-SORREL, AMERICAN SHAMROCK, NORTHERN WOOD-SORREL

Abundant (45/50), in shaded forests, especially under conifers. Flowering in June.

***Oxalis stricta* L.** LADY'S-SORREL

Uncommon (10/50), in disturbed areas, flowering nearly all summer long.

**GERANIACEAE (GERANIUM FAMILY)**

***Geranium* L.**

***Geranium maculatum* L.** WILD GERANIUM, SPOTTED GERANIUM, ALUMROOT, PURPLE CRANESBILL

One station, by the firepit in Campsite 44, near the Lost Ponds Rd.[26.56 36.05]; origin questionable. Flowering in mid-June.

**\**Geranium robertianum* L.** HERB-ROBERT

Rare (2/50).

**BALSAMINACEAE (TOUCH-ME-NOT FAMILY)**

***Impatiens* L.**

***Impatiens capensis* Meerb.** SPOTTED JEWELWEED, TOUCH-ME-NOT, SNAPWEED

Common (25/50), in moist to wet shaded or partially sunny areas, in richer soil. Flowering in late summer.

***Impatiens pallida* Nutt.** PALE JEWELWEED, TOUCH-ME-NOT, SNAPWEED

Rare (3/50), occurring in small numbers with the preceding species. Found along the fire road paralleling Otter Brook, in three adjacent blocks. Flowering in August.

## **Order: Apiales**

### **ARALIACEAE (GINSENG FAMILY)**

#### ***Aralia* L.**

***Aralia hispida* Vent.** BRISTLY SARSAPARILLA, DWARF-ELDER

Common (14/50) in sandy, sunny locations. An easy place to see it is in the gravel pit on the Lost Ponds Rd. [26.58 36.27]. Flowering in early summer.

***Aralia nudicaulis* L.** WILD SARSAPARILLA

Abundant (45/50) in forested areas. Flowering in early summer.

***Aralia racemosa* L.** SPIKENARD, PETTY-MORREL, LIFE-OF-MAN

Occurs as several isolated, large plants in one block, under rich, deciduous forest. One plant grows right along the roadside opposite the trail into Squaw Lake [22.01 31.00]. Flowering in mid-August.

#### ***Panax* L.**

***Panax trifolius* L.** DWARF GINSENG, GROUND-NUT

Common (14/50) under deciduous and coniferous forests; flowering in late May and early June. Good numbers are found in the moist woods south of the Mitchell Ponds Tr., 0.5 km from the trailhead [26.58 36.27].

### **APIACEAE (CARROT FAMILY)**

#### ***Cicuta* L.**

***Cicuta bulbifera* L.** WATER-HEMLOCK

Rare (3/50), along shorelines, as on the north side of Beaver L. [20.58 33.02]. Poisonous. Flowering in late August.

#### ***Daucus* L.**

**\**Daucus carota* L.** QUEEN-ANNE'S-LACE, WILD CARROT

Rare (2/50), in weedy areas, as at the Spring.

#### ***Heracleum* L.**

***Heracleum maximum* Bartr.** COW-PARSNIP, MASTERWORT

One station with a few plants, downslope from the Otter Brook Rd., 0.7 km W of the Otter Brook Bridge [25.46 32.97]. Flowering in mid-July.

#### ***Hydrocotyle* L.**

***Hydrocotyle americana* L.** PENNYWORT, NAVELWORT

Uncommon (4/50), usually in wet soil in shade, but also seen on a beaver lodge in full sun at the NE corner of E Mitchell Pond [20.80 35.18]. Flowering in August.

***Osmorhiza* Raf.**

***Osmorhiza claytonii* (Michx.) Clarke** SWEET JARVIL, SWEET CICELY

Uncommon (8/50), in moist, rich woodlands. Flowering in June.

***Pastinaca* L.**

**\**Pastinaca sativa* L.** WILD PARSNIP

One station in Campsite 70 just E of the Spring [22.13 36.58].

***Sanicula* L.**

***Sanicula marilandica* L.** BLACK SNAKEROOT, SANICLE

Uncommon (5/50) and restricted to calcareous areas. Found near the beginning of the snowmobile trail to Mitchell Ponds [20.28 36.24], which starts from the Spring Rd., 0.6 km SE of the Red R. Junction, and just E of Campsite 66. Also seen along the Mitchell Ponds Tr. Flowering in mid-July.

***Zizia* Koch**

***Zizia aurea* (L.) Koch** GOLDEN ALEXANDERS

Uncommon (8/50), usually in moist, sunny areas with rich soil. Flowering in late spring to early summer. Easily seen by the pulloff where Muskrat Creek crosses Otter Brook Rd. [21.22 29.93]

**Subclass: Asteridae**

**Order: Gentianales**

**GENTIANACEAE (GENTIAN FAMILY)**

***Gentiana* L.**

***Gentiana linearis* Froel.** CLOSED GENTIAN

Abundant (38/50), in sunny, moist areas. Flowering in late July through August.

**APOCYNACEAE (DOGBANE FAMILY)**

***Apocynum* L.**

***Apocynum androsaemifolium* L.** SPREADING DOGBANE, PINK DOGBANE, INDIAN HEMP

Common (27/50), in dry soils, usually in at least partial sun.

**ASCLEPIADACEAE (MILKWEED FAMILY)**

*Asclepias* L.

*Asclepias syriaca* L. COMMON MILKWEED

Uncommon (5/50), in sunny, mostly dry situations. There is a significant stand in Campsite 70, just E of the Spring [22.13 36.58].

**Order: Solanales**

**SOLANACEAE (NIGHTSHADE FAMILY)**

*Solanum* L.

\**Solanum dulcamara* L. TRAILING NIGHTSHADE, BITTERSWEET, CLIMBING NIGHTSHADE

One station, in Campsite 70, just E of the Spring [22.13 36.58].

**MENYANTHACEAE (BUCKBEAN FAMILY)**

*Menyanthes* L.

*Menyanthes trifoliata* L. BUCKBEAN, BOGBEAN

Uncommon (7/50), mostly in sphagnum in sunny locations. Flowering in late May and early June. A few plants occur at the end of the Icehouse Pond Tr. [23.91 34.43], and good numbers can be seen by canoe at the N end of Helldiver Pond [24.25 34.93].

*Nymphoides* Seg.

*Nymphoides cordata* (Ell.) Fern. FLOATING-HEART

Rare (2/50), occurring on Indian L. and Beaver L. Flowering in mid-July.

**Order: Lamiales**

**BORAGINACEAE (BORAGE FAMILY)**

*Myosotis* L.

\**Myosotis scorpioides* L. FORGET-ME-NOT

One station, at a streamlet near the first campsite on the SE shore of Squaw L. [21.20 30.80].

\**Myosotis sylvatica* Hoffm. GARDEN FORGET-ME-NOT

One station, in Campsite 129 on Rock Dam Rd. [16.65 35.06].

**VERBENACEAE (VERBENA FAMILY)**

*Verbena* L.

***Verbena hastata* L.** BLUE VERVAIN, BLUE VERBENA, SIMPLER'S-JOY

One station, at the Spring, which is also the only site for *Muhlenbergia sylvatica* and several weed species. Flowering in the first half of August.

**LAMIACEAE (MINT FAMILY)**

***Clinopodium* L.**

**\**Clinopodium vulgare* L.** BASIL, WILD BASIL, BASIL-WEED, DOG-MINT

Uncommon (7/50), in open, often disturbed sites. Flowering in July and August.

***Galeopsis* L.**

**\**Galeopsis tetrahit* L. var. *bifida* (Bönn.) Lej. & Court.** HEMP-NETTLE

Uncommon (4/50) in disturbed, but sometimes shaded, areas.

***Lycopus* L.**

***Lycopus americanus* Mühl. ex Bart.** WATER-HOREHOUND, BUGLEWEED

One station, along Limekiln Gate Rd, 0.8 km from the entrance gate [17.55 40.38].

***Lycopus uniflorus* Michx.** WATER-HOREHOUND, BUGLE-WEED

Abundant (45/50) in moist areas in both sun and shade. Diminutive plants often found growing on emersed logs in lakes. Flowering in July and August.

***Mentha* L.**

**\**Mentha arvensis* L.** FIELD MINT

One station, growing on sunny rock outcrops at the Sumner Stillwater outlet [26.94 37.02].

***Prunella* L.**

**\**Prunella vulgaris* L.** SELF-HEAL, HEAL-ALL, PRUNELLA

Common (27/50), growing in both sunny and shady disturbed areas.

***Scutellaria* L.**

***Scutellaria galericulata* L.** HOODED SKULLCAP, COMMON SKULLCAP

Uncommon (8/50), usually found along marshy shorelines, often hidden in grasses and other vegetation. Flowering in July and early August.

***Scutellaria lateriflora* L.** COMMON SKULLCAP, MAD-DOG SKULLCAP

Uncommon (7/50) in moist, shaded locations. Flowering in late July and early August. Most easily seen in Campsite 127 on the Rock Dam Rd. [16.69 35.48].

**Order: Callitrichales**

**CALLITRICHACEAE (WATER-STARWORT FAMILY)**

*Callitriche* L.

*Callitriche heterophylla* Pursh WATER-STARWORT

Uncommon (3/50), in sluggish waters, as in Sumner Stillwater [27.25 37.25] and the Moose R. oxbows W of Benedict Brook [22.63 33.85].

**Order: Plantaginales**

**PLANTAGINACEAE (PLANTAIN FAMILY)**

*Plantago* L.

\**Plantago lanceolata* L. BUCK-HORN PLANTAIN, RIB-GRASS, RIPPLEGRASS, RIBWORT, ENGLISH PLANTAIN

Uncommon (8/50), in disturbed areas.

\**Plantago major* L. COMMON PLANTAIN, DOORYARD PLANTAIN, BROAD-LEAF PLANTAIN, CAR(T)-TRACK PLANT, WHITE-MAN'S FOOT

Common (24/50), in a range of disturbed areas.

*Plantago rugelii* Dcne. PALE PLANTAIN, GRAND PLANTAIN, RUGEL'S PLANTAIN, WHITE-MAN'S FOOT

Rare (2/50). This native species has been found near the Rock Dam Gate and in a campsite on Otter Brook Rd, 0.4 km SW of Falls Pond Outlet [24.49 32]. Flowering in early July.

**OLEACEAE (OLIVE FAMILY)**

*Fraxinus* L.

*Fraxinus americana* L. WHITE ASH, AMERICAN ASH

One station, in the immediate vicinity of the Limekiln entrance gate [17.02 40.61].

*Fraxinus nigra* Marsh. BLACK ASH

Uncommon (5/50), in rich swamps.

**SCROPHULARIACEAE (FIGWORT FAMILY)**

*Chelone* L.

*Chelone glabra* L. TURTLE-HEADS, BALMONY, SNAKE-HEADS

Common (17/50), in wet areas, often along shorelines. Grows along the Spring Rd, 0.9 km N of the Plains Junction [23.75 36.14]. Flowering in late July and early August.

*Euphrasia* L.

\**Euphrasia stricta* Wolff ex Lehm. EYEBRIGHT

Rare (3/50), in sandy soils in sun. Occurs along the Lost Ponds Tr. near its high point [26.88 36.81]. Flowering from late July to early Sept.

***Linaria* Mill.**

**\**Linaria vulgaris* Mill.** BUTTER-AND-EGGS, WILD SNAPDRAGON, COMMON TOADFLAX, RAMSTEAD

One station, at the spring, which is also the only site for the alien *Armoracia rusticana*, *Silene vulgaris*, *Tragopogon pratensis*, and the native *Muhlenbergia sylvatica* and *Verbena hastata*. As a natural stopping point for nearly all travelers through the area, the number of unique weeds at the spring is not surprising.

***Melampyrum* L.**

***Melampyrum lineare* Desr.** COW-WHEAT

Uncommon (6/50), in sandy, sunny areas. Found in small numbers along the Cedar R. Gate Rd, between the Plains Junction and the Helldiver Pond Rd. Flowering in early summer.

***Verbascum* L.**

**\**Verbascum thapsus* L.** MULLEIN, MULE'S-EAR, FLANNEL-PLANT, DEVIL'S-TOBACCO, VELVET DOCK, MULLEIN-DOCK

Rare (3/50). in heavily disturbed soil, in sun.

***Veronica* L.**

**\**Veronica chamaedrys* L.** BIRD'S-EYE SPEEDWELL

Rare (2/50), in campsites.

**\**Veronica officinalis* L.** SPEEDWELL, GYPSY-WEED

Abundant (32/50). along edges and in forested areas.

**\**Veronica serpyllifolia* L. ssp. *serpyllifolia*** THYME-LEAF SPEEDWELL

Uncommon (6/50), in campsites.

**OROBANCHACEAE (BROOM-RAPE FAMILY)**

***Epifagus* Nutt.**

***Epifagus virginiana* (L.) Bartr.** BEECH-DROPS, CANCER-ROOT

Common (15/50), invariably growing under beech trees, the roots of which it parasitizes. Can be found along the side of the Limekiln Gate Rd. near the entrance gate, e.g., 0.5 km in [17.31 40.56]. Flowering in late summer, but dry plants from the previous year can be found all season.

***Orobanche* L.**

***Orobanche uniflora* L.** ONE-FLOWERED CANCER-ROOT

Uncommon (4/50) in sandy soil, usually concealed by vegetation. Occurs only in four of five contiguous blocks from the Red R. Junction to Lost Ponds. Can be found with careful searching along the Rock Dam Rd., 0.6 km W of the Red R. Junction [19.51 36.90], near the colony of *Anemone canadensis*.

## LENTIBULARIACEAE (BLADDERWORT FAMILY)

### *Utricularia* L.

This genus is well-represented in the study area with 7 species. Co-occurrences of 4 species are found in the Beaver L. (W side), Indian L., Fawn L., and Muskrat Pond. Flowering season highly variable, perhaps depending upon local water levels; several species were rarely or never were found flowering in the study area.

#### *Utricularia cornuta* Michx. HORNED BLADDERWORT

Common (11/50), in saturated soils in full sun. Large colonies can be seen in many sphagnum areas, often along shorelines, during the last half of the summer, e.g., at Fawn L., Muskrat Pond, and White's Pond.

#### *Utricularia geminiscapa* Benj. BLADDERWORT

Common (12/50) in shallow, still or sluggishly flowing waters. Although submersed, cleistogamous flowers are commonly found in the latter half of the summer, emerged flowers were only found once (but then by the hundreds), in late July. Abundant at the E end of Fawn L. [18.58 40.11], occurring there with *U. purpurea* and the Threatened *Potamogeton confervoides*.

#### *Utricularia gibba* L. CONE-SPUR BLADDERWORT

Uncommon (3/50), in saturated soils on shorelines. Occurs in W Beaver L. [20.26 32.81], Fawn L., and Muskrat Pond. Found flowering once, in early September.

#### *Utricularia intermedia* Hayne MILFOIL BLADDERWORT

Common (8/50) in shallow, sluggishly flowing waters. Not seen in flower.

#### *Utricularia macrorhiza* LeConte COMMON BLADDERWORT

Uncommon (4/50) in deeper and faster flowing waters. Not seen in flower but a substantial colony of large plants occurs at the Sumner Stillwater outlet [26.94 37.02].

#### *Utricularia purpurea* Walt. PURPLE BLADDERWORT

Common (6/50), in deeper, still waters. Flowering from mid-July to mid-September. Many of our plants, such as some in NW Beaver L. [20.86 32.66], are very pale in color, appearing almost white, but still having the distinct yellowish orange bar on the lower lip. Found at the E end of Fawn L. [18.58 40.11] with *U. geminiscapa* and the Threatened *Potamogeton confervoides*.

#### *Utricularia resupinata* B. Greene ex Bigel. BLADDERWORT

Uncommon (4/50), in saturated soil. In good years, thousands can be seen in flower in the SW cove of E Mitchell Pond and a few occur nearby along the E shore of W Mitchell Pond [20.37 35.12], which is an excellent location for a number of interesting species, such as *Carex lasiocarpa* (only station), both *Drosera*, *Lobelia dortmanna*, *Myriophyllum tenelleum* (one of two stations), and *Rhynchospora fusca*. Flowering from mid-July to late August.



## Order: Campanulales

### CAMPANULACEAE (BLUEBELL FAMILY)

#### *Lobelia* L.

##### *Lobelia dortmanna* L. WATER LOBELIA, WATER GLADIOLE

Uncommon (4/50), occurring in the shallow waters of Indian, Squaw, and Limekiln Lakes, and on the E shore of W Mitchell Pond. Flowering in late July and early August.

##### *Lobelia inflata* L. INDIAN-TOBACCO

Common (11/50) in dry to moist soils principally in sunny areas. Flowering in August.

## Order: Rubiales

### RUBIACEAE (MADDER FAMILY)

#### *Galium* L.

##### *Galium asprellum* Michx. ROUGH BEDSTRAW

Common (17/50) in openings and along edges. Flowering in August.

##### \**Galium mollugo* L. WHITE BEDSTRAW, FALSE BABY'S-BREATH, ADDER

Uncommon (9/50) in disturbed areas.

##### *Galium tinctorium* (L.) Scop. BEDSTRAW, CLEAVERS

Common (18/50) in moist to wet habitats, including emersed logs. Flowering in July.

##### *Galium triflorum* Michx. SWEET-SCENTED BEDSTRAW

Common (22/50) in forested areas, tolerating deep shade. Flowering in late June and July.

#### *Houstonia* L.

##### *Houstonia caerulea* L. BLUEETS, QUAKER-LADIES, INNOCENCE

Common (11/50) in moist openings and edges. Nine of 11 blocks of occurrence, from the end of the Rock Dam Rd. east to the Otter Brook Bridge area, are contiguous. Flowering in late May and early June.

##### *Houstonia longifolia* Gaertn. PALE BLUEETS

One occurrence, in the calcareous area stretching from the Lost Pond Tr., just past the bridge [26.81 36.99], to the rock outcrops on W Lost Pond [26.50 36.98]. Flowering in late June and early July.

#### *Mitchella* L.

##### *Mitchella repens* L. PARTRIDGE-BERRY, TWINBERRY, RUNNING BOX, TWO-EYED BERRY, MITCHELLA

Common (16/50), in dense shade, often under conifers. Flowering in June and early July.

**CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)**

***Diervilla* Mill.**

***Diervilla lonicera* Mill. BUSH HONEYSUCKLE**

Common (28/50), especially along forest edges. Flowering in late June and July.

***Linnaea* L.**

***Linnaea borealis* L. TWINFLOWER, LINNAEA**

Common (13/50), in shaded, often moist and mossy areas, and occasionally in sun, especially when growing in sphagnum. Flowering in June and July.

***Lonicera* L.**

***Lonicera canadensis* Bartr. FLY HONEYSUCKLE**

Abundant (35/50), in forested areas throughout. Flowering in late May and early June.

***Lonicera hirsuta* Eaton HAIRY HONEYSUCKLE**

Uncommon (6/50), in dry, brushy flats. Occurs in 6 contiguous blocks from the Red R. Junction to the Moose R. Plains proper and Lost Ponds. Can be seen along the short trail to Icehouse Pond [23.66 34.19]. Flowering in late June and early July.

***Lonicera villosa* (Michx.) R. & S. WATERBERRY, MOUNTAIN FLY HONEYSUCKLE, NORTHERN FLY HONEYSUCKLE**

Rare (3/50). Found only in the dry, brushy flats of the Moose River Plains proper, as at the junction of the Cedar River Gate Rd. and the Helldiver Pond Rd. [24.80 35.40]. Flowering in late May and early June.

***Sambucus* L.**

***Sambucus canadensis* L. BLACK ELDERBERRY, COMMON ELDER**

Uncommon (9/50), mostly on sunny banks of watercourses, especially the Moose R. Found in somewhat atypical habitat along the Otter Brook Rd., 0.6 km S of the Plains Junction [23.34 34.70]. Flowering from mid-July to mid-August.

***Sambucus racemosa* L. RED ELDERBERRY, STINKING ELDERBERRY**

Abundant (36/50), in most forested habitats. Flowering in spring.

***Viburnum* L.**

***Viburnum dentatum* L. SOUTHERN ARROWWOOD**

Common (22/50) in moist areas along edges and in openings.

***Viburnum lantanooides* Michx. HOBBLEBUSH, WITCH-HOBBLE, MOOSEWOOD, TANGLEWOOD**

Abundant (48/50), in all forested areas. Flowering in late May and early June.

***Viburnum nudum* L.** POSSOM-HAW, SWAMP-HAW, WITHE-ROD, APPALACHIAN TEA, SWAMP-HAW, TEABERRY

Abundant (40/50), in partial or full sun. Flowering in July. As the berries mature to dark blue, they pass through a stage when they are a striking pink.

***Viburnum opulus* L.** CRANBERRY-BUSH, CRANBERRY-TREE, GROUSE-BERRY, PIMBINA

Uncommon (7/50), mostly near water. Can be seen along the south edge of the Rock Dam Rd., about 0.9 km from the Red R. Junction. [19.28 36.73]. Flowering in June.

## Order: Asterales

### ASTERACEAE (ASTER FAMILY)

This family contains the second and third best-represented genera in the study area, *Aster* (13 spp. and one hybrid) and the goldenrods *Solidago* (11 spp.), although these fall far behind the sedges of *Carex* (40 spp.).

#### ***Achillea* L.**

**\**Achillea millefolium* L.** COMMON YARROW, MILFOIL

Common (13/50) in disturbed areas.

#### ***Ambrosia* L.**

***Ambrosia artemisiifolia* L.** RAGWEED, HOGWEED, BITTERWEED

Rare (2/50). One location is in Campsite 130 on the Rock Dam Rd. [15.76 34.48]. Flowering in late August and early September.

#### ***Anaphalis* DC.**

***Anaphalis margaritacea* (L.) Benth. & Hooker f. ex Clarke** PEARLY- EVERLASTING

Abundant (39/50) in sunny areas, often in dry sand but also in moister soils. Starts flowering in July, and the well-preserved heads are present through late fall.

#### ***Antennaria* Gaertn.**

***Antennaria neglecta* Greene (*A. neodioica* Greene)** EVERLASTING, PUSSY'S-TOES

Common (13/50), usually in sandy or rocky areas, and generally in at least partial sun. Flowering in spring.

#### ***Aster* L.**

Our asters flower from late July (*A. nemoralis* and *A. umbellatus*) to early October (*A. cordifolius* and *A. novae-angliae*). Species flowering mostly in August are *A. divaricata*, *A. longifolius*, *A. macrophylla*, *A. puniceus*, and *A. umbellatus*; the remainder peak in September.

***Aster acuminatus* Michx.** MOUNTAIN ASTER, WOOD ASTER, WHORLED ASTER

Abundant (46/50) in forested areas.

***Aster acuminatus* × *nemoralis* = *A.* × *blakei* (Porter) House** ASTER

Rare (3/50). This hybrid between *A. acuminatus* and *A. nemoralis* occurs in three adjacent blocks in the extreme NW corner of the study area. At the transition between forest and bog just N of the Limekiln L. inlet, it occurs very close to both parents, but at the two roadside occurrences on the Limekiln Gate Rd., only *A. acuminata* has been found nearby (however, one of these stations is directly above Fawn L. [18.26 40.24], which would seem to provide suitable habitat for *A. nemoralis*, although we have not found it there).

***Aster cordifolius* L.** BLUE WOOD ASTER

Uncommon (6/50) in dry soils along forest edges. Occurs in 6 contiguous blocks from the Red R. Junction to the east. Can be seen along the Spring Rd. just S of the big curve at Campsite 67 [23.84 36.65] and in Campsite 57 on the Cedar R. Gate Rd. [24.93 35.45]. Has smaller leaves and flowers significantly later than *A. macrophyllus*.

***Aster divaricatus* L.** WHITE WOOD ASTER

Uncommon (6/50), in dry openings, as in Campsite 108 on the Otter Brook Rd. [26.04 33.64].

***Aster lanceolatus* Willd.** TALL WHITE ASTER

Uncommon (7/50), along roadsides and trailsides. A stand of tall plants occurs at the Spring [21.63 36.49].

***Aster lateriflorus* (L.) Britt.** CALICO ASTER

Rare (3/50), on trailsides and roadsides.

***Aster longifolius* Lam.** LONG-LEAF BOG ASTER

Uncommon (4/50) in fairly dry to moist sand or even sphagnum moss, usually in direct sun. This species is not found under this name in most manuals, but is instead treated under *A. novi-belgii* or *A. robbynsianus*. It is most easily located in the brushy flats along the Spring Rd, 0.6 km SE of Red R Junction [20.21 36.78].

***Aster macrophyllus* L.** BIGLEAF ASTER

Uncommon (10/50), in rich woods.

***Aster nemoralis* Ait.** BOG ASTER

One station with several thousand plants, along the boggy N shore and sphagnum islands of Limekiln L. Inlet, in the SE corner of the lake [16.30 39.05]. This is also the only location for *Carex rosea* and *C. tenera*, and one of only two locations for *Calamagrostis pickeringii*.

***Aster novae-angliae* L.** NEW ENGLAND ASTER

Uncommon (4/50), occurring as isolated plants along rich or even calcareous woodland edges.

***Aster ontarionis* Wieg.** ONTARIO ASTER

Rare (2/50) and at the edge of its range. Occurring as small colonies in rich woodlands, along the Limekiln Gate Rd. 0.9 km from the gate [17.63 40.27], and several places along the Rock Dam.

Rd., e.g., 0.6 km SW of White's Pond Tr. [16.58 35.00]. Some plants growing near more typical *A. ontarionis* on the Rock Dam Rd., but usually in deeper shade, may instead be *A. lanceolatus*.

***Aster prenanthoides* Mühl. ex Willd.** ZIG-ZAG ASTER, CROOKSTEM ASTER

Uncommon (9/50) in richer woodlands, as along the Otter Brook Rd, 0.6 km NE of the Squaw L trailhead [22.35 31.47].

***Aster puniceus* L.** PURPLE-STEMMED ASTER

Common (26/50) in moist, open areas. .

***Aster umbellatus* Mill.** FLAT-TOP WHITE ASTER, PEEWEE DAISY

Abundant (41/50) in dry to moist, open to partially shaded areas.

### ***Bidens* L.**

Both of our species flower in late August and September.

***Bidens cernua* L.** STICK-TIGHTS, BUR-MARIGOLD

Rare (2/50) on wet, sunny shorelines, as along the W side of Beaver L. [20.26 32.81].

***Bidens frondosa* L.** BEGGAR-TICKS, STICK-TIGHTS

Rare (3/50), in wet roadside ditches in rich woodlands. Can be seen along Limekiln Gate Rd., 0.8 km in from the gate [17.51 40.38].

### ***Centaurea* L.**

Both of these aliens are rare (2/50), and occur in disturbed, sunny areas.

**\**Centaurea maculosa* Lam.** BUSHY KNAPWEED

**\**Centaurea nigra* L. (var. *radiata* DC.)** BLACK KNAPWEED, SPANISH-BUTTONS, HARDHEADS

### ***Cichorium* L.**

**\**Cichorium intybus* L.** CHICORY, BLUE-SAILORS, CORNFLOWER, SUCCORY, WITLOOF

Rare (2/50) on weedy roadsides.

### ***Cirsium* Mill.**

***Cirsium muticum* Michx.** SWAMP-THISTLE

Common (13/50), in a variety of habitats, but reaching greatest size and numbers in swamps and wet openings in wooded areas. Large plants occur along Spring Rd., 1.7 km E of the Spring [23.36 36.62]. Flowering in July and early August.

### ***Erigeron* L.**

*E. philadelphicus* flowers in spring, whereas the two smaller-flowered species bloom in summer.

***Erigeron annuus* (L.) Pers.** DAISY-FLEABANE, DAISY, WHITE-TOP, WHITE SCABIOUS, SWEET SCABIOUS

Uncommon (6/50), along roadsides.

***Erigeron philadelphicus* L.** FLEABANE, DAISY

Rare (3/50), occurring in dry, shaded areas in three blocks along the W edge of the study area.

***Erigeron strigosus* Mühl. ex Willd.** DAISY-FLEABANE, WHITE-TOP

Common (11/50), along roadsides.

### ***Eupatorium* L.**

***Eupatorium maculatum* L. var. *maculatum*** SPOTTED JOE-PYE-WEED

Common (21/50) in moist to wet openings and meadows. Flowering in July and August.

***Eupatorium perfoliatum* L.** THOROUGHWORT, BONESET

Common (17/50) in usually moist, sunny, heavily vegetated areas. Flowering in August.

***Eupatorium rugosum* Houtt.** WHITE SNAKEROOT, WHITE SANICLE

Rare (2/50), in calcareous woodlands in two adjacent blocks. Can be seen along Spring Rd., 1.7 km E of the Spring [23.36 36.62]. Flowering in August.

### ***Euthamia* Nutt. ex Cass.**

***Euthamia graminifolia* (L.) Nutt. ex Cass.** BUSH GOLDENROD, FLAT-TOP GOLDENROD

Abundant (42/50) in dry, sunny areas throughout. Flowering from late July to early September.

### ***Galinsoga* Ruiz & Pavón**

**\**Galinsoga quadriradiata* Ruiz & Pavón** QUICKWEED

One station, in shaded Campsite 23 off the Cedar R Gate Rd. [31.89 37.61].

### ***Helianthus* L.**

**\**Helianthus annuus* L.** COMMON SUNFLOWER, MIRASOL

One station, with a few depauperate plants, at the Lost Ponds Trailhead parking area [26.83 36.36], where associated with five other weeds species not found elsewhere in the study area: *Avena fatua*, *Chenopodium album*, *Poa nemoralis*, *Raphanus raphanistrum*, and *Stellaria media*. This concentration of alien species probably arose from the presence of hay in the parking area, which is popular with equestrians.

### ***Hieracium* L.**

All three hawkweeds are common and are found in sandy soils where there is at least a little sun.. The first two species are alien but can be found along footpaths even deep in forested areas, far from any other obvious disturbance.

**\**Hieracium aurantiacum* L.** ORANGE HAWKWEED, DEVIL'S PAINTBRUSH

**\**Hieracium caespitosum* Dumort.** KING-DEVIL

***Hieracium scabrum* Michx.** HAWKWEED

Common (22/50) in sandy soils in dry woodlands, usually along trails. Flowering in August.

***Hypochoeris* L.**

**\**Hypochoeris radicata* L.** CAT'S-EAR

Rare (2/50), in weedy areas.

***Lactuca* L.**

Both wild lettuces flower in August and are chiefly found along wooded roadsides. The two species may be compared along the Rock Dam Rd. 1 km before the gate at the end [15.87 34.69]. These, with *Cirsium muticum*, are among our tallest herbaceous species.

***Lactuca biennis* (Moench) Fern.** WILD LETTUCE, BLUE LETTUCE

Common (24/50).

***Lactuca canadensis* L. var. *longifolia* (Michx.) Farw.** WILD LETTUCE, GIANT LETTUCE

Uncommon (6/50).

***Leucanthemum* Mill.**

**\**Leucanthemum vulgare* Lam.** OX-EYE DAISY, WHITE DAISY, WHITEWEED, MARGUERITE, FIELD DAISY

Common (22/50) in weedy areas.

***Matricaria* L.**

**\**Matricaria discoidea* DC.** PINAPPLE-WEED

Rare (2/50) in dry, sandy soil.

***Picris* L.**

**\**Picris hieracioides* L.** OX-TONGUE

One station in waste gravel along the Limekiln Gate Rd.

***Prenanthes* L.**

***Prenanthes altissima* L.** RATTLESNAKE-ROOT

Abundant (36/50) in forested areas. Flowering in August.

***Rudbeckia* L.**

**\**Rudbeckia hirta* L. var. *pulcherrima* Farw.** BLACK-EYED-SUSAN, YELLOW DAISY

One station, in fill dirt at the Moose R. Bridge.

## Senecio L.

Both ragworts flower in late June and early July.

### ***Senecio aureus* L.** GOLDEN RAGWORT, GROUNDSEL, SQUAW-WEED

Uncommon (7/50) in moist, often shaded situations. Easily seen along the road by the Rock Dam trailhead and along Otter Brook Rd, opposite Campsite 109 [26.15 33].

### ***Senecio schweinitzianus* Nutt.** RAGWORT, GROUNDSEL

Uncommon (6/50), in sandy soil in partial to full sun. Five of six blocks of occurrence are contiguous, from the Red R. Junction to the Moose R. Plains proper and Lost Ponds. Can be seen along the Helldiver Pond Rd., near Campsite 60 [24.75 35.34].

## *Solidago* L.

Our goldenrods (excluding *Euthamia graminifolia*) start flowering in very late July and persist to early October, with relatively little distinction in flowering dates between species. All except *S. arguta*, *S. flexicaulis* and *S. macrophylla* are usually found in at least partially sunny locations.

### ***Solidago arguta* Ait.** CUTLEAF GOLDENROD

Rare (3/50) in calcareous woodlands or in shaded, sandy soil, as along the Otter Brook Rd. at the trailhead to Icehouse Pond [23.48 34.05].

### ***Solidago bicolor* L.** WHITE GOLDENROD, SILVER-ROD

One station, with the only occurrence of the closely related *S. hispida*, in the calcareous area near the Lost Ponds bridge [26.88 36.94]. This is also the only location for three species of grape ferns (*Botrychium*), *Carex vulpinoidea*, *Juncus alpinoarticulatus*, and *Malaxis unifolia*.

### ***Solidago canadensis* L. var. *canadensis*** CANADA GOLDENROD, COMMON GOLDENROD

Common (13/50).

### ***Solidago flexicaulis* L.** ZIG-ZAG GOLDENROD

Uncommon (4/50), in calcareous woodlands in four contiguous blocks. Most easily seen along the Spring Rd, on the rock outcrops 1.7 km E of the Spring [23.36 36.62].

### ***Solidago hispida* Mühl. ex Willd.** GOLDENROD

One station, with the only occurrence of the closely related *S. bicolor*, in the calcareous area near the Lost Ponds bridge [26.81 36.99]. This is also the only location for three species of grape ferns (*Botrychium*), *Carex vulpinoidea*, *Juncus alpinoarticulatus*, and *Malaxis unifolia*.

### ***Solidago macrophylla* Pursh** LARGE-LEAF GOLDENROD

Common (14/50), in mixed and coniferous forests.

### ***Solidago nemoralis* Ait.** ROUGH GOLDENROD, GRAY GOLDENROD, OLD-FIELD GOLDENROD

Rare (2/50), with only a few plants at each station. Fairly common in sandy areas not far outside the study area.



***Solidago puberula* Nutt. DOWNY GOLDENROD**

One station, on a gravelly bank along the Cedar R. Gate Rd., 1.1 km W of the sand pit [33.00 48.38].

***Solidago rugosa* Mill. ssp. *rugosa* var. *rugosa* TALL HAIRY GOLDENROD, BUTTERWEED**  
Abundant (43/50).

***Solidago simplex* Kunth ssp. *randii* (Porter) Ringius var. *randii* MOUNTAIN GOLDENROD**  
[Threatened]

Rare (2/50), on sunny granitic cliffs N of Mitchell Ponds [19.96 35.33] and on Mitchell Ponds Mt., which lies between Mitchell Ponds and Beaver L. [21.09 34.19]. These two locations of this Threatened species are about 1.6 km apart. The first location can be reached by a short cross-country foray from the snowmobile trail leading north from the trail junction just E of E Mitchell Pond. The second location is a long (several hours one way) hike off the main trail into Mitchell Ponds, but offers the best scenic view in the study area, encompassing Beaver L. and the Moose R. oxbows.

***Solidago uliginosa* Nutt. var. *linoides* (Torrey & A. Gray) Fern. SWAMP GOLDENROD, BOG GOLDENROD**

Uncommon (8/50), usually in marshy or boggy areas, but occasionally in drier, sandy areas, as in the brushy flats along the Spring Rd., 0.6 km SE of Red R Junction [20.26 36.77].

***Taraxacum* Weber ex Wiggers**

**\**Taraxacum officinale* Weber ex Wiggers COMMON DANDELION**

Common (23/50) in grassy and weedy areas.

***Tragopogon* L.**

**\**Tragopogon pratensis* L. YELLOW GOAT'S-BEARD**

One station, at the Spring [21.63 36.49].

***Tussilago* L.**

**\**Tussilago farfara* L. COLTSFOOT, COLTSFOOT DANDELION**

Rare (3/50) along gravelly roadsides, mostly in calcareous areas.

**Class: Liliopsida**

**Subclass: Alismatidae**

**Order: Alismatales**

**ALISMATACEAE (WATER-PLANTAIN FAMILY)**

***Sagittaria* L.**

***Sagittaria graminea* Michx.** GRASS-LEAF SAGITTARIA

Uncommon (4/50) in extremely shallow water or saturated shoreline soil. Flowering in late August and early September, but only rarely seen in bloom in the study area. Occurs in 4 contiguous blocks in Muskrat Pond and Indian, Squaw, and Beaver Lakes.

***Sagittaria latifolia* Willd.** WAPATO, DUCK-POTATO

Common (10/50) in shallow water; flowering in July.

**Order: Najadales**

**POTAMOGETONACEAE (PONDWEED FAMILY)**

***Potamogeton* L.**

Our pondweeds all occur in still or sluggishly flowing water, although *P. oakesianus* can also be found in areas with considerable current.

***Potamogeton amplifolius* Tuckerm.** PONDWEED

Uncommon (3/50), occurring in Sumner Stillwater and the Moose R. and at Lost Ponds, both in the W pond [26.10 37.08] and in Sumner Stillwater (which is the E pond).

***Potamogeton confervoides* Reichenb.** PONDWEED, (ALGAE-LIKE) PONDWEED  
[Threatened]

Common (8/50) in the study area, despite its Threatened status in the state. Frequently associated with *Utricularia geminiscapa*. Occurs in The Red R., Indian L. inlet, Muskrat Pond, Sumner Stillwater, Limekiln L., and Fawn L. Can be conveniently seen by walking a few yards NW along the shore from the bridge by the Red R. Junction [20.02 37.25].

***Potamogeton epihydrus* Raf.** PONDWEED

Common (14/50).

***Potamogeton natans* L.** PONDWEED

Rare (2/50), occurring in NW Beaver L. [20.55 33.01] and at Lost Ponds.

***Potamogeton oakesianus* Robbins** OAKES' PONDWEED

Common (9/50).

***Potamogeton pusillus* L. var. *tenuissimus* Mert. & Koch** PONDWEED

One station, in Stink L. [15.09 30.64].

***Potamogeton spirillus* Tuckerm.** PONDWEED

One station, in the Moose R. oxbows area W of Benedict Brook, 1.5 km downstream from the carry from Campsite 80 [22.30 33.85].

**NAJADACEAE (NAIAD FAMILY)**

***Najas* L.**

*Najas flexilis* (Willd.) Rostk. & Schmidt NAIAD, MERMAID WEED

One station, in Stink L. [15.09 30.64].

**Subclass: Arecidae**

**Order: Arales**

**ARACEAE (ARUM FAMILY)**

*Arisaema* Mart.

*Arisaema triphyllum* (L.) Schott ex Schott & Endl. ssp. *triphyllum* JACK-IN-THE-PULPIT,  
INDIAN-TURNIP

Uncommon (10/50) in richer forests.

*Calla* L.

*Calla palustris* L. WATER ARUM, WILD CALLA

Rare (3/50), in sphagnum. Found in Indian L. and Muskrat Pond, on a small island in SE Beaver L. [21.25 32.75].

**Subclass: Commelinidae**

**Order: Eriocaulales**

**ERIOCAULACEAE (HATPIN FAMILY)**

*Eriocaulon* L.

*Eriocaulon aquaticum* (Hill) Druce WHITE-BUTTONS, HATPINS, PIPEWORT

Common (17/50) in shallow water and saturated soils and sphagnum along shorelines.

**Order: Juncales**

**JUNCACEAE (RUSH FAMILY)**

*Juncus* L.

*Juncus alpinoarticulatus* Chaix ex Vill. ALPINE RUSH

One station, in the calcareous area just N of the bridge on the Lost Ponds Tr. [26.82 37.00]. This is also the only station for three species of grape ferns (*Botrychium*), *Carex vulpinoidea*, *Malaxis unifolia*, *Solidago bicolor*, and *S. hispida*.

*Juncus brevicaudatus* (Engelm.) Fern. NARROW-PANICLED RUSH

Abundant (43/50) in moist to saturated soils and sphagnum

*Juncus canadensis* Gay ex LaHarpe CANADA RUSH

Rare (2/50), on a sphagnous island in Muskrat Pond [21.47 29.68] and along the moist shoreline of Squaw L. [20.82 31.16].

***Juncus effusus* L. var. *pylabei* (LaHarpe) Fern. & Wieg.** COMMON RUSH, SMOOTH RUSH, SOFT RUSH

Abundant (31/50) in moist to wet, partly shaded to open areas.

***Juncus filiformis* L.** THREAD-RUSH

Uncommon (7/50) in moist, sunny areas. The best stands are along the shoreline of Sumner Stillwater [27.24 37.34], but the species is most conveniently seen along the edge of the Cedar R. Gate Rd. at its intersection with the Lost Ponds Rd. [26.45 36.00].

***Juncus pelocarpus* Meyer** BROWN-FRUITED RUSH

Common (16/50) in moist, sunny areas; Often found on floating logs and sphagnum islands. This inconspicuous species can be seen along the S shore of the river just W of the bridge by the Red R. Junction [19.98 37.21].

***Juncus tenuis* Willd.** SLENDER YARD-RUSH

Common (11/50) in dry, sandy soil in full sun. Easily seen in the parking lot for the W Canada Lakes Tr. [25.01 32.33].

### ***Luzula* DC.**

***Luzula acuminata* Raf.** HAIRY WOOD-RUSH

Rare (2/50) in calcareous areas.

***Luzula campestris* (L.) DC. in Lam. & DC. var. *multiflora* (Retz.) Lej.** COMMON WOOD-RUSH

Uncommon (5/50) in at least partly sunny areas in the W half of the study area, as in the brushy flats S of the Spring Rd., 0.6 km SE of Red R. Junction [20.21 36.78].

## **Order: Cyperales**

### **CYPERACEAE (SEDGE FAMILY)**

#### ***Bulbostylis* Kunth**

***Bulbostylis capillaris* (L.) Clarke** SAND-RUSH

One station, in deep, dry sand just past the maintenance area S of the Cedar R. Gate Rd., 0.2 km E of Helldiver Rd. [24.85 35.31]. This is also the only location for *Polygonella articulata*.

#### ***Carex* L.**

This genus is by far the largest in the study area, with 40 spp. represented.

***Carex aquatilis* Wahl.** SEDGE

One station, in a marshy area just N of Otter Brook Rd along Muskrat Creek [21.22 29.93].

***Carex arctata* Boott ex Hooker** SEDGE

Rare (2/50) in shaded, calcareous areas, often growing in moss.

***Carex bromoides* Schkuhr ex Willd.** SEDGE

Rare (2/50) in wet, shaded, calcareous areas.

***Carex brunnescens* (Pers.) Poir. ex Lam.** SEDGE

Common (19/50) in moist areas, tolerating shade.

***Carex canescens* L.** SEDGE

Rare (3/50) in sphagnum bogs, as along the E and N shores of Helldiver Pond [24.19 35.00].

***Carex cephaloidea* (Dewey) Dewey** SEDGE

One station, in sandy Campsite 129 on Rock Dam Rd. [16.65 35.06].

***Carex communis* Bailey** SEDGE

Uncommon (5/50), but in a variety of habitats in the W half of the study area. Can be found on the calcareous slope 1.0 km from the Mitchell Ponds trailhead [22.81 35.48].

***Carex crawfordii* Fern.** SEDGE

Uncommon (4/50) but found in a variety of situations, e.g., on sandbars in the Moose R. and along woodland edges (as by the gravel pit on Rock Dam Rd., 2.5 km from Red R. Junction [17.98 36.38]).

***Carex cryptolepis* Mackz.** SEDGE

Rare (2/50), in moist to wet, sunny, calcareous areas near Lost Ponds and on the E shore of E Mitchell Pond [20.83 35.12].

***Carex debilis* Michx. var. *rudgei* Bailey** SEDGE

Common (24/50) in both forested and open areas in dry soils.

***Carex echinata* Murr.** SEDGE

Common (19/50) in moist soils (including sphagnum), in either sun or shade.

***Carex exilis* Dewey** SEDGE

Rare (2/50) in sphagnum bogs and on sandy shorelines. Occurs along the shorelines of Bear Pond and Helldiver Pond [24.39 34.99] and in bogs near the latter.

***Carex flava* L.** SEDGE

Rare (2/50) in moist areas in sun or shade. Occurs in the Spring area [21.63 36.49] and along Benedict Brook.

***Carex folliculata* L.** SEDGE

Common (14/50) in open areas such as bogs, beaver pond meadows, etc. .

***Carex gracillima* Schwein.** SEDGE

Rare (2/50), in shaded, calcareous areas. Can be seen near Campsite 49, by the Lost Ponds trailhead parking [26.83 36.36].

***Carex gynandra* Schwein. SEDGE**

Abundant (43/50), in moist to wet areas in at least partial sun.

***Carex intumescens* Rudge SEDGE**

Common (29/50) in dry or sometimes moist forested areas.

***Carex lasiocarpa* Ehrh. SEDGE**

One station, along the E shore W Mitchell Pond [20.37 35.15] in wet soil in direct sun.

***Carex leptoneuria* (Fern.) Fern. SEDGE**

Uncommon (7/50) in forests, often in calcareous areas. Most easily seen around Campsite 67 on the Spring Rd.

***Carex lurida* Wahl. SEDGE**

Common (14/50) in moist to wet open areas.

***Carex michauxiana* Boeckl. SEDGE**

Uncommon (4/50), along open shorelines and in bogs. The largest stands are along the shore of Sumner Stillwater [27.24 37.34].

***Carex novae-angliae* Schwein. SEDGE**

Common (12/50) in dry forests.

***Carex oligosperma* Michx. SEDGE**

Uncommon (6/50), usually in open sphagnum, as at the inlet at the SE corner of Limekiln L. [16.42 39.00].

***Carex pallescens* L. SEDGE**

One station, in the grassy opening at the end of the Beaver L. Tr. [20.82 32.97].

***Carex pauciflora* Lightf. SEDGE**

Occurring in sphagnum bogs near Helldiver Pond.

***Carex paupercula* Michx. SEDGE**

Rare (2/50), along the sphagnum shores of Helldiver [24.28 34.98] and Icehouse Ponds.

***Carex pedunculata* Mühl. ex Willd. SEDGE**

One station, on a shaded calcareous slope above the Mitchell Ponds Tr., 1.0 km from the trailhead [22.81 35.48]. This area also hosts our only *Caulophyllum thalictroides*, *Dicentra canadensis*, *Milium effusum* and *Schizachne purpurascens*.

***Carex plantaginea* Lam. PLANTAIN-SEDGE**

Rare (3/50), in calcareous forests.

***Carex projecta* Mackz. SEDGE**

Rare (2/50), in sunny meadows and marshes. Occurs at the trail junction just before E Mitchell Pond [20.98 35.14].

***Carex rosea* Schkuhr ex Willd. SEDGE**

One station, on a sphagnous island in the inlet at the SE corner of Limekiln Lake [16.58 38.91]. This is also our only location for *Aster nemoralis* and *Carex tenera*, one of only two locations for *Calamagrostis pickeringii*.

***Carex rostrata* Stokes ex With. var. *utriculata* (Boott) Bailey SEDGE**

Common (18/50) in shallow water and on wet shores. Nice stands occur on the S shore of Muskrat Pond [21.38 29.53].

***Carex scabrata* Schwein. SEDGE**

Common (17/50) in wet areas under forest cover. Can be seen in a sandy stream bed just below Otter Brook Rd., across from the huge beaver dam 0.7 km NE of the Squaw L trailhead. [22.46 31.45].

***Carex scoparia* Schkuhr ex Willd. var. *scoparia* SEDGE**

Common (12/50) in sunny areas in dry to wet soils. Easily seen in the pull-off where Otter Brook Rd. crosses Muskrat Creek [21.22 29.93].

***Carex stipata* Mühl. ex Willd. SEDGE**

Uncommon (8/50) in moist to wet situations, usually with at least partial sun. Can be seen at the extreme NE corner of Beaver L. along the shoreline [21.12 33.12].

***Carex stricta* Lam. TUSsock-SEDGE, HUMMOCK SEDGE**

Common (25/50), constituting an important component of marshes in the study area.

***Carex tenera* Dewey SEDGE**

One station, on a sphagnous island in the inlet at the SE corner of Limekiln Lake [16.51 38.98]. This is also our only location for *Aster nemoralis* and *Carex rosea*, one of only two locations for *Calamagrostis pickeringii*.

***Carex tribuloides* Wahl. SEDGE**

One station, in a calcareous swamp.

***Carex trisperma* Dewey SEDGE**

Uncommon (9/50), in sphagnum bogs, tolerating shade as the bogs are reforested.

***Carex vesicaria* L. SEDGE**

Rare (2/50) in shallow water and along shorelines. Can be found along the shoreline of Sumner Stillwater near the dam [26.94 37.02].

***Carex vulpinoidea* Michx. SEDGE**

One station, near the high point of the Lost Ponds Tr., growing in the median of the fire road [26.88 36.81]. This calcareous area also harbors the only locations for three species of grape ferns (*Botrychium*), *Carex vulpinoidea*, *Malaxis unifolia*, *Juncus alpinoarticulatus*, *Solidago bicolor*, and *S. hispida*.

***Dulichium* L. Rich. ex Pers.**

***Dulichium arundinaceum* (L.) Britt.** THREE-WAY SEDGE

Common (27/50) in shallow water and along shorelines.

***Eleocharis* R. Br.**

***Eleocharis acicularis* (L.) R. & S.** HAIRGRASS; SLENDER SPIKERUSH, NEEDLE SPIKERUSH

Common (11/50) in very shallow water and on wet mud, fruiting infrequently.

***Eleocharis elliptica* Kunth var. *elliptica*** SLENDER SPIKERUSH

Rare (2/50), seen on sandbars in the Moose R. and in wet meadows

***Eleocharis obtusa* (Willd.) Schultes var. *ovata* (Roth) Drap. & Mohl.** BLUNT SPIKERUSH  
[Endangered]

One station, in wet sand along the stream at the outlet of Stink L. [15.09 30.64].

***Eleocharis smallii* Britt.** SPIKERUSH

Rare (3/50) in shallow water and saturated shorelines. A few occur in Helldiver Pond by the largest stands occur along the shores of Sumner Stillwater [26.94 37.02].

***Eriophorum* L.**

***Eriophorum vaginatum* L.** HARE'S-TAIL, COTTONGRASS

One station, in sphagnum at the E end of Helldiver Pond [24.58 34.88].

***Eriophorum virginicum* L.** TAWNY COTTONGRASS

Common (16/50) in sphagnum bogs and other open, wet habitats.

***Rhynchospora* Vahl**

***Rhynchospora alba* (L.) Vahl** WHITE BEAKRUSH

Uncommon (8/50), in sphagnum bogs and wet meadows, and along shorelines. A few can be seen at the trail's end at W Lost Pond.

***Rhynchospora capitellata* (Michx.) Vahl** BEAKRUSH

Common (11/50) in wet meadows and along shorelines, often with *Gentiana linearis*.

***Rhynchospora fusca* (L.) Ait. f.** SOOTY BEAKRUSH

Uncommon (5/50) in wet meadows and along shorelines. Occurs along the E shoreline of W Mitchell Pond [20.37 35.08], and at Sumner Stillwater, Squaw L., and Fawn L.

***Scirpus* L.**

***Scirpus atrocinctus* Fern.** NORTHERN BULRUSH

Common (30/50) in moist meadows, marshes, and along shorelines.

***Scirpus cyperinus* (L.) Kunth** WOOLGRASS, BULRUSH



Common (13/50), in the same habitats as the preceding species.

***Scirpus hattorianus* Makino BULRUSH**

Common (22/50) in dry to moist soils in either sun or shade.

***Scirpus microcarpus* Presl BULRUSH**

Uncommon (6/50) in marshes and along shorelines, mostly in the W half of the study area. Can be seen along the side of the Otter Brook Rd., 0.3 km SW of Muskrat Pond [20.73 29.49].

***Scirpus subterminalis* Torrey CLUBRUSH**

Uncommon (5/50) in shallow to moderately deep water (to ca. 0.5 meter depth). Easily seen at the E end of Fawn L. [18.58 40.16]; also occurs in Helldiver and Sly Ponds.

***Scirpus torreyi* Olney TORREY'S BULRUSH**

Uncommon (6/50) in shallow water in the Red R., Mitchell Ponds, and the W end of Fawn L. [17.90 39.91].

**POACEAE (GRASS FAMILY)**

***Agrostis* L.**

**\**Agrostis capillaris* L. COLONIAL BENT, RHODE ISLAND BENT**

Uncommon (10/50) in disturbed sites.

**\**Agrostis gigantea* Roth REDTOP, BLACK BENT**

Common (11/50) in disturbed areas, often along roadsides.

***Agrostis perennans* (Walt.) Tuckerm. AUTUMN BENT, UPLAND BENT**

Common (18/50) in moist, shaded areas.

***Agrostis scabra* Willd. HAIRGRASS, FLY-AWAY GRASS, TICKLEGRASS**

Common (26/50) in moist meadows and dry, sandy, open areas.

***Anthoxanthum* L.**

**\**Anthoxanthum odoratum* L. SWEET VERNALGRASS**

Common (11/50) in disturbed sites.

***Avena* L.**

**\**Avena fatua* L. ssp. *sativa* (L.) Thell. OATS**

One station, at the Lost Ponds Trailhead parking area [26.83 36.36], where associated with five other weeds species not found elsewhere in the study area: *Chenopodium album*, *Helianthus annuus*, *Poa nemoralis*, *Raphanus raphanistrum*, and *Stellaria media*. This concentration of alien species probably arose from the presence of hay in the parking area, which is popular with equestrians.

***Brachyelytrum* Beauv.**

***Brachyelytrum septentrionale* (Babel) G. Tucker** NORTHERN SHORTHUSK

Abundant (39/50) in woodlands, found along most hiking trails; less frequently in more open, moister habitats.

***Bromus* L.**

***Bromus ciliatus* L.** FRINGED BROME

Common (12/50), mostly in dry, sandy, brushy areas.

**\**Bromus inermis* Leyss.** SMOOTH BROME, HUNGARIAN OR AWNLESS BROME

One station, at the Beaver L. trailhead parking lot [23.77 33.74].

***Calamagrostis* Adans.**

***Calamagrostis canadensis* (Michx.) Beauv. var. *canadensis*** BLUEJOINT GRASS

Abundant (34/50) especially near water, where it can form extensive wet marshes or drier meadows.

***Calamagrostis pickeringii* A. Gray** PICKERING'S REEDGRASS

Rare (2/50), growing several places around Indian L., with high numbers in the marshes at the SW corner, and in the bog on the N shore of Limekiln L at the inlet (SE corner of lake) [16.42 39.00].

***Cinna* L.**

***Cinna latifolia* (Trev. ex Goebb.) Griseb.** DROOPING WOODREED

Abundant (33/50) in woodlands and along their edges.

***Danthonia* Lam. & DC.**

***Danthonia compressa* Austin** NORTHERN OATGRASS

Abundant (38/50) in woodlands, and seen along nearly all hiking trails. Also found in a range of more exposed and drier areas.

***Danthonia spicata* (L.) Beauv. ex R. & S.** POVERTY-GRASS, JUNE-GRASS, WHITE OATGRASS

Common (13/50), usually in sunny, sandy or rocky areas.

***Elymus* L.**

***Elymus trachycaulus* (Link) Gould ex Shinnars ssp. *trachycaulus*** SLENDER WHEATGRASS

One station, growing on the open cliffs near the east end of W. Lost Pond in a calcareous area [26.50 36.98]. This location is also our only station for *Clematis occidentalis*, *Toxicodendron radicans*, and *Saxifraga virginiana*.

***Elytrigia* Desv.**

**\**Elytrigia repens* (L.) Nevski** QUACKGRASS, WITCH-GRASS, QUICKGRASS

Uncommon (6/50), in disturbed sites.

***Glyceria* R. Br.**

***Glyceria borealis* (Nash) Batchelder** NORTHERN MANNAGRASS

Uncommon (4/50) in shallow water. Most easily seen by canoe in Sumner Stillwater [27.24 37.34].

***Glyceria canadensis* (Michx.) Trin.** RATTLESNAKE GRASS

Abundant (37/50) in moist meadows and along shorelines.

***Glyceria melicaria* (Michx.) Hubb.** SLENDER MANNAGRASS

Common (26/50) in moist areas in woodlands.

***Glyceria striata* (Lam.) Hitchc.** FOWL MANNAGRASS

Common (26/50) in moist soils in both sunny and shaded locations.

***Lolium* L.**

**\**Lolium arundinaceum* (Schreb.) S. Darbyshire** TALL FESCUE, REED FESCUE, ALTA FESCUE, MEADOW FESCUE

Found in a grassy campsite and along an open trail in the Lost Ponds block.

***Milium* L.**

***Milium effusum* L.** MILLETGRASS

Rare (2/50), occurring only in calcareous areas in two adjacent blocks. Found along the Mitchell Ponds Tr., for example, on a slope 1.9 km from the trailhead [21.79 35.19]. This area also hosts our only *Carex pedunculata*, *Caulophyllum thalictroides*, *Dicentra canadensis* and *Schizachne purpurascens*.

***Muhlenbergia* Schreb.**

***Muhlenbergia frondosa* (Poir.) Fern.** WIRESTEM MÜHLY

One station, on the sandy sides of the Spring Rd, 1.7 km E of the spring [23.36 36.62].

***Muhlenbergia sylvatica* (Torrey) Torrey ex A. Gray** WOODLAND DROPSEED, MÜHLY

One station, at the Spring, which is also the only site for *Verbena hastata* and several weed species.

***Muhlenbergia uniflora* (Mühl.) Fern.** MÜHLY

Uncommon (10/50) in sunny, dry to moist, sandy areas. The delicate inflorescences of this species can easily be seen at the Plains Junction [23.49 35.19].

***Oryzopsis* Michx.**

***Oryzopsis asperifolia* Michx.** SPREADING RICEGRASS, WHITEGRASS

Uncommon (5/50) in dry, open areas, as in the brushy flats along the Spring Rd, 0.6 km SE of the Red R. Junction [20.21 36.78].

***Panicum* L.**

***Panicum acuminatum* Sw. *sensu lato* (*P. implicatum* Scribn.)** PANIC GRASS

Common (21/50) in dry, sandy soils in sunny areas.

***Panicum boreale* Nash** NORTHERN PANIC GRASS

Uncommon (10/50), occurring in dry or sometimes moist, sandy soils in partial to full sun.

***Panicum clandestinum* L.** DEER-TONGUE, PANIC GRASS

Common (21/50) in dry soils in either sun or shade, often growing along roadsides.

***Phalaris* L.**

***Phalaris arundinacea* L.** REED CANARY-GRASS

Uncommon (9/50), in dry and at least partly sunny areas.

***Phleum* L.**

**\**Phleum pratense* L.** TIMOTHY, HERD-GRASS

Common (12/50) in disturbed areas.

***Poa* L.**

**\**Poa annua* L.** SPEARGRASS, ANNUAL BLUEGRASS

Common (14/50) in campsites, parking lots, etc.

**\**Poa nemoralis* L.** WOOD BLUEGRASS

One station, at the Lost Ponds Trailhead parking area [26.83 36.36], where associated with five other weeds species not found elsewhere in the study area: *Avena fatua*, *Chenopodium album*, *Helianthus annuus*, *Raphanus raphanistrum*, and *Stellaria media*. This concentration of alien species probably arose from the presence of hay in the parking area, which is popular with equestrians.

**\**Poa pratensis* L.** KENTUCKY BLUEGRASS

Rare (2/50) in shaded, grassy areas.

***Poa saltuensis* Fern. & Wieg.** OLD-PASTURE BLUEGRASS, WOODLAND BLUEGRASS

Uncommon (7/50) in woodlands, with 5 of 7 blocks contiguous from Rock Dam to White's Pond, near the W edge of the study area.

***Schizachne* Hack.**

***Schizachne purpurascens* (Torrey) Swallen** FALSE MELIC

One station, on a shaded calcareous slope, 1.3 km from the Mitchell Ponds trailhead [22.44 35.33]. This general area also hosts our only *Caulophyllum thalictroides*, *Carex pedunculata*, *Dicentra canadensis*, and *Milium effusum*.

## Order: Typhales

### SPARGANIACEAE (BUR-REED FAMILY)

#### *Sparganium* L.

##### *Sparganium americanum* Nutt. BUR-REED

Uncommon (6/50), along marshy shorelines (Squaw L.), in wet sand (Red R.), and in shallow water.

##### *Sparganium erectum* L. BUR-REED

Rare (3/50), in wet sand. Can be seen just off the Otter Brook Rd., 0.5 km NE of the gate at the end of the road, by Indian L. [20.47 29.18].

##### *Sparganium fluctuans* (Morong) B. Robinson BUR-REED

Abundant (19/50) in moderate to deep waters with little or no current.

### TYPHACEAE (CAT-TAIL FAMILY)

#### *Typha* L.

##### *Typha latifolia* L. COMMON CAT-TAIL, BROAD-LEAF CAT-TAIL

Uncommon (8/50), mostly along shorelines of lakes but occasionally in sunlit, marshy openings in woodlands.

## Subclass: Liliidae

## Order: Liliales

### LILIACEAE (LILY FAMILY)

Our representatives of the lily family all flower in the spring, although *Veratrum viride* may persist to early July. *Clintonia*, *Erythronium*, *Streptopus*, *Trillium*, and *Uvularia* bloom in late May to early June, and the remaining genera principally in mid- to late June.

#### *Clintonia* Raf.

##### *Clintonia borealis* (Ait.) Raf. WOODLILY, BLUEBEADS, CORNLILY

Abundant (47/50) in woodlands.

#### *Erythronium* L.

##### *Erythronium americanum* Ker YELLOW ADDER'S-TONGUE, TROUTLILY, DOG-TOOTH VIOLET

Common (22/50) in richer woodlands.

***Maianthemum Wiggers***

***Maianthemum canadense Desf.*** FALSE LILY-OF-THE-VALLEY, TWO-LEAF SOLOMON'S-SEAL, WILD LILY-OF-THE-VALLEY

Abundant (49/50) in all woodland types and also in sunny openings, especially in sandy soil.

***Maianthemum racemosum L.*** FALSE SOLOMON'S-SEAL, FALSE SPIKENARD

Common (21/50) in deciduous and mixed woodlands.

***Maianthemum trifolium L.*** FALSE SOLOMON'S-SEAL

Uncommon (4/50) in open and wooded bogs, usually growing in sphagnum. Can be seen along the SW shoreline of Helldiver Pond [24.35 34.78] and in nearby bogs.

***Medeola L.***

***Medeola virginiana L.*** INDIAN CUCUMBER-ROOT

Abundant (37/50) in deciduous and mixed woodlands.

***Polygonatum Mill.***

***Polygonatum pubescens (Willd.) Pursh*** SOLOMON'S-SEAL

Common (11/50) in richer and calcareous woodlands.

***Streptopus Michx.***

***Streptopus roseus Michx.*** ROSE MANDARIN, TWISTED-STALK

Common (27/50) in deciduous and mixed woodlands.

***Trillium L.***

***Trillium erectum L.*** PURPLE TRILLIUM, STINKING BENJAMIN

Abundant (39/50) in deciduous and mixed woodlands.

***Trillium undulatum Willd.*** PAINTED TRILLIUM

Abundant (45/50) in all forest types and along woodland edges.

***Uvularia L.***

***Uvularia sessilifolia L.*** WILD-OATS, BELLWORT

Abundant (40/50) in deciduous and mixed woodlands.

***Veratrum L.***

***Veratrum viride Ait.*** FALSE OR WHITE HELLEBORE, INDIAN-POKE

Common (24/50) in swamps and wet openings.

## IRIDACEAE (IRIS FAMILY)

### *Iris* L.

*Iris versicolor* L. BLUE FLAG, WILD IRIS, POISON FLAG  
Common (22/50) along shorelines. Flowering in early summer.

### *Sisyrinchium* L.

*Sisyrinchium montanum* Greene BLUE-EYED GRASS  
Uncommon (4/50) in grassy areas. Flowering in June.

## SMILACACEAE (GREENBRIER FAMILY)

### *Smilax* L.

*Smilax herbacea* L. JACOB'S-LADDER, CARRION-FLOWER  
Rare (3/50), near the banks of the Moose R. and in the Squaw L. block. Can be seen at the end of the Rock Dam Tr. [16.50 33.21]. Flowers in June.

## Order: Orchidales

## ORCHIDACEAE (ORCHID FAMILY)

Ten of our 19 orchids are known from just one or two occurrences. Chronology of flowering is as follows. *Cypripedium parviflorum* and *C. acaule* peak in the second week of June. *C. reginae*, *Pogonia ophioglossoides*, *Malaxis unifolia*, *Platanthera dilatata*, *P. huronensis*, and *P. hyperborea* follow in late June and early July. Mid-July is the peak for *Coeloglossum viride*, *P. blephariglottis*, *P. clavellata*, *P. grandiflora*, *P. macrophylla*, *P. orbiculata*, and *P. psycodes*. *Goodyera pubescens* flowers in late July and early August. The alien *Epipactis helleborine* has an extended flowering period during July and August. Finally, *Spiranthes lacera* peaks in mid-August and *S. cernua* flowers from early September to early October.

### *Coeloglossum* Hartm.

*Coeloglossum viride* (L.) Hartm. LONG-BRACTED ORCHID, FROG ORCHID  
One station, with about 20 plants, along an old logging road, under deciduous forest.

### *Cypripedium* L.

*Cypripedium acaule* Ait. PINK LADYSLIPPER, MOCCASIN FLOWER  
Common (17/50) in more acidic woodlands and openings.

*Cypripedium parviflorum* Salisb. var. *pubescens* (Willd.) Knight LARGE YELLOW LADYSLIPPER

Two locations in one block, each with fewer than ten plants. Both stations are calcareous and shaded; one is quite wet and the other dry.

***Cypripedium reginae* Walt.** SHOWY LADYSLIPPER

One station, with about 80 plants, in an open drainage with *Veratrum viride*, *Geum rivale*, etc.

***Epipactis* Sw.**

**\**Epipactis helleborine* (L.) Crantz** HELLEBORINE, WEED ORCHID

Common (11/50) in woodlands and along edges.

***Goodyera* R. Br.**

***Goodyera repens* (L.) R. Br.** DWARF RATTLESNAKE-PLANTAIN

One station, with just a few plants growing in lichens, under a coniferous forest. Also reported from near the campsite at the W end of W Mitchell Pond.

***Malaxis* Soland. ex Sw.**

***Malaxis unifolia* Michx.** GREEN ADDER'S-MOUTH, MALAXIS

About ten scattered plants have been found in the calcareous area near the Lost Ponds bridge. This is also the only are for three species of grape ferns (*Botrychium*), *Carex vulpinoidea*, *Juncus alpinoarticulatus*, *Solidago bicolor*, and *S. hispida*.

***Platanthera* L. Rich.**

***Platanthera blephariglottis* (Willd.) Lindl.** WHITE FRINGED ORCHID

One station, with just a few plants, in an open sphagnum bog.

***Platanthera clavellata* (Michx.) Luer** GREEN WOODLAND ORCHID

Common (23/50) and often locally numerous in moist to wet areas with short vegetation and at least some sun. Often grows in sphagnum along shorelines and hiking trails.

***Platanthera dilatata* (Pursh) Lindl. ex Beck** BOG-CANDLE, WHITE BOG-ORCHID

Uncommon (4/50), in small numbers in wet openings and roadside ditches.

***Platanthera grandiflora* (Bigel.) Lindl.** LARGE PURPLE FRINGED ORCHID

Uncommon (6/50), but sometimes in colonies of a few dozen, along grassy shorelines of the Moose and Red Rivers, and in wet openings.

***Platanthera huronensis* (Nutt.) Lindl.** TALL NORTHERN GREEN ORCHID, NUTTALL'S GREEN ORCHID

Rare (2/50), in swamps and wet openings.

***Platanthera hyperborea* (L.) Lindl.** NORTHERN GREEN ORCHID, TALL LEAFY NORTHERN GREEN BOG ORCHID

One station, with just a few plants, in a wet roadside ditch in a calcareous area.

***Platanthera macrophylla* (Goldie) P. M. Brown** LARGE ROUND-LEAF ORCHID, PAD-LEAF



Rare (3/50), occurring as scattered individual plants in deciduous and mixed woodlands.

***Platanthera orbiculata* (Pursh) Lindl.** ROUND-LEAVED ORCHID, PADLEAF

Rare (2/50), occurring as scattered individual plants in mixed woodlands.

***Platanthera psycodes* (L.) Lindl.** SMALL PURPLE FRINGED ORCHID

Rare (3/50), in small numbers in moist to wet openings.

***Pogonia* Juss.**

***Pogonia ophioglossoides* (L.) Juss.** ROSE POGONIA, SNAKE'S-MOUTH

Uncommon (6/50), but sometimes locally very numerous. Usually grows in sphagnum in bogs or along shorelines.

***Spiranthes* L. Rich.**

***Spiranthes cernua* (L.) L. Rich.** NODDING LADY'S-TRESSES

Uncommon (5/50) but sometimes locally numerous, in moist to rather wet, open areas with short vegetation. Often found in depressions or ditches.

***Spiranthes lacera* (Raf.) Raf. var. *lacera*** SLENDER LADY'S-TRESSES

Rare (2/50) in dry, sunny situations. One station in calcareous soil with about 40 plants, the other in sand with just a few plants.