

Vascular plant survey of Greenwoods Conservancy, summer 1997

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INTRODUCTION

Greenwoods Conservancy is a nature preserve of approximately 1,100 acres located in the Town Of Burlington, New York (Warner, 1997). This conservancy was established by Dr. Earl Peterson through the Otsego County Land Trust (Taylor, 1996). Conservation easements are used to protect the nature of undeveloped land. They are legal agreements which landowners voluntarily make with land trusts restricting the type and amount of development that can take place on the property under protection. These restrictions hold regardless of who owns the property in the future. Thus, it can be said that properties under such easements can be protected in perpetuity (Green, 1997). Much of Greenwoods Conservancy has been designated as being "forever wild". Some areas are selectively logged, mowed, and otherwise maintained in order to sustain them at a particular stage of succession (Taylor, 1996). Several trails were established through Greenwoods Conservancy early in its existence making movement from place to place considerably easier than it was at first.

Within Greenwoods Conservancy there are many communities with a rich diversity of vascular plants. This study is an expansion of earlier work which attempted to compile a preliminary list of the vascular plants found throughout a select area within Greenwoods Conservancy (Taylor, 1996).

METHODS

Specimens had been collected throughout the summers of 1994 and 1995. Some were identified upon collection. The specimens were pressed and dried in a convection oven at 100-150 °F (Taylor, 1996). Most of the summer of 1996 was spent examining the copious collections to either verify or correct preliminary identifications. Those which evaded identification were set aside in a "mystery" pile. After the entire collection of dried specimens had been surveyed, it became clear that some species present at Greenwoods had escaped notice. Weekly trips to hunt for these overlooked species were made. Once collected, these specimens were handled in the same manner as the others.

In 1997, an effort was made to expand the collecting interval. Whereas the bulk of the previous collections were made from the end of May to mid-August, this year's collection began in early May and will continue through October. Another change made was in the handling

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of the collected specimens. Instead of being oven dried, they were allowed to dry naturally in their presses. Naturally dried specimens retained their colors to a better degree than "cooked" specimens. A concerted effort was made to explore regions which were further from marked trails. With few exceptions collections were made at least once a week. When there were less than five individuals of a particular species present, I choose to leave the species undisturbed and to photograph them for documentation. Photographic slides of particularly dramatic, less common, or especially photogenic flora have been made during the past two years using a 35 mm Minolta or 35 mm Canon camera. When photographing these rarer species was not possible, they were identified in the field and the identification was verified by another researcher.

Most field identification was done using either Peterson and McKenny (1968), Niering and Olmstead (1979), Petrides (1958), Cobb (1956), or Brown (1979). Each field identification was followed through Gleason, Vol. I, II, III (1968). These three volumes were used for the ultimate identification of all specimens. This ensured a more rigorous determination as well as providing more consistency in taxonomic system usage. Occasionally, a specimen defied field identification. In such a case, an excellent, but challenging, taxonomic key was used (Gleason, 1968) or a "bigger and better picture book" was employed. Rickett (1966) was valuable for several difficult specimens and Jackson (1988) was used as a primary reference in one especially difficult case.

Herbaria specimens were screened to be sure that diagnostic characteristics of each species were represented as fully as reasonably possible. Fertile fronds of ferns were preserved instead of sterile fronds; female specimens were favored over male specimens when dioecious plants were involved; basal leaves as well as cauline leaves were represented; specimens in flower were selected over those not in flower.

Finally, the results of the collection were listed according to family and species. The location of the specimens was noted by reference to quadrant numbers. These quadrants were established by Taylor (1996) during earlier studies (Figure 1).

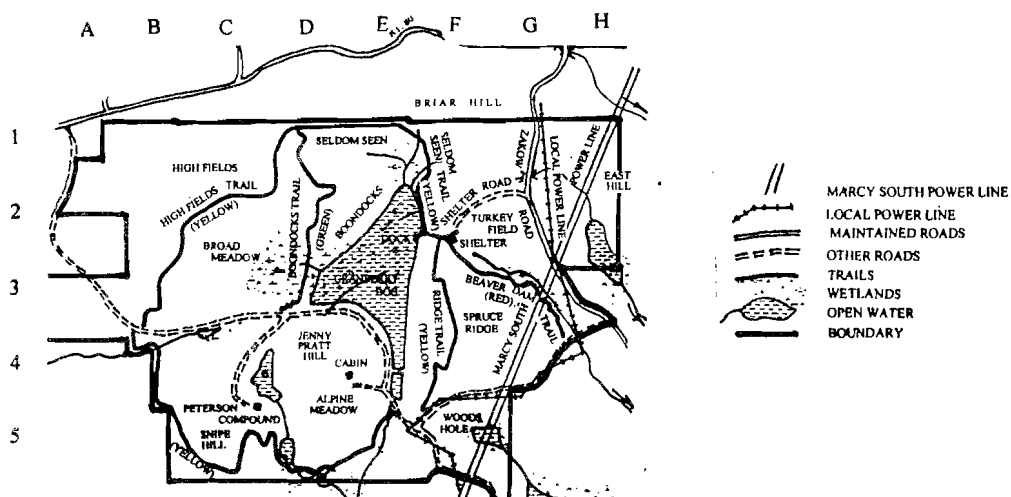


Fig. 1. Map of the Greenwoods Conservancy with quadrant references.

Vascular Plant Survey of Greenwoods

I. Pteridophyta

Equisetaceae

Equisetacea sylvaticum Wood horsetail F1F2

Lycopodiaceae

Lycopodium annotinum Stiff clubmoss E1E2

Lycopodium obscurum Tree clubmoss E1E2

Lycopodium clavatum Ground pine E1E2

Lycopodium complanatum Running cedar E1E2

(now known as *L. flabelliformes*)

Lycopodium lucidulum Shining clubmoss E1E2

Osmundaceae

Osmunda cinnamomae Cinnamon fern F1F2

Osmunda claytonia Interrupted fern E3E4

Polypodiaceae

Adiantum pedatum Northern maidenhair F1F2

Athyrium felix-femina Lady fern F1F2

Dennstaedia punctilobula Hay-scented fern E3E4

Dryopteris campyloptera Mountain wood fern E3E4

Dryopteris intermedia Wood fern E3E4

Dryopteris spinulosa Spinulose wood fern F1F2

Matteuccia Struthiopteris Ostrich fern G3G4

Onoclea sensibilis Sensitive fern F1F2

Polystichum acrostichoides Christmas fern E1E2

Pteridium aquilinum Bracken fern E3E4

Thelypteris novaboracensis New York fern F1F2

Thelypteris palustris Marsh fern E3E4

Thelypteris phegopteris Long beech fern E1E2

II. Gymnospermae

Pinaceae

Picea abies Norway spruce E3E4

Picea glauca White spruce F1F2

Picea pungens Blue spruce D5C5

Picea rubens Red spruce E1E2

Pinus resinosa Red pine F1F2

Pinus strobus White pine E1E2

Tsuga canadensis Eastern hemlock F1F2

RESULTS AND DISCUSSION

Included is a taxonomic compilation of all the vascular plants that have been collected at Greenwoods Conservancy to date; common names and areas of collection are also given. It is clear that Greenwoods supports a diverse flora. Still, there are many species waiting to be found. Future studies must focus on expanding the areas of study as well as more intensively surveying the areas already studied. Considering the size of the Greenwoods Conservancy, this is a formidable, yet exciting, prospect.

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III. Angiospermae

A. Monocots

Alismataceae

Sagittaria latifolia Broad leaved arrowhead F1F2

Araceae

Arisaema triphyllum Jack-in-the-pulpit E3E4

Cyperaceae

Carex aestivaformis Sedge E3E4

Carex brunnescens Sedge E3E4

Carex canescens Sedge E3E4

Carex crinita Sedge E1E2

Carex debilis Sedge E3E4

Carex lurida Sedge F1F2

Carex scoparia Sedge E3E4

Carex stipata Sedge E3E4

Carex stricta Tussock Sedge E1E2

Carex trisperma Sedge E3E4

Dulichinum arundinaceum Three way sedge F1F2

Eleocharis obtusa Spikerush E1E2

Eleocharis ovata Ovoid spikerush E3E4

Scirpus atrovirens Dark green bulrush F1F2

Scirpus cyperinus Wool grass E3E4

Scirpus lineatris Sedge F1F2

Scirpus rubrotinctus Barber pole sedge E3E4

Graminae

Agropyron trachycaulum Slender wheat grass E3E4

Agrostis scabra Hair grass F1F2

Anthoxanthum odoratum Sweet vernal grass E3E4

Brachyelytrum erectum Long awned wood grass E3E4

Dactylis glomerata Orchard grass E3E4

Danthonia spicata Poverty grass F1F2

Glyceria canadensis Rattlesnake manna grass E3E4

Glyceria melicaria Slender manna grass E3E4

Glyceria striata Manna grass E3E4

Panicum ensifolium Panic grass F1F2

Phalaris arundinaceae Reed canary grass F1F2

Phleum pratense Timothy grass F1F2

Poa palustris Fowl meadow grass E3E4

Hydrocharitaceae

Vallisneria americana Wild celery F1F2

Iridaceae

<i>Iris versicolor</i>	Blue flag	E3E4
<i>Sisyrinchium augustifolium</i>	Blue-eyed grass	F1F2

Juncaceae

<i>Juncus canadensis</i>	Rush	E1E2
<i>Juncus effusus</i>	Soft rush	F1F2
<i>Juncus tenuis</i>	Rush	E3E4

Liliaceae

<i>Allium stellatum</i>	Wild onion	E1E2
<i>Clintonia borealis</i>	Clintonia	E1E2
<i>Erythronium americanum</i>	Trout lily	A1A2
<i>Hemerocallis fulva</i>	Day lily	D1D2
<i>Maianthemum canadense</i>	Canadian mayflower	E3E4
<i>Medeola virginiana L.</i>	Indian cucumber root	E1E2
<i>Lilium canadensis</i>	Canada lily	E1E2
<i>Polygonatum biflorum</i>	Solomon's seal	A1A2
<i>Smilacina trifolia</i>	Three leaved false Solomon's seal	E3E4
<i>Trillium erectum</i>	Wake robin	E3E4
<i>Trillium undulatum</i>	Painted trillium	E3E4
<i>Uvularia sessilifolia</i>	Bellwort	E3E4
<i>Vagnera racemosa</i>	False Solomon's seal	E3E4
<i>Veratrum viride</i>	False hellebore	E1E2

Najadaceae

<i>Potamogeton gramineus</i>	Pond weed	F1F2
<i>Potamogeton natans</i>	Pond weed	F1F2

Orchidaceae

<i>Cypripedium acaule</i>	Moccasin flower	E3E4
<i>Goodyera repens</i>	Rattle snake plantain	F1F2
<i>Habenaria orbiculata</i>	Round leaved orchis	D1D2
<i>Pogonia ophioglossoides</i>	Rose pogonia	E3E4
<i>Serapius Helleborine</i>	Helleborine	F1F2

Sparginaceae

<i>Sparganium americanum</i>	Bur-reed	E3E4
<i>Sparganium chlorocarpum</i>	Bur-reed	F1F2
<i>Sparganium diversifolium</i>	Bur-reed	E3E4

B. Dicots**Aceraceae**

<i>Acer pensylvanicum</i>	Striped maple	F1F2
<i>Acer rubrum</i>	Red maple	F1F2
<i>Acer saccharum</i>	Sugar maple	E1E2
<i>Acer spicatum</i>	Mountain maple	E3E4

Araliaceae

<i>Aralia nudicaulis</i>	Wild sarsaparilla	E3E4
<i>Panax trifolium</i>	Dwarf ginseng	E1E2
<i>Panax quinquefolium</i>	Ginseng	A1A2

Asclepiadaceae

<i>Asclepias syriaca</i>	Milkweed	E3E4
<i>Asclepias incarnata</i>	Swamp milkweed	D1D2

Balsamaceae

<i>Impatiens capensis</i>	Spotted touch-me-not	E1E2
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Berberidaceae

<i>Podophyllum peltatum</i>	May apple	F1F2
<i>Caulophyllum thalictroides</i>	Blue Cohosh	E3E4

Betulaceae

<i>Alnus rugosa</i>	Speckled alder	F1F2
<i>Betula lenta</i>	Black birch	E3E4
<i>Betula lutea</i>	Yellow birch	D1D2
<i>Carpinus caroliniana</i>	Ironwood	E3E4
<i>Corulus americana</i>	American hazelnut	E3E4
<i>Corylus cornata</i>	Beaked hazelnut	E1E2
<i>Ostrya virginiana</i>	Hop hornbeam	F1F2

Caprifoliaceae

<i>Sambucus pubens</i>	Red elder	E3E4
<i>Viburnum alnifolium</i>	Hobble bush	E3E4
<i>Viburnum recognitum</i>	Nothern Arrowwood	F1F2

Caryophyllaceae

<i>Cerastium semidecandrum</i>	5 stamened mouse eared Chickweed	E3E4
<i>Dianthus deltoides</i>	Maiden pink	E5
<i>Stellaria graminea</i>	Lesser stitchwort	F1F2

Compositae

<i>Achillea millefolium</i>	Yarrow	F1F2
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<i>Ambrosia artemesiaefolia</i>	Ragweed	F1F2
<i>Anaphalis margaritaceae</i>	Pearly everlasting	E3E4
<i>Arctium lappa</i>	Greater burdock	F1F2
<i>Aster acuminatus</i>	Whorled white aster	E1E2
<i>Aster cordifolius</i>	Heart leaved aster	F1F2
<i>Aster divaricatus</i>	White wood aster	E1E2
<i>Aster Lowriemus</i>	Lowrie's aster	E1E2
<i>Aster puniceus</i>	Purple stemmed aster	F1F2
<i>Aster tenebrosis</i>	Long-leaved wood aster	E1E2
<i>Bidens cernua</i>	Bur-marigold	F1F2
<i>Carduus crispus</i>	Wetted thistle	E3E4
<i>Chrysanthemum leucanthemum</i>	Ox-eye daisy	F1F2
<i>Cirsium arvense</i>	Canada thistle	F1F2
<i>Cirsium palustre</i>	Marsh thistle	E3E4
<i>Cirsium vulgare</i>	Bull thistle	E1E2
<i>Crepis tectorum</i>	Hawk's beard	G3G4
<i>Erigeron annuus</i>	Daisy fleabane	F1F2
<i>Erigeron strigosus</i>	Daisy fleabane	F1F2
<i>Eupatorium maculatum</i>	Spotted joe-pye weed	E1E2
<i>Eupatorium perfoliatum</i>	Boneset	E1E2
<i>Galinsoga ciliata</i>	Gallant soldier	F1F2
<i>Hieracium pratense</i>	Yellow hawkweed	F1F2
<i>Hieracium aurantiacum</i>	Orange hawkweed	F1F2
<i>Hieracium floribundum</i>	Hawkweed	E3E4
<i>Prenanthes alba</i>	White lettuce	E3E4
<i>Prenanthes altissima</i>	Tall white lettuce	F1F2
<i>Rudbeckia hirta</i>	Black eyed Susan	E1E2
<i>Senecio aureus</i>	Golden ragwort	G3
<i>Solidago altissima</i>	Tall goldenrod	E3E4
<i>Solidago canadensis</i>	Canada goldenrod	E3E4
<i>Solidago elongata</i>	Goldenrod	E3E4
<i>Solidago gigantea</i>	Late goldenrod	E3E4
<i>Solidago graminifolia</i>	Goldenrod	E1E2
<i>Solidago juncea</i>	Early goldenrod	E3E4
<i>Solidago neglecta</i>	Swamp goldenrod	E3E4
<i>Solidago ohioensis</i>	Goldenrod	E3E4
<i>Solidago odorata</i>	Fragrant goldenrod	E3E4
<i>Solidago rugosa</i>	Rough stemmed goldenrod	E3E4
<i>Solidago serotina</i>	Late goldenrod	E3E4
<i>Solidago tenuifolia</i>	Slender goldenrod	E3E4
<i>Solidago uliginosa</i>	Bog goldenrod	E3E4
<i>Solidago ulmifolia</i>	Elm-leaved goldnerod	E3E4
<i>Tanacetum vulgare</i>	Tansy	F1F2
<i>Taraxacum officinale</i>	Dandelion	F1F2
<i>Tussilago farfara</i>	Coltsfoot	E3E4

<i>Tragopogon pratensis</i>	Goat's beard	
Cornaceae		
<i>Cornus alternifolia</i>	Alternate leaved dogwood	E3E4
<i>Cornus canadensis</i>	Bunchberry	E1E2
Crassulaceae		
<i>Sedum telephium</i>	Orpine	F1F2
Cruciferae		
<i>Alliaria officinalis</i>	Garlic mustard	E3E4
<i>Barbarea vulgaris</i>	Winter cress	E3E4
<i>Brassica rapa</i>	Field mustard	F1F2
<i>Cardamine palustris</i>	Cress	E1E2
<i>Cardamine pennsylvanica</i>	Pennsylvania Bittercress	E1E2
<i>Dentaria diphyllum</i>	Toothwort	E3E4
<i>Nasturtium officinale</i>	Watercress	E1E2
<i>Thlaspi arvense</i>	Field pennycress	E1E2
Droseraceae		
<i>Drosera rotundifolia</i>	Round leaved sundew	E3E4
Ericaceae		
<i>Andromeda glaucophylla</i>	Bog rosemary	E3E4
<i>Chamaedaphne calyculata</i>	Leatherleaf	F1F2
<i>Gaultheria hispida</i>	Creeping snowberry	F1F2
<i>Gaultheria procumbens</i>	Wintergreen	F1F2
<i>Ilex verticilla</i> L.	Winterberry	F1F2
<i>Vaccinium angustifolium</i>	Blueberry	E1E2
<i>Vaccinium corymbosum</i>	High bush blueberry	E1E2
<i>Vaccinium macrocarpon</i>	Cranberry	E3E4
<i>Vaccinium oxycoccus</i>	Small cranberry	E3E4
Fabaceae (Leguminaceae)		
<i>Coronilla varia</i>	Crown vetch	E3E4
<i>Lotus corniculatus</i>	Bird's foot trefoil	F1F2
<i>Trifolium agrarium</i>	Hop clover	F1F2
<i>Vicia cracca</i>	Cow vetch	F1F2
Fagaceae		
<i>Castanea dentata</i>	American chestnut	D1D2
<i>Fagus grandifolia</i>	Beech	E1E2
<i>Quercus muhlenbergii</i>	Chinkapin oak	E3E4
<i>Quercus rubra</i>	Red oak	E3E4

Fumariaceae

Bicuculla canadensis Squirrel corn A1A2

Geraniaceae

Geranium robertianum Herb Robert E3E4

Guttiferae

Hypericum boreale Northern St. John's wort E3E4

Hypericum denticulatum St. John's wort E1E2

Hypericum mutilum Dwarf St. John's wort F1F2

Hypericum perforatum St. John's wort F1F2

Hypericum virgatum Copper colored St. John's wort E3E4

Triadenum virginicum L. Marsh St. John's wort F1F2

Hamamelidaceae

Hamamelis virginiana Witch Hazel E1E2

Hydrophyllaceae

Hydrophyllum virginianum Virginia waterleaf A1A2

Labiatae (Lamiaceae)

Galeopsis tetrahit Hemp nettle F1F2

Galeopsis ladanum Hemp nettle B3

Leonurus cardiaca Motherwort E3E4

Lycopus virginicus L. Bugleweed F1F2

Prunella vulgaris Heal-all F1F2

Satureja vulgaris Wild basil F1F2

Scutellaria epilobiifolia Skullcap F1F2

Scutellaria galericulata Skullcap E1E2

Scutellaria laterifolia Mad-dog skullcap E1E2

Lentibulariaceae

Utricularia vulgaris Greater bladderwort F1F2

Lobeliaceae

Lobelia inflata Indian tobacco E1E2

Malvaceae

Malva moshata Musk mallow F1F2

Monotropaceae

Monotropa uniflora Indian pipes E1E2

Moraceae

Humulus lupulus Hops E3E4

Nymphaeaceae

Brassenia schreberi Water shield E3E4

Nuphar variegatum Bull lily E3E4

Oleaceae

Fraxinus americana White ash E3E4

Fraxinus nigra Black ash E3E4

Onagraceae

Circea alpina Smaller enchanter's Nightshade F1F2

Epilobium angustifolium Fireweed G3G4

Epilobium coloratum Purple leaved willow herb E1E2

Epilobium glandulosum Northern willow herb E1E2

Epilobium leptophyllum Narrow leaved willow herb D1D2

Oenothera biennis Common evening primrose E1E2

Oenothera fruiticosa Sundrops E1E2

Oxalidaceae

Oxalis europaea Yellow wood sorrel E1E2

Oxalis montana Common wood sorrel F1F2

Oxalis stricta Yellow wood sorrel E3E4

Papaveraceae

Sanguinaria canadensis Bloodroot A1A2

Phytolaccaceae

Phytolacca americana Pokeweed G1G2

Plantaginaceae

Plantago major Common plantain F1F2

Plantago lanceolata English plantain F1F2

Polygonaceae

Polygonum coccineum Swamp smartweed E1E2

Polygonum Persicaria Arrow leaved tear-thumb E3E4

Polygonum sagittatum False Climbing Buckwheat F1F2

Polygonum scandens Smartweed E1E2

Polygonum punctatum Bitter dock E3E4

Rumex obtusifolius Bitter dock E3E4

Portulacaceae

<i>Claytonia caroliniana</i>	Carolina spring beauty	A1A2
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Primulaceae

<i>Lysimachia terrestris</i>	Swamp candles	F1F2
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<i>Naumburgia thyrsofolia</i>		E1E2
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<i>Trientalis borealis</i>	Star flower	E1E2
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Pyrolaceae

<i>Pyrola elliptica</i>	Shinleaf	E3E4
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Ranunculaceae

<i>Actea alba</i>	Baneberry	E3E4
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<i>Anemone quinquefolia</i>	Wood anemone	E3E4
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<i>Caltha palustris</i>	Marsh marigold	E1E2
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<i>Caulophyllum thalictroides</i>	Blue cohosh	E1E2
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<i>Clematis virginiana</i>	Virgin's bower	F1F2
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<i>Coptis trifolia</i>	Gold thread	E3E4
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<i>Hepatica acutiloba</i>	Sharp lobed hepatica	
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<i>Ranunculus acris</i>	Buttercup	E1E2
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<i>Ranunculus abortivus</i>	Kidney leaved buttercup	A1A2
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<i>Ranunculus hispidus</i>	Buttercup	E1E2
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<i>Ranunculus recurvatus</i>	Buttercup	E1E2
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<i>Ranunculus septroinalis</i>	Swamp buttercup	E1E2
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<i>Thalictrum polygamum</i>	Tall meadow rue	F1F2
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Rhamnaceae

<i>Rhamnus alnifolia</i>	Alderleaf buckthorn	E3E4
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Rosaceae

<i>Agrimonia rostellata</i>	Agrimony	E1E2
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<i>Crataegus sp.</i>	Hawthorn	E1E2
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<i>Dalibardia repens</i>	Dewdrop	E1E2
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<i>Fragaria canadensis</i>	Wild strawberry	E1E2
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<i>Fragaria virginiana</i>	Wild strawberry	E1E2
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<i>Geum canadense</i>	White avens	E1E2
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<i>Potentilla argentea</i>	Rough fruited cinquefoil	E1E2
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<i>Potentilla canadense</i>	Dwarf cinquefoil	E3E4
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<i>Potentilla intermedia</i>	Cinquefoil	F1F2
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<i>Potentilla norvegica</i>	Rough cinquefoil	E1E2
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<i>Potentilla palustris</i>	Marsh cinquefoil	E1E2
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<i>Potentilla recta</i>	Rough fruited cinquefoil	F1F2
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<i>Potentilla simplex</i>	Decumbent cinquefoil	E1E2
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<i>Prunus pensylvanica</i>	Pin cherry	E3E4
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<i>Prunus serotina</i>	Black cherry	E3E4
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<i>Pyrus melanocarpa</i>	Black chokecherry	E3E4
<i>Rosa multiflora</i>	Multiflora rose	F1F2
<i>Rosa palustris</i>	Swamp rose	E3E4
<i>Rubus allegheniensis</i>	Blackberry	E3E4
<i>Rubus flagellaris</i>	Prickly dewberry	E1E2
<i>Rubus hispidus</i>	Bristly dewberry	E1E2
<i>Rubus ideaus</i>	Red raspberry	F1F2
<i>Rubus occidentalis</i>	Black raspberry	E1E2
<i>Spirea latifolia</i>	Meadowsweet	F1F2
<i>Waldsteinia fragarioides</i>	Barren strawberry	E1E2
Rubiaceae		
<i>Cephalanthus occidentalis</i>	Button bush	E3E4
<i>Galium asprellum</i>	Rough bedstraw	E1E2
<i>Galium boreale</i>	Northern bedstraw	D1D2
<i>Galium pilosum</i>	Bedstraw	F1F2
<i>Galium triflorum</i>	Fragrant bedstraw	F1F2
<i>Mitchella repens</i>	Partridge berry	F1F2
Salicaceae		
<i>Populus heterophylla</i>	Swamp cottonwood	E3E4
<i>Populus tremuloides</i>	Quaking aspen	E1E2
<i>Salix humilis</i>	Tall prairie willow	F1F2
<i>Salix servicea</i>	Silky willow	E3E4
Sarraceniaceae		
<i>Sarracenia purpurea</i>	Northern pitcher plant	E3E4
Saxifragaceae		
<i>Chrysosplenium americanum</i>	Water blanket	E3E4
<i>Mitella diphylla</i>	Mitrewort	F1F2
<i>Ribes cyanosbati</i>	Pasture gooseberry	E3E4
<i>Saxifraga pensylvanica</i>	Swamp saxifrage	E1E2
Scrophulariaceae		
<i>Chelone glabra</i>	Turtlehead	E3E4
<i>Linaria vulgaris</i>	Butter and Eggs	E1E2
<i>Mimulus ringens</i>	Monkey flower	E3E4
<i>Verbascum Thaspus</i>	Mullein	D1D2
<i>Veronica americana</i>	American brookline	E3E4
<i>Veronica chamaedrys</i>	Bird's eye speedwell	E3E4
<i>Veronica officinalis</i>	Common speedwell	F1F2
<i>Veronica scutellata</i>	Marsh speedwell	E1E2

Solanaceae			
	<i>Solanum dulcamara</i>	Purple nightshade	F1F2
Tiliaceae			
	<i>Tilia americana</i>	American basswood	
Umbelliferae			
	<i>Cicuta bulbifera</i>	Bulb bearing water Hemlock	F1F2
	<i>Daucus carota</i>	Wild carrot	E1E2
	<i>Hydrocotyl americana</i>	Water pennywort	E1E2
Urticaceae			
	<i>Laportea canadensis</i>	Wood nettle	E3E4
	<i>Urtica gracilis</i>	Slender nettle	E3E4
Valerianaceae			
	<i>Valeriana officinalis</i>	Garden heliotrope	G3G4
Verbenaceae			
	<i>Verbena hastata</i>	Blue vervain	F1F2
Violaceae			
	<i>Viola canadensis</i>	Canada violet	A1A2
	<i>Viola pallens</i>	Northern wood violet	E1E2
	<i>Viola rostrata</i>	Long spurred violet	F1F2