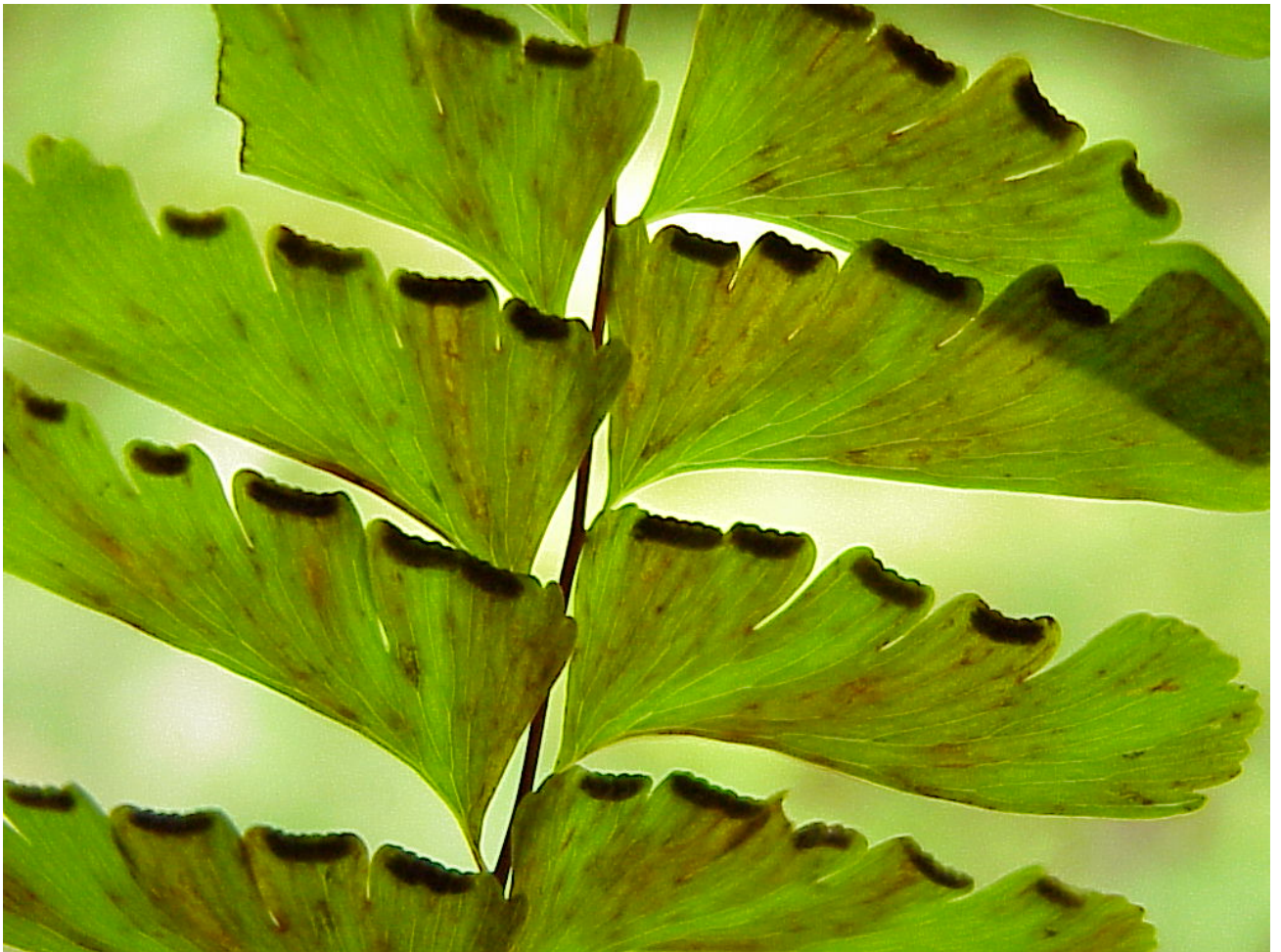


# Key Plants appearing in the Field Guides to Native Plant Communities of Minnesota: Forests & Woodlands



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## Key plants appearing in the Field Guides to Native Plant Communities: Forests & Woodlands

### Introduction

Between 2003 and 2005 the Minnesota Department of Natural Resources published a series of field guides<sup>1</sup> to identify the different Native Plant Communities (NPCs) of the state. These guides cover all plant communities except for deep-water environments. Within these guides are keys that use plants as a means of identifying the NPCs in the field. For resource managers to use these keys requires that they recognize plants with high fidelity for the communities.

This workbook was specifically designed to help foresters and other land managers that commonly employ timber harvesting as a management prescription. It is designed to be a training manual for learning the plants that appear in the field keys<sup>1</sup> to forests and woodlands (52 NPCs). To this end, the workbook provides photos, field tips for identification, and places to take a few notes during training sessions. No plant keys are provided, rather the field identification tips focus on the characters of key plants that are normally present and observable. Plants appearing in this workbook are not taxonomically arranged, rather they are arranged by their general appearance or by groupings familiar to most land managers who have probably had just a single course or field session that focused on plant identification. For each plant there is a tabular summary of its use in the field guides that tells the reader in which Section key the plant appears and in which ecological System. Plants with many key references are among the first that a field forester should try to learn. Also in the table is each plant's occurrence and usual abundance by System and Floristic Region. This gives the forester a feel for the plant's general abundance and affinity for the higher levels (System & Floristic Region) of the classification.

Included in this workbook are 302 different plants. While this sounds like a lot of plants for the field forester to learn, they will soon find that about 30-50 species will differentiate most of the forest and woodland ecosystems in the local area that they manage.

### Acknowledgments

Rebecca Barnard of the Minnesota Department of Natural Resources (MNDNR) created the initial draft layout of this document. Chel Anderson, Alaina Berger, Lynden Gerdes, Jason Johnson, Michael Lee, Welby Smith, Mark Wurdeman, and Monica Zachay are fellow MNDNR employees who provided photographs to supplement mine. Welby's photographs appear also in his recent publication, *Trees and Shrubs of Minnesota*<sup>2</sup>, and his book is the authority for identifying the state's woody plants. Publication was facilitated by the Information and Education Section of the MNDNR. Outside contributors include Scott Milburn of Midwest Natural Resources, Bruce Barnes of Flora ID Northwest, Richard Old of XID Services, Inc., Jan Janssens<sup>3</sup> of Lambda-Max Consulting, and Joanne Kline, WIDNR.

1. Minnesota Department of Natural Resources (2003). *Field Guide to the Native Plant Communities of Minnesota: the Laurentian Mixed Forest Province*. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program. MNDNR St. Paul, MN.  
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2. Smith, Welby R. (2008) *The Trees and Shrubs of Minnesota*. University of Minnesota Press, Minneapolis, MN
3. Janssens, Joannes A. (2007) *Noteworthy Mosses & Liverworts of Minnesota: field keys and habitat descriptions of common bryophytes*. Minneapolis, Minnesota.

## Species Groups and Organization

Plants appearing in this workbook are not taxonomically arranged, but rather they are arranged by their general appearance or by groupings familiar to most land managers. The purpose is to allow quick navigation to field notes and photos of plants appearing in the Native Plant Community Field Guides. For the botanist, the index serves as a taxonomic listing of the plants.

**Coniferous trees** – are woody plants capable of attaining heights over 30 feet, forming only a single main stem, and have needle-like leaves that are evergreen (except for Tamarack). Trees are able to attain both height and diameter growth because they have meristematic tissues at the ends of branches (apical) and between the different-functioning wood (vascular cambium), and between wood and the bark (bark cambium). In temperate climates, alternating periods of dormancy (winter) and growth (summer) cause woody plants with vascular cambium to form annual growth rings that are most evident in cross-section. Pages 1-3.



**Deciduous trees** – are woody plants capable of attaining heights over 30 feet, tending to form a single main stem, and have broad, net-veined leaves that are shed each year. Like coniferous trees, deciduous trees have a vascular cambium and form annual rings. Pages 4-12.



**Tall deciduous shrubs** – are woody plants usually less than 30 feet tall, tend to form clumps of stems, and have broad, net-veined leaves that are shed each year. Like trees, tall shrubs have a vascular cambium and form annual rings. Pages 13-21.



## Key plants appearing in the Field Guides to Native Plant Communities: Forests & Woodlands

**Prickly, deciduous half-shrubs** – are woody plants generally less than 3 feet tall that lose their leaves each fall and lack or have short-lived vascular cambia. Thus, deciduous half-shrubs are not capable of extended radial growth which is evident in the field as plants with a great many stems (colonies), many dead stems, and shreddy bark. Here “prickly” refers to either true prickles (modified bark) or spines (indurated stipules or branches). Prickly carries little taxonomic importance here, rather it is a convenient way of segregating half-shrubs using an obvious field character. Pages 22-23.



**Smooth, deciduous half-shrubs** – share all of the attributes of prickly half-shrubs (above) except that they are not obviously beset with spines or prickles. This group does not include the common half-shrubs of the Ericaceae family, which are mostly evergreen. Pages 24-28.



**Ericaceous half-shrubs** – half-shrubs of the Ericaceae family that lack prickles and usually have evergreen leaves. Blueberries are the deciduous exception in this workbook. Pages 29-30.



**Ericaceous semi-woody plants** – are a group of low, evergreen plants in the Ericaceae family or in genera associated with the Ericaceae. Most of these plants are technically woody, but their stems are slender, small, and short-lived. Pages 31-34.



Key plants appearing in the Field Guides to Native Plant Communities:  
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**Woody vines** – are woody plants that maintain over winter a vine or woody stub from which herbaceous, vine-like, growth emanates each year. Stubs are more common in the LMF Province unless in riparian areas. The vine growth-form is increasingly common in the EBF and PPA/TAP Provinces, but stubs are probably still the more common condition away from riparian habitats. Pages 35-36.



**Miscellaneous herbs** – is a necessary and pragmatic category of all herbaceous plants not fitting the following special categories. This happens only because the workbook presents a limited set of plants that are diagnostic of community differences. If an unknown herb doesn't fit any of the following categories, then one should search for a match under miscellaneous herbs. Pages 37-51.



**Spring ephemerals** – are small herbaceous plants that appear before the forest canopy leafs-out, are soon withering, and have underground storage organs. The species here tend to form colonies where their ephemeral habit is often obvious by at least some individuals turning yellow and collapsing. These plants will not be seen after early June and have limited value in site classifications. Page 52.



**Bedstraws and weak-stemmed clingy plants** – belong mostly to the bedstraw genus, *Galium*. Most bedstraws are weak-stemmed, decumbent or climbing plants that usually have hooked bristles somewhere on the plant that allows the seeds, leaves, or stems to stick to other plants or clothing. Included are two peatland plants, *Stellaria longifolia* and *Campanula aparinoides*, that are similarly weak-stemmed and bristly. Pages 53-54.



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Mints and other herbs with opposite leaves** – are a group of plants with an upright central stem that is usually unbranched (or with a strong central stem) and with opposite leaves. Pages 55-58.



**Plant's with cat's paw leaves** – are a taxonomically diverse group that share in common their tendency to be tall, have (apparently) ternately compound leaves, with small leaflets that resemble the outline of a cat's paw. Pages 59-60.



**Peas and vetches** – are a group of upright or climbing herbs with pinnately compound leaves and tendrils at the leaf tips. All have flowers and pods resembling the common garden pea. Pages 61-62.



**Smartweeds** – are herbs with alternate leaves and a distinctive sheath (ochrea) above the leaves that define this taxonomic group. Pages 63-64.



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Umbels** – are herbaceous members of the Umbelliferae plant family, which are distinguished by ternately compound leaves (usually), with wide petioles that sheath the stem, and with distinctive inflorescences (umbels) where numerous pedicels attach at a single point and spread to form flat-topped clusters of small flowers. Pages 65-67.



**Trailing and vine-like herbs** – are a group of herbs where the main stem of the plant lies along the ground or climbs on other plants. Upright carrion-flower (*Smilax ecirrata*) is the exception, but is not distinguished from its relative vines in the field guides. Pages 68-69.



**Leafy violets** – are members of the Violaceae family that have stem leaves on the flowering stalks. Basal leaves resembling the stem leaves are often present, so searching for flowering stems is an important field task. Page 70.



**Composites with just disk or ray flowers** – are members of the Asteraceae family that have just disk (e.g. joe pye weed) or just ray (e.g. dandelions) flowers, evident in the field because they don't have the obvious daisy-like heads. Pages 71-72.





Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Composites with disk and ray flowers** – are members of the Asteraceae family generally characterized by forming the familiar daisy-like heads composed of tiny, tubular disk flowers in the center and larger, petal-like ray flowers around the edge. Pages 73-77.



**Lilies and orchids with just basal leaves** – are a group of herbs with only basal leaves that are apparently parallel-veined and occur singly, or as rosettes. Thus, the flowers or fruits occur on leafless or seemingly leafless stalks. Pages 78-79.



**Leafy orchids** – are members of the Orchidaceae family with leaves on the flowering stems. Pages 80-81.



**Plants resembling Solomon's seal** – are a group of plants in the Liliaceae family that are similar in that they tend to have arching stems about 1-2 feet long and with alternate, parallel-veined, leaves. They can be quite difficult to distinguish when sterile, but nearly all of the herbs in this group produce a few fertile plants that should be sought out in the field and matched to their sterile counterparts. Pages 82-84.



Key plants appearing in the Field Guides to Native Plant Communities:  
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**Unique plants** – are represented here by a few plants that are unusual, easily recognized, and don't fit into the other groups. Pages 85-86.



**Ferns with triangular blades** – are a group of ferns where the leafy blades are roughly triangular in outline. Page 87.



**Ferns with feathery blades** – are a group of ferns where the leafy blades look like feathers in outline. The exception is maidenhair fern (*Adiantum pedatum*), where the rachis is split to form a circular blade that, otherwise, would have appeared feathery. Pages 88-91.



**Clubmosses and firmosses** – are members of the Lycopodiaceae family that form colonies from creeping rhizomes and tend to have vertical stems that are not branched. Page 92.



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**Groundpines and groundcedars** – are members of the Lycopodiaceae family that form colonies from creeping rhizomes and tend to have vertical stems that branch, presumably resembling miniature cedar or pine trees. Page 93.



**Horsetails and scouring rushes** – are members of the genus, *Equisetum*. They have round, hollow, jointed central stems that may or may not have side branches. They appear to be entirely composed of stems and branches, having nothing that resembles a leaf. Pages 94-95.



**Sedges without pendant spikelets** – are members of the sedge genus, *Carex*, recognized by having flowering stems that are triangular in cross-section, leaves with mid-veins, and seeds enclosed in a sac-like structure called a perigynium. This group has spikelets of perigynia and subtending scales that are tight to the stem and ascend. Pages 96-100.



**Sedges with pendant spikelets** – are members of the genus *Carex* as above, but differ in having spikelets that are pendant on long stalks. Page 101.



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**Cottongrasses** – are members of the genus *Eriophorum* and are familiar peatland plants with cottony tufts at the tips of grass-like stalks. Pages 102-103.



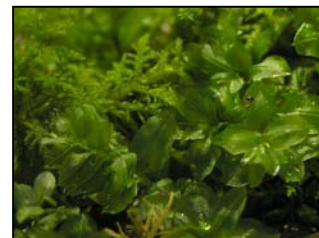
**Grasses** – are members of the Poaceae family that are generally characterized by having round, segmented stems with joints (like bamboo), and seeds subtended by two specialized bracts (lemma and palea). Pages 104-107.



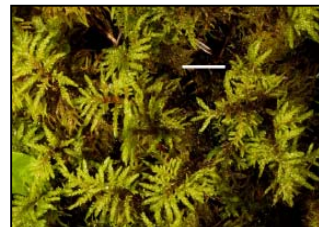
**Sphagnum mosses** – are members of the genus, *Sphagnum*. These mosses grow in mats of many individuals to form a ground-cover. These mosses are distinguished from others by having a “head,” which is really a rounded cluster of leafy branches at stem nodes that have yet to elongate. Page 108.



**Brown mosses** – a large and taxonomically variable group. This group includes mosses that tend to not obviously branch (acrocarps) and proliferous branchers (pleurocarps). The genera, *Plagiomnium*, *Rhizomnium*, *Hypnum*, and *Calliergon* have species that are important in our field guides as a widespread pool species in Forested Rich Peatlands and sometimes Wet Forests. Pages 109-110.



**Feathermosses** – are a large and taxonomically variable group. This group includes mosses that tend to pinnately branch, forming delicate, feather-like, individuals. The genera, *Pleurozium*, *Ptilium*, *Thuidium*, and *Hylocomium*, are the most important feathermosses in our field guides. Page 111.



Key plants appearing in the Field Guides to Native Plant Communities:  
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## Coniferous Trees

### Balsam Fir (*Abies balsamea*)



**Field Tips:** Evergreen tree with flat, white-striped, blunt-tipped, single needles attached directly to the branch. Bark smooth and with resin blisters. Female cones 2-4" long and upright on branches.

**Notes:**



#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
FDn	WFn, FPn, MHn		FPS, FDC, FPw, WFw, FFn, MHc

#### Occurrence in ECS Field Keys

LAP-FP, LAP-MH, MIM-FD, MIM-MH

### Tamarack (*Larix laricina*)



**Field Tips:** Coniferous tree with soft, deciduous, needle-like leaves in fascicles of 10-25 needles from short shoots. Purplish cones ~1/2" long, shedding winged seeds in the fall.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
FPw, FPS	APn, FPn	OPn	WFw, OPp, WFn, WMn

#### Occurrence in ECS Field Keys

MDL-AP, MDL-FP, MOP-AP, MOP-FP, NSU-AP, NSU-FP, WSU-AP, WSU-FP

### Black Spruce (*Picea mariana*)



**Field Tips:** Evergreen tree with single needles <1" long, square in section, and on twigs beset with short reddish hairs. The crown commonly "mop-topped," caused by dense, cone-producing branches at the tree's apex.

**Notes:**



#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	APn, FPn, FPw	FDn	WFn, OPn, FPS

#### Occurrence in ECS Field Keys

LAP-AP

Key plants appearing in the Field Guides to Native Plant Communities:  
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**Jack Pine (*Pinus banksiana*)**



**Field Tips:** Evergreen tree with rather straight needles, 1-2" long, in fascicles of two. The only pine in MN to not shed cones, bearing its lifetime production. Cones initially closed, opening in response to heat and sometimes age.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDC	FDn	FDw

**Occurrence in ECS Field Keys**

MDL-FD, MOP-FD, NSU-FD, WSU-FD

**Red Pine (*Pinus resinosa*)**



**Field Tips:** Evergreen tree with rather straight needles, 3-6" long, in fascicles of two. Bark on bole flaking, revealing reddish plates. Cones shed in second year and unarmed.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FDc, FDn	

**Occurrence in ECS Field Keys**

MDL-FD, MOP-FD, NSU-FD, WSU-FD

**White Pine (*Pinus strobus*)**



**Field Tips:** Evergreen tree with rather straight needles, 2-4" long, in fascicles of five. Bark greenish-gray, becoming gray-black and furrowed. Cones shed around fall of second year and unarmed.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDn	FDc, MHn, MHc, APn, FDs, FPn, WFn, MHs, OPn	

**Occurrence in ECS Field Keys**

MDL-FD, NSU-FD

Key plants appearing in the Field Guides to Native Plant Communities:  
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**White Cedar (*Thuja occidentalis*)**



**Field Tips:** Evergreen tree with scale-like needles on flattened branchlets. Branching usually in a single plane to form the familiar cedar "sprays." Cones small (~1/2" long), scales opposite, releasing 2-winged seeds in about a year.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FPn	WFn	FDn, MHn, FPw, OPn
Occurrence in ECS Field Keys			
MIM-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
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**Deciduous Trees**

**Box elder (*Acer negundo*)**



**Field Tips:** Tree with opposite, pinnately compound leaves on green twigs. Leaflets 3-5, coarsely toothed. Fruit the familiar maple "keys" with 2 seeds.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHw, FFs	FFn, FDs, MHs, FPs, WFs	WMs, WFw, FPw, FDw, MRs
Occurrence in ECS Field Keys			
LAP-FF, LAP-MH, NSU-FF, PPL-FF			

**Red maple (*Acer rubrum*)**



**Field Tips:** Familiar tree with opposite, simple, palmately veined maple leaves. Sinuses between the main leaf lobes <1/2 way to mid-rib and sharp-angled. Lower leaf surface slightly whitened below.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FDn, MHc, MHn, WFn	FDc, FPs, FPn, FDs, WFs	OPn, APn, WMn
Occurrence in ECS Field Keys			
MIM-MH			

**Silver maple (*Acer saccharinum*)**



**Field Tips:** Familiar tree with opposite, simple, palmately veined maple leaves. Sinuses between the main leaf lobes >1/2 way to mid-rib and rounded. Lower leaf surface strongly whitened below.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FFs, FFn		WFs
Occurrence in ECS Field Keys			
MDL-FF, MIM-FF, MOP-FF, NSU-FF, PPL-FF, WSU-FF			



Key plants appearing in the Field Guides to Native Plant Communities:  
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**Sugar maple (*Acer saccharum*)**



**Field Tips:** Familiar tree with opposite, simple, palmately veined maple leaves. Sinuses between the main leaf lobes ~1/2 way to mid-rib and rounded. Lower leaf surface green, glabrous or only slightly whitened by hairs.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHc, MHn, MHs	WFs		WFn, FDn, FDs, FFs

**Occurrence in ECS Field Keys**

MDL-MH, MIM-MH, NSU-MH, PPL-WF, PPL-WF, WSU-MH
--

**Yellow birch (*Betula alleghaniensis*)**



**Field Tips:** Tree with papery bark, lustrous gray outside and bronzy beneath. Leaves alternate, simply serrate, rounded at base and from short-shoots on older branches. Twigs with wintergreen odor. Female catkins fracturing in winter.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WFn	WFs, MHn, FPs, FPn

**Occurrence in ECS Field Keys**

MDL-WF, MIM-WF, MOP-WF, NSU-MH, WSU-WF
--

**Paper birch (*Betula papyrifera*)**



**Field Tips:** Tree with the familiar papery bark, white outside and pinkish beneath. Leaves alternate, simply serrate, wedge-shaped at base and from short-shoots on older branches. Twigs odorless. Female catkins fracturing in fall.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
FDn	MHn, MHc, FPn	FPs, FDC, WFn, FDs, FPw, WFw	MHw, WFs, APn, MHs, OPn, WMn, FFn

**Occurrence in ECS Field Keys**

LAP-MH, LAP-WF, MIM-FD, MIM-WF
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Key plants appearing in the Field Guides to Native Plant Communities:  
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**Bitternut hickory (*Carya cordiformis*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, pinnately compound leaves. Leaflets 7-9 decreasing in size from the large terminal. Distinctive, large, yellow terminal bud. Fruit the familiar nut with a thin husk.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MHs		FDs, MHc, FFs
<b>Occurrence in ECS Field Keys</b>			
MIM-MH			

**Hackberry (*Celtis occidentalis*)**



Welby Smith, MNDNR

**Field Tips:** Trees, with alternate, simple, lance-ovate leaves with 3-5 veins from base, and blade attachment to the petiole usually unequal (like elm). Bole and larger branches with warty bark. Fruit a blackish drupe.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FFs	MHs	FDs, WFs, FFn
<b>Occurrence in ECS Field Keys</b>			
MIM-FF, MIM-MH, PPL-FF			

**Black ash (*Fraxinus nigra*)**



John C. Almendinger, MNDNR

**Field Tips:** Tree with opposite, pinnately compound leaves from thick branchlets. Leaflets stalkless, with rank odor, and the terminal lanceolate, similar to laterals. Fruits winged to tip around the whole seed.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
WFs, WFfn, WFW	FFn	MHn, FPw, FPs, MHs, FPh, MHc	FFs, FDn, WMn, WMs, FDC
<b>Occurrence in ECS Field Keys</b>			
LAP-MH, MDL-WF, MIM-MH, MIM-WF, MOP-WF, WSU-WF			

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**Green ash (*Fraxinus pennsylvanica*)**



Welby Smith, MNDNR

**Field Tips:** Tree with opposite, pinnately compound leaves from slender branchlets. Leaflets with petioles, without rank odor, and the terminal broader than laterals. Fruits winged to about the seed's middle.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw, FFn	FFs, Mhc	FDs, MHs, WFs	MHn, Fdc, FDw, WFn, Wfw, WMs, Fdn, UPs
Occurrence in ECS Field Keys			
LAP-FF, LAP-MH, PPL-FF			

**Butternut (*Juglans cinerea*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, pinnately compound leaves on twigs with chambered, dark brown pith. Leaflets 11-17 and smelling distinctly of juglone. Fruit elongate.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHs, Mhc, WFs, FDs
Occurrence in ECS Field Keys			
MIM-MH			

**Black walnut (*Juglans nigra*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, pinnately compound leaves on twigs with chambered, light brown pith. Leaflets 11-17 and smelling distinctly of juglone. Fruit the familiar walnut, and nearly round.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDs, FFs, MHs
Occurrence in ECS Field Keys			
PPL-FF			

Key plants appearing in the Field Guides to Native Plant Communities:  
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**Ironwood (*Ostrya virginiana*)**



Monica Zachay, MNDNR

**Field Tips:** Small trees, with alternate, simple, ovate, finely-toothed leaves that feel fuzzy. Leaves large at the branchlet tip, becoming small towards base. Bark distinctly flaky/shreddy. Female catkin with seeds in inflated pouches, resembling hops.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHc, MHs	MHn	WFs, FDs	MHw, FDc

**Occurrence in ECS Field Keys**

MDL-MH, MIM-MH, PPL-MH, WSU-MH

**Balsam poplar (*Populus balsamifera*)**



John C. Almendinger, MNDNR

**Field Tips:** Tree, with alternate, simple, ovate-lanceolate leaves with small rounded teeth and bronze-guttaceous below. Buds are sticky and fragrant. Flowers in catkins, the females producing small seeds with cottony hairs.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
WFw	MHw	FPw, FDw, WFn, WPn, FFn, MHn, WMs, FDn	

**Occurrence in ECS Field Keys**

LAP-WF, MOP-MH, MOP-WF, NSU-WF

**Cottonwood (*Populus deltoides*)**



John C. Almendinger, MNDNR

**Field Tips:** Tree, with alternate, simple, triangular leaves with coarse teeth, the leaf base straight across the flattened petiole. Flowers in catkins, the females producing small seeds with cottony hairs.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

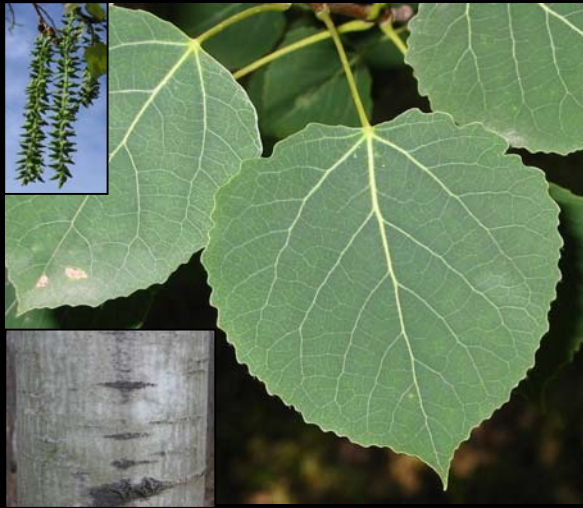
75-100%	50-75%	25-50%	5-25%
		FFs	MHw

**Occurrence in ECS Field Keys**

MIM-FF, PPL-FF

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Quaking aspen (*Populus tremuloides*)**



**Field Tips:** Tree, with alternate, simple, ovate leaves with fine teeth, the leaf base rounded across the flattened petiole. Bark initially smooth, green-white becoming ridged. Flowers in catkins, the females producing small seeds with cottony hairs.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
WFw, FDw	MHw, FDn, FDc	MHc, MHn, FDs	WFn, WPn, UPn, FPs, FFn, WPs, MHs, WFs, UPs
Occurrence in ECS Field Keys			
LAP-MH, LAP-WF, MIM-MH, NSU-FD, PPL-FD			

**Black cherry (*Prunus serotina*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, simple leaves and peeling bark with numerous lenticels. Leaves long-pointed, finely-serrate, gland-tipped teeth, and orange fuzz along lower midrib. Flowers and fruits from a pendant raceme.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHw, FDw
Occurrence in ECS Field Keys			
MIM-MH			

**White oak (*Quercus alba*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, simple, obovate leaves with 7-9 deep (>1/2 to midrib) lobes lacking bristle-tips. Branches often lustrous gray. Acorns sessile or on short (<1/2") stalks, the cup not fringed.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		MHs, FDs	WFs, MHc
Occurrence in ECS Field Keys			
MIM-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Swamp white oak (*Quercus bicolor*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, simple, obovate leaves with >6 shallow (<1/3 to midrib) lobes lacking bristle-tips. Acorns on long (1-2") stalks, the cup with scales near the rim having slender tips forming a slight fringe.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			FFs

**Occurrence in ECS Field Keys**

PPL-FF

**Northern pin oak (*Quercus ellipsoidalis*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, simple, deeply lobed (nearly to midrib) leaves and lobes bristle-tipped. Acorn cup covering ~1/3 of nut and upper cup scales appressed. Acorn usually striped. Buds not strongly angled.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FDs	FDc, FDn, FPs, UPs, FDw, MHs

**Occurrence in ECS Field Keys**

MIM-FD, PPL-FD, WSU-FD

**Bur oak (*Quercus macrocarpa*)**



John C. Almendinger, MNDNR

**Field Tips:** Tree with alternate, simple, deeply lobed leaves (>1/2 to midrib) at base but less so near the wide tip. Lobes without bristle-tips. Leaves fuzzy below. Acorn cup with scales not appressed forming the "bur."

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
FDw, FDs, MHw	FDc, FFn	MHc, WFw, WFs, MHs	MHn, WFn, FPw, UPs, FPs, FDn, UPn, FFs, WPs

**Occurrence in ECS Field Keys**

MIM-FD, MIM-WF, PPL-FD

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Northern red oak (*Quercus rubra*)**



**Field Tips:** Tree with alternate, simple, leaves with bristle-tipped lobes. Sinuses cut 1/2-2/3 to midrib and narrowing to base. Acorn cup covering 1/6-1/3 of acorn. Acorn usually not striped.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHc	MHs, MHn	FDc, WFs, FDs, FPs	FDn, WFn, FPn, APn, FFn
Occurrence in ECS Field Keys			
MIM-FD, MIM-MH, NSU-MH			

**Black oak (*Quercus velutina*)**



Welby Smith, MNDNR

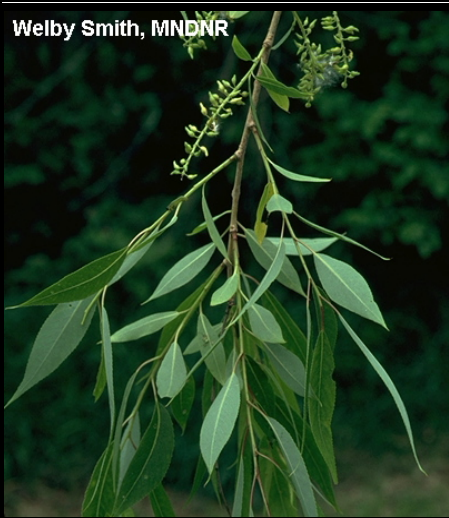
**Field Tips:** Tree with alternate, simple, deeply lobed (>6/10 to midrib) leaves and lobes bristle-tipped. Acorn cup covering 1/3-1/2 of nut and upper cup scales not appressed forming a short fringe. Buds 5-angled.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDs
Occurrence in ECS Field Keys			
PPL-FD			

**Peach-leaved willow (*Salix amygdaloides*)**



Welby Smith, MNDNR

**Field Tips:** Tree with alternate, simple, ovate-lanceolate leaves with long narrow tips, green above and pale green (glaucous) and hairless below. Twigs green-yellow, maturing to brownish branchlets.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FFs, WMs
Occurrence in ECS Field Keys			
NSU-FF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Mountain ashes (*Sorbus spp.*)**



John C. Almendinger, MNDNR

**Field Tips:** Tree or multi-stemmed very tall shrub. Leaves alternate, compound, odd-pinnate with 11-17 serrate leaflets. Flower clusters with many white flowers, yielding distinctive, small orange fruits (pomes).

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FDn	WFn,FPn,MHn

**Occurrence in ECS Field Keys**

NSU-FD, NSU-MH

**Basswood (*Tilia americana*)**



**Field Tips:** Tree with alternate, simple, heart-shaped leaves with gland-tipped teeth. Fragrant flowers and round, hard fruits (~1/4") from distinctive leafy bracts.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHs, MHc, WFs	MHn, MHw	FFn, FDs, FFs	WFn, FDc, FDn

**Occurrence in ECS Field Keys**

LAP-FF, LAP-MH, MDL-MH, MIM-FF, MIM-MH, MIM-WF, MOP-MH, NSU-MH, WSU-MH

**American elm (*Ulmus americana*)**



Welby Smith, MNDNR

**Field Tips:** Tree, with alternate, simple, ovate leaves with strong, mostly unbranched veins to marginal teeth and unequal blade attachment at base. Bark white/brown striped in vertical section. Fruits hairless except for frill at edge.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHw, FFs	FFn, WFs, WFw, FPs, MHs	FDs, WFn, FPw, MHc, MHn	FDw, FDc, WMs, WMn

**Occurrence in ECS Field Keys**

LAP-FP, MIM-MH



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

Tall Deciduous Shrubs

Mountain maple (*Acer spicatum*)

John C. Almendinger, MNDNR



**Field Tips:** Tall shrub (3-15') with simple, opposite, maple leaves with long-tapering lobe tips. New twigs green, becoming red and then tan. Seeds the familiar maple "key" in long racemes that are initially upright and drooping later.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHn, WFn	FDn	MHc, WFw, FPn, WFs, FDc
Occurrence in ECS Field Keys			
LAP-MH, LAP-MH, LAP-WF, MIM-MH, NSU-WF			

Speckled alder (*Alnus incana*)



John C. Almendinger, MNDNR

**Field Tips:** Tall, multiple-stemmed shrub. Alternate, doubly-serrate leaves on white-speckled twigs. Winter buds stalked. Female catkin is a persistent woody cone on a very short stalk.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FPn, WFn, WFw	FPs, OPn, WFs	WMn, FPw, FFn, APn, MRn, FDn, FDw, MHn
Occurrence in ECS Field Keys			
MDL-AP, MDL-FP, MOP-AP, MOP-FP, NSU-AP, NSU-FF, NSU-FP, NSU-MH, WSU-AP, WSU-FP, WSU-MH			

Juneberries (*Amelanchier spp.*)

John C. Almendinger, MNDNR



**Field Tips:** Tall shrub, usually with multiple stems. Buds long-tapered, red, and hairy. Leaves alternate, simple, ovate, and toothed. Flower cluster a raceme of white, long-petaled flowers that yield a red to deep purple, apple-like fruit.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDw, MHw, FDn, FDc	WFw, MHc	MHn, FPw, FDS, WFn, FPn	FPs, UPn, MHs, FFn
Occurrence in ECS Field Keys			
WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Bog birch (*Betula pumila*)**



**Field Tips:** Shrub up to ~4' high. Leaves fan-shaped (obovate), leathery, shiny above, glandular below, many small rounded teeth. Female catkin shattering in late fall/winter and seeds wind dispersed over snow.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
FPw	FPs, Opn	WPn, FPn, OPp, APn	WMs, FDw, MRn, UPn, WMn

**Occurrence in ECS Field Keys**

LAP-FP, MDL-AP, MDL-FP, MIM-FP, MOP-AP, MOP-FP, NSU-AP, NSU-FP, WSU-AP, WSU-FP

**Blue beech (*Carpinus caroliniana*)**



**Field Tips:** Shrub or small tree with smooth, gray bark covering fluted, "muscled" wood. Leaves alternate, serrate, shiny, largest near tip and progressively smaller towards the base of the branchlet.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WFs	MHc, MHs, FFn

**Occurrence in ECS Field Keys**

MIM-MH, PPL-WF

**Pagoda dogwood (*Cornus alternifolia*)**



**Field Tips:** Tall shrub or creeping beneath duff with short vertical shoots. Alternate leaves with veins parallel to leaf edge. Young branchlets yellow-green. White flowers in flat-topped clusters yielding dark blue fruits on red stalks.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MHc	MHs, MHn, WFs	FDs, FDc, WFn, FFn

**Occurrence in ECS Field Keys**

LAP-MH, MDL-MH, MIM-WF, MOP-MH, NSU-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Gray dogwood (*Cornus racemosa*)**



**Field Tips:** Tall (3-6') shrub, forming thickets. Leaves opposite, lanceolate, 3-4 veins parallel to leaf margin. Branchlets not mottled and not with red-brown pubescence; older twigs gray. Flowers white; berries white.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw	FDs, FDw	WFs	WFw, FDc, FPs, FFn, MHs, WFn, MHc, FPw, FPn
Occurrence in ECS Field Keys			
MIM-FD, MIM-WF, PPL-FD			

**Round-leaved dogwood (*Cornus rugosa*)**



**Field Tips:** Tall shrub with opposite, ovate leaves with 5-7 veins a side parallel to leaf edge. Young branchlets green with purplish flecks. Fruit clusters gaudy with light blue fruits and magenta/pink stalks.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHc, FDn, FDc, FPs, WFn, MHn, FDs, FPn, MHs, WFs
Occurrence in ECS Field Keys			
MDL-FD, MIM-FD, NSU-FD, WSU-FD			

**Red-osier dogwood (*Cornus sericea*)**



**Field Tips:** Tall (3-6') shrub, forming thickets. Leaves opposite, oval, 5-9 veins parallel to leaf margin. Stems not mottled, brilliant red fall to spring, turning green throughout growing season. Flowers white; berries bluish white.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FPw, WFw	FPs, FPn	WMs, WFn, FDw, OPp	WMn, WPn, WMp, OPn, WFs, FDn, MRs, FDc, WPs, MHn
Occurrence in ECS Field Keys			
LAP-FP, LAP-WF, WSU-FP, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**American hazelnut (*Corylus americana*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall shrub with multiple stems. Leaves alternate, doubly serrate. Twigs and leaf petioles beset with bristly, red, glandular hairs. Male catkins stalked and somewhat pendant. Fruit husk with frilly seam rather than a beak.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDs	FDw, FDC		FFn, MHc, MHs, MHw, WFs, MHn, WFn, WFW, UPs, UPn
Occurrence in ECS Field Keys			
LAP-FD, MDL-FD, MIM-FD, MIM-MH, PPL-MH, WSU-FD, WSU-FF			

**Beaked hazelnut (*Corylus cornuta*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall shrub with multiple stems. Leaves alternate and doubly serrate. Twigs with soft, soon-deciduous hairs. Male catkins sessile and stick out, not pendant. Fruit husk with a long, tubular beak.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDn, MHn	MHc, FDC, MHw, WFn, WFW		FDw, WFs, FDs, FFn, FPw, FPn, MHs
Occurrence in ECS Field Keys			
MDL-FD, MIM-MH, NSU-WF			

**Hawthorn (*Crataegus spp.*)**



Michael D. Lee, MNDNR

**Field Tips:** Several species of tree-like shrubs, usually thorny and with simple, alternate, toothed leaves (often coarsely, doubly serrate). Flowers white, and the fruits resembling small apples in large clusters.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			WFs, FFn, FDC, FDw, FDs, MHs, MHc, FFs
Occurrence in ECS Field Keys			
LAP-FD, PPL-WF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Leatherwood (*Dirca palustris*)**



John C. Almendinger, MNDNR

**Field Tips:** Shrub with tree-like form; branches and twigs incredibly flexible and very difficult to break. Leaves alternate, glabrous and entire with petioles concealing axillary buds leaving scars that encircle the twigs.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		MHc	MHn, MHs

**Occurrence in ECS Field Keys**

MDL-MH, MIM-MH, WSU-MH

**Winterberry (*Ilex verticillata*)**



John C. Almendinger, MNDNR

**Field Tips:** Shrub (2-8') with alternate, obovate leaves with acuminate tip and fine gland-tipped teeth. Leaf veins deeply set. White flowers in axillary clusters; females yielding bright red fruits that persist after leaf-fall.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			WFn, FPs, WFs, FFn, FPn, FDs, FDc

**Occurrence in ECS Field Keys**

MIM-WF, NSU-WF, WSU-AP, WSU-WF

**Sweet gale (*Myrica gale*)**



Welby Smith, MNDNR

**Field Tips:** Tall (2-4') shrub with alternate, obovate leaves toothed near the tip, dotted with yellow glands, and very fragrant (bayberry). Flowers in catkins, the females producing numerous, water-dispersed seeds.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			OPn

**Occurrence in ECS Field Keys**

NSU-AP

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Chokecherry (*Prunus virginiana*)**



**Field Tips:** Tall shrub (3-10') with branchlets dull reddish gray and without spines. Leaves alternate, simple, dull green, wider towards tip and with straight (not incurved) teeth. Flowers in pendant racemes, yielding red-purple drupes.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHc	FDs, FDc, FDw, MHn, MHs, WFw	WFs, FFn, WFn, FDn, FPw	FPs, FFs, MHw, UPs, UPn
Occurrence in ECS Field Keys			
MIM-FF, MOP-FF, NSU-FF, NSU-MH			

**Bebb's willow (*Salix bebbiana*)**



**Field Tips:** Usually a tall (6-10') shrub with multiple stems. Alternate, elliptic, entire to crenate leaves that are hairy below making it appear gray-green often with pinkish veins. Twigs green, maturing to red-brown branchlets.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDw, WFw, WPn, FPw	OPp, WMn, WMs, UPn, FPn, WMp, FPs, WPs, MRn, FDn
Occurrence in ECS Field Keys			
MDL-FP, MOP-FP, NSU-FP, WSU-FP			

**Sage-leaved willow (*Salix candida*)**



**Field Tips:** Low (~2') willow layering in peat to form colonies of scattered, small, yellowish-turning-red stems. Leaves alternate, lanceolate, light green above and densely white-wooly beneath, and with the edges rolled under.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		OPp, FPw	OPn, WMs, WPn, FPs, MRn, FPn, WMn
Occurrence in ECS Field Keys			
LAP-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Pussy willow (*Salix discolor*)**



**Field Tips:** Usually a tall (6-10') shrub with multiple stems. Alternate, oblanceolate, crenate to serrate leaves that are glabrous/glaucous below, making it appear pale green. Twigs green-brown, maturing to brown branchlets.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FPw	WMs, WPn, WMp, WMn, FPs, FPn, OPp	FDw, MRn, OPn, UPn, WPs, WFw

**Occurrence in ECS Field Keys**

MDL-FP, MOP-FP, NSU-FP, WSU-FP

**Prairie willow (*Salix humilis*)**



**Field Tips:** Tall shrub unique among willows to sandy, dry habitats in MN. Leaves with revolute edges, dark green surface, light green and densely hairy below. First-year branchlets fuzzy and yellow/brown mottled.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FDc	FDn, FDw

**Occurrence in ECS Field Keys**

MDL-FD, MOP-FD, NSU-FD, WSU-FD

**Bog willow (*Salix pedicellaris*)**



**Field Tips:** Low (~2') willow layering in peat to form colonies of scattered, small, reddish stems. Leaves alternate, oval/oblong, leathery, dark green above and whitened beneath, and with prominent yellow-red midrib.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		OPn	FPn, OPp, FPs, APn, MRn, WMn

**Occurrence in ECS Field Keys**

MOP-FP

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Nannyberry (*Viburnum lentago*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall tree-like shrub (5-15') with opposite, finely serrate, acuminate leaves on warty-winged petioles. Unmistakable long terminal bud. White flowers of two sizes in large, flat clusters yielding blue-black fruits.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WFs, FFn, FDw, FDs	MHs, MHw, WFW, WFn, FFs, MHC, FPs, MHn

**Occurrence in ECS Field Keys**

LAP-FD, NSU-MH

**Downy arrowwood (*Viburnum rafinesquianum*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall shrub (2-6') with opposite, coarsely-toothed, ovate-lanceolate, simple leaves. White flowers of two sizes in large, flat clusters yielding blue-black fruits (drupes) with stones that are flattened and grooved.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHW	MHC, FDw	FDs, FDC, MHn	WFW, FDn, FFn, MHs

**Occurrence in ECS Field Keys**

MIM-WF, NSU-FD, NSU-MH

**Highbush cranberry (*Viburnum trilobum*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall shrub with opposite, three-lobed, maple-like leaves. Flowers in a flat-topped compound cyme with the outer ring of flowers larger than the central ones. Fruit a red edible drupe, tart.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHW	WFW	FDw, WFn, FPw	FFn, FPs, MHn, FDs, MHC

**Occurrence in ECS Field Keys**

MDL-MH, MIM-MH



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Prickly ash (*Zanthoxylum americanum*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall shrub (up to 10') with a pair of stout spines below each leaf. Leaves pinnately compound with 5-11 ovate, entire leaflets. Small, greenish flowers yielding a red, fleshy follicle that splits to reveal the seed(s).

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDs	MHs	FFs, FFn, MHw, WFs, MHc

**Occurrence in ECS Field Keys**

PPL-FD

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Prickly, Deciduous Half-shrubs**

**Prickly gooseberry (*Ribes cynosbati*)**



**Field Tips:** Low shrub (2-3'), prickles persistent, axillary spines slender. Alternate clusters of maple-like leaves on short shoots, leaf undersides without resin dots. Flowers 2-4 from axils. Fruits purple-black and prickly.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHs, MHc	FDs, MHw, MHn, WFw	WFn, FPw, WFw, FFs, FDC, FDw, FPn, FPs, FFn
Occurrence in ECS Field Keys			
MIM-WF			

**Swamp gooseberry (*Ribes hirtellum*)**



**Field Tips:** Low shrub (2-3'), prickles soon shed with bark, leaving a few axillary spines. Alternate clusters of maple-like leaves on short shoots. Flowers 2-4 from axils, stamens exceed petals; fruits green-purple and smooth.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFw, FPs	FDw, FPw, WFw	FPn, MHn, WMn, FDn, WFw, OPn
Occurrence in ECS Field Keys			
MDL-WF, MOP-WF, NSU-WF			

**Prickly & Smooth wild roses (*Rosa acicularis* / *blanda*)**



**Field Tips:** Prickly shrubs 1-4' tall, with alternate, compound leaves and large stipules. Large pink flowers with many yellow stamens yielding the familiar red hips.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
WFw	FDc, FDw	FDn	FFn, FPw, FDs, MHn, WFw, FPn, MHc
Occurrence in ECS Field Keys			
MDL-FD, MIM-FD, MOP-MH, NSU-FD, NSU-FD, WSU-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Tall blackberries (*Rubus* sections: *Alleghenienses*, *Canadenses*, *Arguti*)**

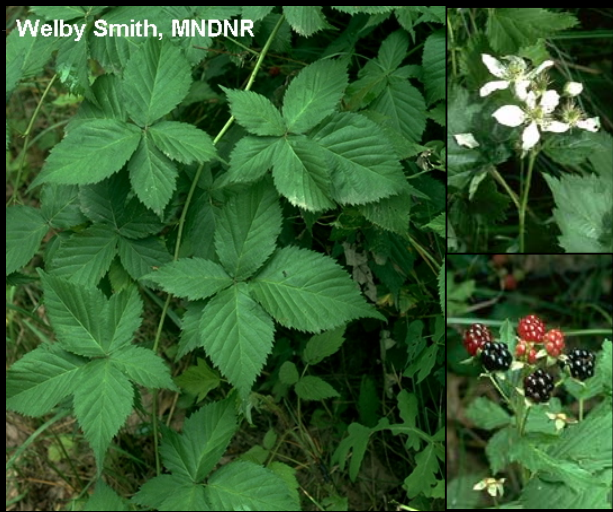


**Field Tips:** Prickly shrub (2-6') with tall, arching canes with hooked bristles. Leaves alternate, palmately compound with 5 serrate leaflets. Flowers white, yielding the familiar berry, the receptacle coming off with the berry.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDs, FDC	MHc, MHn, WFs, FDn, MHs
Occurrence in ECS Field Keys			
MIM-FD, WSU-FD, WSU-MH			

**Trailing blackberries (*Rubus* section *Flagellares*)**



**Field Tips:** Low, trailing blackberries that send up vertical shoots from evenly spaced nodes to form linear colonies. The canes often rooting at the tip. Stems with scattered, small, needle-like prickles. Leaves palmately compound with 3-5 leaflets. Berries red/black and adherent to receptacle.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			None >5
Occurrence in ECS Field Keys			
MIM-FD			

**Red raspberry (*Rubus idaeus*)**



**Field Tips:** Prickly shrub (1-4') with purplish, arching canes. Leaves alternate, pinnately compound, 3-7 serrate, white-backed leaflets. Flowers white, yielding the familiar berry easily removed from receptacle.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw, WFw	FPw, FDs	FDc, WFn, FDn, FPs, FDw, WFs, FPh	MHs, MHn, WMs, MHc, WMn, FFn, WPs
Occurrence in ECS Field Keys			
LAP-FP, LAP-MH, MDL-FP, MIM-MH, MOP-FP, NSU-FP, NSU-MH, WSU-FP			

## Smooth, Deciduous Half-shrubs

### Climbing bittersweet (*Celastrus scandens*)

Welby Smith, MNDNR



**Field Tips:** In forests, usually a single, slender, trailing, woody, sterile shoot. Leaves mostly alternate, simple, serrulate, and with distinctive orange buds in their axils. Vine-like, flowering, and with the familiar bittersweet fruits (arils) in the open.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
			FDs, MHc, FDw, MHs, UPs

#### Occurrence in ECS Field Keys

LAP-FD

### Sweet fern (*Comptonia peregrina*)



John C. Almendinger, MNDNR

**Field Tips:** Half-shrub (1-2') with very distinctive leaves that are alternate, pinnately cut, resin-dotted, and pubescent. Blades aromatic when crushed. Fruit a bur-like nutlet.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
			FDn

#### Occurrence in ECS Field Keys

NSU-FD

### Bush honeysuckle (*Diervilla lonicera*)



*Diervilla lonicera*

Alaina Berger, MNDNR

**Field Tips:** Low (1-2') half-shrub with persistent, abandoned branchlets and shreddy bark. Opposite, serrately toothed leaves. Paired yellow flowers yielding dried capsules, never red fleshy fruits like true honeysuckles.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	FDn, FDc	MHn, MHc	FDs, WFn

#### Occurrence in ECS Field Keys

MDL-MH, MIM-MH, MOP-FD, NSU-FD, WSU-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Fly honeysuckle (*Lonicera canadensis*)**



**Field Tips:** Low (1-3') half-shrub with persistent, abandoned branchlets and shreddy bark. Opposite, entire leaves with long hairs on margin near base. Paired red fruits fused at their base to form "flies."

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDn, MHn	WFn	FPn, MHc, FDc, WFw, FPs

**Occurrence in ECS Field Keys**

LAP-FP, LAP-WF, MDL-FD, MIM-WF, MOP-FD, MOP-MH

**Wild honeysuckle (*Lonicera dioica*)**



**Field Tips:** Low (1-2') half-shrub or vine. Simple leaves opposite, entire, hairless above and distinctly whitened beneath. When fertile, the uppermost leaves fused together below a cluster of flowers yielding bright red berries.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MHw	FDw, FPs, WFw, FPw	FDc, MHc, FDs, WFn, FDn, MHn, FFn

**Occurrence in ECS Field Keys**

MIM-FP, MOP-FP, WSU-FP

**Hairy honeysuckle (*Lonicera hirsuta*)**



**Field Tips:** Low (1-2') half-shrub or vine. Leaves opposite, entire, hairy fringed, and pubescent above. When fertile, the uppermost leaves fused together and below a cluster of yellow-orange flowers.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			MHn, FDn, WFn, MHc, FPn, FDc

**Occurrence in ECS Field Keys**

NSU-MH, WSU-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Mountain fly honeysuckle (*Lonicera villosa*)**

John C. Almendinger, MNDNR



**Field Tips:** Low (1-2') deciduous shrub. Branches with red, shreddy bark and white pith. Internodes short, producing tufts of opposite, short-petioled, elliptic, hairy leaves. Flowers paired, yellow-white, fragrant, yielding blue berries.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FPw, FPs, FPn	OPn, WFn

**Occurrence in ECS Field Keys**

WSU-FP

**Shrubby cinquefoil (*Potentilla fruticosa*)**

Michael D. Lee, MNDNR



**Field Tips:** Half-shrub with shreddy bark and alternate, compound leaves with 5 leaflets; the upper three leaflets united at base separate from 2 laterals. Flowers 5-parted, yellow, yielding clusters of seeds enclosed by sepals.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WPn, OPp, FPw	UPn, FDw, OPn, WFw, WMP

**Occurrence in ECS Field Keys**

MOP-FP

**Sand cherry (*Prunus pumila*)**

John C. Almendinger, MNDNR



**Field Tips:** Low shrub (1-3') usually as a clump of a few, equal-sized stems. Leaves alternate, with cherry glands on petiole, serrate, often thickened/revolute edge. White flowers and black fruits from 1-3 pedicels in axils.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			FDc, FDw, UPn, WPn

**Occurrence in ECS Field Keys**

MDL-FD

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Dwarf alder (*Rhamnus alnifolia*)**



**Field Tips:** Low (1-3') shrub with alternate, oval, glossy leaves; veins strong and inset below surface and the margins with distinctive, round, fine teeth. Small yellow-green flowers from lower leaf axils yielding black berries.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FPw	WFw	FPS, FPN, WFn, FDw	FFn, OPn, OPp, WPn
Occurrence in ECS Field Keys			
LAP-FD, NSU-FP			

**Wild black currant (*Ribes americanum*)**



**Field Tips:** Low shrub (2-3'), without prickles or spines. Alternate clusters of maple-like leaves on short shoots, and with abundant resin dots on lower surface. Flowers on pendant racemes, bracts longer than pedicels, berries turning black.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFs	WFw, FFn, WFn	MHw, WMs, FPS, FPw, FFs, FDw, MHc, WMn
Occurrence in ECS Field Keys			
MIM-MH, MIM-WF			

**Swamp red currant (*Ribes triste*)**



**Field Tips:** Low shrub (2-3'), without prickles or spines. Alternate clusters of maple-like leaves on short shoots; larger and less-cut than most currants. Flowers on pendant racemes from axils, yielding bright red berries.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFn	FPS, WFw	WFs, MHn, FPw, FPN, FDn, FDw
Occurrence in ECS Field Keys			
NSU-WF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Thimbleberry (*Rubus parviflorus*)**



**Field Tips:** Low shrub (1-4') with shreddy bark and lacking prickles. Leaves alternate, simple, maple-like. Flowers white yielding a raspberry-like, edible fruit.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			FDn, MHn
<b>Occurrence in ECS Field Keys</b>			
NSU-MH			

**Snowberry & Wolfberry (*Symphoricarpos* spp.)**



**Field Tips:** Low (1-2') half-shrubs with dead branchlets and shreddy bark. Leaves opposite, ovate/elliptic, entire, and whitened beneath. Clusters of pinkish flowers mostly from axils yielding white, globose fruits.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FDc, FDw, FDs	MHw, UPn, UPs, MHc, FDn, FFn
<b>Occurrence in ECS Field Keys</b>			
LAP-FD, LAP-FD, MDL-FD, MIM-FD, MOP-FD, WSU-FD			



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

## Ericaceous Half-shrubs

### Bog rosemary (*Andromeda glaucophylla*)

John C. Almendinger, MNDNR



**Field Tips:** Low mat-like Ericaceous shrub. Leaves evergreen, alternate, entire, edges rolled under, tipped with small spine, blue/green above, snowy white below. White/pink urn-shaped flowers. Fruits with persistent beaks.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	APn	OPn, FPn	FPw

**Occurrence in ECS Field Keys**

LAP-AP, MDL-AP, MIM-AP, MIM-FP, MOP-AP, MOP-FP, NSU-AP, WSU-AP

### Leatherleaf (*Chamaedaphne calyculata*)



John C. Almendinger, MNDNR

**Field Tips:** Low evergreen Ericaceous shrub. Leaves leathery, alternate, entire, green above, golden brown scales below, progressively smaller towards the branch tip. White urn-shaped flowers pendant from axils.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
APn		OPn, FPn	WMn, FPs

**Occurrence in ECS Field Keys**

MDL-AP, MDL-FP, MIM-AP, MIM-FP, MOP-AP, MOP-FP, NSU-AP, WSU-AP, WSU-FP

### Bog laurel (*Kalmia polifolia*)

John C. Almendinger, MNDNR



**Field Tips:** Low, mat-like Ericaceous shrub. Leaves evergreen, opposite, entire, edges rolled under, smooth above, dense white hair below. Pink bowl-shaped flower. Red fruit with long, persistent style.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	APn		FPn, OPn

**Occurrence in ECS Field Keys**

LAP-AP, MDL-AP, MIM-AP, MIM-FP, MOP-AP, NSU-AP, NSU-FP, WSU-AP

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Labrador tea (*Ledum groenlandicum*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (2-3') Ericaceous shrub with alternate, leathery, evergreen, leaves with edges rolled under and densely orange woolly below. Clusters of white flowers at branch tips yielding capsules with persistent, long styles.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FPn	FPw, APn	FPs	OPn, WFn, FDn
Occurrence in ECS Field Keys			
LAP-WF, LAP-WF, MIM-FP, MOP-AP, MOP-FD, NSU-AP, WSU-FP			

**Lowbush blueberry (*Vaccinium angustifolium*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (1') Ericaceous shrub with green branches. Leaves lanceolate, serrate, and gland-tipped (glands often deciduous). White urn-shaped flowers yielding blue, edible berries with calyx persistent on berry.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDc	FDn	FPn	APn, MHc, FPs, FDw, WFn, MHn, FDs
Occurrence in ECS Field Keys			
LAP-AP, LAP-FD, MDL-FD, MIM-AP, MIM-FD, MIM-MH, MIM-WF, NSU-MH, WSU-FD, WSU-MH			

**Velvet-leaved blueberry (*Vaccinium myrtilloides*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (1') Ericaceous shrub with green branches. Leaves lanceolate, entire and hairy. White urn-shaped flowers yielding blue or blue-black, edible berries with calyx persistent on berry.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDc	FDn	FPn	APn, MHc, FPs, FDw, WFn, MHn, FDs
Occurrence in ECS Field Keys			
LAP-AP, LAP-FD, MDL-FD, MIM-AP, MIM-FD, MIM-MH, MIM-WF, NSU-MH, WSU-FD, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Ericaceous Semi-woody Plants**

**Bearberry (*Arctostaphylos uva-ursi*)**



**Field Tips:** Small, colonial, low-growing, evergreen plant with alternate, small, shiny, oblanceolate, rounded leaves. Pink flowers in terminal clusters, and urn-shaped. Fruits red.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDC, FDW, FDn
Occurrence in ECS Field Keys			
MDL-FD, MOP-FD			

**Pipsissewa (*Chimaphila umbellata*)**



**Field Tips:** Low (~6") evergreen, Ericaceous plant. Leaves 3 to 8 in whorls, and sharply toothed. Flower cluster umbel-like with pendant, pink flowers yielding a reddish capsule; the short, umbrella-shaped stigma persistent.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDC	FDn, FDS
Occurrence in ECS Field Keys			
NSU-FD, PPL-FD, WSU-FD			

**Goldthread (*Coptis trifolia*)**



**Field Tips:** Small, low-growing, evergreen plant with trifoliate, glossy, toothed leaves. White flowers giving way to a claw-like whorl of green fruits. Creeping, thread-like rhizomes brilliant gold, hence the name.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FPn	WFn	FPw, FDn, FPs, MHn
Occurrence in ECS Field Keys			
LAP-WF, MDL-FD, MOP-FP, WSU-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Trailing arbutus (*Epigaea repens*)**



**Field Tips:** Creeping Ericaceous, evergreen plant with egg-shaped leaves of varying size. Entire plant coarsely beset with cinnamon-colored hairs. White tubular flowers appearing very early and very fragrant.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDn
Occurrence in ECS Field Keys			
MDL-FD			

**Creeping snowberry (*Gaultheria hispidula*)**



**Field Tips:** Creeping, evergreen Ericaceous plant beset with stiff brown hairs on the stems and underside of the leaves. Tiny, alternate, roundish leaves with sharp tips. White, pungent berries edible in small doses.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FPn		APn, WFn, FPw
Occurrence in ECS Field Keys			
LAP-AP, LAP-FP, MDL-AP, MDL-WF, MIM-AP, MOP-AP, MOP-FP, MOP-WF, NSU-WF, WSU-AP, WSU-WF			

**Wintergreen (*Gaultheria procumbens*)**



**Field Tips:** Small, Ericaceous plant with alternate, evergreen, shiny, entire leaves that smell like wintergreen. White urn-shaped flowers single from axils and yielding a red, waxy, edible berry.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDc, FDn	
Occurrence in ECS Field Keys			
MDL-FD, MOP-FD, NSU-FD, WSU-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**One-flowered pyrola (*Moneses uniflora*)**



**Field Tips:** Tiny herb forming colonies of basal leaves that are roundish, with small teeth, and less than 1" long. Flowering stem leafless, and with a single, white, nodding flower yielding a round capsule with a persistent style.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPn, FPp, WFp, FDn
Occurrence in ECS Field Keys			
WSU-WF			

**Pink shinleaf (*Pyrola asarifolia*)**

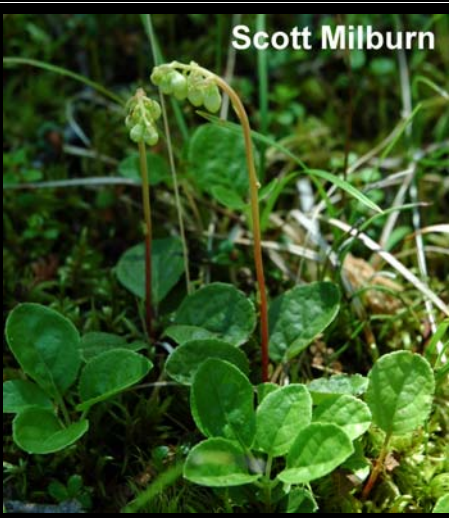


**Field Tips:** Low, leathery, evergreen herb with all basal leaves. Petioles longer than the round blade is wide. Pink, nodding, short-stalked flowers. Greater affinity for peatlands than other shinleaves.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPs, FPw, WFw, FPn, FDc, MHc, MHn, FDs, FDn
Occurrence in ECS Field Keys			
MIM-FP			

**One-sided pyrola (*Pyrola secunda*)**



Scott Milburn

**Field Tips:** Small, evergreen herb usually with "basal" leaves from two nodes and a short, but distinct internode. Flower cluster a one-sided raceme of white flowers yielding a round capsule with a persistent, thick style.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDc, FPn, FPw, FDn, FPp, WFp, MHn, FDw, MHc, FDs
Occurrence in ECS Field Keys			
LAP-FP, MDL-FD, MIM-FP, NSU-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Large cranberry (*Vaccinium macrocarpon*)**



**Field Tips:** Low, trailing, evergreen Ericaceous plant forming mats. Leaves alternate, oval, >1/3" long, blunt-tipped, edges curled under, shiny green above, whitened below. Flowers pink with recurved petals. Red berries oblong on pedicels with bracts above middle.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPh, OPn
Occurrence in ECS Field Keys			
MIM-AP			

**Small cranberry (*Vaccinium oxycoccos*)**



**Field Tips:** Low, trailing, evergreen Ericaceous plant forming mats. Leaves alternate, oval, <1/3" long, sharply-pointed, edges curled under, shiny green above, whitened below. Flowers pink with recurved petals. Red berries round on pedicels with bracts below middle.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
APn	FPh	FPw, OPn	FPs
Occurrence in ECS Field Keys			
MDL-AP, MDL-FP, MIM-AP, MOP-AP, MOP-FP, NSU-AP, NSU-FP, WSU-AP, WSU-FP			

**Lingonberry (*Vaccinium vitis-idaea*)**



**Field Tips:** Low, evergreen, Ericaceous plant with mostly upright branches. Leaves alternate, oval, shiny green above, tips slightly notched, distinctive black raised dots on underside. Flowers 4-parted; berries red and edible.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPw, FPh, APn
Occurrence in ECS Field Keys			
LAP-AP, MOP-AP, MOP-FP, NSU-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

## Woody Vines

### Moonseed (*Menispermum canadense*)



Welby Smith, MNDNR

**Field Tips:** Woody vine with alternate, nearly round, coarsely toothed, palmately veined, leaves. Flowers greenish-white. Female plants yielding a grape-like cluster of purple drupes, the stones resembling a half-moon.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FFs	FFn, MHs, WFs, FDs

**Occurrence in ECS Field Keys**

LAP-FF, MDL-FF, MIM-FF, MIM-MH, MOP-FF, WSU-FF

### Virginia creepers (*Parthenocissus* spp.)



John C. Almendinger, MNDNR

**Field Tips:** Leaves palmately compound with 5 (3-7), obovate, serrate leaflets arising from a woody vine with tendrils or from short woody stubs. Inconspicuous flowers yielding a grape-like cluster of blue-black fruits.

**Notes:**

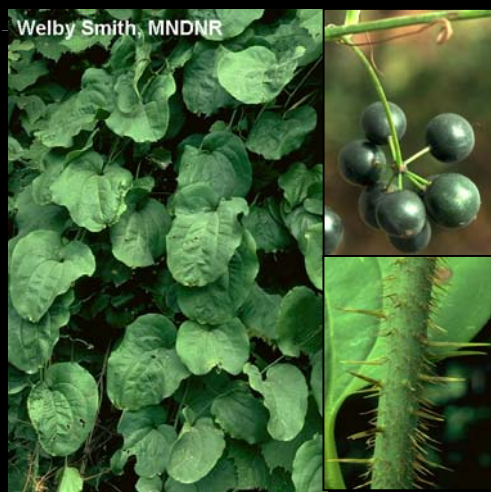
**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
WFs, FDs	MHs, FPs, MHw	FFn, FFs, MHc, WFn	WMs, FDC, FPw, MHn, FDw, FPN

**Occurrence in ECS Field Keys**

LAP-WF, MDL-FF, MDL-WF, MIM-WF, MOP-FF, MOP-MH, MOP-WF, WSU-FF, WSU-MH, WSU-WF

### Greenbrier (*Smilax tamnoides*)



Welby Smith, MNDNR

**Field Tips:** Upright or climbing woody vine with green stems and dark, straight, slender prickles. Alternate, heart-shaped, entire leaves with distinctive, parallel main veins. Female plants producing a "ball" of blue berries.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MHw, FFn	MHs, FDw, MHc, FDs, FFs	WFs, FDC, MHn

**Occurrence in ECS Field Keys**

LAP-FF, MDL-FF, MDL-MH, MIM-FD, MIM-FF, MOP-FF, PPL-FF, WSU-FF, WSU-WF

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Poison ivy (*Toxicodendron rydbergii*)**



**Field Tips:** Low (1-2') colonial plant with trifoliate, coarsely toothed leaves from short woody stems. Fruits round, whitish, from axillary panicles, persistent on woody stalks of a few individuals in the colony.  
**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDw, Wfw	FDs, MHw, FDc	MHs, FFs, MHc, FPw, FPs, WFs	WFn, FFn, WMs, MHn, UPn, UPs, FDn, WPs
Occurrence in ECS Field Keys			
MDL-FD, MIM-MH, PPL-MH			

**Wild grape (*Vitis riparia*)**



**Field Tips:** Leaves simple, palmately lobed, ciliate, and not tomentose on undersides. Leaves arising from a woody vine with tendrils or from short woody stubs. Inconspicuous flowers yielding the familiar clusters of grapes.  
**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDw, MHw	FDs, FDc, FPs	WFw, MHc, WFs, MHs, FPw, FFs, FFn	WFn, WMs, MHn, UPn, UPs, WPs, FDn
Occurrence in ECS Field Keys			
MDL-FD, MIM-MH, PPL-MH			



## Miscellaneous Herbs

### Sharp-lobed hepatica (*Anemone acutiloba*)



**Field Tips:** Low herb with distinctive, over-wintering, basal leaves that have three, roughly equal, pointed lobes resembling a liver in section, "liverleaf." White to lavender flowers appearing in early spring.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
		MHs	WFs, MHc

#### Occurrence in ECS Field Keys

MIM-MH, PPL-MH

### Round-lobed hepatica (*Anemone americana*)



**Field Tips:** Low herb with distinctive, over-wintering, basal leaves that have three, roughly equal, rounded lobes resembling a liver in section, "liverleaf." White to lavender flowers appearing in early spring.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	MHc	MHn	FDc, FDs, FDn

#### Occurrence in ECS Field Keys

MIM-MH, WSU-FD, WSU-MH

### Wood anemone (*Anemone quinquefolia*)



**Field Tips:** Small (<6"), colonial, herb appearing as a single, palmately divided (3-5x) leaf when sterile or as a whorl of 3-parted leaves when fertile. Single white flower above the whorl yielding a cluster of dry, hairy seeds.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	MHn, FDc, MHc	FDn, MHs, FDw, FDs, WFn	WFs, WFw, FFn, FPn

#### Occurrence in ECS Field Keys

LAP-FP, MIM-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Pussytoes (*Antennaria* spp.)**



**Field Tips:** Low (<6") colonial composite with small (~1") basal leaves that are white-woolly beneath. Heads crowded at the terminus of flowering stalks, imaginatively resembling a cat's paw. Floral parts obscure often lacking male parts.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDc, UPn, UPs	FDn, FDs, FDw
Occurrence in ECS Field Keys			
MOP-FD, WSU-FD			

**Spreading dogbane (*Apocynum androsaemifolium*)**



**Field Tips:** Tall (2-3') herb with branches spreading, lacking a strong central stem above. Leaves entire with bristle tip and with milky juice. Clusters of bell-shaped pinkish flowers yielding a distinctive pencil-shaped pods of cottony seeds.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw	FDc, FDw	FDn, WFw, FDs	MHc, MHn, MHs
Occurrence in ECS Field Keys			
LAP-WF, MDL-FD, MDL-MH, MIM-MH, MOP-FD, WSU-FD			

**Wild sarsaparilla (*Aralia nudicaulis*)**



**Field Tips:** Tall (1-2') herb consisting of a distinctive single, tripartite, basal leaf from a thick black rhizome with many, annual, leaf scars. Flowers and blue/black fruits in a compound umbel from a separate, but nearby stalk.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHn, FDn, MHc	WFw, WFn, FDw, MHw, FDc, FDs	FPw, MHs, FPn	WFs, FPs, FFn
Occurrence in ECS Field Keys			
LAP-WF, MDL-FD, MIM-WF, PPL-MH, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**American spikenard (*Aralia racemosa*)**



**Field Tips:** Tall (2-4') herb with very wide, pinnately compound stem leaves (no spiny base; not just basal leaves). Flower cluster terminal, flowers small and white, yielding dark purple berries with persistent styles.  
**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHn, FDn, MHc	WFw, WFn, FDw, MHw, FDC, FDs	FPw, MHs, FPn	WFs, FPs, FFn
Occurrence in ECS Field Keys			
LAP-WF, MDL-FD, MIM-WF, PPL-MH, WSU-MH			

**Jack-in-the-pulpit (*Arisaema triphyllum*)**



**Field Tips:** Fertile plants with distinctive pulpits (spathe) about male or female column of flowers, yielding a cluster of red berries. Basal leaves resembling Trillium, but laterals opposite, asymmetric, and with marginal vein.  
**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
WFs	MHs	WFn, FFn, MHn, MHc	FFs, FDs, FPs, WMs
Occurrence in ECS Field Keys			
MDL-MH, MIM-FF, MIM-MH, MIM-WF, MOP-MH, NSU-MH, PPL-FF, WSU-MH			

**Wild ginger (*Asarum canadense*)**



**Field Tips:** Aromatic, creeping herb usually in colonies consisting of fuzzy, heart-shaped, entire, apparently basal leaves. Distinctive 3-parted flower with maroon lobes that lies on the ground. Ant-dispersed seeds.  
**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WFs, MHs, MHn, WFw, WFw, MHc	FFn, FFs, FDs
Occurrence in ECS Field Keys			
LAP-MH, MDL-MH, MIM-MH, MIM-WF, MOP-MH, MOP-WF, PPL-MH, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Wild calla (*Calla palustris*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (~1') aquatic or semi-terrestrial herb. Entire, heart-shaped basal leaves from long rhizome and with veins parallel to leaf edge. Leaf-like, white spathe surrounding column of pinkish flowers yielding fleshy red berries.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPs, FPn, OPn, WMn, MRn, WFn
Occurrence in ECS Field Keys			
MIM-FP, NSU-FP			

**Common marsh marigold (*Caltha palustris*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (<1') herb occurring in loose clumps of distinctive, heart or kidney-shaped, dark green, entire to crenate basal leaves. Bright yellow, buttercup blossoms in early spring. Poisonous if uncooked.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPs, WFs, FPw, WFn, FPn, WMs, WMn, OPp, WFw, OPn, WMp
Occurrence in ECS Field Keys			
MDL-WF, MIM-FP, MIM-MH, MIM-WF, MOP-WF, PPL-WF, WSU-WF			

**Bastard toadflax (*Comandra umbellata*)**



John C. Almendinger, MNDNR

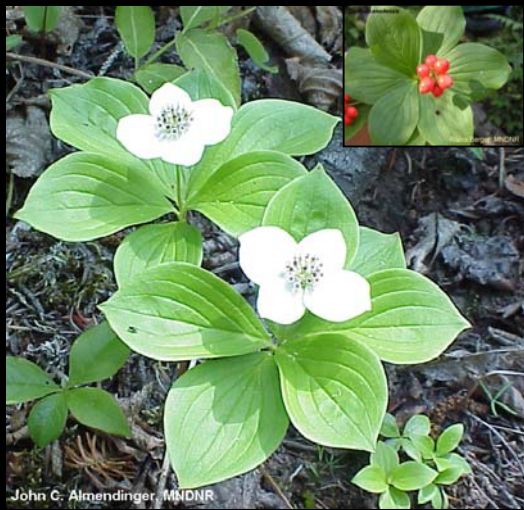
**Field Tips:** Low (<1'), parasitic but green, herb with small, whitish flowers in clusters. Normally sterile, with abundant, alternate, oblong leaves ~1" long near the base but distinctively, and gradually tapering to shorter leaves towards the tip of the stem.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDw, UPn, UPs, WPs, WPn, FDn
Occurrence in ECS Field Keys			
LAP-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Bunchberry (*Cornus canadensis*)**



John C. Almendinger, MNDNR

**Field Tips:** Small colonial herb with 4-6 leaves in a terminal whorl, veins parallel with leaf margin. Terminal cluster of small, greenish flowers above 4 white bracts giving the illusion of a single flower. Bright red fruits in a "bunch."

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDn, FPn, FPw	WFn, FPs, WFw, MHn	FDc, FDw

**Occurrence in ECS Field Keys**

MDL-AP, MDL-FD, MDL-FP, MDL-MH, MIM-WF, MOP-AP, MOP-MH, NSU-AP, NSU-MH, WSU-MH, WSU-WF

**Pointed-leaved tick trefoil (*Desmodium glutinosum*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (1-2') herb with long-petioled, trifoliate leaves clustered at stem top. Lateral leaflets asymmetric ovate; terminal round ovate and largest. Pea-like pods constricted between seeds fragmenting to triangular, sticky, fruits.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FDs	MHc, MHs	WFs, FDc, FFn

**Occurrence in ECS Field Keys**

MIM-FD, MIM-MH, PPL-MH, WSU-MH

**Flowering spurge (*Euphorbia corollata*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (1-2') herb with milky sap. Leaves alternate, linear/elliptic, subtending flowering branches with much smaller leaves. Flower clusters flat-topped and with white, petal-like appendages.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

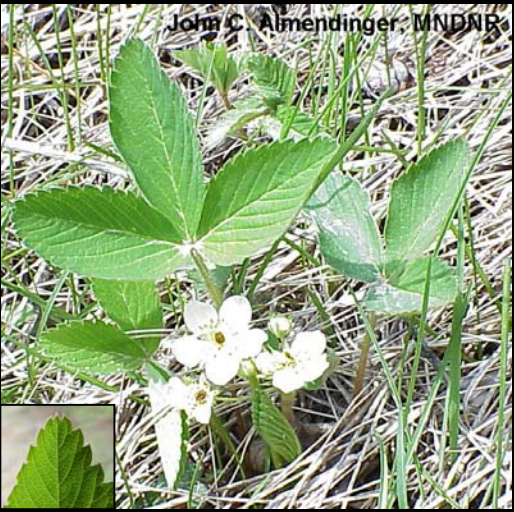
75-100%	50-75%	25-50%	5-25%
			UPs, FDs, WPs

**Occurrence in ECS Field Keys**

PPL-FD

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Common strawberry (*Fragaria virginiana*)**



**Field Tips:** Low herb with trifoliate, toothed, basal leaves and spreading by stolons. Terminal leaflet with center tooth distinctly smaller than adjacent teeth. White flowers yielding strawberries with seeds set in pits.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
WFw, FDc	FDw, WFn, WPs, FDn	WPn, FPw, MHn, UPn, MHw, FDs, MHC, FPs	FPn, WFs, WMp, FFn, UPs, WMs, MHs
Occurrence in ECS Field Keys			
MDL-MH, NSU-FD			

**Wild geranium (*Geranium maculatum*)**



**Field Tips:** Low, perennial herb forming loose colonies of long-petioled, palmately cleft (5-7), gland-tipped basal leaves. Flowers in pairs, petals pink/purple and longer than the calyx. Crane's bill fruits, splitting into curly segments.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFs, MHs	FDs	MHC, FFs, FFn
Occurrence in ECS Field Keys			
MIM-FD, MIM-MH, MIM-WF, PPL-MH, WSU-MH, WSU-WF			

**White avens (*Geum canadense*)**



**Field Tips:** Tall (2-4') herb with pinnately compound basal leaves appearing trifoliate at the tip and with small, irregular, paired leaflets below. Flowers white, yielding a bur-like head of fruits with hooked styles.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFs	MHs, FFs	FDs, FFn, WFn, MHC
Occurrence in ECS Field Keys			
MIM-FF, MIM-MH, PPL-FF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Avens (*Geum* spp.)**

John C. Almendinger, MNDNR



**Field Tips:** Tall (2-4') herbs with pinnately compound basal leaves, the stem leaves smaller towards the top. Flowers white, yellow, or purple, yielding a very distinctive bur-like head of fruits with hooked styles.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
Not meaningful, diverse genus			
Occurrence in ECS Field Keys			
LAP-WF			

**Appendaged waterleaf (*Hydrophyllum appendiculatum*)**



Michael D. Lee, MNDNR

**Field Tips:** Biennial herb 1-2' tall with palmately (1st year) or pinnately divided (2-3 year) rosettes of basal leaves with "water spots." Stem leaves maple-like in outline. Flower cluster coiled; flowers lavender or pink-purple.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			WFs
Occurrence in ECS Field Keys			
PPL-MH			

**Virginia waterleaf (*Hydrophyllum virginianum*)**



Monica Zachay, MNDNR

**Field Tips:** Perennial herb, 1-2' tall, forming colonies of pinnately divided basal leaves with "water spots." Stem leaves similar to basal leaves. Flower cluster coiled; flowers white to lavender.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHs	FFs, WFs	MHc, FFn
Occurrence in ECS Field Keys			
MIM-FF, MIM-MH, PPL-FF, PPL-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Touch-me-nots (*Impatiens* spp.)**



**Field Tips:** Tall (1-4') succulent, annual herb. Alternate leaves with coarse, gland-tipped (white) teeth. Pendant orange (yellow) flowers yielding long capsules that, when touched, explosively split lengthwise expelling seeds.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
WFs	WFn, FPs, FFs	WMs, WMn, MRs, WFw, FPw	MHs, FFn, FPn, MRn, MHn, WPs, MHc

**Occurrence in ECS Field Keys**

MDL-WF, MIM-MH, MOP-FP, MOP-WF, NSU-FP, NSU-WF, WSU-FP, WSU-MH, WSU-WF

**Northern blue flag (*Iris versicolor*)**



**Field Tips:** Tall (1-3') with flattened sprays of linear, sword-like basal leaves. Flowering stems with leaves and showy, blue-purple, six-parted flowers. Capsules with stacked seeds (like pancakes) evident throughout growing season.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		FFn, FPn	WFn, WFs, WMn, WFw, OPn, OPp, FPw, MRn, WPs, WMp

**Occurrence in ECS Field Keys**

WSU-MH

**Wood nettle (*Laportea canadensis*)**



**Field Tips:** Tall (2-3') herb with alternate, ovate, sharply toothed leaves on long petioles. Flower clusters flat-topped and composed of green, male or female flowers without petals. Plant beset with stinging hairs.

**Notes:**



**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
FFs, FFn, WFs		MHs	MHw, WFn

**Occurrence in ECS Field Keys**

LAP-FF, MDL-FF, MIM-FF, MIM-MH, MIM-WF, MOP-FF, NSU-FF, PPL-MH, WSU-FF



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Hoary puccoon (*Lithospermum canescens*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (1') herb with alternate, sessile leaves with prominent, depressed midrib and dense pubescence making it seem gray-green. Flowers yellow/orange and yielding 1-4 nutlets with hard, shiny, white seed coats.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		UPn, UPs, FDC	WPs, WPn
Occurrence in ECS Field Keys			
MDL-FD			

**Cow wheat (*Melampyrum lineare*)**



John C. Almendinger, MNDNR

**Field Tips:** Low growing (<1') annual herb. Older plants much branched, with linear, opposite leaves some developing distinctive ears/lobes near their base. White tubular flowers with yellow tips yielding hard white seeds that turn black.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDn	FDc
Occurrence in ECS Field Keys			
MDL-FD, MOP-FD, NSU-FD, WSU-FD			

**Buckbean (*Menyanthes trifoliata*)**



John C. Almendinger, MNDNR

**Field Tips:** A trailing herb from a rhizome covered with old leaf bases. Leaves long-stalked and trifoliate with elliptic leaflets. Usually in vernal pools. Flowers with white, hairy petals.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		OPn, FPs	FPn, APn, FPw
Occurrence in ECS Field Keys			
MDL-AP, MOP-AP, MOP-FP, NSU-AP, NSU-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Paniced bluebells (*Mertensia paniculata*)**



**Field Tips:** Herb (1-2') often in colonies. Leaves alternate, entire, pubescent above and below, and with winged petioles. Flowers in a loose, pendant cluster of blue-violet bell-shaped flowers.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			WFn
Occurrence in ECS Field Keys			
NSU-MH			

**Two-leaved miterwort (*Mitella diphylla*)**



**Field Tips:** Low, herb with maple-like basal leaves. Flowering stems with a single pair of opposite sessile leaves. White flowers resembling snowflakes yielding a capsule of shiny black seeds.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFs	MHs	MHc, WFn
Occurrence in ECS Field Keys			
PPL-WF, WSU-WF			

**Naked miterwort (*Mitella nuda*)**



**Field Tips:** Low, colonial herb with round, coarsely toothed, palmately veined, basal leaves with scattered, stiff, upright hairs. Flowers resembling snowflakes yielding a cup-like capsule with shiny black seeds inside.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFn, WFw, FPw	FPn, FPs	MHn, FDn, WFs
Occurrence in ECS Field Keys			
MDL-MH, MDL-WF, MIM-WF, MOP-FD, MOP-MH, MOP-WF, NSU-FD, NSU-MH, WSU-MH, WSU-WF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Blue phlox (*Phlox divaricata*)**



**Field Tips:** Herb, ~1' tall, with opposite, lanceolate, 1-nerved leaves, 2-4.5 times long as wide. Flowers usually blue (white to purple), tubular below and abruptly spreading to 5 lobes; the calyx pubescent.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHs, WFs, FFs
Occurrence in ECS Field Keys			
PPL-MH			

**Spreading Jacob's ladder (*Polemonium reptans*)**



**Field Tips:** Herbs, 1-2' tall, with distinctive, pinnately compound leaves, with many uniform leaflets, imaginatively forming "ladders." Flower cluster a panicle of blue flowers, the stamens shorter than the petals.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHs, WFs
Occurrence in ECS Field Keys			
PPL-MH			

**Gaywings (*Polygala paucifolia*)**



**Field Tips:** Resembles wintergreen, but herbaceous and with small, scale-like leaves below the larger leaves. Large leaves with a ring of short hairs near upper margin. Distinctive magenta flowers in the spring.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FPn, FDn
Occurrence in ECS Field Keys			
MDL-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Kidney-leaved buttercup (*Ranunculus abortivus*)**



**Field Tips:** Small (~1') terrestrial, glabrous buttercup. Basal leaves round, crenate; stem leaves of varying shape and divided. Yellow flowers yielding a cluster of flat, seeds with tiny beaks on the side.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FFn, MHs, FFs, WFs	WFn, FDs
Occurrence in ECS Field Keys			
MDL-FF, MIM-FF, MOP-FF, MOP-MH, WSU-FF			

**Hispid buttercup (*Ranunculus hispidus*)**



**Field Tips:** Generally fuzzy herb (~1') with 2-8 yellow flowers on 1-4 flowering stems. Basal leaves palmately 3-parted early; later leaves nearly ternately compound. Seeds 15-40 in a bur-like head and with short, straight styles.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WFs	FFs, MHw, FFn, MHs, WFw, WFn
Occurrence in ECS Field Keys			
LAP-MH, MIM-MH			

**Hooked crowfoot (*Ranunculus recurvatus*)**



**Field Tips:** Terrestrial herb with basal leaves shaped like gooseberry leaves, with the terminal lobe not cut to midrib. The plant quite hairy. Fruit cluster a ball of seeds with strongly hooked (recurved) styles.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WFs	WFn, MHs
Occurrence in ECS Field Keys			
MDL-MH, MIM-WF, NSU-MH, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Bloodroot (*Sanguinaria canadensis*)**



John C. Almendinger, MNDNR

**Field Tips:** Low perennial herb from a thick rhizome with red, blood-like sap. Leaves all basal, round, and distinctively cut. Single flowers with large white petals appear on a leafless stalk very early in the spring; fruit a long capsule.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MHs	MHc, WFs	MHw, FDs, FFn, MHn, FFs

**Occurrence in ECS Field Keys**

PPL-MH, WSU-MH

**Maryland black snakeroot (*Sanicula marilandica*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (1-3') herb with basal leaves that are palmately divided into 4-7 lobes. Flowers bisexual or male, greenish-white petals, styles exceeding narrowly triangular calyx lobes. Fruits covered with hooked bristles.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHw	FDw, MHc, WFW	FDs, MHn, FDC, MHs, WFs	FFn, FFs, WFn, FDN

**Occurrence in ECS Field Keys**

MOP-MH

**Skunk cabbage (*Symplocarpus foetidus*)**



Lynden Gerdes, MNDNR

**Field Tips:** Perennial, ill-scented herb with very large, rhubarb-like basal leaves. Flowers appearing beneath snow by virtue of chemical heating; consisting of a maroon hood (spathe) and a column of tiny flowers (spadix). Fruit cluster, baseball-sized and knobby.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WFs	FPs

**Occurrence in ECS Field Keys**

WSU-FP

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Starflower (*Trientalis borealis*)**



**Field Tips:** Small herb with terminal whorl of 4-8 unequal leaves. Unusual 7-parted, white, star-like flower(s) that appears suspended on a very slender pedicel. Fruit a hard, white capsule persisting well after the plant has withered.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FPn, FDn, FPw, MHn, FPs, WFn		FDc, MHc, WFw, FDs, FDw, WFs

**Occurrence in ECS Field Keys**

MDL-FD, MIM-WF, NSU-FD

**Nodding trillium (*Trillium cernuum*)**



**Field Tips:** Low (~1') herb with whorl of three, heart-shaped, net-veined leaves. Flowers single, large, from a short (1-2") terminal pedicel that arches below the leaves. Petals white and usually shorter than sepals.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
MHw		WFn, MHn	FFn, MHs, MHc, FDw, WFw, WFs, FDs, FDn

**Occurrence in ECS Field Keys**

NSU-WF

**Large-flowered trillium (*Trillium grandiflorum*)**



**Field Tips:** Low (~1') herb with whorl of three, heart-shaped, net-veined leaves. Flowers single, large, from a terminal pedicel that stands above the leaves. Petals white and longer than sepals.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		MHc	WFs, MHn, MHs

**Occurrence in ECS Field Keys**

WSU-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Stinging nettle (*Urtica dioica*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (2-3') herb with opposite, lanceolate, sharply toothed leaves on long petioles. Flower clusters are "strands" of tiny, green, mostly male or female flowers, from the leaf axils. Plant beset with stinging hairs.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	FFs	WFs	MHw, FFn, MHs, WFn, WFW, WMs, WMn, FDs

**Occurrence in ECS Field Keys**

MIM-MH, MIM-MH, PPL-MH

**Kidney-leaved violet (*Viola renifolia*)**



John C. Almendinger, MNDNR

**Field Tips:** Low (<3") colonial violet with leaves all basal, alternate from rhizome (not clumped), kidney-shaped, 1-2" across, rounded at tip or tip obscure, hairy. White flowers with purple-striped lips on leafless stalks.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			Fps, FPw, WFn, FPn, FDn, WFW, MHn

**Occurrence in ECS Field Keys**

MOP-FPn

## Spring Ephemerals

### Cut-leaved toothwort (*Cardamine concatenata*)



**Field Tips:** Perennial herb, ~1' tall, with distinctive, palmately cleft leaves with little "ears" on the margins. The leaves 3 or 2 from a whorl above the middle of the stem; ephemeral. Flowering early, white petals.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
			WFs, MHs

#### Occurrence in ECS Field Keys

PPL-WF

### Carolina spring beauty (*Claytonia caroliniana*)



Lynden Gerdes, MNDNR

**Field Tips:** Low spring herb with a few basal leaves and a single pair of stem leaves. Stem leaves with evident petiole and 2.3-4.7 times as long as wide. Flowers a few in a loose raceme; white striped with pink.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
			None >5

#### Occurrence in ECS Field Keys

NSU-MH

### Virginia spring beauty (*Claytonia virginica*)



Scott Milburn

**Field Tips:** Low spring herb with a few basal leaves and a single pair of stem leaves. Stem leaves with barely distinguished petiole and 5.3-15 times as long as wide. Flowers a few in a loose raceme; white striped with pink.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
			WFs, MHs, FFs

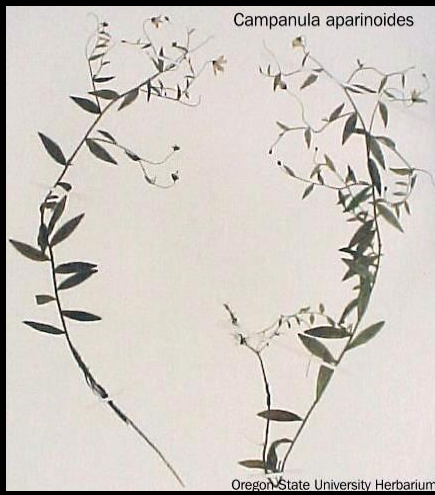
#### Occurrence in ECS Field Keys

PPL-WF



## Bedstraws & Weak-stemmed Clingy Plants

### Marsh bellflower (*Campanula aparinoides*)



**Field Tips:** A low, weak-stemmed herb usually reclining on adjacent plants. Stem triangular, usually with some tiny, recurved spines on the angles that can be felt. Leaves linear and alternate. White, bell-shaped flowers.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	WMn	WMs, OPn, FPw, FPs, OPp, FPn	MRs, MRn, WMp, WPs, WPn, WFn, WFs

#### Occurrence in ECS Field Keys

LAP-FP, MDL-FP

### Cleavers (*Galium aparine*)



**Field Tips:** Winter annual, terrestrial bedstraw, often climbing on other plants. Leaves in whorls of 6 (5-8), nearly linear, bristle-tipped. Stems and leaf veins bristly, sticking to clothes. Tiny white flowers yielding a bristly, double fruit.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
	MHs	WFs, FFs	FPs, FDs

#### Occurrence in ECS Field Keys

MIM-FF, MIM-MH, MIM-WF, PPL-MH, WSU-WF

### Northern bedstraw (*Galium boreale*)



**Field Tips:** Tall (1-2'), perennial, terrestrial bedstraw. Only large leaved (>1") bedstraw in MN with 4 leaves per whorl. White flowers in many-flowered terminal panicles yielding glabrous or bristly fruits, the bristles not hooked.

**Notes:**

#### Habitat Distribution (Presence by Floristic Region)

75-100%	50-75%	25-50%	5-25%
FDw, UPn	FDc, WPn, WFw	FDs, WPs	OPp, UPs, MHw, FPw, MHc, MHs, WMp, WFs, FDn, WFn

#### Occurrence in ECS Field Keys

LAP-MH, MDL-FD, MIM-FD, MOP-FD, PPL-MH

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Labrador bedstraw (*Galium labradoricum*)**



**Field Tips:** Wetland bedstraw with leaves in whorls of 4 becoming reflexed with age. The leaves generally without midvein bristles. The flowers 4-parted and ovaries smooth.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FPw	OPp, OPn, FPs, FPn, WMn, MRn, WMs, MRs
Occurrence in ECS Field Keys			
OPp, OPn, FPs, FPn, WMn, MRn, WMs, MRs			

**Sweet-scented bedstraw (*Galium triflorum*)**



**Field Tips:** Low, perennial, terrestrial bedstraw with prostrate stems and whorls of 6 oblanceolate leaves up to ½" wide. Stems not very bristly; not easily sticking to clothes. Tiny white flowers yielding a bristly, double fruit.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw, FPw	MHn, WFw, WFn, FPs, FFn, FDn, FDs	MHc, WFs, FPn, FDC, MHs	FDw, FFs, WMs
Occurrence in ECS Field Keys			
MOP-FP, NSU-FP, WSU-FD			

**Long-leaved chickweed (*Stellaria longifolia*)**



**Field Tips:** Weak, decumbent herb. Stem 4-angled, often sticky-rough. Leaves opposite, and very narrow. Flower cluster much branched with single, white flowers seemingly suspended in space on very slender pedicels.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			WFs, FPn, WFn, WMn, FPw, WFw, FPs, FFn, MRn
Occurrence in ECS Field Keys			
MIM-WF, MOP-WF, NSU-WF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

Mints & Other Herbs with Opposite Leaves

Blue giant hyssop (*Agastache foeniculum*)



**Field Tips:** Tall (2-3') mint with terminal spike of lavender flowers. Leaves opposite, ovate, serrate, distinctly whitened beneath. Pungent, licorice-like smell.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FDw, FDC, UPn
Occurrence in ECS Field Keys			
LAP-FD, LAP-FD, MDL-FD			

Alpine enchanter's nightshade (*Circaea alpina*)



**Field Tips:** Small (usually <6") herb with opposite, coarsely toothed leaves less than twice as long as wide. Fruit fuzzy with hooked bristles and lacking furrows.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFn	FPS, FPw	MHw, MHn, WFs, WFw, FPn, FDn
Occurrence in ECS Field Keys			
LAP-MH, LAP-WF, MDL-WF, MOP-WF, NSU-MH, NSU-WF, WSU-MH, WSU-WF			

Common enchanter's nightshade (*Circaea lutetiana*)



**Field Tips:** Low herb (~ 1') with opposite, shallowly toothed leaves more than twice as long as wide. Fruit fuzzy with hooked bristles and with 10 deep meridional furrows.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	WFs, MHs, FDs	MHw, MHc	FFn, FFs, WFn
Occurrence in ECS Field Keys			
MDL-FF, MDL-MH, MIM-FF, MIM-MH, MIM-WF, MOP-WF, NSU-MH, NSU-WF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Northern bugleweed (*Lycopus uniflorus*)**



**Field Tips:** Small (~1') mint, occurring mostly in vernal pools. Leaves opposite, coarsely toothed but not deeply lobed, slight or no fragrance. Small white flowers in middle and upper leaf axils yielding nutlets. Roots from distinct tubers.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
		WFn, FPs, WMn, WMs, FFn, MRn, OPp, OPn, FFn, WFs	MRs, WFw, WMp, FPw, FFs

**Occurrence in ECS Field Keys**

MIM-FF, MOP-FP, NSU-FP

**Yellow loosestrife (*Lysimachia terrestris*)**



**Field Tips:** Tall (~2') herb with opposite (not whorled), entire, black-dotted leaves. Flower cluster a terminal raceme of yellow flowers, the petals marked with dark black-red dots or lines.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			FFn, WMn

**Occurrence in ECS Field Keys**

NSU-FF

**Tufted loosestrife (*Lysimachia thyrsiflora*)**



**Field Tips:** Tall (~2') unbranched herb with opposite, lance-shaped leaves with black spots. Flower clusters on long stalks from leaf axils and terminated with a tuft of small yellow flowers.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	Fps	WMn, FFn, OPn, FPw, WMs, OPp, MRn	MRs, WFn, WFw, FFn, WMp

**Occurrence in ECS Field Keys**

MDL-FP, MIM-FF, MOP-FP, NSU-FF, NSU-FP, WSU-FP, WSU-WF

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Common mint (*Mentha arvensis*)**



**Field Tips:** Tall (1-3') mint with opposite, lanceolate, serrate leaves. Plant beset with hairs and with very strong peppermint odor. Small pink-white flowers in dense clusters from upper axils.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WMp, WMs	MRs, WMn, OPp, WFn, FFn, WFs
Occurrence in ECS Field Keys			
MDL-FF, MIM-FF, MOP-FF, NSU-FF			

**Wild bergamot (*Monarda fistulosa*)**



**Field Tips:** Tall (1-3') mint with opposite, deltoid-lanceolate leaves with distinctive aroma. Single, terminal and large (~1") "head" with leafy bracts and wide-spreading, lavender, tubular flowers creating a fluffy cluster.

**Notes:**



Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		UPn	UPs, FDC, WPs, FDw, FDs
Occurrence in ECS Field Keys			
PPL-FD, WSU-FD			

**Lopseed (*Phryma leptostachya*)**



**Field Tips:** Herb (1-2') with opposite, ovate, coarsely toothed leaves. Small pinkish flowers in terminal and sometimes axillary spikes, maturing gradually from base to tip. Seeds soon reflexed or "lopped" against the stem.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw	FDs	MHs, MHc	FDw, FFn
Occurrence in ECS Field Keys			
LAP-FD, LAP-FD, LAP-MH, MIM-FD, MIM-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Clearweed (*Pilea spp.*)**



**Field Tips:** Low (generally <1') herbs with opposite ovate leaves. Resembling small nettles, but without stinging hairs and usually shiny-translucent leaves. Clusters of small, greenish, flowers in axils appearing late.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FFs, MRs, FPs, WFs, WMs	FFn, MRn, WFn, MHs, WMn
Occurrence in ECS Field Keys			
MIM-FF, MIM-FP			

**Mad dog skullcap (*Scutellaria lateriflora*)**



**Field Tips:** Tall (2-3') herb with opposite, lanceolate, toothed, petiolate leaves. Distinctive lateral shoots from axils with numerous blue snapdragon flowers, tan-green nutlets, and bracts. Name, from historic use to treat rabies.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WFn, FFn, WFs, FPs, FFs	MRs, WMn, FFn, WFW
Occurrence in ECS Field Keys			
MDL-WF, MIM-FF, MOP-WF, NSU-WF, PPL-FF, WSU-WF			

**Germander (*Teucrium canadense*)**



**Field Tips:** Tall (~2') mint with sessile, opposite, oblong leaves with regularly crenate-serrate margins. Stem hairy, rarely branched, with a terminal raceme of many pink-purple flowers. Odor unpleasant to most.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			OPp, FFs, WMs
Occurrence in ECS Field Keys			
PPL-FF			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

Plants with Cat's-paw Leaves

White baneberry (*Actaea pachypoda*)



**Field Tips:** Tall (2-3') or decumbent herb. Alternate, fern-like (2-3 times ternately compound), sharply serrate leaves. Flower cluster a terminal raceme of white flowers yielding white doll's-eye fruits on fleshy magenta pedicels.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MHn
Occurrence in ECS Field Keys			
NSU-MH			

Red baneberry (*Actaea rubra*)



**Field Tips:** Tall (1-2') herb with alternate, fern-like (2-3 times ternately compound), sharply serrate leaves. Flower cluster a terminal raceme of white flowers yielding red or white fruits on slender pedicels.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHw	MHn	WFw, MHC, MHs, WFn	FDn, FFn, FDw, FDs, WFs, FDC, FPw
Occurrence in ECS Field Keys			
MOP-FD			

Columbine (*Aquilegia canadensis*)



**Field Tips:** Tall (1-3') herb with 2-3 times ternately compound leaves and "cat's paw" leaflets that feel rubbery. Distinctive red and yellow flowers with long, nectar-filled spurs, yielding distinctive long, dry fruits (follicles).

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDs	FDc, MHw, WFw, MHC, MHc, FDw, FDn, FFn, MHn, FPw
Occurrence in ECS Field Keys			
LAP-FD, MDL-FD, MOP-FD, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Blue cohosh (*Caulophyllum thalictroides*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (~2'), spreading herbs with ternately compound leaves and "cat's paw" leaflets. Leaflets not rubbery. Unusual berry-like, blue fruit with a fleshy stalk.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHs	WFs	MHc, MHw, FFn, FDs, MHn
Occurrence in ECS Field Keys			
MDL-MH, MIM-MH, PPL-MH, WSU-MH			

**Tall meadow-rue (*Thalictrum dasycarpum*)**



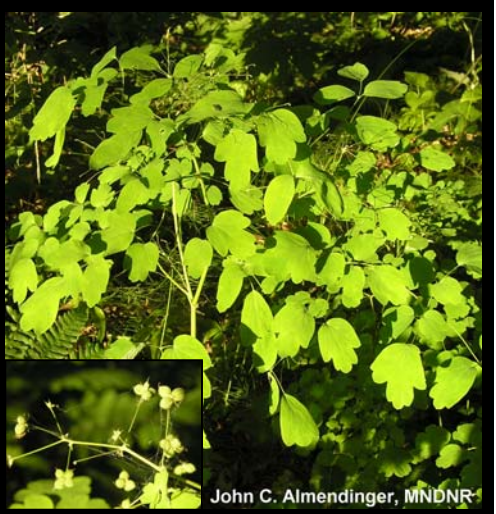
John C. Almendinger, MNDNR

**Field Tips:** Erect herb 2-4' tall with 2-4 times ternately compound leaves with "cat's paw" leaflets that are usually longer than wide and with just 3 lobes. Separate male and female plants with dense clusters of whitish flowers.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
WPs	FDw, FFn, WPn	UPn, FPw, WFw, WMs	WFn, WMp, MHw, UPs, WFs, FDs, OPp, WMn, MRs
Occurrence in ECS Field Keys			
LAP-FD, LAP-WF, MIM-FF, NSU-FP			

**Early meadow-rue (*Thalictrum dioicum*)**



John C. Almendinger, MNDNR

**Field Tips:** Erect, spreading herb 1-2' tall with 2-4 times ternately compound leaves with "cat's paw" leaflets. Leaflets puberulent below and don't feel rubbery. Separate male and female plants.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
MHc	MHs, FDC	WFs, MHn, MHw, FFn, FDs	WFn, WFw, FDw, FFs, FDn, FPs
Occurrence in ECS Field Keys			
MDL-FD, MIM-FD, MIM-MH, MIM-WF, MOP-MH, NSU-WF, PPL-MH, WSU-FD, WSU-MH, WSU-WF			



Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Peas & Vetches**

**Pale vetchling (*Lathyrus ochroleucus*)**



John C. Almendinger, MNDNR

**Field Tips:** Twining herb resembling garden peas. Leaves compound, tendril-tipped, 4-8 elliptic leaflets that are hairless and feel rubbery. Flower cluster a raceme of 5-10 creamy white, flowers yielding a pea-pod.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FDc	FDw, MHC, MHn	FDn, MHw, WFw, FDs
Occurrence in ECS Field Keys			
MDL-MH, NSU-FD			

**Marsh vetchling (*Lathyrus palustris*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (1-3'), often climbing pea with alternate, pinnately compound, tendril-tipped leaves from winged stem. Only MN pea native to peatlands. Flowers purple, yielding typical pea pods.

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		WPn, WMp	WMs, FDw, WPs, WMn, UPn, WFw, OPp, MRs
Occurrence in ECS Field Keys			
MOP-WF			

**Veiny pea (*Lathyrus venosus*)**



John C. Almendinger, MNDNR

**Field Tips:** Twining herb resembling garden peas. Leaves compound, tendril-tipped, 8-12 elliptic leaflets that are veiny and fuzzy beneath. Flower cluster a raceme of 5-19 violet/purple, flowers yielding a pea-pod.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
		FDc, MHw, FDw, WPs	FDn, WMp, MHC, MHn, UPs, WFw, FDs
Occurrence in ECS Field Keys			
LAP-FD, MDL-MH, MIM-MH, MOP-FD, NSU-MH, WSU-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**American vetch (*Vicia americana*)**



**Field Tips:** Upright/climbing pea-like plant with tendril-tipped compound leaves with 5-9 pairs of leaflets. Flowers a few from axils, purple/blue, yielding pea-pods.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FDw	FDc, WFw	WPs, FDn, UPs, WMp, UPn, MHn
Occurrence in ECS Field Keys			
LAP-FD, MDL-MH, MOP-MH, WSU-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Smartweeds**

**Water smartweed (*Polygonum amphibium*)**



John C. Almendinger, MNDNR

**Field Tips:** Aquatic or terrestrial herb (2-3'). Leaves alternate, lanceolate, entire; arising from swollen stem nodes and below a papery sheath (ochrea). Flower cluster a compact terminal cluster of bright pink flowers.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	MRs, WMp	WMn	OPp, WMs, WPs, OPn

**Occurrence in ECS Field Keys**

MOP-FP, NSU-FP

**Halberd-leaved tearthumb (*Polygonum arifolium*)**



Photo provided by Dan Teague www.masswildplants.com

**Field Tips:** Tall (1-3'), annual smartweed often climbing on other plants. Leaves alternate and shaped like a medieval, halberd spearhead. Plant beset with reflexed prickles. Flower small, white-pink, yielding black seeds.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			WFs

**Occurrence in ECS Field Keys**

WSU-WF

**Dotted smartweed (*Polygonum punctatum*)**



Photo by Craig C. Freeman

**Field Tips:** Tall (1-3') annual smartweed. Alternate, lanceolate leaves subtended by glabrous, hair-fringed sheaths (ochreas). Flower clusters terminal and axillary; greenish flowers; gland-dotted sepals; seeds shiny.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
			MRs, FFn, WMn, FPs

**Occurrence in ECS Field Keys**

MDL-FF, MIM-FF, MOP-FF, NSU-FF, WSU-FF

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Great water dock (*Rumex orbiculatus*)**



**Field Tips:** Very tall (2-5') unbranched herb. Leaves alternate, but most distinguished by very long (1-2'), narrow (~1-2") basal leaves turning brilliant red in fall. Flower cluster dense with many seeds enclosed in heart-shaped, ornamented "valves."

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	FPs, WMs	WMn, FPn	FPw, MRs, OPn, WFs
Occurrence in ECS Field Keys			
MIM-FP			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Umbels**

**Spotted water hemlock (*Cicuta maculata*)**



**Field Tips:** Very tall (2-4') herb with hollow, purple-blotched stem. Leaves 2-3 times pinnately compound. Many flat-topped clusters of tiny, white flowers well above the leaves. Deadly poisonous, avoid contact.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	Wmp	WPn, WPs, FFn, WMs, WFs	WFn, WFw, MRs, OPP, FPs, UPn, FDw, MHc
Occurrence in ECS Field Keys			
MDL-MH, MIM-FF, MOP-MH, WSU-MH			

**Honewort (*Cryptotaenia canadensis*)**



**Field Tips:** Tall (1-2') herb with trifoliate leaves; lower leaves long-petioled often with lobed laterals; upper leaves sessile with lanceolate laterals. Flowers in a compound umbel of tiny white flowers. Fruits dry, resembling caraway.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	MHs	WFs, FFs, FDs	MHw, FFn, MHc
Occurrence in ECS Field Keys			
LAP-FF, MIM-MH, PPL-FD			

**Cow parsnip (*Heracleum lanatum*)**



**Field Tips:** Very tall (3-6' or more) coarse herb. Leaves very large, once-compound, generally hairy, leaflets palmately lobed, and with very wide sheathing base. Flower cluster flat-topped, about 8" across, with tiny white flowers.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			FFs, WFs, FFn, MHs
Occurrence in ECS Field Keys			
PPL-MH			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Clayton's sweet cicely (*Osmorhiza claytonii*)**



**Field Tips:** Tall (1-2') herb with fern-like leaves. Leaves and stems green and hairy, faintly anise-scented. Flower cluster a compound umbel of tiny white flowers. Fruits dry, black, linear with barbed "tail" and style "beak" <.3mm.

**Notes:**



John C. Almendinger, MNDNR

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
FDs, MHw	MHc, MHs, MHn, WFs	MHc, MHs, MHn, WFs	WFn, FDC, FFs, FPw, FDw
Occurrence in ECS Field Keys			
LAP-MH, MDL-FF, MDL-WF, MIM-FF, MOP-FF, MOP-MH, MOP-WF, WSU-WF			

**Water parsnip (*Sium suave*)**



John C. Almendinger, MNDNR

**Field Tips:** Tall (2-6') umbel usually in vernal pools. Compound leaves once-divided when terrestrial, finely divided when submerged. Stem hollow and purple blotched. Flower cluster flat-topped with small white flowers.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
			MRn, MRs, FFn, WMn, WMp, WMs
Occurrence in ECS Field Keys			
MDL-WF, MOP-WF			

**Heart-leaved alexanders (*Zizia aptera*)**



John C. Almendinger, MNDNR

**Field Tips:** Glabrous herb, ~2' tall with stem leaves that are once or twice ternately compound but the basal leaves are simple, round-ovate, and with crenate margins. Tiny yellow flowers in an umbel.

**Notes:**

Habitat Distribution (Presence by Floristic Region)			
75-100%	50-75%	25-50%	5-25%
	UPn	UPs, WPs, WPh	MHw, FDC
Occurrence in ECS Field Keys			
PPL-FD			

Key plants appearing in the Field Guides to Native Plant Communities:  
Forests & Woodlands

**Golden alexanders (*Zizia aurea*)**



**Field Tips:** Tall (~2') umbel with ternately compound, hairless leaves. The flower cluster a compound umbel, lacking bracts, and with small, yellow flowers. The fruits ovate-oblong and glabrous.

**Notes:**

**Habitat Distribution (Presence by Floristic Region)**

75-100%	50-75%	25-50%	5-25%
	WPs	WPn, FDw, UPn	WMp, MHw, FDs, WMs, OPp, MHs, UPs, WFw, FFn

**Occurrence in ECS Field Keys**

LAP-FD, MIM-FD