

liverwort (*Marchantia polymorpha* [Marchantiaceae])

These are plants without stem or leaves. They consist instead of a flattened branching thallus only a few cells thick anchored by rhizoids growing from the lower surface. They are fairly widespread and most commonly found along moist shady stream banks. [SEEDLESS 001]



hair-cap moss (*Polytrichum* spp.; HAIR-CAP MOSS FAMILY [Polytrichaceae])

Among the largest and most conspicuous of mosses with erect stems to 12" tall. Pointed leaves arranged spirally around the stem. Often found in fairly dense colonies in moist acidic soils. Unusual among mosses for having specialized internal vascular tissues. The genus name and the common name both refer to the densely hairy calyptra or cap that covers the developing sporophyte. At least 8 species of *Polytrichum* are found in Wisconsin. [SEEDLESS 002]



peat moss (*Sphagnum* spp.; PEAT MOSS FAMILY [Sphagnaceae])

Common, widespread moss of wet habitats where it often forms large, deep colonies or even floating mats. Peat moss is the fundamental species of bogs, forming much of the substrate in which the other plants grow and acidifying the habitat. Typically grows with upright stems supported by close growth with neighboring plants. Young branches arranged spirally near the apex, older branches in clusters along the stem. Spherical brown-to-black sporophyte capsules expel spores explosively when mature. Plant growth is rather unusual with the apical portion actively growing while the older parts die and eventually decay into peat. *Sphagnum* is by far the most economically important of the bryophytes and is used extensively as a soil amendment, packing material and fuel. More than 30 species occur in Wisconsin. [SEEDLESS 003]



club-moss (*Diphasiastrum*, *Huperzia*, *Lycopodiella*, and *Lycopodium* spp.; CLUB MOSS FAMILY [Lycopodiaceae])

Small, erect, trailing, or creeping, evergreen perennial plants with narrow, simple, crowded leaves. Sexual reproduction is by bisexual gametophytes produced by a single kind of spore, but most propagation is by running growth while older parts of the plant die off. Can be confused with conifer seedlings. Eighteen species in Wisconsin, half a dozen common, mostly in woodland or forest understories. [SEEDLESS 004]



spike-moss (*Selaginella* spp.; SPIKE MOSS FAMILY [Selaginellaceae])

Small, pale green plants, typically even lower growing and with smaller leaves than the above. Technically distinguished by sexual reproduction involving male and female gametophytes produced by two kinds of spores. Easily confused with mosses. Three species occur in Wisconsin, typically on open ground. [SEEDLESS 005]



horsetail, scouring rush (*Equisetum* spp.); HORSETAIL FAMILY [Equisetaceae])

Mostly small to medium-sized erect plants with rigid, hollow, jointed, fluted, branched or unbranched stems. Small, triangular, colorless leaves form a collar at each node. Spores develop in a conelike strobilus, but plants spread mainly by underground rhizomes. In a few species, the strobilus is borne on a separate fertile stalk that has no chlorophyll. More than 10 Wisconsin species range from aquatic to woodland to road-edge habitats. [SEEDLESS 006]



bracken fern (*Pteridium aquilinum*; BRACKEN FERN FAMILY [Dennstaedtiaceae])

Very common strong and coarsely toothed fern with worldwide distribution. Large leaves triangular in outline, twice compound, largest divisions apparently into three nearly equal parts, and divided into pinnae and pinnules. Sori continuous along, and partly covered by, leaf margins of the pinnules. Open woods and woodland openings, often on poor soil. [SEEDLESS 007]



sensitive fern (*Onoclea sensibilis*; FERN FAMILY [Dryopteridaceae])

Long coarse triangular sterile fronds lobed at the tips and divided into pinnules at the base. Has separate fertile fronds with sporangia enclosed in bead-like modified pinnae. Found on wet sites from open to shady. Very susceptible to frost, and quick to wilt if picked. [SEEDLESS 008]



royal fern (*Osmunda regalis*; ROYAL FERN FAMILY [Osmundaceae])

Fronds more than 3' tall, bipinnate, with large, narrowly attached oblong pinnules, widely spaced, and rather unfarn-like. Pinnae at the tip of fertile fronds are specialized for spore production and wither to brown in early summer. Found in wet forests and bogs. [SEEDLESS 009]



cinnamon fern (*Osmunda cinnamomea*; ROYAL FERN FAMILY [Osmundaceae])

Large, green sterile fronds (to 4') in graceful circles, surrounding distinct fertile fronds which develop in late spring. Sterile fronds with pinnately lobed pinnae. Fertile fronds shorter and narrower, turning cinnamon color when mature then falling to the ground after spore dispersal. Common in very moist, shaded sites statewide. [SEEDLESS 010]



interrupted fern (*Osmunda claytoniana*; ROYAL FERN FAMILY [Osmundaceae])

Fertile pinnae ripen into dark brown “interruptions” in the middle of some of the large, sterile, otherwise green fronds. Common on wooded edges, typically on drier sites than the previous two species. [SEEDLESS 011]



common rock-cap fern, polypody (*Polypodium virginianum*; POLYPODY FAMILY [Polypodiaceae])

Small fern (to about 1') with firm, evergreen, pinnately lobed fronds. Prominent naked, red-brown sori on underside of frond. On rocks or logs in damp, shady places. [SEEDLESS 012]



maidenhair fern (*Adiantum pedatum*; MAIDENHAIR FERN FAMILY [Pteridaceae])

Medium-sized fern (to about 2') with finely divided fronds of distinctly flattened pinnae with fan-shaped to oblong pinules (look at the pictures!). Leafstalks wiry and shiny black. Sori on, and covered by, the upper margins of the pinnae. Shady understories of rich woods. [SEEDLESS 013]



yew (*Taxus* spp.; YEW FAMILY [Taxaceae])

Our species are evergreen shrubs with flat, minutely stalked needles, 2-ranked on smooth twigs. Needles distinguishable from fir and hemlock by lack of obvious pale lines of stomates on underside. Cone is small, red, fleshy, and berry-like. Our single native species almost eradicated by deer browsing, but Japanese yew is widely planted as an ornamental shrub or hedge. [GYMNOSPERMS 014]



balsam fir (*Abies balsamea*; PINE FAMILY [Pinaceae])

Tall evergreen tree (40' to 60') with flat needles $\frac{3}{4}''$ to $1\frac{1}{2}''$ long, blunt or notched at the tip, with two silvery bands of stomata on underside only. Needles are 2-ranked except on topmost branches, and have no stalk at all. Cones are cylindrical, purplish, 2" to 4" long, and point upward. Young bark has many resin "blisters"; mature bark is gray reddish-brown and occurs in scaly plates. Common near lakes and streams in the NE half of Wisconsin, but an upland species in the Canadian north woods. [GYMNOSPERMS 015]



white spruce (*Picea glauca*; PINE FAMILY [Pinaceae])

Tall evergreen tree (to 60') with needles rigid, prickly, 4-sided in cross section, and usually longer ($\frac{3}{4}''$) than black spruce. They tend to be crowded on the upper side of the branch. New twigs pale and hairless. Cones 1" to 2", with thin, smooth, flexible scales. Outer bark is ash brown, inner bark silvery. Most common in upland habitats in the northern half of the state. [GYMNOSPERMS 016]



black spruce (*Picea mariana*; PINE FAMILY [Pinaceae])

Potentially tall evergreen tree, but typically small (to 30') and sickly because of poor soil environment. Needles rigid but not prickly, dark green, 4-sided in cross section, and $\frac{1}{4}$ " to $\frac{1}{2}$ " long. Young twigs typically dark with tiny brown hairs. Cones ovoid, $\frac{1}{2}$ " to 1" long, with brittle rough scales. Outer bark is reddish brown, inner bark is olive green. Able to produce adventitious roots to replace those lost from sinking into the unstable bogs where it is found. [GYMNOSPERMS 017]



hemlock (*Tsuga canadensis*; PINE FAMILY [Pinaceae])

Tall evergreen tree (60' to 75') with minutely stalked, 2-ranked, $\frac{1}{2}$ " to $\frac{3}{4}$ " needles that taper towards the apex, and have two white bands of stomata on the underside. Cones are ovoid, $\frac{1}{2}$ " to $\frac{3}{4}$ " long, attached by a slender stalk. Bark is purplish brown, scaly, deeply furrowed when mature. Found in anything from pure stands to occasional individuals in northern hardwoods, but always on cool moist sites. More tolerant of shady understory conditions than any other native conifer. [GYMNOSPERMS 018]



tamarack, larch (*Larix laricina*; PINE FAMILY [Pinaceae])

Slow growing, deciduous(!) conifer which frequently falls far short of reaching its potential height of 40' to 80' because of poor sites. Short ($\frac{1}{2}$ " to 1") needles seemingly clustered in bunches of 12 or more. Cones small ($\frac{1}{2}$ " to 1" long). Bark dark when mature, and flaking off in small scales. Common in acid bogs. Like black spruce, produces adventitious roots to replace those lost to sinking. [GYMNOSPERMS 019]



white pine (*Pinus strobus*; PINE FAMILY [Pinaceae])

Potentially very tall and long-lived evergreen tree, to over 100'. Needles in bundles of five, 3" to 5" long, soft and flexible. Fine white lines of stomata on two surfaces of each needle. Cones are stalked and curved, 4" to 8" long, with spineless scales. The bark is smooth and gray, maturing into broken rectangular blocks. The magnificent white pines of pre-settlement Wisconsin became the fine frame houses throughout much of the upper Midwest. [GYMNOSPERMS 020]



red pine (*Pinus resinosa*; PINE FAMILY [Pinaceae])

Tall (50' to 100') evergreen tree. Needles in bundles of two, 4" to 6" long. Twigs yellowish changing to reddish-brown. Mature bark forms irregular diamond-shaped scaly plates. Cones 1" to 2½" long and conical or ovoid. Genetic uniformity and straight, rapid plantation growth make this a very widely planted timber tree. [GYMNOSPERMS 021]



jack pine (*Pinus banksiana*; PINE FAMILY [Pinaceae])

Potentially tall (70' to 80') evergreen tree, typically much smaller because of poor sites. Needles in bundles of two, 1" to 1½" long, stiff and dark green. Bark scaly, dark gray to reddish brown. Cones 1" to 2" long, generally outcurved toward the tip of the branch, with each scale topped with a single short spine. Seeds on many individuals remain in cones until heating and drying produced by fire. Abundant on sandy soil throughout Wisconsin. Failure to "self-prune" gives this pine a ragged look. [GYMNOSPERMS 022]





**white cedar, arborvitae (*Thuja occidentalis*);
CYPRESS FAMILY [Cupressaceae]**

Slender evergreen tree with remarkably decay resistant wood. Appressed yellowish-green scale-like leaves, alternating in right-angled pairs, clothe widely spreading flattened branchlets. Oblong $\frac{1}{4}$ " to $\frac{1}{2}$ " woody cones are erect on branchlets. Bark is fibrous, reddish brown to gray, and ridged or furrowed. Common in non-acid swamps, and widely planted as an ornamental. [GYMNOSPERMS 023]

**red-cedar (*Juniperus virginiana*); CYPRESS FAMILY
[Cupressaceae]**

Dense crowned evergreen tree with unflattened branchlets covered with closely packed green scales. [Juvenile foliage, in contrast, consists of prickly single needles.] Round $\frac{1}{4}$ " diameter cones fleshy green turning waxy blue. Bark ash gray to reddish brown and scaly. Tolerant of poor soils, intolerant of fire, widely distributed by cedar waxwings. Alternate host of cedar-apple rust. [GYMNOSPERMS 024]



white oak (*Quercus* spp.; BEECH FAMILY [Fagaceae])

Wisconsin oaks are all deciduous trees, but many of the world's many oak species are evergreen, and some change character depending on site. Wisconsin members of the WHITE OAK group of species have leaves with rounded lobes. Their acorns mature in one year, are not bitter, and their shells are hairless inside. Examples: white oak itself, found in well-drained woods; swamp white oak, found in swamps; and bur oak, which does well on drier sites, but is more abundant in SW Wisconsin than here. [WOODY DICOTS 025]



red oak (*Quercus* spp.; BEECH FAMILY [Fagaceae])

Wisconsin members of the RED OAK group have pointed, bristle-tipped lobes, although species outside our range may be merely toothed or even entire. Acorns of the RED OAK group generally take 2 years to mature, are bitter, and their shells are hairy inside. Examples: northern red oak, which occurs in hardwood forests throughout the state; black oak, which is abundant in SW Wisconsin; and northern pin oak, which occupies some of the driest wooded sites in Portage County. [WOODY DICOTS 026]



alder (*Alnus* spp.; BIRCH FAMILY [Betulaceae])

Trees or shrubs with broad deciduous leaves. Buds are notable for being stalked. Staminate flowers in long (4" to 6") catkins, pistillate in a cluster with woody bracts that persist like miniature conifer cones long after the fruits have been shed. Of the three Wisconsin species, speckled (tag) alder is probably the most familiar. It is a coarse, weak-wooded shrub that forms dense thickets along northern Wisconsin streams. The largest divisions of its doubly-toothed leaves are large enough to be considered lobes. [WOODY DICOTS 027]



birch (*Betula* spp.; BIRCH FAMILY [Betulaceae])

Deciduous trees with peeling bark and simple, doubly-toothed, deciduous leaves that tend to occur in pairs on scarcely noticeable reduced side branches. Staminate flowers occur in catkins that form in the fall and produce pollen early in the spring. Pistillate flowers occur in almost conelike clusters, and produce large numbers of tiny (1/4") winged seeds in good years. Ten species are found in our flora, with 3 being most common. Paper birch, with its well-known white bark, is fast-growing, but short-lived. Yellow birch requires better soils, and can be a long-lived, massive tree. River birch is a small tree most common on wet sites. [WOODY DICOTS 028]



hazelnut (*Corylus* spp.; BIRCH FAMILY [Betulaceae])

Deciduous shrubs with simple, doubly-toothed, deciduous leaves. Staminate catkins start to develop in the fall, but shed their pollen the following spring. Fruit is a nut surrounded by conspicuous leafy bracts. Two species are common in Wisconsin: common hazelnut occurs on dry soils, and beaked hazelnut on moist but well-drained sites. [WOODY DICOTS 029]



hickory (*Carya* spp.; HICKORY FAMILY [Juglandaceae])

Moderate to large (to 100') deciduous trees with alternate, compound leaves, with the terminal leaflet the largest. Staminate flowers are catkins, which are typically in clusters of 3. Fruit is a nut whose husk splits when ripe. Most hickories tend to grow on relatively dry sites, often with oaks. Bitternut hickory, the one species that reaches as far north in Wisconsin as Stevens Point, is a tree of river terraces and moist woods. Hickory wood is strong and notably shock-resistant. [WOODY DICOTS 030]



sweet-fern (*Comptonia peregrina*; BAYBERRY FAMILY [Myricaceae])

Small native deciduous shrubs with linear-to-lanceolate fern-like leaves. Spreads from rhizomes to form low (2' to 4' tall) colonies in open areas on dry sandy or gravelly soils. Leaves alternate, pinnately lobed, and fragrant, with a distinctive sweet, spicy aroma. Staminate catkins appear before the leaves in early spring at the tips of branches. Pistillate flowers develop into small bur-like fruits in mid-summer. Common on poor soils throughout central and northern Wisconsin. [WOODY DICOTS 031A]



aspen (*Populus* spp.; WILLOW FAMILY [Salicaceae])

Relatively short-lived, fast growing, medium-sized deciduous trees with broad, almost round leaves with uniform teeth. Two species are widespread in Wisconsin: quaking and big-tooth. Both have flattened petioles, and the trembling leaves that give the former species its name. Big-tooth aspen has more coarsely toothed leaves, and is a somewhat more valuable timber tree. Both are quick invaders of open ground, and both are very good pulpwood species. [WOODY DICOTS 031B]



cottonwood (*Populus deltoides*; WILLOW FAMILY [Salicaceae])

Tall (75' to 100'), very fast growing tree with dark, deeply furrowed bark. Leaves are broadly triangular, 3" to 6" long and almost as wide, with coarsely rounded teeth. Mature bark is dark gray and furrowed. Cottonwoods are phreatophytes, extending their roots right down to the water table. [WOODY DICOTS 032]



willow (*Salix* spp.; WILLOW FAMILY [Salicaceae])

Woody plants, which range from low shrubs to tall trees, including more than 30 species in Wisconsin. Leaves are alternate, have short petioles, teeth or not, and vary widely in shape among the many species. Buds appear as a single scale appressed to the stem. In all willow species, individual plants are either male or female, with small, non-showy, but insect-pollinated flowers in catkins. Most willows grow on wet, open sites. [WOODY DICOTS 033]



elm (*Ulmus* spp.; ELM FAMILY [Ulmaceae])

Small to large trees, often with deeply furrowed bark and slender branches. Leaves simple, alternate, lop-sided at the base, with doubly-toothed margins, strictly parallel lateral veins, and short petioles. Fruits are distinctively disk-shaped and winged. Three species are common in Wisconsin, and all are being lost to Dutch elm disease. American elm is particularly susceptible, and ironically is the one that was planted so widely as a street tree. It now survives essentially only where it is protected by regular injections of fungicide. [WOODY DICOTS 034]



cherry (*Prunus* spp.; ROSE FAMILY [Rosaceae])

Shrubs and trees with leaves simple, alternate, usually with evenly toothed margins and glands on the leafstalks. Flowers are white, showy, and short lived, giving way eventually to the characteristic fleshy red to dark purple fruits. Bark of mature trees is generally smooth and highly colored, ranging in our species from red to almost black. The 11 species of cherries found in Wisconsin are predominantly shrubs or small-trees, but black cherry, in particular, can grow to be a large tree with quite valuable wood. [WOODY DICOTS 035]



hawthorn (*Crataegus* spp.; ROSE FAMILY [Rosaceae])

Densely branched, typically thorned shrubs and small trees with leaves simple, alternate, and conspicuously toothed, sharply cut, or lobed. Flowers are showy clusters of white, pink, or red. Fruits are like miniature apples, usually red or orange, but in some species dark blue, black, or yellow. Bark is smooth greenish brown, breaking up into thin scaly plates with age. Approximately 50 different *Crataegus* taxa are found in Wisconsin. [WOODY DICOTS 036]



basswood (*Tilia americana*; LINDEN FAMILY [Tiliaceae])

Tall (60' to 80') trees with large heart-shaped leaves (5" to 6" long, 3" to 4" wide). Flowers are fragrant, insect-pollinated, and produced in midsummer, all unusual for a Wisconsin tree. The fruit is small (1/4" diameter), spherical, and nutlike with an edible, but small seed, and is attached to a conspicuous leaf-like bract that is 4" to 5" long. Mature bark is dark gray, ridged, and furrowed. Stumps sprout extensively after cutting, so multiple-stemmed basswoods are common in second-growth woods. In Wisconsin, occurs widely on rich soils with sugar maple. [WOODY DICOTS 037]



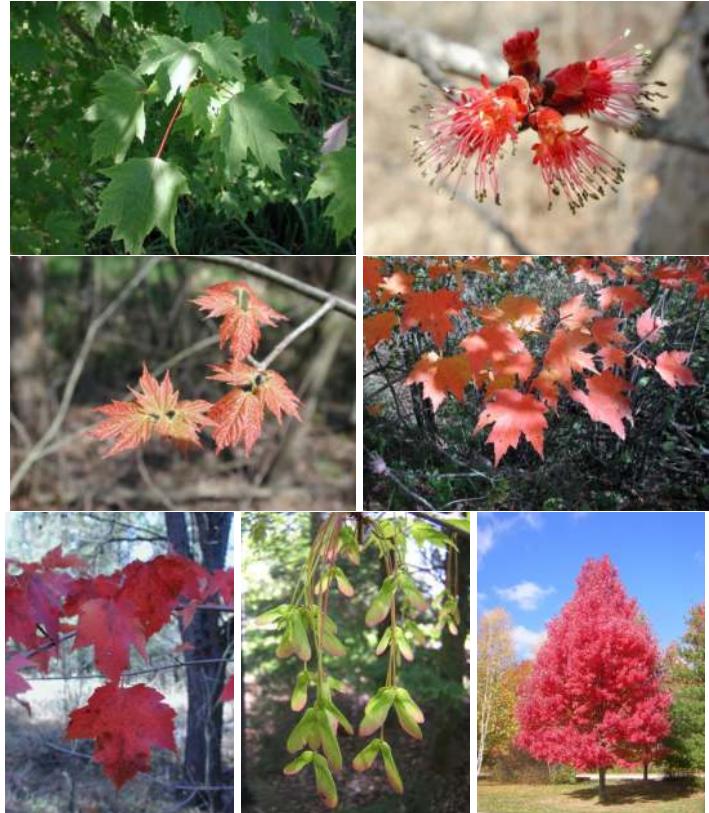
buckthorn (*Rhamnus* spp.; BUCKTHORN FAMILY [Rhamnaceae])

Four species: two relatively small and inconspicuous natives, and two larger Eurasian species which are described here. Tall shrubs or small trees (20' to 25') usually with few to several stems arising from the base. Grey to brown bark with prominent lenticels. Alternate (sometimes opposite) ovate-elliptic leaves emerge very early in the spring and stay green long into fall and winter. Prolific clusters of $\frac{1}{4}$ " red-to-black fruit ripen in late summer and fall. Introduced as ornamental hedges, common buckthorn and glossy buckthorn have become aggressively invasive in many Wisconsin habitats where they crowd out native vegetation. [WOODY DICOTS 038]



red maple (*Acer rubrum*; MAPLE FAMILY [Aceraceae])

Our native maples are deciduous trees or large shrubs with leaves opposite, simple, palmately lobed as well as toothed. Winged seeds develop in attached pairs, which helicopter to the ground when ripe. Maples are wind and/or insect pollinated, with both sexes occurring on the same plant. Nine species occur in Wisconsin. Red maple can be distinguished by smooth grey bark on young trunks; 3 to 5 lobed leaves (lobes shallower than silver maple); reddish twigs and buds; and red fall color. It is one of the most common tree species in second-growth hardwoods on a wide range of sites. [WOODY DICOTS 039]



silver maple (*Acer saccharinum*; MAPLE FAMILY [Aceraceae])

Silver maple is very common on river flood plains. It grows to be a large tree with flaking grayish bark; leaves with 5 deep lobes; reddish twigs and buds; and yellowish fall color. [WOODY DICOTS 040]



sugar maple, hard maple (*Acer saccharum*; MAPLE FAMILY [Aceraceae])

Sugar maple dominates shady deciduous forests throughout the state and produces concentrated sap which is tapped for syrup making. It has dark brown bark with rough vertical ridges; leaves with 5 lobes; brown twigs and buds; and dramatic yellow-to-red fall color. [WOODY DICOTS 041]



box elder, ash-leaved maple (*Acer negundo*; MAPLE FAMILY [Aceraceae])

Small to medium sized, weak-wooded tree with leaves pinnately compound with 3 to 7 coarsely-toothed or shallowly-lobed leaflets. Staminate flowers are in drooping clusters on separate trees from pistillate flowers, which occur in drooping racemes. Seeds are U-shaped, winged, 1½" to 2" long and persistent on tree. Mature bark is gray-brown and deeply furrowed. Native to moist forests, box elder has become very common in disturbed uplands such as abandoned fields, fence rows, and untended urban sites. [WOODY DICOTS 042]



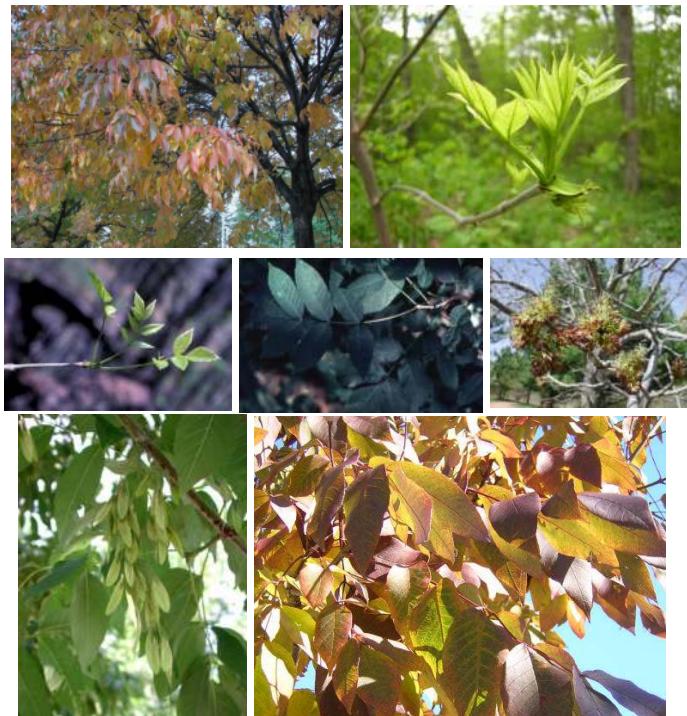
sumac (*Rhus* spp.; CASHEW FAMILY [Anacardiaceae])

Five species of tall shrubs or small, short lived trees with stout, hairy stems bearing long (12" to 24"), alternate, compound leaves with odd numbers (11 to 31) of lance shaped toothed leaflets. The foliage turns bright scarlet in the fall. Enormous numbers of tiny flowers produce tiny fruits (⅛" in diameter) in conspicuous, dense clusters at the end of branches. Our most common species, staghorn sumac, typically occurs on shallow soils. [WOODY DICOTS 043]



ash (*Fraxinus* spp.; OLIVE FAMILY [Oleaceae])

Medium to tall trees with opposite compound leaves of typically 7 to 13 leaflets. Long and narrow fruits with a single terminal wing are released late in the growing season, and are often blown long distances over the ice of rivers and lakes during the winter. Most species have large, half-round, notched leaf scars, showing an elliptical line of tiny, vascular bundle scars. Wisconsin species include white ash, which grows tall in fertile, well drained woods; green ash, most common on the shores of rivers and lakes; and black ash, which is typical of hardwood swamps. [WOODY DICOTS 044]



elderberry (*Sambucus* spp.; HONEYSUCKLE FAMILY [Caprifoliaceae])

Medium to tall shrubs with opposite, compound leaves of 5 or 7 toothed leaflets. Small white or cream flowers that occur in oval or flat topped clusters depending on the species. Fruits are about $\frac{1}{2}$ " diameter and bright red or red-black. [WOODY DICOTS 045]



honeysuckle (*Lonicera* spp.; HONEYSUCKLE FAMILY [Caprifoliaceae])

Upright shrubs (to 15') or twining woody vines with papery bark, opposite entire leaves, fragrant tubular flowers, and red fruits. Roughly one dozen species are in our flora plus several hybrids. Several are native (mostly vines), others introduced. Four alien bush honeysuckle species are extremely invasive and can easily dominate habitats in which they become established. [WOODY DICOTS 046]



wild-ginger (*Asarum canadense*; BIRTHWORT FAMILY [Aristolochiaceae])

Low growing (2" to 8") native perennial herb of rich woodlands. Often found in colonies. Usually 2 hairy leaves with heart- or kidney-shaped bases. Reddish brown 3-parted flower in early spring, often hidden below leaves. [DICOT HERBS A 047]



**marsh marigold, cowslip (*Caltha palustris*;
BUTTERCUP FAMILY [Ranunculaceae])**

Low growing, briefly showy, spring-flowering plant of wet places, with 5 to 9 bright yellow sepals and no petals. Leaves heart shaped to round, long-stalked, and shallowly toothed. Stem hollow. Found in open swamps, wet meadows, and ditches. [DICOT HERBS A 048]



**anemone (*Anemone* spp.; BUTTERCUP FAMILY
[Ranunculaceae])**

Several species of native perennial herbs. Small (< 1") white flowers usually with 5 petal-like sepals, numerous stamens and pistils. Basal leaves deeply palmate, plus a whorl of smaller leaves below the flower stalk. The various species found in habitats from moist forests to dry prairies. [DICOT HERBS A 049]



hepatica (*Hepatica* spp.; BUTTERCUP FAMILY
[Ranunculaceae])

Small perennial herb with conspicuous bluish to white or pink flowers. The apparent petals are actually sepals, and what seem like sepals are technically bracts. Named for the liver-like shape (sometimes even color), of the leaf, which is typically 3-lobed and persists through the winter. Occurs in rich woods. Flowers in early spring. Two species in Wisconsin differ principally in shape of leaf lobes. [DICOT HERBS A 050]



buttercup (*Ranunculus* spp.; BUTTERCUP FAMILY
[Ranunculaceae])

Small annual or perennial herbs usually with 5 shiny, golden-yellow, rapidly deciduous petals, and numerous pistils. Leaves typically much divided and dissected. Many Wisconsin species, usually in moist to wet places and flowering relatively early. [DICOT HERBS A 051]



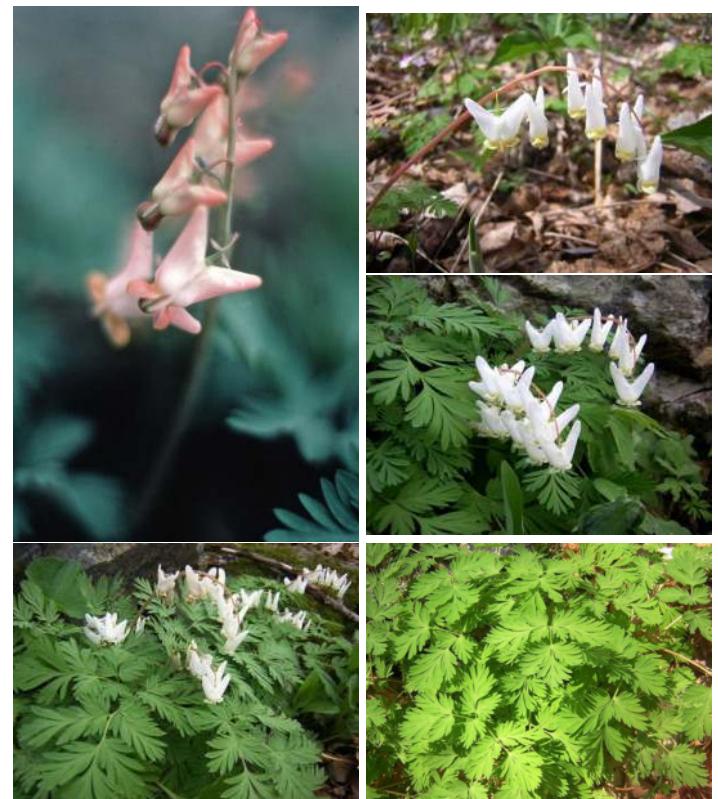
bloodroot (*Sanguinaria canadensis*; POPPY FAMILY [Papaveraceae])

Small perennial with conspicuous 1" to 1½" flowers of 8 to 12 white petals. The single distinctive, deeply lobed leaf arises from a thick horizontal rhizome that has blood-red sap, hence the common name. Occurs in rich woods; flowers in early spring. [DICOT HERBS A 052]



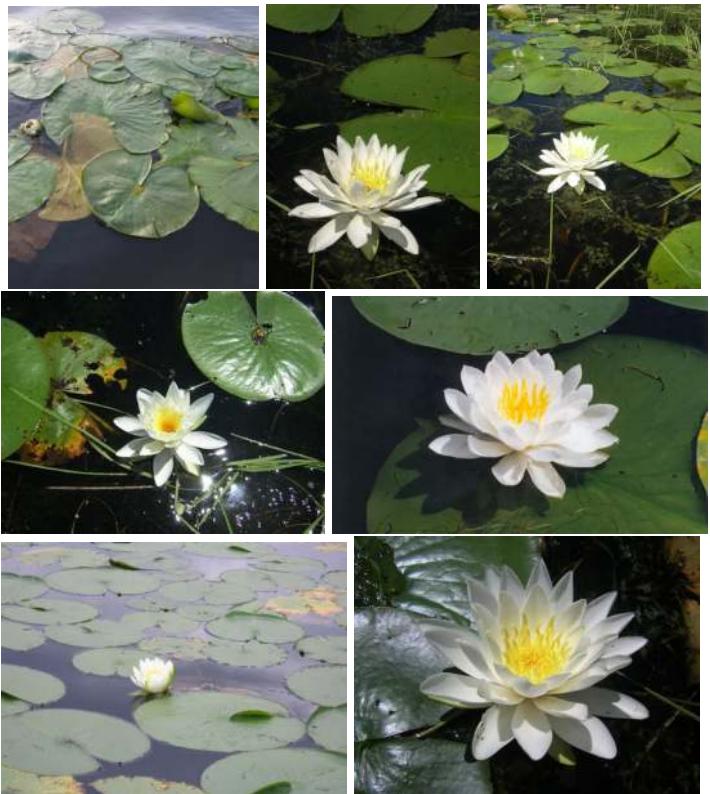
dutchman's breeches (*Dicentra cucullaria*; FUMITORY FAMILY [Fumariaceae])

Small perennial herb with a raceme of dangling white flowers, which resemble pantaloons hung up to dry. Leaves basal, on long petioles, grayish- or yellowish-green and finely dissected. Occurs in rich woodlands. Flowers in spring. Squirrel corn differs in having flower spurs, which hardly diverge. [DICOT HERBS A 053]



**American white water-lily (*Nymphaea odorata*;
WATER-LILY FAMILY [Nymphaeaceae])**

Perennial aquatic plants with showy, white or pinkish flowers, 2" to 8" wide. Petals numerous, many ranked. Nearly round 3" to 10" leaves have long petioles that extend down to rhizomes buried in the substrate. Occurs in still, shallow water. Flowers from early summer to fall. [DICOT HERBS A 054]



**bullhead pond-lily, yellow pond-lily (*Nuphar* spp.);
WATER-LILY FAMILY [Nymphaeaceae])**

Perennial aquatic plants with yellow flowers and heart-shaped leaves. The flowers have 5 or 6 large yellow sepals and numerous small petals that are usually shorter than the stamens. Leaves similar to those of *Nymphaea*, but typically oval rather than round. Found in ponds and slow streams. Flowers from late spring to early fall. [DICOT HERBS A 055]



bladder campion, white campion, white cockle

(*Silene latifolia*; PINK FAMILY [Caryophyllaceae])

1' to 4' tall annual or perennial, typically with numerous pairs of opposite stem leaves. 1" white flowers with 5 notched petals open in the evening. The calyx is a tube, which becomes disproportionately inflated during fruit development. Plants are either staminate or pistillate, but look very similar. An introduced weed of fields and waste places. Flowers throughout growing season. [DICOT HERBS A 056]

**common amaranth, pigweed (*Amaranthus retroflexus*; AMARANTH FAMILY [Amaranthaceae])**

1' to 6' tall upright annuals with long-stalked, lance-shaped leaves. Tiny green flowers develop in bristly spikes in late summer and fall. Weed of gardens and waste places; originally from tropical America. [DICOT HERBS A 057]



lamb's quarters (*Chenopodium album*; GOOSEFOOT FAMILY [Chenopodiaceae])

Small to tall upright annuals with irregularly toothed, alternate, bluish-green leaves. Tiny flowers in many small, globular clusters develop in summer and fall. A common native weed of gardens and waste places. [DICOT HERBS A 058]



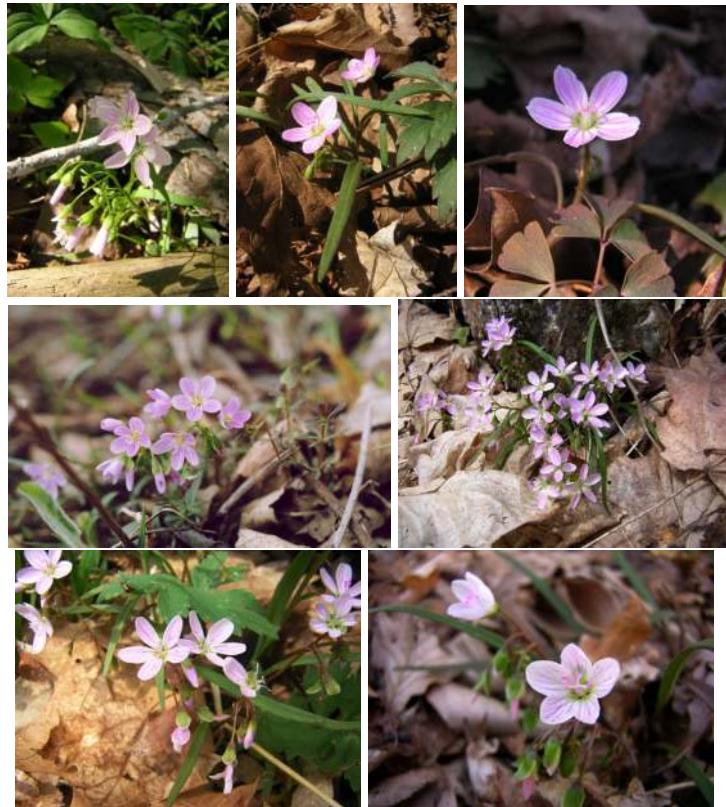
purslane (*Portulaca oleracea*; PURSLANE FAMILY [Portulacaceae])

Prostrate, fleshy annual weed of gardens and waste places, with leaves scattered along the stem and clustered at the ends of the branches. The small yellow flowers occur singly in the leaf axils and open for only a few hours a day during the summer. Probably originally native to W Asia, where cultivated as a vegetable. [DICOT HERBS A 059]



spring-beauty (*Claytonia* spp.; PURSLANE FAMILY
[Portulacaceae])

Small, inconspicuous perennial herb with pink or white flowers veined with darker pink, $\frac{1}{2}$ " to $\frac{3}{4}$ " wide. Leaves 1-few, long and narrow. Rich woodlands. Flowers in early spring. Two Wisconsin species differ primarily in leaf length and narrowness. [DICOT HERBS A 060]



curly dock (*Rumex crispus*; SMARTWEED FAMILY
[Polygonaceae])

Coarse, homely perennial plant (to 5' tall) with grooved stems and large, long, narrow leaves with strongly rippled margins. Flowers very small, distinctly stalked and aggregated in a dense inflorescence, green initially but becoming rust colored as small, three-winged fruits develop. Weed of wet ditches, fields, and waste places. Several other dock species also occur in Wisconsin. Native of Europe. [DICOT HERBS A 061]



**smartweed and knotweed (*Polygonum* spp.);
SMARTWEED FAMILY [Polygonaceae]**

More than 30 species of weedy annual or perennial plants with very small flowers of 5 white to pink, petal-like sepals, growing in spikes or spikelike branches, or in the leaf axils. The stems are jointed, with a membranous sheath above each joint. The numerous Wisconsin *Polygonum* species are often trailing plants, rarely showy, and are common along roads or in moist or wet open places. Flowers in summer and early fall. [DICOT HERBS A 062]



**pitcher plant (*Sarracenia purpurea*; PITCHER PLANT
FAMILY [Sarraceniaceae])**

Insectivorous perennial with large (2" wide), nodding, dark-red flowers and pitcher-shaped leaves. The leaves are 4" to 10" long, purple-veined, lined on the inside with downward-pointing hairs, and accumulate water. Crawling insects, trapped by the hairs, die, decay, and provide minerals (not food!) to the plant. Found in (mineral-deficient) acid bogs. Summer flowering. [DICOT HERBS A 063]



viola (*Viola* spp.; VIOLET FAMILY [Violaceae])

Numerous species of small perennial herbs. Flowers zygomorphic with 5 petals. Most species with violet petals, and those always with white varieties, but also a few species with yellow or exclusively white petals. The lower petal is spurred at the base. Most violets have heart-shaped leaves, and occur inconspicuously below other plants in woods, on wood edges, or in openings. Showy flowers are borne in the spring, and inconspicuous but very fertile enclosed flowers are produced later in the growing season. [DICOT HERBS A 064]



nettle (*Urtica dioica*, *Laportea canadensis*; VIOLET FAMILY [Violaceae])

Two distinct but related species, each with stinging hairs. Stinging nettle (*Urtica dioica*) has opposite, elongate, coarsely toothed leaves and is found on dry disturbed sites. Canadian wood nettle (*Laportea canadensis*) has broadly oval alternate leaves and is found on rich soils in woods and forests with moderate moisture. [DICOT HERBS A 065]



flowering spurge (*Euphorbia corollata*; SPURGE FAMILY [Euphorbiaceae])

Erect perennial with milky juice and large plant-to-plant variation in height. A single whorl of leaves separates the branched upper stem from the unbranched, alternate-leaved lower stem. Structure of the small ($\frac{1}{4}$ ") flowers is complex, but small white bracts produce the appearance of a simple, 4 to 5 petaled flower. Fruits are three-lobed and stalked. Old fields and dry woods. Flowers throughout summer and early fall. [DICOT HERBS A 066]



cranberry (*Vaccinium* spp.; HEATH FAMILY [Ericaceae])

Tiny, trailing shrubs with ascending branches bearing tiny ($<\frac{1}{2}$ ") evergreen leaves. Nodding flowers pink or red, with what appear to be four recurved petals [actually corolla lobes]. Stamens converge to a point, forming a cone pointing forward and giving the whole flower a shooting star appearance. Fruit a disproportionately large ($\frac{1}{4}$ " to $\frac{1}{2}$ ") acidic red berry. The two Wisconsin species differ in flower position and somewhat in size, and are found in acid bogs. Flowers from late spring to mid summer. [DICOT HERBS A 067]



wintergreen, checkerberry, eastern teaberry
(*Gaultheria procumbens*; HEATH FAMILY [Ericaceae])

Tiny native shrub (3" to 8") of sandy acidic soils. Leaves alternate, simple, evergreen, elliptical to oblong, thick and tough, 1" to 2" long, dark shiny green above, paler below. Leaves clustered at tip of plant giving whorled appearance. White urn-shaped $\frac{1}{4}$ " flowers nodding in clusters from leaf axils in mid-to-late summer. Round red fruit to $\frac{1}{2}$ " diameter hangs beneath leaves in late summer and into winter. Leaves and fruit have mild wintergreen aroma and flavor. [DICOT HERBS A 068]



yellow rocket, winter cress (*Barbarea vulgaris*);
MUSTARD FAMILY [Brassicaceae])

Biennial or winter annual whose size and appearance varies with growing conditions, but up to 3' tall. Profuse small flowers ($\frac{1}{2}$ " diameter) cover pastures and forage crop fields in brilliant yellow in mid-May before the primary crop matures. Leaves alternate, basal ones lobed, with terminal lobe large, middle and upper ones entire or toothed. Considered a noxious weed, but also a choice potherb in Italian cookery. Native of Europe. [DICOT HERBS A 069]





hoary alyssum (*Berteroa incana*; MUSTARD FAMILY [Brassicaceae])

1' to 2' tall annual or perennial with rounded clusters of tiny white flowers with deeply notched petals. Stem and leaves covered with a grayish down. Leaves lance shaped, $\frac{1}{2}''$ to $1\frac{1}{2}''$ long. Pod oblong. Found in dry fields and waste places. Flowers throughout summer and fall. Native of Europe. [DICOT HERBS A 070]

garlic mustard (*Alliaria petiolata*; MUSTARD FAMILY [Brassicaceae])

Erect 12" to 48" biennial woodland herb often found growing in dense colonies. Evergreen basal rosette develops during first year, then 1 or 2 flowering stems in the second year. Numerous 4-parted $\frac{1}{4}''$ white flowers in spring, followed by slender 1" to $2\frac{1}{2}''$ capsules. Stems and leaves with strong garlic odor when crushed. An invasive European native that poses a significant threat to Wisconsin's woodland flora. [DICOT HERBS A 071]

wild strawberry (*Fragaria* spp.; ROSE FAMILY [Rosaceae])

Two perennial species with 5-petaled white flowers, but which also spreads by runners. The familiar red fruit is the aggregate product of the receptacle and the many pistils of a single flower. Leaves are compound, with three coarsely toothed, egg-shaped leaflets. Flowers in spring and early summer, one of the earliest edible wild fruits. [DICOT HERBS B 072]



cinquefoil (*Potentilla* spp.; ROSE FAMILY [Rosaceae])

Mostly low, weak-stemmed perennials with 5-petaled yellow flowers, much like long-lasting, long-stemmed, non-shiny buttercups. Name means “five-leaved”, a reference to the typically 5-parted, palmately compound leaves, but species with fewer and more leaflets occur. Fields and open woods. Flowers in spring and early summer. Many horticultural varieties are available. [DICOT HERBS B 073]



blackberry, bramble, dewberry (*Rubus allegheniensis* and other spp.; ROSE FAMILY [Rosaceae])

Numerous species of 2' to 8' tall upright or creeping (dewberries) native shrubs with a perennial base, and stout prickled canes that survive two years. Often root at the tips. 1"-wide white flowers with 5 conspicuous petals are aggregated in racemes. Fruit juicy, usually black. Leaves palmately compound, typically with 5 leaflets. Found in dry fields, clearings, and open woods. [DICOT HERBS B 074]



raspberry, bramble (*Rubus idaeus* and other spp.; ROSE FAMILY [Rosaceae])

Three species of more-or-less upright 2' to 6' tall native shrubs with a perennial base, and moderately prickled arched canes that survive two years. Will not root at the tip. Young stems range from softly bristled to prickly. Flowers about 1/2" wide, with 5 white petals, the petals no longer than the sepals. Fruit typically red or black. Leaves compound, mostly with 3 leaflets. Found on roadsides, in thickets, and open woods. [DICOT HERBS B 075]



wild rose (*Rosa* spp.; ROSE FAMILY [Rosaceae])

Spiny shrubs with showy, white, pink, or purple flowers, $\frac{3}{4}$ -4" wide, the petals broadest at the tip and usually slightly indented. Leaves compound with stipules at the base and 3-9 pinnate leaflets. About 20 species in our area, many of them escaped from cultivation. Roadsides, thickets, and open woods. Flowers in late spring and summer. [DICOT HERBS B 076]

**soybean (*Glycine max*; BEAN FAMILY [Fabaceae])**

Erect, sturdy, 2' to 6' annual with some of the shoots vine-like. Flowers white or purple; pod 2" to 3" long on a very short stalk. Round seeds 2 to 4 per pod, globose, green, brown, yellow, or black. Leaflets 3, ovate to narrow-ovate, 3" to 6" long, entire. Cultivated for forage, human food and oil. [DICOT HERBS B 077]



birdsfoot trefoil (*Lotus corniculatus*; BEAN FAMILY [Fabaceae])

Perennial herb with prostrate to erect stems. Bright-yellow flowers borne in clusters. When the linear pods develop the cluster resembles a bird's foot. Leaves compound with 5 leaflets, the lower 2 at the base of the leaf stalk. Fields and roadsides, flowering throughout the summer. Frequently planted for wildlife on abandoned roads and road edges. Ecologically invasive native of Europe. [DICOT HERBS B 078]



crown-vetch (*Coronilla varia*; BEAN FAMILY [Fabaceae])

Low perennial herb to 2' tall. Pink and white flowers in showy, clover-like clusters, growing from the axils. Leaves pinnately compound with 11 to 25 small oblong leaflets. Roadsides and pastures, flowering throughout summer. Ecologically invasive introduction from Eurasia and North Africa. [DICOT HERBS B 079]





red clover (*Trifolium pratense*; BEAN FAMILY
[Fabaceae])

Short-lived perennial with more or less ascending, branching stems. Flowers magenta or purple in typical stalkless globular clover heads. Leaves compound with 3 blunt, oval, leaflets usually marked with a white V. Common in fields and meadows and flowering from spring to fall. Another invasive European native. [DICOT HERBS B 080]



white clover (*Trifolium repens*; BEAN FAMILY
[Fabaceae])

Perennial with creeping, rooting stems, and without above-ground branching. Flowers white or pale pink in a dense round head. Leaflets 3, finely toothed. Common in lawns, gardens, and fields; flowering from spring to fall. Native of Eurasia. [DICOT HERBS B 081]





white sweet clover and yellow sweet clover

(*Melilotus alba*, *M. officinalis*; BEAN FAMILY
[Fabaceae])

Two very similar species of tall (1' to 6') annual or biennial herbs. Stems erect or sprawling and many-branched, giving the plant a bushy appearance. Flowers white (*M. alba*), or yellow (*M. officinalis*), in 2" to 4" long axillary and terminal racemes. Blooms abundantly from early summer until fall. Leaves alternate, compound, with 3 finely toothed leaflets. Both species are Eurasian natives that have been widely planted as forage and soil-building crops, but have become invasive in our area. Ubiquitous along roadsides and other disturbed sites throughout the state. [DICOT HERBS B 082 AND 083]



alfalfa (*Medicago sativa*; BEAN FAMILY [Fabaceae])

Bushy, 1' to 3' perennial. Flowers purple or violet in a short raceme. Leaves compound with 3 finely toothed leaflets, the middle one distinctly stalked. Cultivated for fodder, and escaped to roadsides and waste places; summer flowering. Native of Asia. [DICOT HERBS B 084]

lupine (*Lupinus* spp.; BEAN FAMILY [Fabaceae])

Moderately sized (8" to 24") showy perennial herb of sandy soils. Distinctive palmately divided leaves and conical cymes of pea-like blue to white flowers. One native species with 3 varieties. Garden lupines (native to western North America) sometimes escape. They are somewhat larger in all their parts. [DICOT HERBS B 085]



water-milfoil (*Myriophyllum* spp.; WATER-MILFOIL FAMILY [Haloragaceae])

Eight species (7 native) of perennial submerged aquatic plants. Whorled pinnately divided leaves with thread-like leaflets. Flower head spike held above water surface. Bottom-rooted in still water to 15' deep with stems trailing just below the surface. Eurasian water-milfoil is an introduced species which forms dense mats of foliage which displace native aquatic plants and degrade fish habitat. [DICOT HERBS B 086]



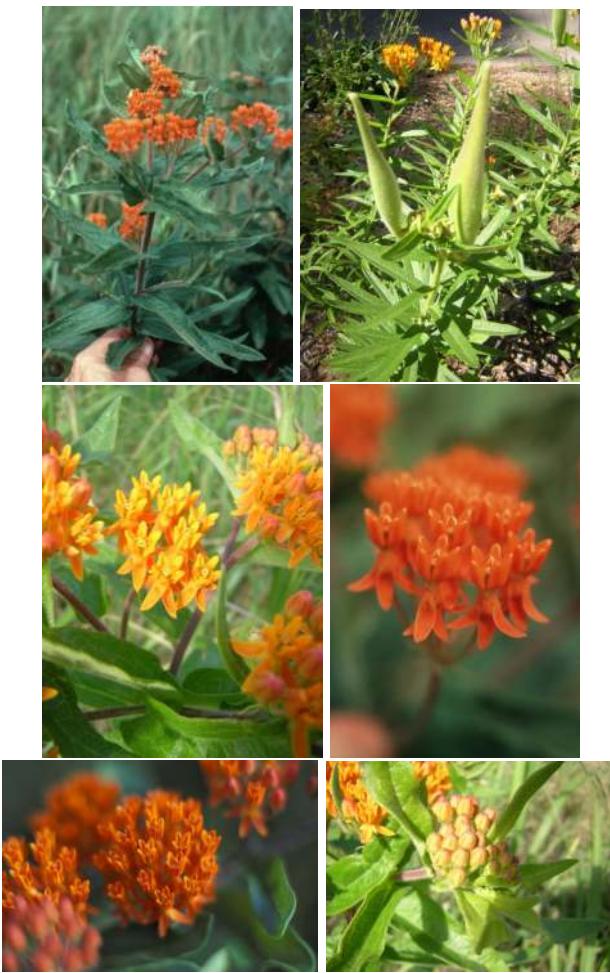
purple loosestrife (*Lythrum salicaria*; LOOSESTRIFE FAMILY [Lythraceae])

Tall, stout perennial wetland herb with long showy purple-magenta flower spikes in late summer. Leaves opposite or in whorls of 3, stalkless, lance-shaped. Flowers 5 to 7 parted, $\frac{1}{2}$ " wide, aggregated into long terminal spikes. Often grows in dense stands from woody taproots and dense mats of fibrous rhizomes. Introduced as a garden flower, it has escaped and reproduced prolifically throughout most of temperate North America. It is illegal to sell, distribute, or cultivate purple loosestrife in Wisconsin and several other states. [DICOT HERBS B 087]



butterfly weed (*Asclepias tuberosa*; MILKWEED FAMILY [Asclepiadaceae])

1' to 2' native perennial. Conspicuous erect umbels of bright orange flowers, which have the distinctive characteristics of the family: corolla differentiated into 5 downward-directed petal-like parts and a "crown" of 5 upward projections. Mostly alternate leaves. Road edges, sandy woods, and prairies. Flowers in mid-summer. [DICOT HERBS B 088]



milkweed (*Asclepias* spp.; MILKWEED FAMILY [Asclepiadaceae])

More than 10 species of perennial plants of various sizes and habitats, all with milky juice. Flowers from greenish white to purple or red depending on species, but always in umbels, and always with the distinctive form described for butterfly weed. Fruits are relatively large, dry, and split along one line to discharge seeds, which become windborne from conspicuous tufts of soft hair. Leaves opposite or whorled and entire. Wisconsin species include the tall (to 7') common milkweed, *Asclepias syriaca* of pastures and the showy pink to red flowered swamp milkweed, *A. incarnata*. Flowering is at discrete times depending on the species. [DICOT HERBS B 089]



evening-primrose (*Oenothera* spp.; EVENING-PRIMROSE FAMILY [Onagraceae])

A dozen species of relatively stout annual, biennial, or perennial herbs. Showy yellow flowers (1½" to 2") are borne in the axils of the leaf like bracts, have a long slender calyx tube, 4 flaring yellow petals, and a prominent cross-shaped stigma. Evening primrose flowers open at twilight, sundrops (same genus) open at mid day. Common on road edges and dry waste places. Flowers, then produces distinctive rod-shaped fruits throughout the summer. [DICOT HERBS B 090]



fireweed, great willow-herb (*Epilobium angustifolium*; EVENING-PRIMROSE FAMILY [Onagraceae])

Tall (3' to 10') perennial herbs with terminal racemes of showy magenta flowers. Leaves usually alternate and narrowly lance-shaped, with slightly incurved edges. Road edges and openings, including those produced by fire. Flowers and long, narrow magenta fruits produced from mid-summer into the fall. [DICOT HERBS B 091]



bunchberry (*Cornus canadensis*; DOGWOOD FAMILY [Cornaceae])

Low-growing native perennial herb with a woody rhizome. Leaves opposite but appearing to be a whorl of 4 to 6 at top of stem, with distinctive, conspicuous veins. One or 2 pairs of tiny leaves lower on the stem. Cluster of small monoecious green flowers surrounded by 4 large white petal-like bracts in spring and early summer. Bright red berries in a tight terminal "bunch" ripen in late summer. Moist forests, bogs. [DICOT HERBS B 092]



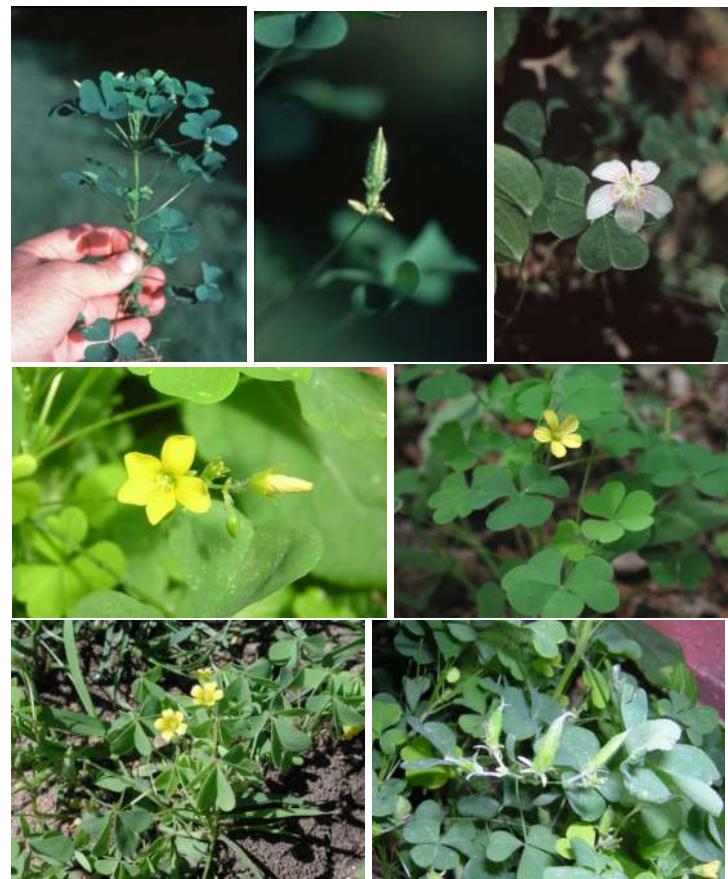
poison ivy (*Toxicodendron radicans*; CASHEW FAMILY [Anacardiaceae])

Small to large shrub or climbing vine with very small ($\frac{1}{8}$ " wide) green flowers in inconspicuous branching axillary clusters. Small ($\frac{1}{4}$ ") fruit grayish or yellowish white. Leaves compound but variable in appearance, with 3 entire or coarsely toothed leaflets, sometimes shiny, sometimes not. Open woods, thickets, fencerows, and wood edges. Flowers in late spring and early summer. **All parts poisonous to the touch at all seasons.** [DICOT HERBS B 093]



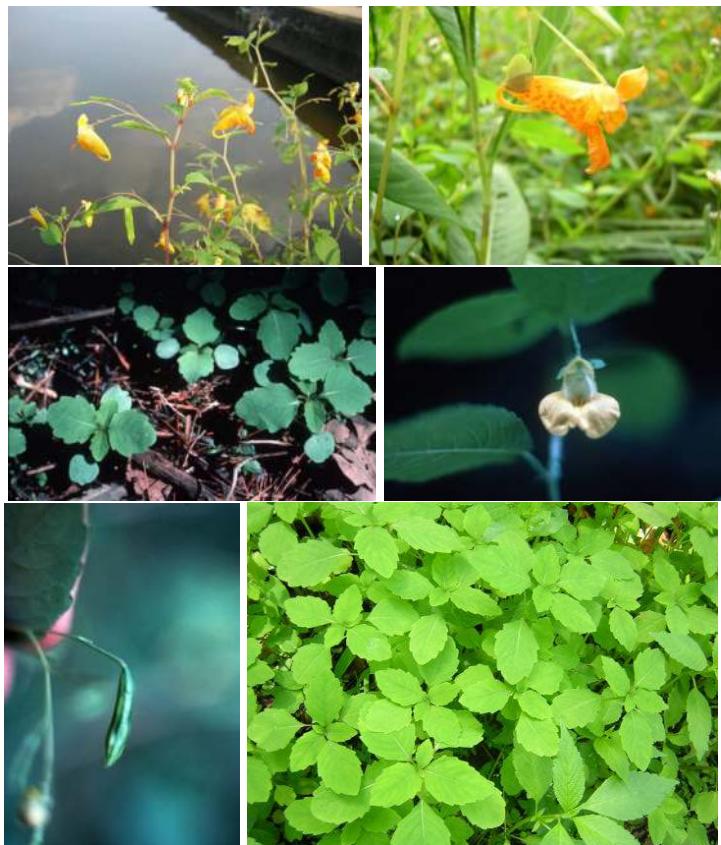
wood-sorrel (*Oxalis* spp.; WOOD-SORREL FAMILY [Oxalidaceae])

Low, trailing or erect herbs with small 5-petaled yellow, white, pink, or purple flowers. Leaves compound, with 3 heart-shaped leaflets. Oxalic acid, which gets its name from this family, gives the leaves a sour taste. *Oxalis corniculata* is an abundant weed in Wisconsin flower beds. Other species range from open ground to shady woods, with flowering time dependent on the species. [DICOT HERBS B 094]



**jewelweed, touch-me-not (*Impatiens* spp.);
TOUCH-ME-NOT FAMILY [Balsaminaceae]**

Two species of 2' to 5' tall annuals. Flower orange or yellow, depending on the species, about 1" long, drooping from a long stalk and with a short inward-curved spur. Fruit is a plump pod that explodes when ripe. The coarsely toothed succulent leaves are oval or elliptical, and the succulent stems are translucent. Moist woods and meadows, springy places; slow growing at first. Flowers in summer and early fall. [DICOT HERBS B 095]



**Queen Anne's-lace, wild carrot (*Daucus carota*);
PARSLEY FAMILY [Apiaceae]**

1' to 5' tall biennial with a stout, edible taproot. Plant covered with bristly hairs. Flowers small and white, but made conspicuous by their arrangement in a flat-topped, tightly packed, 2" to 4" wide umbel (often with a single pink or purple floret in the center). Leaves twice compound. Common, conspicuous, and invasive weed in fields and waste places. Flowers from summer through early fall. Native of Eurasia. **Queen Anne's-lace can be confused with water-hemlock with potentially fatal results!** [DICOT HERBS B 096]



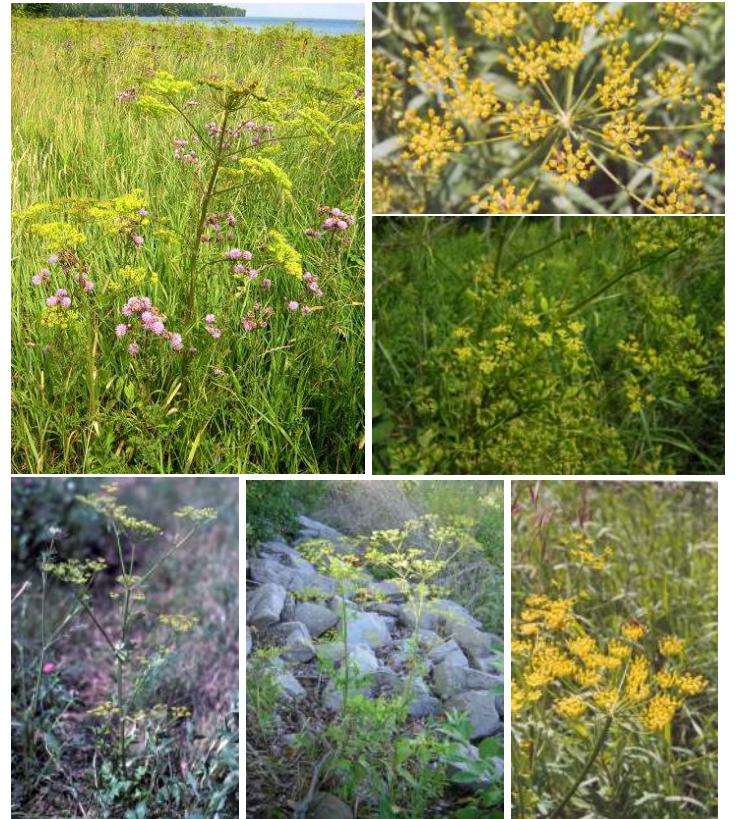
water-hemlock (*Cicuta maculata*; PARSLEY FAMILY [Apiaceae])

Tall (to 6'), **highly poisonous** perennial from a hollow, tuberous base. Flowers small and white, but made conspicuous by their arrangement in an often incomplete, somewhat rounded, 2" to 5" wide umbel. Leaves twice or thrice compound. Common and conspicuous plant in ditches, wet openings, and swamps. Flowers in summer and early fall. [DICOT HERBS B 097]



wild parsnip (*Pastinaca sativa*; PARSLEY FAMILY [Apiaceae])

Tall (to 5') biennial with an allegedly edible taproot (tastes differ). Flowers small, yellow, and aggregated into a 4" to 8" wide umbel. Flowers in summer and early fall. Leaves alternate, compound, with leaflets serrate, lobed, or even compound again. **Contact with juices from this plant in the presence of sunlight can cause a long-lasting rash, blistering, and skin discoloration.** An invasive Eurasian native that has become well established as a weed in sunny fields, roadsides, and waste places. [DICOT HERBS B 098]



potato (*Solanum tuberosum*; NIGHTSHADE FAMILY [Solanaceae])

Weak-stemmed tuber-bearing perennial which rarely survives a Wisconsin winter even if it escapes from cultivation. Flowers with a showy white or bluish 5-petalled corolla and distinctive yellow anthers. Leaves compound with stalked ovate leaflets alternating with much smaller sessile ones. One of the world's most important food plants. Native to South America. [DICOT HERBS C 099]



jimson-weed (*Datura stramonium*; NIGHTSHADE FAMILY [Solanaceae])

Coarse, 1' to 5' tall, strong-scented, annual weed with long (2½" to 4"), white to violet, trumpet-shaped flowers in late summer. Leaves are 2" to 8" long, broad, and coarsely toothed. Fruit is a 2" oval spiny pod. **Whole plant is extremely poisonous.** Found on dry, open ground. [DICOT HERBS C 100]



**bindweed (*Convolvulus arvensis*, *Calystegia* spp.);
MORNING-GLORY FAMILY [Convolvulaceae])**

Trailing or twining perennial herbs with showy white to pink, 5-parted, funnel-shaped flowers. Leaves broadly arrowhead shaped. Fields, roadsides, thickets, and waste places, flowering throughout the growing season. [DICOT HERBS C 101]



**plantain (*Plantago* spp.); PLANTAIN FAMILY
[Plantaginaceae])**

Several species of annual or perennial herbs, most with a rosette of basal leaves and a leafless flower stalk. Flowers small and inconspicuous, densely arranged in a narrow spike or somewhat broader head. Leaves large for such a small plant, strongly ribbed, entire or barely toothed, and ranging from narrow to broad depending on the species. Common weeds of lawns, roadsides, and waste places, different individuals flowering throughout the growing season. [DICOT HERBS C 102]



butter-and-eggs (*Linaria vulgaris*; FIGWORT FAMILY [Scrophulariaceae])

1' to 3' tall perennial that occurs in colonies formed by spreading rhizomes. Racemes of 1" long snapdragon-like flowers have yellow spurs ("butter") and an orange palate ("eggs"). Leaves alternate, narrow, and numerous, $\frac{1}{2}$ " to 1 $\frac{1}{2}$ " long. Disturbed sites in sandy soil. Flowers abundantly from summer to early fall. Eurasian native introduced as a garden flower. [DICOT HERBS C 103]



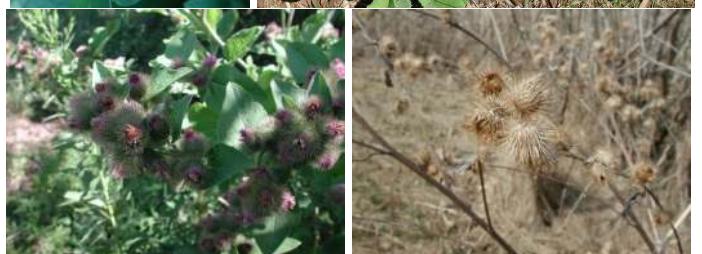
common mullein (*Verbascum thapsus*; FIGWORT FAMILY [Scrophulariaceae])

A distinctive and imposing biennial that is common on disturbed sites throughout the state. First year plant a low-growing rosette 1' to 2' across. Grows to 7' tall during the second year with large alternate leaves near the base and progressively smaller leaves higher up. Stem and leaves densely covered with branched hairs giving the plant a pale grey-green color and velvety texture. Central stem terminates in a dense spike of yellow flowers during late summer. Main stalk and seed capsules persist through winter. From Eurasia. [DICOT HERBS C 104]



common burdock (*Arctium minus*; COMPOSITE FAMILY [Asteraceae])

Coarse biennial herb to 5' tall. Large, alternate leaves, mostly with hollow petioles. Flower heads pink to purplish, $\frac{3}{4}$ " to 1" wide; covered with bracts bearing inward-curving hooks. Fruits mature into round bristled burrs which stick tenaciously to fur and clothing. Roadsides, disturbed sites. Ecologically invasive Eurasian native. [DICOT HERBS C 105]



spotted knapweed (*Centaurea biebersteinii*; COMPOSITE FAMILY [Asteraceae])

An introduced 1' to 4' tall perennial or biennial herb of dry disturbed sites. Stiff, wiry stems bear sparse grey-green alternate, pinnately lobed leaves. Upper stems terminate in attractive 1" wide pink to purple flower heads subtended by distinctive black-tipped bracts. Flowers mid-summer into fall. Foliage and roots exude toxins that can kill neighboring plants. Native to Eastern Europe, but ecologically invasive in our area. [DICOT HERBS C 106]



thistle (*Cirsium* spp.; COMPOSITE FAMILY
[Asteraceae])

Mostly coarse, tall biennial or perennial herbs with painfully spiny leaves. Distinctively shaped heads typically cupped with bristly bracts, topped by a purple tuft formed by the protruding long, narrow corolla lobes of the (exclusively) tubular flowers. The biennial species form a rosette of prickly leaves that overwinters the first year. Roughly 12 species in our area, both native and alien. Some alien species are invasive. Found in marshes, prairies, and waste places. Flowers in summer and fall. [DICOT HERBS C 107]



chicory, blue-sailors (*Cichorium intybus*;
COMPOSITE FAMILY [Asteraceae])

Small to tall (1' to 5') short-lived perennial from a long taproot. Pale blue flower heads (1" to 1½"), essentially stalk-less, and eclipsing the small stem leaves in whose axils they develop. Basal leaves long and narrow, both lobed and toothed. Roadsides, fields, and waste places. Flowers in summer and fall. Ecologically invasive native of Europe. [DICOT HERBS C 108]



orange hawkweed (*Hieracium aurantiacum*;
COMPOSITE FAMILY [Asteraceae])

Rhizomatous, fibrous-rooted, perennial with a rosette of narrow, hairy basal leaves and a hairy, leafless stem topped by orange dandelion-like heads $\frac{3}{4}$ " to 1" wide, in a few-flowered branching inflorescence. Common on roadsides, lawns, and old fields. Chemically inhibits the growth of other plants. Flowers primarily in late spring, but some continue to flower throughout the growing season. An invasive native of Europe.
[DICOT HERBS C 109]



dandelion (*Taraxacum officinale*, *T. laevigatum*;
COMPOSITE FAMILY [Asteraceae])

Tap-rooted perennials with a rosette of variously divided and lobed basal leaves and one-to-several unbranched, hollow flower stalks. Each stalk bears a single 1" to 2" head of bright yellow ray flowers. Peak of flowering is in the spring, and then sporadically throughout the growing season. A widespread weed of lawns, fields and waste places. Native of Eurasia now found throughout the temperate world. [DICOT HERBS C 110]



aster (*Aster* spp.; COMPOSITE FAMILY [Asteraceae])

Large and variable group of blue, purple, red or white flowered annual, biennial, and perennial herbs. Heads often in much-branched clusters with both ray and disk flowers often the same color, subtended by two or more rows of bracts. Many of our native asters grow in woodland understories or edges. Most flower in late summer and fall. [DICOT HERBS C 111]

**fleabane (*Erigeron* spp.; COMPOSITE FAMILY [Asteraceae])**

Several species of herbs which contrast with asters in flowering early, in spring or summer and contrast with ox-eye daisy in having smaller flowers with large numbers of very narrow rays surrounding the disk. Typically found on open ground or very open woods. [DICOT HERBS c 112]



goldenrod (*Solidago* spp.; COMPOSITE FAMILY
[Asteraceae])

More than 30 species of rhizomatous perennials with stature varying by species. Small pale yellow to orange-yellow flowers, either in curved, one-sided clusters as the name suggests, or in a variety of other unrodlike arrangements. Leaves simple, usually toothed, but otherwise varying in shape and size both by species and by position on the stem. Most grow in open ground, specific habitat depending on the species; almost all flower in late summer or fall. [DICOT HERBS C 113]



yarrow (*Achillea millefolium*; COMPOSITE FAMILY
[Asteraceae])

Aromatic, rhizomatous perennial to 40" tall with alternate, finely dissected, pinnately compound leaves. Flower heads $\frac{1}{4}$ " wide with 5 white-to-pinkish ray florets and a similar number of disc florets; borne in flat branched clusters. Blooms mid-summer into fall. Common along roadsides, fields and disturbed sites. Also grown as a garden flower. [DICOT HERBS C 114]



ox-eye daisy, common daisy (*Leucanthemum vulgare*; COMPOSITE FAMILY [Asteraceae])

1' to 3' perennial which often grows in dense rhizome-linked colonies. Heads solitary, 1" to 2" wide, with 15 to 30 slender white rays and a yellow disk. Long, narrow alternate leaves, widest and shallowly-lobed at the top, and deeply lobed below. Fields, roadsides, and waste places. Flowers from late spring to early fall. Introduced from Eurasia. [DICOT HERBS C 115]



common tansy (*Tanacetum vulgare*; COMPOSITE FAMILY [Asteraceae])

Introduced 2' to 4' tall perennial herb of open or disturbed areas. Finely dissected alternate leaves with strong odor. Foliage toxic to many animals. Upper stems with flat clusters of numerous $\frac{1}{4}$ " yellow flower heads consisting of only disk florets. Each flower head flat-topped and button-like. Blooms mid-summer to fall. [DICOT HERBS C 116]



ragweed (*Ambrosia* spp.; COMPOSITE FAMILY [Asteraceae])

Annual or perennial herbs of variable size with racemes of inconspicuous, green, wind-pollinated flowers. Leaves deeply lobed or divided into narrow segments. Opportunistic weeds whose copious pollen is a principal cause of hay fever. Flowers in late summer and fall. [DICOT HERBS C 117]



common sunflower (*Helianthus annuus*; COMPOSITE FAMILY [Asteraceae])

Tall (to 10') unbranched or sparingly branched annuals. Disk nearly flat, 1" to 2" wide in wild species, much wider in cultivated varieties. Rays large, strap-shaped, and bright yellow. Larger leaves broadly egg-shaped, toothed, long-stalked, and rough on both sides. Waste places and roadsides. Cultivated for its seeds and oil, native west of the Mississippi and occasionally escaped from cultivation elsewhere. Numerous other sunflower species are native to Wisconsin, usually in relatively open places. Flowers in summer and fall. [DICOT HERBS C 118]





blazing star (*Liatris* spp.; COMPOSITE FAMILY [Asteraceae])

Perennial herbs with multiple unbranched stems arising from a corm. Magenta heads showy in terminal spike-like clusters, which may clothe most of plant. Heads composed of tubular flowers that appear ray-like because of conspicuous appendages protruding from the style branches. Stem leaves usually narrow; plants rarely branched above the base. Found in sandy open ground and prairies. Flowers in summer and early fall. [DICOT HERBS C 119]



bedstraw (*Galium* spp.; MADDER FAMILY [Rubiaceae])

Weak stemmed annuals or perennials characterized by whorls of small linear leaves well separated on the profusely branching square stems. Flowers very small and usually white to greenish. The dozen or so Wisconsin species differ in size of leaves or flowers, the number of leaves in a whorl, and in stems being smooth or rough with tiny bristles. Different species range from dry woods to thickets to swamps, but all typically in semi-shaded locations. Flowers in late spring and early summer. [DICOT HERBS C 120]



arrowhead (*Sagittaria* spp.; WATER-PLANTAIN FAMILY [Alismataceae])

Perennial aquatic herbs with white flowers $\frac{1}{2}$ " to 1" wide, usually growing in whorls of 3 from an unbranched stalk. Most species with both arrow-shaped emergent leaves, and flat-petioled, bladeless, underwater leaves. Grows as emergent from shallow water or in marshes. Summer flowering. [MONOCOTS 121]



pondweed (*Potamogeton* spp.; PONDWEED FAMILY [Potamogetonaceae])

Numerous species and hybrids of perennial aquatic plants. Found in most bodies of water throughout the state. All have alternate, entire leaves. Floating leaves are distinct from submersed leaves in many species. Small, inconspicuous flowers in short spikes held above the water surface (most species) or in small clusters in the axils of submersed leaves. [MONOCOTS 122]



Jack-in-the-pulpit, indian turnip (*Arisaema triphyllum*; ARUM FAMILY [Araceae])

1' to 3' tall native perennial herb with a single inflorescence typically overtopped by 2 compound leaves of 3 leaflets each. The “pulpit” has a striped green-and-purple canopy arching over the dense cluster of tiny flowers (“Jack”). Found in rich, moist woodland understories. Flowers in late spring. [MONOCOTS 123]



skunk-cabbage (*Symplocarpus foetidus*; ARUM FAMILY [Araceae])

Foul smelling native perennial herb with tiny flowers in a knobby cluster at ground level, surrounded by a 2" to 5" long, purple-brown and green mottled hood. The flowers are produced very early in the spring, sometimes literally melting their way through snow or frozen ground before the large heart-shaped leaves emerge. In wet, shady areas and swamps, especially along streams. [MONOCOTS 124]



**duckweed (*Lemna*, *Spirodella*, and *Wolffia* spp.;
DUCKWEED FAMILY [Lemnaceae])**

Tiny floating perennial plants without leaves, consisting of a globular or flattened thallus with or without roots, and very rarely producing tiny white flowers. Mostly reproduce from vegetative buds. Occur in nutrient-rich lakes and ponds, tending to accumulate on leeward side. Sink and overwinter in bottom mud. [MONOCOTS 125]



field nut sedge, yellow nut sedge (*Cyperus esculentus*; SEDGE FAMILY [Cyperaceae])

Grasslike native perennial, 6" to 24" tall. Unbranched, 3-angled main stem mostly covered by leaf sheaths. Light green leaves mostly near base and spreading outward. Plant topped with an umbel of yellow or golden brown floral spikes subtended by several leafy bracts. Shallow, rhizomatous root system with small tubers. Occurs worldwide on moist open sites. [MONOCOTS 126]



Kentucky bluegrass (*Poa pratensis*; GRASS FAMILY [Poaceae])

Ubiquitous perennial lawn and pasture grass introduced from Europe (not Kentucky), with many varieties and cultivars. Erect, hairless 12" to 18" stems grow from spreading rhizomes. Long, narrow dark green leaves are folded when young. Open, spreading oblong-to-pyramidal inflorescence. [MONOCOTS 127]



oats (*Avena sativa*; GRASS FAMILY [Poaceae])

Moderately sized (2') annual grass, with narrow or open, usually rather few-flowered panicles of rather large spikelets. Spikelets 2-several flowered. Flowers mid-summer. Originally domesticated in S. Europe and the Middle East. Cultivated (and escaped) throughout the temperate zones for use as food, fodder and straw. [MONOCOTS 128]



reed canary grass (*Phalaris arundinacea*; GRASS FAMILY [Poaceae])

A large (2' to 6'), coarse perennial grass of wetlands and disturbed upland sites. Erect, hairless stem with rather wide, flat, tapering leaves 3" to 10" long. Compact panicles of green-to-purple flowers in early summer mature to light brown later in the season. Emerges early in spring, forming dense stands that crowd out other vegetation. An invasive introduction from Eurasia. [MONOCOTS 129]



quackgrass (*Elytrigia repens*; GRASS FAMILY [Poaceae])

An introduced perennial grass with erect stems (1½' to 3') and erect green or purplish spikes. Spreads extensively by rhizomes. Spikelets are well separated and several flowered. A good forage grass, but because of its rhizomes is as troublesome a weed as there is in Central Wisconsin. Flowers early in the summer. [MONOCOTS 130]



wheat (*Triticum aestivum*; GRASS FAMILY [Poaceae])

Low to relatively tall [1½' to 4'] annual grasses with flat blades and thick spikes. Spikelets 2 to 5 flowered, solitary, placed flatwise at each joint of a continuous or jointed floral stalk. Cultivated since ancient times with many cultivars and subspecies. Occasionally escapes to disturbed sites, roadsides. [MONOCOTS 131]

**foxtail, bristlegrass** (*Setaria* spp.; GRASS FAMILY [Poaceae])

Introduced annual grasses, 1' to 3' tall, with narrow terminal panicles, dense and spikelike or somewhat loose and open. One to several bristles (setae) are borne just below each spikelet. Palatable and nutritious species which form a significant part of the forage of southwestern ranges, but generally considered weeds in Wisconsin. [MONOCOTS 132]



corn, maize (*Zea mays*; GRASS FAMILY [Poaceae])

Tall, robust, annual grass with very broad leaf blades with overlapping sheaths. Staminate spikelets occur in long, spike-like branches, which are aggregated into large spreading terminal panicles (tassels). Pistillate spikelets are arranged in rows on a thickened axis (cob), which occurs in a leaf axil, and is enclosed by several bracts. The long thin styles (silk) protrude from the top. Cultivated extensively throughout the world for food and forage. [MONOCOTS 133]



cat-tail (*Typha* spp.; CATTAIL FAMILY [Typhaceae])

Tall (5' to 10') perennial herbs with long, grass-like leaves. Staminate flowers are borne in a loose, deciduous spike above the characteristic, persistent dense brown cylinder of pistillate flowers and fruits. Found in non-acid marshes or emergent from shallow water; flowers in late summer. One native species, one introduced species and a hybrid between the two are found in Wisconsin. [MONOCOTS 134]





blue-flag, wild iris (*Iris* spp.; IRIS FAMILY [Iridaceae])

Small to medium sized native perennial herbs with large (2" to 4" wide), showy, flowers, blue or violet with yellow markings. 3 large outer divisions are sepals, 3 smaller inner erect parts are the petals. Leaves are long and narrow, flattened, sheathing the stem. Found in shallow water and wet ground. Flowers in summer. Two species are common in Wisconsin. [MONOCOTS 135]



trout lily, fawn lily, dog-tooth violet (*Erythronium* spp.; LILY FAMILY [Liliaceae])

Small perennial herbs with solitary, nodding flowers, $\frac{3}{4}$ " to 1 $\frac{1}{2}$ " long, yellow in one Wisconsin species and white in the other. Leaves 3" to 8" long, relatively narrow, usually two, entire, and appearing basal, because about half of stem is underground, arising from a deep corm. Leaves in the yellow flowered species are distinctly mottled. Found in moist woods. Flowers in early spring and dies back to the corm by early summer. [MONOCOTS 136]



daylily (*Hemerocallis fulva*; LILY FAMILY [Liliaceae])

Introduced perennial herb consisting of a 2' to 4' tall rosette of leaves and flowering stalks. Leaves basal, linear, floppy, tapering gradually to a point. Erect flowering stalks arise from center of rosette, growing taller than the leaves and bearing a terminal panicle of large orange flowers in mid-summer. Each flower 6-parted to 4" wide and lasting a single day. A notably long lived and persistent plant of gardens, roadsides, cemeteries, and old homesteads. [MONOCOTS 137]



trillium (*Trillium* spp.; LILY FAMILY [Liliaceae])

Small native perennial herbs with leaves in a distinctive single whorl of 3. Flower white or occasionally pink (red in one species) large, solitary, with 3 regular parts. Widespread in woods, from upland to swamp depending on species. Flowers in late spring. Five species occur in Wisconsin. [MONOCOTS 138]



bellwort (*Uvularia* spp.; LILY FAMILY [Liliaceae])

Two species of native perennial herbs. Stems erect, forking above the middle. Leaves alternate, oval to oblong, mostly above the fork. Elongated, nodding, yellow, 6-parted flowers at stem tips in spring. In forests and clearings. [MONOCOTS 139]



lady's slipper (*Cypripedium* spp.; ORCHID FAMILY [Orchidaceae])

Several species of small native perennial herbs usually with solitary flowers that have a prominent "lip" that forms a hollow pouch. Flower colors include yellow and the whole pink range from deep rose to white, depending on species. One species is fairly common and widespread in our area, others relatively rare. Found in woodland habitats. Flowers in late spring. [MONOCOTS 140]

