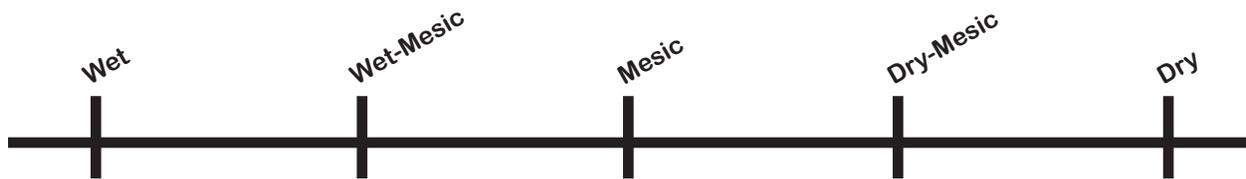


### III.C. Wet to Wet-Mesic Prairies

Prairies are open, herbaceous plant communities dominated by native grass and grass-like species; at least half of the vegetative cover is made up of true grasses (Curtis 1971). Prairie communities occur along a moisture gradient as shown below. The wet end of the gradient, wet and wet-mesic prairies, meet the criteria for wetlands. These communities are similar to fresh (wet) meadows, but are dominated by native grasses and forbs associated with prairies such as prairie cord-grass, big bluestem, switchgrass, narrow reedgrass, mat muhly grass, gayfeather, New England aster, culver's root, prairie dock and sawtooth sunflower. Wet to wet-mesic prairie communities predominately occur south of the vegetation tension zone; however, some prairie communities are found in sandy barrens and wet swales north of the tension zone.



Prior to European settlement, vast expanses of prairie existed in southern Wisconsin and western and southern Minnesota. Minnesota alone had approximately 18 million acres of prairie. Prairies evolved with fire and fire is essential to maintenance of prairies. Without periodic burns, prairies become subject to invasion by woody vegetation. In the pre-European settlement landscape, huge wildfires roared across the prairies of Minnesota and Wisconsin. European settlement brought two things to the prairie: the plow and fire suppression. Once the prairie sod was broken, and the wet prairies were drained, the deep, black soils proved to be among the most productive farmland in the world. More than 99 percent of prairies in Minnesota and Wisconsin were destroyed by the conversion to agricultural use. Prairies that were not plowed under were hayed or intensively grazed for decades resulting in degradation and changes in species composition. Remaining remnant prairies often suffer because of fire suppression and may be lost without intensive management. Given this nearly total loss of prairie, it is not surprising that many prairie species once common in Minnesota and Wisconsin are now threatened or endangered. Two prairie orchids, the western prairie fringed orchid and white lady's-slipper, are prime examples.

Some large tracts of unbroken (never plowed) or otherwise high quality prairie still exist on publicly-owned preserves or those purchased and managed by private conservation groups. Notable examples are the Chiwaukee Prairie in Kenosha County, Wisconsin, the Scuppernong River Habitat Area in Waukesha County, Wisconsin, and the preserves within the Interbeach Area of Glacial Lake Agassiz in northwestern Minnesota.

## WET TO WET-MESIC PRAIRIES



© Steve D. Eggers

**VEGETATION:** This example of a wet to wet-mesic prairie includes gayfeather (*Liatris pycnostachya*), prairie cord-grass (*Spartina pectinata*), giant manna grass (*Glyceria grandis*), big bluestem (*Andropogon gerardii*), hummock sedge (*Carex stricta*), flattened spike-rush (*Eleocharis compressa*), green bulrush (*Scirpus atrovirens*), sawtooth sunflower (*Helianthus grosseserratus*), Riddell's goldenrod (*Solidago riddellii*), grass-leaved goldenrod (*Euthamia graminifolia*), New England aster (*Symphotrichum novae-angliae*), sneezeweed (*Helenium autumnale*), prairie loosestrife (*Lysimachia quadriflora*), water hemlock (*Cicuta maculata*), mountain mint (*Pycnanthemum virginianum*), slender rush (*Juncus tenuis*), redtop (*Agrostis gigantea*), winged loosestrife (*Lythrum alatum*) and shrubby cinquefoil (*Dasiphora fruticosa*).

**SOILS:** Colwood silt loam (Typic Endoaquolls), a poorly-drained mineral soil underlain by stratified lacustrine silt and very fine sand. Landscape position is a swale connecting morainal hills with an extensive wetland complex on muck soils.

**HYDROLOGY:** High groundwater table and, to a lesser extent, surface runoff from morainal hills. Colwood soils have a seasonal high water table at the surface to 12 inches below the surface during October through May of most years.

**LOCATION:** Scuppernong River Habitat Area, Kettle Moraine State Forest, Waukesha County, Wisconsin.

## WET TO WET-MESIC PRAIRIES



**VEGETATION:** This wet to wet-mesic prairie includes prairie cord-grass (*Spartina pectinata*), gayfeather (*Liatris pycnostachya*), big bluestem (*Andropogon gerardii*), switchgrass (*Panicum virgatum*), Canada wild-rye (*Elymus canadensis*), narrow reedgrass (*Calamagrostis stricta*), fowl bluegrass (*Poa palustris*), mountain mint (*Pycnanthemum virginianum*), woolly sedge (*Carex pellita*), Sartwelli sedge (*Carex sartwellii*), flattened spike-rush (*Eleocharis compressa*), Riddell's goldenrod (*Solidago riddellii*), prairie loosestrife (*Lysimachia quadriflora*), culver's root (*Veronicastrum virginicum*), cowbane (*Oxyopolis rigidior*), sneezeweed (*Helenium autumnale*), marsh pea (*Lathyrus palustris*), bottle gentian (*Gentiana andrewsii*), jointed rush (*Juncus nodosus*), northern bedstraw (*Galium boreale*), New England aster (*Symphotrichum novae-angliae*), sawtooth sunflower (*Helianthus grosseserratus*), giant goldenrod (*Solidago gigantea*) and compass plant (*Silphium laciniatum*). Widely scattered willows (*Salix discolor*, *S. petiolaris*, *S. bebbiana*) are present. State-listed threatened species include tuberous Indian plantain (*Arnoglossum plantagineum*) and common valerian (*Valeriana edulis* var. *ciliata*). The large, deeply cut leaves are those of compass plant, a species typically found in uplands but in this case is part of a hydrophytic plant community, although it is stunted and not flowering. Active management, including prescribed burns, is employed to maintain this prairie.

**SOILS:** Tripoli silty clay (Typic Endoaquolls), poorly drained soils that formed on nearly level or slightly concave positions on dissected till plains of low relief on the Iowan Erosion Surface.

**HYDROLOGY:** These soils are frequently saturated at the soil surface to a depth of 12 inches during the wettest portions of the growing season. Both perched and apparent saturation can occur depending upon precipitation frequency and intensity during a given time period.

**LOCATION:** Iron Horse Prairie Scientific and Natural Area, Dodge County, Minnesota.

## WET TO WET-MESIC PRAIRIES



© Photos by Steve D. Eggers

### PRAIRIE CORD-GRASS

(*Spartina pectinata* Link)

**GRASS FAMILY** (Gramineae or Poaceae)

**C of C:** Native (5)

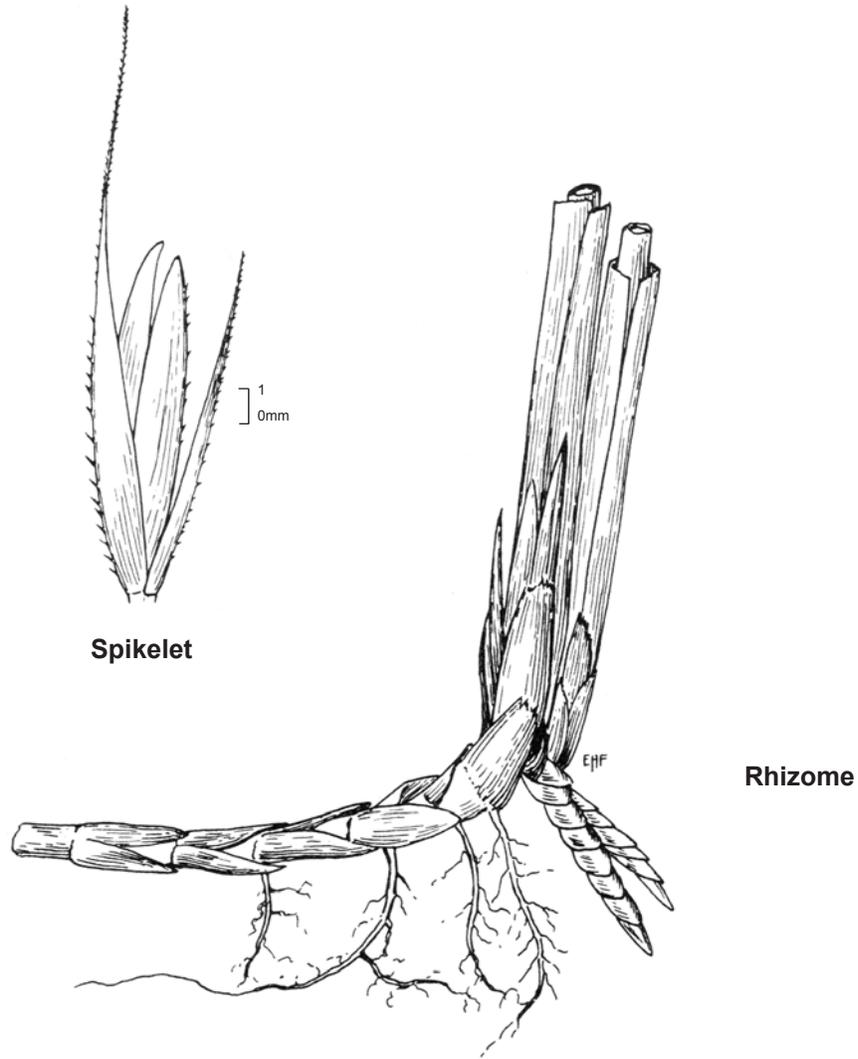
**IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A coarse, densely clonal, perennial grass 1-2 m. high. The stout, smooth, erect stems have short ligules. The monotypic clones are 1-10 m. across. It forms a dense mass of stout, scaly rhizomes. The main leaf blades are shiny, long, and flat, between 5-10 mm. wide, and up to 1 m. long. The leaves may be inrolled, but only when dry. The margins of the leaf blades are strongly roughened. Arching leaves turn red to light straw yellow in fall. The inflorescence is a panicle with numerous, distinct one-sided spikes 5-12 cm. long. Spikelets are one-flowered, 8-11 mm. long, overlay, and ascending or lying flat, resembling a comb. They are also articulated below the glumes. The glumes are unequal in size. The first glume is three-fourths as long as, to equal to, the length of the lemma. The second glume is awned.

**ECOLOGICAL NOTES:** Prairie cord-grass is the characteristic, dominant grass of wet prairies. It occasionally occurs in mesic prairies, but usually in low spots. It is also found on wet shores and in shallow marshes.

**SOURCE:** Fassett (1951); Gleason and Cronquist (1991); and Swink and Wilhelm (1994).

WET TO WET-MESIC PRAIRIES



**Prairie Cord-Grass**  
(*Spartina pectinata*)

Illustrations by Elsie Froeschner (Pohl 1966).

## WET TO WET-MESIC PRAIRIES



© Photos by Steve D. Eggers

### BIG BLUESTEM

(*Andropogon gerardii* Vitman)

**GRASS FAMILY** (Gramineae or Poaceae)

**C of C:** Native (4)

**IND. STATUS:** FAC

**FIELD CHARACTERISTICS:** A perennial, sod-forming grass 1-3 m. high with stout stems. Leaf blades are 5-10 mm. wide. The inflorescence contains 2-10 finger-like racemes with two types of spikelets: perfect, stalkless spikelets and staminate, stalked spikelets. Both types of spikelets resemble each other in size and shape, and occur in pairs at the joints of the principal axis. The twisted, fertile spikelet awn is 8-15 mm. long. The principal axis and flower stalk joints are equal. The leaves and stems turn bright yellow, red, orange or purple in the fall, and some color persists inside the stem leaf sheaths into the spring.

**ECOLOGICAL NOTES:** Big bluestem is a facultative species that occurs across the moisture gradient of dry-mesic to wet prairies. It reaches its optimum presence in mesic prairies where it is a dominant grass. Big bluestem occurs in calcareous fens, although it is typically stunted in such wet habitats. Turkey foot is another common name given the outline of the inflorescence (see ink drawing).

**SOURCE:** Fassett (1951); Gleason and Cronquist (1991); and Swink and Wilhelm (1994).



**Big Bluestem**  
(*Andropogon gerardii*)

Illustration is from Hitchcock (1950).

## WET TO WET-MESIC PRAIRIES



© Photos by Steve D. Eggers

### SWITCH GRASS

(*Panicum virgatum* L.)

**GRASS FAMILY** (Gramineae or Poaceae)

**C of C:** Native (2)

**IND. STATUS:** FAC

**FIELD CHARACTERISTICS:** A stout, perennial, sod-forming grass up to 2 m. tall from scaly rhizomes. The firmly erect, hollow stems are essentially smooth, but pubescent at the nodes. Leaf blades are flat to somewhat inrolled along the margins and up to 15 mm. wide. Ligules are a dense fringe of hairs 2-4 mm. in length. A patch of white hairs occur in the angles between the stem and leaf (axils) near the ligule. Inflorescence is a terminal, open, spreading panicle 2-3 times as long as wide. One-flowered spikelets are ovoid and set on long pedicels that are smooth and 3-6 mm. long.

**ECOLOGICAL NOTES:** A common, distinctive grass of wet to mesic prairies. It also occurs in interdunal swales and flats on moist to seasonally wet sands and sandy loams.

**SOURCE:** Fassett (1951); Gleason and Cronquist (1991); Swink and Wilhelm (1994); and Voss (1972).



**Switch Grass**  
(*Panicum virgatum*)

Illustration is from Hitchcock (1950).



Illustration is from Hitchcock (1950).

## NARROW REEDGRASS

(*Calamagrostis stricta* (Timm) Koeler)

**GRASS FAMILY** (Gramineae or Poaceae)

**IND. STATUS:** FACW

**SYNONYM:** *Calamagrostis inexpansa* A. Gray

**C of C:** Native (7), see Ecological Notes

**FIELD CHARACTERISTICS:** A perennial grass 50-100 cm. high. Slender, erect stems are hollow and arise from rhizomes. The mature, slender leaf (less than 4 mm. wide) margins tend to be rolled inward. A distinct, thin, membranous structure (the ligule) extends beyond the summit of the sheath. The ligule of the upper most leaf is between 2.5-8 mm. long (usually about 4 mm.). The inflorescence is an erect, spike-like panicle of ascending branches that are obscured by the crowded spikelets; the panicle is referred to as strict (compact and narrow) hence its scientific name. A single, short, delicate, and straight to twisted awn arises from toward base of the lemma. A slightly more robust plant than Canada blue-joint grass (*C. canadensis*).

**ECOLOGICAL NOTES:** Narrow reedgrass is a common species of wet prairies and calcareous fens in Minnesota and westward. In Wisconsin, *C. stricta* is an infrequent grass of moist to wet peaty, sandy or marly soils of lake shores, marshes, bogs, interdunal flats and swales, and inland fresh meadows. It tends to occur in slightly drier habitats than Canada blue-joint grass. Two subspecies, *inexpansa* and *stricta*, occur in Minnesota and Wisconsin. Both are listed as being of special concern in Wisconsin while in Minnesota *C. stricta* ssp. *inexpansa* is listed as special concern.

**SOURCE:** Crow and Hellquist (2000); Fassett (1951); Gleason and Cronquist (1991); Swink and Wilhelm (1994); and Voss (1972).



© Photos by Steve D. Eggers

**Narrow Reedgrass**  
(*Calamagrostis stricta*)

## WET TO WET-MESIC PRAIRIES



### **BUXBAUM'S SEDGE** (*Carex buxbaumii* Wahlenb.)

**SEDGE FAMILY** (Cyperaceae)

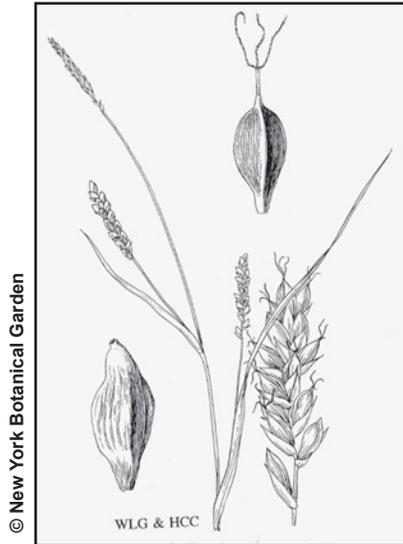
**C of C:** Native (8)

**IND. STATUS:** OBL

**FIELD CHARACTERISTICS:** A very distinctive perennial sedge with stems arising singly, or a few together, from long rhizomes. Stems are 30-100 cm. tall. Sheaths and leaf blades are glabrous. Basal sheaths break down into filamentous fibers with age. Purple dots may be observed with a hand lens toward the base of the basal sheaths. Leaves are 2-4 mm. wide and have a bluish tinge in the spring. Erect spikelets, 2-5, are short stalked. The terminal spikelet is 1-3 cm. long and supports both staminate and pistillate flowers. Lateral spikelets are all pistillate. The bract subtending the lowest spikelet is sheathless. Perigynia are subtended by lance-shaped scales that are brown to purplish-black along the margins with a paler mid-rib. The 0.5-3 mm. scales surpass the perigynia tapering to an awn. Oval perigynia are 2.7-4.3 mm. long by 1.5-2 mm. wide, glabrous, and gray-green to whitish. The beak is very short or lacking.

**ECOLOGICAL NOTES:** Buxbaum's sedge prefers calcareous soils. It is often found in minerotrophic bogs, shallow marl beds, shores, calcareous fens and wet prairies.

**SOURCE:** Gleason and Cronquist (1991); McGregor *et al.* (1991); Swink and Wilhelm (1994);



## COMMON STIFF SEDGE

(*Carex tetanica* Schkuhr)

**SEDGE FAMILY** (Cyperaceae)

**C of C:** Native (9)

**IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial sedge forming small clumps and having stems 20-60 cm. tall. The blue-green leaf blades are flat, (1.5)2-4.5(5) mm. wide with lower leaf sheath brownish to occasionally reddish to purplish tinged. Leaf blades are typically shorter than the stems. The terminal spikelet is staminate and on an elongated peduncle that greatly exceeds the pistillate spikelets (see ink drawing). Pistillate spikelets (1-3) are erect on slender peduncles and are 7-40 mm. long. The distinctive pistillate scales are brown to purple-tinged with green centers and hyaline margins. The essentially beakless perigynia are 2.5-3.5 mm. long, ascending, and have minute nipple-like projections on the surface. The nutlets are light to dark brown and less than 1.7 mm. wide.

Very similar to the *Carex meadii* of upland prairies, whose mature nutlets are 1.8-2.2 mm. wide and have perigynia more than 3.5 mm. long.

**ECOLOGICAL NOTES:** Common stiff sedge prefers wet prairies and calcareous fens (in the eastern U.S. it is known as fen sedge), and also occurs in other inland fresh meadow types.

**SOURCE:** Fassett (1976); Gleason and Cronquist (1991); Swink and Wilhelm (1994); and Voss (1972).

## WET TO WET-MESIC PRAIRIES



© Photos by Steve D. Eggers

### GAYFEATHER

(*Liatris pycnostachya* Michx.)

**ASTER FAMILY** (Compositae or Asteraceae)

**C of C:** Native (7)

**IND. STATUS:** FAC

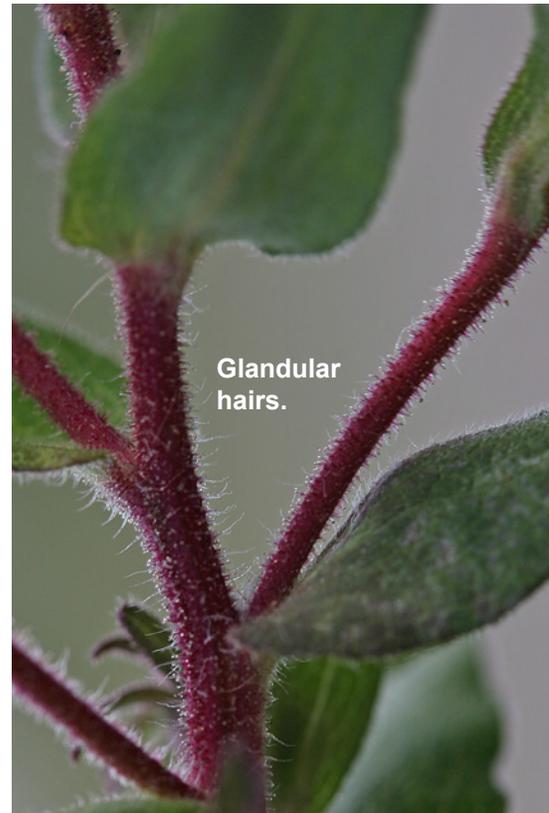
**FIELD CHARACTERISTICS:** A perennial herb 60-150 cm. high. The stems are hairy with numerous, essentially linear leaves. The leaves are gradually reduced upwards on the stem. The sessile, disc-like flower heads are crowded (usually more than 29 heads) on a spike. Each head usually contains 5-7 perfect tubular flowers. Ray flowers are absent. The modified leaves (involucral bracts) subtending the flowers taper to a long point and are bent back or spreading. Flowers are pink-purple, occasionally white, and in bloom from July to mid-September.

**ECOLOGICAL NOTES:** Gayfeather, also known as prairie blazing star, is largely restricted to wet and wet-mesic prairie remnants in Minnesota and Wisconsin, and some calcareous fens. It is similar to marsh blazing star (*Liatris spicata*), which has smooth stems and appressed involucral bracts.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).



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## NEW ENGLAND ASTER

(*Symphotrichum novae-angliae* (L.) G.L. Nesom)

**ASTER FAMILY** (Compositae or Asteraceae)    **C of C:** Native (3)    **IND. STATUS:** FACW

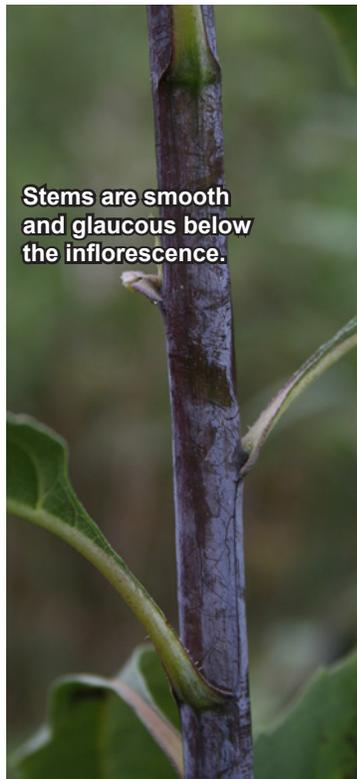
**SYNONYM:** *Aster novae-angliae* L.

**FIELD CHARACTERISTICS:** A perennial herb with clustered stems 30-200 cm. high. The plant is often covered with glandular hairs (use a 10-15x lens). The lance-shaped leaves are entire, have no stalks, and are conspicuously lobed clasping. Lower and upper leaves are similar but the lower leaves tend to be deciduous. The leafy inflorescence consists of several flowering heads. The flower stalks, and modified leaves subtending the flowers, have hairy glands. Both ray and disc flowers are present. The numerous, slender ray flowers are amethyst to rosy, rarely blue or white in color, while the distinctive disc flowers are yellow to yellow-orange. The nutlets are densely covered with stiff, appressed to silky, hairs. In flower from the end of July through October. Refer to Appendix B for a key to wetland asters.

**ECOLOGICAL NOTES:** New England aster is a common aster of wet to wet-mesic prairies. It also occurs in other inland fresh meadows, as well as upland sites such as old fields and moist, open woods. Slight disturbances often benefit this aster.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).

## WET TO WET-MESIC PRAIRIES



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### SAWTOOTH SUNFLOWER

(*Helianthus grosseserratus* Martens)

**ASTER FAMILY** (Compositae or Asteraceae)

**IND. STATUS:** FACW

**C of C:** Native (3 MN) (2 WI)

**FIELD CHARACTERISTICS:** A perennial herb 1-4 m. high. The coarse, woody, tuberous roots are in a tight cluster up to 5 cm. long and 1 cm. or more thick, with elongate rhizomes. The stems are essentially without hairs below the inflorescence, often with a white, waxy bloom (glaucous) as shown in the photograph above. Basal leaves are absent or inconspicuous. Well-developed, alternate, stem leaves occur on the middle to upper stem. The sharply toothed, lanceolate leaves are densely hairy below and are often supported by winged leaf stalks. Both ray and disc flowers are present. The conspicuous, yellow ray flowers are deciduous and sterile. The disc flowers are perfect, fertile, and have yellow petals. In flower July-October.

Only two of the native, perennial sunflowers of Minnesota and Wisconsin have alternate leaves: this one and giant sunflower (*H. giganteus*).

**ECOLOGICAL NOTES:** Sawtooth sunflower is a common sunflower of wet to wet-mesic prairies and other inland fresh meadows. It also occurs along disturbed streambanks and in old fence rows.

**SOURCE:** Gleason and Cronquist (1993); and Swink and Wilhelm (1994).



© Photos by Steve D. Eggers

**GIANT SUNFLOWER**  
(*Helianthus giganteus* L.)

**SUNFLOWER FAMILY** (Compositae or Asteraceae) **C of C:** Native (4) **IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial, rhizomatous herb 1-3 m. high with thickened, fleshy roots. The often purplish stems have spreading hairs below the inflorescence, which sometimes may be scattered. Lower leaves tend to be opposite becoming alternate on the upper stem. The lanceolate leaves are usually less than 3.5 cm. wide, range from strongly toothed to subentire, and taper to short petioles. Upper leaf surfaces are rough, while the lower leaf surfaces have long hairs (1 mm. or more). Both ray and disc flowers are present. The conspicuous yellow ray flowers (12-20) are deciduous and sterile. Disc flowers are perfect, fertile, and have yellow lobes. In flower July-October. This sunflower is a very variable species, often confused with *Helianthus grosseserratus*, with which it hybridizes.

**ECOLOGICAL NOTES:** Giant sunflower is characteristic of wet prairies and also occurs in a variety of other wet, sunny sites. It occasionally occurs in shaded floodplain forests and swamps. This sunflower seems to prefer calcareous soils.

**SOURCE:** Gleason and Cronquist (1991); Swink and Wilhelm (1994); and Voss (1996).



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## RIDDELL'S GOLDENROD

(*Solidago riddellii* Frank)

**ASTER FAMILY** (Compositae or Asteraceae)

**C of C:** Native (7)

**IND. STATUS:** OBL

**FIELD CHARACTERISTICS:** A perennial herb 40-100 cm. high. Leaves of the lower and upper stem are dissimilar, the lower or basal leaves being better developed and usually persistent. Leaves are sickle-shaped, folded, triple nerved, and not dotted with glands. Leaves are persistent up to flowering time. The inflorescence is a flat-topped, hairy corymb. Flowers are yellow. In flower from September to early November.

Riddell's goldenrod can be confused with Ohio goldenrod (*Oligoneuron ohioense*) [page 239], which occurs in similar habitats in Wisconsin. Ohio goldenrod leaves are flat and not triple-nerved and its inflorescence is hairless. Refer to Appendix A for a key to wetland goldenrods.

**ECOLOGICAL NOTES:** Riddell's goldenrod is characteristic of wet to wet-mesic prairies supported by groundwater seepages. It also occurs, to a lesser extent, on wet shores and in calcareous fens.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).



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## SNEEZEWEED

(*Helenium autumnale* L.)

**ASTER FAMILY** (Compositae or Asteraceae)      **C of C:** Native (4)      **IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial herb 30-150 cm. high. The stems are usually winged with well-developed, alternate, flat, stem leaves. The leafy inflorescence contains several heads of both ray and disc flowers. The flower head contains perfect, yellow flowers. The yellow, "squared-off" ray flowers tend to be sterile and are generally 3-toothed. The diagnostic features of sneezeweed are its winged stems and bent back ray flowers with 3 teeth. In flower August-October.

**ECOLOGICAL NOTES:** Sneezeweed is common in wet to wet-mesic prairies and other inland fresh meadows. It is often seen along streambanks.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).

## WET TO WET-MESIC PRAIRIES



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### CUP-PLANT

(*Silphium perfoliatum* L.)

**ASTER FAMILY** (Compositae or Asteraceae)      **C of C:** Native (4)      **IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A large, robust, perennial herb 1-2.5 m. tall with square stems. Leaves are opposite, perfoliate (stem appears to pierce the leaves), coarsely-toothed, 8-30 cm. long by 4-15 cm. wide. Flower heads with a disk 1.5-2.5 cm. wide and ray flowers numbering 16-35. Rays are yellow and 1.5-2 cm. long. In flower July-September.

**ECOLOGICAL NOTES:** Cup-plant is an easy to identify, common forb of wet to wet-mesic prairies, calcareous fens and streambanks.

**SOURCE:** Gleason and Cronquist (1991); Chadde (2011); and Black and Judziewicz (2009).

## WET TO WET-MESIC PRAIRIES



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### PRAIRIE DOCK

(*Silphium terebinthinaceum* Jacq.)

**ASTER FAMILY** (Compositae or Asteraceae)

**C of C:** Native (7)

**IND. STATUS:** [FAC]

**FIELD CHARACTERISTICS:** A coarse, perennial herb 50-300 cm. high. The essentially hairless stems support reduced stem leaves. The huge (to 40 cm. wide) principal leaves are essentially basal, rough, sharply toothed, heart-shaped to oblong, and supported by long leaf stems. Leaves are often oriented edgewise to the south or southwest. The inflorescence is open and resembles a corymb with both ray and disc flowers present. The conspicuous, yellow ray flowers have pistils and are fertile, while the disc flowers are sterile. The ray flower nutlets are flattened and winged along their margins. In flower from the end of June through September.

**ECOLOGICAL NOTES:** Prairie dock occurs in wet-mesic to dry-mesic prairies and infrequently in dry prairies and oak openings.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).

## WET TO WET-MESIC PRAIRIES



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### IRONWEED

(*Vernonia fasciculata* Michx.)

**ASTER FAMILY** (Compositae or Asteraceae)

**C of C:** Native (5)

**IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial herb with often red or purple stems 30-140 cm. in height. Leaves are 7-17 cm. long, alternate, sharply dentate, glabrous, and conspicuously punctate beneath. Inflorescence is usually flat-topped, dense, and 4-10 cm. wide. Flowers consist of disc flowers that are purple with 10-26 per head, with an involucre 5-9 mm. long. In flower July-September.

**ECOLOGICAL NOTES:** Ironweed occurs primarily in wet to wet-mesic prairies.

**SOURCE:** Gleason and Cronquist (1991); and Black and Judziewicz (2009).

## WET TO WET-MESIC PRAIRIES



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### **BOTTLE GENTIAN**

(*Gentiana andrewsii* Griseb.)

**GENTIAN FAMILY** (Gentianaceae)

**C of C:** Native (6)

**IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial herb with unbranched, smooth stems 20-80 cm. in height. Leaves are simple, opposite, lanceolate and 4-12 cm. long by 1-3 cm. wide. Blue (sometimes white) flowers 3-5 cm. long are in terminal clusters and sessile in upper leaf axils. Sepals form a tube around the petals. Flowers usually remain closed. Petals, sepals and leaves have a fringe of tiny hairs (use 10x lens). Fruit is a capsule. In flower August-September.

**ECOLOGICAL NOTES:** Bottle gentian is most frequently encountered in wet to wet-mesic prairies, but also occurs in wet meadows and openings in hardwood swamps.

**SOURCE:** Gleason and Cronquist (1991); and Black and Judziewicz (2009).

**WESTERN PRAIRIE FRINGED ORCHID**

(*Platanthera praeclara* Shev. & Bowles)

**ORCHID FAMILY** (Orchidaceae)

**IND. STATUS:** [FACW]

**C of C:** Native (10); Federally threatened and listed as endangered by Minnesota

**SYNONYM:** *Habenaria leucophaea* (Nutt.) A. Gray var. *praeclara* (Sheviak & Bowles) Cronq.

**FIELD CHARACTERISTICS:** Perennial herb 40-100 cm. tall. Lower leaves are lance-like to broadly linear and 10-20 cm. long. Upper leaves are much reduced. Spike is cylindric, 8-20 cm. tall and 5-7 cm. wide. Sepals oval to obovate, 7-13 mm. Petals toothed, slightly longer than sepals. Lip 14-27 mm., deeply 3-lobed, long-fringed. Spur is 25-60 mm. long. In bloom late June to early July.

The very similar eastern prairie fringed orchid, *P. leucophaea*, has been segregated from *P. praeclara* by flower size and morphology, and largely occurs east of the Mississippi River.

Ragged fringed orchid (*P. lacera*) is also similar, but is not as tall and has a smaller lip (no more than 15 mm. long) and shorter spur (less than 20 mm. long).

**ECOLOGICAL NOTES:** Western prairie fringed orchid is found in sedge meadows and wet to wet-mesic prairies, especially those that are calcareous or subsaline. The nearly total loss of its habitat has resulted in listing western prairie fringed orchid as a threatened species under the Endangered Species Act (ESA), and endangered under Minnesota state law. The eastern prairie fringed orchid occurs in Wisconsin and is similarly listed as threatened by the ESA and endangered by the State of Wisconsin. Report any sightings to the U.S. Fish and Wildlife Service or state department of natural resources. Do not disturb!

**SOURCE:** Gleason and Cronquist (1991); Smith (1993); Coffin and Pfannmuller (1988); and Great Plains Flora Association (1991).



© Steve D. Eggers

**Western Prairie Fringed Orchid**  
(*Platanthera praeclara*)

## WET TO WET-MESIC PRAIRIES



© Photos by Steve D. Eggers

### COMMON MOUNTAIN MINT

(*Pycnanthemum virginianum* (L.) Durand and Jackson)

**MINT FAMILY** (Labiatae or Lamiaceae)

**C of C:** Native (6)

**IND. STATUS:** FACW

**FIELD CHARACTERISTICS:** A perennial, aromatic (minty fragrance) herb 20-40 cm. high with square stems and opposite leaves. The stems are hairy along the angles. Leaves are lance-linear, entire, smooth above, and usually average less than 6 mm. wide. The outermost modified leaves of the inflorescence are leafy and essentially hairless above. The midvein of modified leaves of the inflorescence is not prominent. The triangular-shaped calyx lobes are less than 1 mm. long, and thus are shorter than the calyx tube. The inflorescence contains four or more flowers in dense, button-like cymes that terminate the stems and branches. Each white flower contains four stamens. In flower from the end of June to the beginning of October.

**ECOLOGICAL NOTES:** This mint is common in wet to wet-mesic prairies and calcareous fens. It occasionally occurs in dry prairies and open, upland forests. Common mountain mint may persist when other prairie species are eliminated by grazing.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).



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## CULVER'S ROOT

(*Veronicastrum virginicum* (L.) Farw.)

**FIGWORT FAMILY** (Scrophulariaceae)

**C of C:** Native (6)

**IND. STATUS:** FAC

**FIELD CHARACTERISTICS:** An erect, perennial herb 80-200 cm. high. The narrow, finely serrated leaves occur in whorls of 3-7 around the stem. Both stem and basal leaves are present. The showy inflorescence is erect with slender, terminal, spike-like racemes. The conspicuous stamens are crowded and protrude in a brush-like fashion perpendicular to the raceme. The white corollas are usually not much over 2 mm. in length. In flower from mid-June through August.

**ECOLOGICAL NOTES:** Culver's root is a frequent herb of wet to wet-mesic prairies. It is occasionally found on upland sites such as sand prairies and openings in mesic forests.

**SOURCE:** Gleason and Cronquist (1991); and Swink and Wilhelm (1994).



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## PRAIRIE LOOSESTRIFE

(*Lysimachia quadriflora* Sims)

**PRIMROSE FAMILY** (Primulaceae)    **C of C:** Native (8 MN)(9 MN)    **IND. STATUS:** OBL

**FIELD CHARACTERISTICS:** A perennial herb with stems 30-100 cm. in height. Leaves linear, 3-8 cm. by 2-7 mm., the margins smooth, revolute, tapering to a sessile base. Flowers in terminal clusters on the stem and branches. Corolla lobes 7-12 mm. by 5-9 mm. In flower July-August.

**ECOLOGICAL NOTES:** Prairie loosestrife primarily occurs in wet to wet-mesic prairies.

**SOURCE:** Gleason and Cronquist (1991); and Black and Judziewicz (2009).

## WET TO WET-MESIC PRAIRIES



Fruit is an elongate pod (10-15 cm.).



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### CLASPING DOGBANE

(*Apocynum sibiricum* Jacq.)

**DOGBANE FAMILY** (Apocynaceae)

**C of C:** Native (3)

**IND. STATUS:** FAC

**FIELD CHARACTERISTICS:** A perennial herb erect to 0.5-1.5 m. or can be drooping. Leaves opposite, oval, sessile, cordate, broadly clasping at the base. Leaves and stem have milky juice. Corolla greenish-white or pale yellow, cylindric, 3-6 mm. long. Fruit is a long, narrow pod 10-15 cm. long. In flower May-September.

**ECOLOGICAL NOTES:** Clasp dogbane primarily occurs in wet to wet-mesic prairies.

**SOURCE:** Gleason and Cronquist (1991); and Black and Judziewicz (2009).



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## WINGED LOOSESTRIFE

(*Lythrum alatum* Pursh)

**LOOSESTRIFE FAMILY** (Lythraceae)

**C of C:** Native (6)

**IND. STATUS:** OBL

**FIELD CHARACTERISTICS:** A perennial herb 40-80 cm. tall with 4-angled stems. Leaves are sessile with bases rounded to subcordate, overall leaf shape linear-oblong to lance-ovate, usually only the lowest leaves are opposite. Leaves below the branches are up to 4 cm. long while leaves of the branches are smaller and narrower. Flowers are solitary in leaf axils with purple, obovate petals 2-6 mm. long. In contrast, the flowers of purple loosestrife (*L. salicaria*) are packed into dense spikes 10-40 cm. in length. The fruit of winged loosestrife is a capsule enclosed by the sepals. In flower June-August.

**ECOLOGICAL NOTES:** Winged loosestrife occurs in wet to wet-mesic prairies, calcareous fens, marshes and along lakeshores.

**SOURCE:** Gleason and Cronquist (1991); Chadde (2002); and Black *et al.* (2009).