



United States Department of Agriculture

# Important Plants of the Monarch Butterfly (*Danaus plexippus*)



An Appendix to the USDA-Natural Resources Conservation Service  
Wildlife Habitat Evaluation Guide and Planning Tool - Midwest Edition

*Helping People Help the Land*

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

Mail: U.S. Department of Agriculture  
Office of the Assistant Secretary for Civil Rights  
1400 Independence Avenue, SW  
Washington, D.C. 20250-9410;  
Fax: (202) 690-7442; or  
Email: [program.intake@usda.gov](mailto:program.intake@usda.gov).

USDA is an equal opportunity provider, employer, and lender.

Cover: Photos courtesy of Ellen Starr, Princeton, IL.



## Preface

The Monarch Wildlife Habitat Evaluation Guide (WHEG) is used by NRCS staffs as a planning tool to evaluate current habitat conditions at the assessment area scale, not at the farm or ranch scale. Following the assessment, a rating (poor, medium, good or excellent) is assigned to each assessment area.



NRCS photo by Gene Barickman

The ratings (*benchmark monarch habitat conditions rating*) are used to recommend monarch habitat improvement alternatives for each assessment area, and to predict improvement of habitat following implementation of alternatives (*planned monarch habitat conditions rating*). The WHEG can also be applied to areas after conservation practice installation to determine gains in habitat condition (*applied monarch habitat condition rating*).

An essential function of the Monarch WHEG is inventorying the current plant community. The proper identification of key monarch plant species is required when inventorying vegetation within the belt transect, and to determine planting success. In this appendix there are three different technical support documents to assist staff in Iowa, Illinois, Indiana, Minnesota, Missouri, Ohio and Wisconsin in making these informed decisions.

- Monarch Planting List of key plant species for establishing quality monarch habitat
- Monarch WHEG List for inventorying the existing plant community
- Plant Identification Guide for identifying key plants on the lists

*This page intentionally left blank*



# Table of Contents

<b>Introduction .....</b>	<b>1</b>
<b>Monarch Planting List.....</b>	<b>5</b>
<b>Monarch WHEG List .....</b>	<b>8</b>
<b>Plant Identification Guide:.....</b>	<b>10</b>
Baldwin’s ironweed .....	10
bearded beggarticks .....	12
blackeyed Susan .....	14
blacksamon echinacea .....	16
blue mistflower.....	18
butterfly milkweed .....	20
button eryngo/rattlesnake master .....	22
Canada goldenrod .....	24
cheerful sunflower .....	26
common blue wood aster.....	28
common boneset .....	30
common milkweed .....	32
common sunflower .....	34
compassplant .....	36
Culver’s root .....	38
cup plant.....	40
dense blazingstar.....	42
devil’s bite.....	44
dotted blazing star.....	46
downy pagoda-plant.....	48
Dutchman’s breeches .....	50
dwarf larkspur .....	52
eastern bluestar.....	54
eastern purple coneflower .....	56
fall phlox .....	58
false boneset .....	60
field thistle.....	62
Flodman’s thistle .....	64
giant sunflower.....	66
gray goldenrod .....	68
great blue lobella.....	70
hairy pagoda-plant .....	72
hairy white oldfield aster.....	74
hemlock waterparsnip.....	76
hoary puccoon.....	78
hoary verbena .....	80
indianhemp .....	82
Jerusalem artichoke.....	84
late-flowering thoroughwort.....	86
leadplant .....	88
Maximillian sunflower .....	90
New England aster .....	92

## Table of Contents continued

northern dewberry .....	94
obedient plant .....	96
Ontario blazing star .....	98
oval-leaf milkweed .....	100
pale purple coneflower .....	102
paleleaf woodland sunflower .....	104
parasol whitetop .....	106
prairie blazing star .....	108
prairie ironweed .....	110
prairie milkweed.....	112
purple milkweed.....	114
Rocky Mountain blazing star .....	116
sawtooth sunflower.....	118
showy goldenrod .....	120
showy milkweed.....	122
skyblue aster .....	124
smooth beggarticks .....	126
smooth blue aster .....	128
smooth oxeye .....	130
smooth phlox.....	132
soft-hair marbleseed .....	134
spotted beebalm .....	136
spotted Joe Pye weed.....	138
stiff goldenrod .....	140
stiff sunflower.....	142
stiff tickseed .....	144
swamp milkweed.....	146
swamp thistle .....	148
sweetscented Joe Pye weed .....	150
tall blazing star .....	152
tall thoroughwort .....	154
tall tickseed .....	156
trumpetweed .....	158
turk’s cap lily.....	160
two-flower dwarf dandelion.....	162
Virginia bluebells .....	164
white doll’s daisy .....	166
white prairie clover.....	168
wholeleaf rosinweed .....	170
whorled milkweed.....	172
wild bergamont .....	174
wild blue phlox .....	176
yellow giant hyssop .....	178
<b>Photo Credits/Credits .....</b>	<b>180</b>



# Introduction

A proper understanding of the breeding and feeding behaviors of larval and adult monarch butterflies (*Danaus plexippus*) is essential to conducting an evaluation of monarch habitat. The data obtained during the application of the Monarch Butterfly Wildlife Habitat Evaluation Guide (WHEG) will be used to develop habitat development alternatives for eventual presentation to the decision-maker. The information offered here will assist in steps 3-6 of the NRCS Conservation Planning process (NRCS 2014).

- Step 3: Inventory Resources
- Step 4: Analyze Resource Data
- Step 5: Formulate Alternatives
- Step 6: Evaluate Alternatives



Photo: Anne Stine, Xerces Society

Figure 1: Monarch butterfly nectaring on blue mistflower (*Conoclinium coelestinum*) in McAllen, TX

**Host Plant Selection:** Gravid monarch females are selective, preferring younger and more nutrient rich plants for milkweed plants for egg laying. (Fischer et al. 2015). Gravid females lay between 300-700 eggs over a 3-5 week period. Seldom does a single female lay more than 1-2 eggs on a single plant. This behavior assures enough plant biomass for the larva to complete the pupa stage. Some suggest that observation of multiple eggs and larva on a single plant is an ecological indicator that the site (and adjacent habitats) are deficient in adequate milkweeds. If adequate milkweed is available, a single gravid female monarch will typically require as many 300 - 400 milkweed plants for egg-laying. Survival rate to the 5<sup>th</sup> instar in the Midwest have been documented to be less than 10% (Borkin 1982; Prysby and Oberhauser 2004). Considering egg laying behavior and mortality, it can be estimated that 20-40 plants may be required for each gravid female to raise her surviving larvae to the 5<sup>th</sup> instar.

**Monarch Larvae Feeding Behavior:** Immature, free-living instars (caterpillars) of the monarch butterfly are obligate specialists on the leaves of some species of milkweed, primarily within the genus *Asclepias*. The process from egg hatch until the development of the pupa (cocoon or chrysalis), the period when the monarch is a caterpillar, includes 5 instars (molts) and requires from 8-15 days. It is through this ingestion of milkweed foliage as larvae that monarch butterflies gain the toxic cardenolides which deter predation (Roeske et al. 1976) by birds and mammals. First instars feed by consuming the egg casing, then they begin to feed on the surface of the under leaf of the host milkweed. This feeding activity by the 1<sup>st</sup> instars is evidenced by shallow feeding grooves, often in small circular patterns. As the larva increases in size (facilitated by molting) the grooves become deeper, until the larva creates a hole in the leaf that is often arc-shaped but may be circular or oval. Older larva (3<sup>rd</sup>- 5<sup>th</sup> instars) feed by consuming

the leaf in “bites”. Larvae damage or sever leaf veins, slowing or prohibiting supply of the milky sap (latex). It is proposed that this feeding behavior reduces the supply of latex to leaf; thereby improving foraging efficiencies and increasing survival (Zaluski et al. 2001). As the larva increases in age, the entire leaf is commonly consumed. The accumulation of black frass (excrement) on lower leaves and the ground provides evidence of a feeding monarch larva.

Adult Monarch Feeding Behavior: Non migrating adults live from 2- 5 weeks. Monarchs will commonly produce 2-3 generations in the Midwest. Adult monarchs rely on high-quality floral nectar to meet their energy requirements. Monarchs feed by rolling out their proboscis (long flexible straw) to extract nectar from the flower (Kreen 2010). A feeding monarch perches on a flower and then moves their proboscis around, finding nectar from different locations (Figure 1). For this reason, monarchs prefer plants that have relatively flat surfaces (sunflowers) or long multi-flowering inflorescences (gayfeather), where the nectar is easily accessed. In reviewing the two plant lists provided in this document, the user will find many species in the Asteraceae family (sunflower family). Common characteristics of this family include clusters of flowers with shallow, easily accessed nectar. In contrast, deep tubular flowers such as honeysuckles (*Lonicera* spp.) and many legumes are not used by monarchs. Milkweeds are excellent nectar sources.

Migration and Nectaring: In the fall, eastern U.S. monarchs (*Danaus plexippus*) in the Midwest begin the long migration from their natal range to their overwintering locations in Mexico (Brower 1995). In many ways, the biology of this migration remains a mystery, but many theorize that they accomplish long distance travel by catching air currents and riding thermals using the soaring/gliding approach common to many other long distance migrants (Gibo and Palette 1979). Brower et al. (2006) suggests that monarchs do not prepare for this long migration by storing energy (lipids), as these lipids would increase body mass and reduce flight efficiency. Rather, they consume only enough nectar to support the migration. As they near the overwintering locations in Mexico, they increase lipid consumption to build the energy reserves essential for their long dormant period (November-March) when they are exposed to cold and wet conditions but do not feed. Accordingly, late-season nectar sources of the southern Great Plains are considered of critical importance for wintering survival (Brower et al. 2006), but less so in the Midwest. However, recent land use conversion from grasslands to cropland in the Midwest (Wright and Wimberly 2013), may be impacting availability of nectaring resources for monarchs.

Milkweeds of the Midwest: There are many milkweeds (*Asclepias* spp.) native to the Midwest. The most common species are common milkweed (*Asclepias syriaca*), swamp milkweed (*Asclepias incarnata*), and butterfly milkweed (*Asclepias tuberosa*). Seeds for each of these species are commercially available. Common and swamp milkweed are rhizomatous, while butterfly milkweed is a tap-rooted species. There are obvious advantages to the establishment of rhizomatous species in conservation plantings, and for those reasons these two species should be considered a priority in all planting efforts.

### Trees and Shrubs:

Narrow bands of woody vegetation and edges of forested areas, provided important fall resting sites (micro-climates) for migrating monarchs. Some trees (*Cercis canadensis*) and shrubs (*Cephalanthus occidentalis*, *Baccharis* spp., and *Rhus* spp.) provide excellent nectar sources to the monarch. However, because the primary opportunity for habitat improvement occurs on grasslands in this region, the lists provided in this document are limited to herbaceous species.



Plant Lists and Plant Identification Guide: To assist with the application of the NRCS *Monarch Butterfly WHEG Wildlife Habitat Evaluation Guide and Planning Tool: Midwest Edition*, this document provides two plant species lists and a plant identification guide for use by conservation planners.

- **Monarch Planting List**: The *Monarch Planting List* is used in making planting recommendations for improvement of monarch habitat with the use of an array of national conservation practices [e.g. Conservation Cover (327), Field Boards (386) and Range Seeding (550)]. For all planting recommendations, at least 60% of the seeds in the forb component of the mix should come from this list, and at least 3% of the total seed mix must be *Asclepias* spp.
- **Monarch WHEG List**: The *Monarch WHEG List* is for use by conservation planners in the application of the herbaceous vegetation sampling portion of the *Monarch Butterfly Wildlife Habitat Evaluation Guide - Midwest Edition*. This process requires identifying and inventorying vegetation on assessment areas that support a herbaceous plant community with forbs. Some species on this list are grouped to facilitate a more rapid assessment. For example, there are many species of blazing star, also commonly referred to as gayfeather. These are all in the genus *Liatris*. Identification of *Liatris* to species adds little value to the habitat assessment process. As such they are combined into the *Liatris* group spp.
- **Plant Identification Guide**: The *Monarch Habitat Plant Identification Guide* contains plant identification sheets of species provided on the WHEG and planting lists for the Midwest. The guides are organized alphabetically by common name used by the USDA-NRCS PLANTS Database (<http://plants.usda.gov>).

The species in these plant lists were developed from a review of the literature (see literature cited below) in combination with the reported personal observations of biologists across the nation. These biologists included representatives from The Xerces Society for Invertebrate Conservation (Xerces), US Fish and Wildlife Service, Prairie Haven, Zumbro Valley Audubon, MN Department of Natural Resources, Ernst Conservation Seeds, Great River Greening, among others (please see the acknowledgements for a full list of contributors). Plant species which were reported to be of superlative use to the monarch were rated as “Very High” value, as were plants mentioned in multiple sources as providing nectar to monarchs. Other plant species which were also cited as attractive to monarchs but with less frequency were given the rating of “High” value.

### **Acknowledgements**

We would like to thank the following specialists who contributed records and observations to help the Xerces Society and USDA-NRCS develop this list: Tom Anderson, Wiley Buck (Great River Greening), Wendy Caldwell (Monarch Joint Venture), Marci O’Connor (Prairie Haven), Robert Dana (Minnesota Department of Natural Resources), Joel Dunnette (Zumbro Valley Audubon), Mark Fiely (Ernst Conservation Seeds), Sarah Foltz Jordan, Michelle Garcia, Jennifer Hopwood (Xerces Society), Frank Olsen, Scott Segfreid, Andy Swanson, Ann Swengel, Steve Thomforde (Great River Greening), Karen Viste-Sparkman (Neal Smith National Wildlife Refuge), and Bob Woodward.

**Literature Cited:**

- Borkin, S. S. 1982. Notes on shifting distribution patterns and survival of immature *Danaus plexippus* (Lepidoptera: Danaidae) on the food plant *Asclepias syriaca*. *Great Lakes Entomology* (15) 199-2007.
- Brower, L.P. 1995. Understanding and misunderstanding the migration of the monarch butterfly (Nymphalidae) in North America: 1857-1995. *J. Lepidopterists Soc.* 49: 304-485
- Brower, L. P., L. S. Fink and P. Walford. 2006. Fueling the fall migration of the monarch butterfly. *Integrative and Comparative Biology.* 46 (6): 1123-1142.
- Fischer, S. J., E. H. Williams. L.P. Brower and P. A. Palmiotto. 2015. Enhancing Monarch Butterfly Reproduction by Mowing Fields of Common Milkweed. *The American Midland Naturalist*, 173(2):229-240.
- Gibo D.L. and M. J. Pallet. 1979. Soaring flight of monarch butterflies overwintering in California and Mexico. *J. Lepidopterists Soc.* 43:50-58.
- Krenn, H. W. 2010. "Feeding mechanisms of adult Lepidoptera: structure, function, and evolution of the mouthparts." *Annual review of entomology* 55: 307.
- Prysby, M. and K. Oberhauser. 2004. Temporal and geographical variations in monarch densities: Citizen scientists document monarch population patterns. *The Monarch Butterfly: Biology and Conservation.* pp 39 – 46. Oberhauser K. S. and M. J. Solensky (eds). Cornell University Press, Ithaca, NY.
- Roseske, C. N., J. N. Seiger, L.P. Brower, and C. M. Moffit. 197. Milkweed cardenolides and their comparative processing by monarch butterflies (*Danaus plexippus* L.) *Rec. Adv. Phytochem.* 10:93-167.
- Wright, C. K. and M. C. Wimberly. 2013. Recent land use changes in the Western Corn Belt threatens grassland and wetlands. *Proceedings National Academy of Sciences of the United States.* 110 (10): 4134-4139.
- Zaluski, M. P. L. P. Brower and A. Alonso-M. 2001. Detrimental effects of latex and cardiac glycosides on survival and growth of first-instar monarch butterfly larvae *Danaus plexippus* feeding on the sandhill milkweed *Asclepias humistrata*. *Ecological Entomology.* 26:212-224.

**References used to construct the Monarch WHEG List and the Monarch Habitat Planting List.**

- Holm, H. 2013. Nectar plants for monarch butterflies. Available online at <http://www.beautifulwildlifegarden.com/wp-content/uploads/2013/09/H-Holm-Nectar-Plants-for-Monarchs.jpg>, last accessed 18 May 2015.
- Smart, M., K. Fothergill, and C. D. Crabtree. 2012. Nectar plants utilized by butterflies at Trail of Tears State Park, Missouri. *Midsouth Entomologist* 5: 54-61.
- Swengel, A.B. 1991. Occurrence and behavior of the regal fritillary and prairie skippers in the Upper Midwest, 1990-91 research. Unpublished manuscript.
- Swengel, A.B. 1996. Effects of fire and hay management on abundance of prairie butterflies. *Biological Conservation* 76: 73-85.
- Tooker, J.F., P.F. Reagal, L.M. Hanks. 2002. Nectar sources of day-flying Lepidoptera of Central Illinois. *Annals of the Entomological Society of America* 95(1): 84-96.





Monarch Planting List: Midwest Edition (IA, IL, IN, MN, MO, OH, WI) - Con't

Species name	Common name	Monarch Value	Growth Habit	Bloom (x) Monarch Presence (orange)												Commercially available	
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Seeds	Live Plants			
<i>Eupatorium altissimum</i>	tall thoroughwort	Very High	forb/herb				x	x	x							x	x
<i>Eupatorium perfoliatum</i>	common boneset	High	forb/herb				x									x	x
<i>Eupatorium serotinum</i>	late-flowering thoroughwort	Very High	forb/herb													x	x
<i>Eutrochium fistulosum</i>	trumpetweed	High	forb/herb														x
<i>Eutrochium maculatum</i>	spotted joe pye weed	Very High	forb/herb														x
<i>Eutrochium purpureum</i>	sweetscented joe pye weed	High	forb/herb														x
<i>Helianthus annuus</i>	common sunflower	Very High	forb/herb														x
<i>Helianthus giganteus</i>	giant sunflower	High	forb/herb														x
<i>Helianthus grosseserratus</i>	sawtooth sunflower	Very High	forb/herb														x
<i>Helianthus maximiliani</i>	Maximilian sunflower	High	forb/herb														x
<i>Helianthus pauciflorus</i>	stiff sunflower	High	forb/herb														x
<i>Helianthus strumosus</i>	Paleleaf woodland sunflower	High	forb/herb														x
<i>Helianthus tuberosus</i>	Jerusalem artichoke	High	forb/herb														x
<i>Helianthus xlaetiflorus</i>	cheerful sunflower	High	forb/herb														x
<i>Helioopsis helianthoides</i>	smooth oxeeye	High	forb/herb														x
<i>Krigia biflora</i>	twoflower dwarfdandelion	High	forb/herb														x
<i>Liatris aspera</i>	tall blazing star	Very High	forb/herb														x
<i>Liatris cylindracea</i>	Ontario blazing star	Very High	forb/herb														x
<i>Liatris ligulistylis</i>	Rocky Mountain blazing star	Very High	forb/herb														x
<i>Liatris punctata</i>	dotted blazing star	High	forb/herb														x
<i>Liatris pycnostachya</i>	prairie blazing star	High	forb/herb														x
<i>Liatris scariosa</i>	devil's bite	High	forb/herb														x
<i>Liatris spicata</i>	dense blazing star	High	forb/herb														x
<i>Lilium superbum</i>	turk's-cap lily	High	forb/herb														x
<i>Lithospermum canescens</i>	hoary puccoon	High	forb/herb														x
<i>Lobelia siphilitica</i>	great blue lobelia	High	forb/herb														x
<i>Mertensia virginica</i>	Virginia bluebells	High	forb/herb	x													x
<i>Monarda fistulosa</i>	wild bergamot	High	forb/herb, subshrub														x
<i>Monarda punctata</i>	spotted beebalm	High	forb/herb, subshrub														x
<i>Oligoneuron rigidum</i>	stiff goldenrod	High	forb/herb														x
<i>Onosmodium bejariense</i>	western marbleseed	High	forb/herb														x
<i>Phlox divaricata</i>	wild blue phlox	High	forb/herb	x													x

Monarch Planting List: Midwest Edition (IA, IL, IN, MN, MO, OH, WI) - Con't

Species name	Common name	Monarch Value	Growth Habit	Bloom (x) Monarch Presence (orange)												Commercially available	
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Seeds	Live Plants			
<i>Phlox glaberrima</i>	smooth phlox	High	forb/herb		x											x	x
<i>Phlox paniculata</i>	fall phlox	High	forb/herb														x
<i>Physostegia virginiana</i>	obedient plant	High	forb/herb													x	x
<i>Rubus flagellaris</i>	northern dewberry	High	subshrub														
<i>Rudbeckia hirta</i>	blackeyed Susan	High	forb/herb														x
<i>Silphium integrifolium</i>	wholeleaf rosinweed	High	forb/herb														x
<i>Silphium laciniatum</i>	compassplant	High	forb/herb														x
<i>Silphium perfoliatum</i>	cup plant	High	forb/herb														x
<i>Sium suave</i>	hemlock waterparsnip	High	forb/herb														x
<i>Solidago canadensis</i>	Canada goldenrod	High	forb/herb														x
<i>Solidago nemoralis</i>	gray goldenrod	High	forb/herb														x
<i>Solidago speciosa</i>	showy goldenrod	Very High	forb/herb														x
<i>Symphyotrichum cordifolium</i>	common blue wood aster	High	forb/herb														x
<i>Symphyotrichum laeve</i>	smooth aster	High	forb/herb														x
<i>Symphyotrichum novae-angliae</i>	New England aster	Very High	forb/herb														x
<i>Symphyotrichum oolentangiense</i>	skyblue aster	High	forb/herb, subshrub														x
<i>Symphyotrichum pilosum</i>	hairy white oldfield aster	High	forb/herb														x
<i>Verbena stricta</i>	hoary verbena	High	forb/herb														x
<i>Vernonia baldwinii</i>	Baldwin's ironweed	High	forb/herb														x
<i>Vernonia fasciculata</i>	prairie ironweed	High	forb/herb														x
<i>Veronicastrum virginicum</i>	Culver's root	High	forb/herb														x

Citation: USDA, NRCS. 2015. The PLANTS Database (<http://plants.usda.gov>, 8 January 2016). National Plant Data Team, Greensboro, NC 27401-4901 USA.



# Monarch WHEG List (con't.)

## Monarch WHEG Plant List: Midwest Edition (IA, IL, IN, MN, MO, OH, WI)

Species or Genus	Plant Symbol	Common name	Monarch Value	Growth Habit	Bloom (x) Monarch Presence (orange)												
					Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov				
<i>Lithospermum canescens</i>	LICA12	hoary puccoon	High	forb/herb	x	x											
<i>Lobelia siphilitica</i>	LOSI	great blue lobelia	High	forb/herb						x	x	x				x	
<i>Mertensia virginica</i>	MEVI3	Virginia bluebells	High	forb/herb	x	x											
<i>Monarda</i> spp.	MONAR	bee balm	High	forb/herb, subshrub					x	x	x						
<i>Onosmodium bejariense</i>	ONBEO	western marbleseed	High	forb/herb					x	x							
<i>Phlox</i> spp.	PHLOX	phlox	High	forb/herb		x			x	x	x						
<i>Physostegia virginiana</i>	PHVI8	obedient plant	High	forb/herb							x	x	x			x	x
<i>Rudbeckia hirta</i>	RUHI2	blackeyed Susan	High	forb/herb						x	x	x	x				
<i>Silphium</i> spp.	SILPH	rosinweed	High	forb/herb							x	x	x				
<i>Sium suave</i>	SISU2	hemlock waterparsnip	High	forb/herb							x	x	x				
<i>Solidago</i> spp. <sup>1</sup>	SOLID	goldenrod	Very High, High	forb/herb							x	x	x	x		x	x
<i>Symphoricarichum</i> spp.	SYMPH4	aster	Very High, High	forb/herb									x	x	x	x	x
<i>Verbena stricta</i>	VEST	hoary verbena	High	forb/herb									x	x	x		
<i>Veronica fasciculata</i>	VEFA2	prairie ironweed	High	forb/herb											x	x	x
<i>Solidago</i> spp. <sup>1</sup> Includes <i>Oligoneuron</i>																	



## Baldwin's Ironweed

## Aster Family

**Other Common Names:** ironweed, western ironweed

**Scientific Name:** *Vernonia baldwinii* Torr.

**Plant Symbol:** VEBA

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 5 ft.

**Blooms/Fruits:** July - November

**Distinguishing characteristics:** Dark purple flower heads with dark green foliage; leaves narrowly lance-shaped, uniformly hairy on the lower surfaces, upper surfaces with very fine hairs; tapering to both the tip and base of the leaf.

**Pollinator Value:** This flower attracts bees and butterflies. It supports an oligolege bee with its pollen.

**Habitat:** Open pastures & woodlands, savannahs, fencerows, and overgrazed pastures.

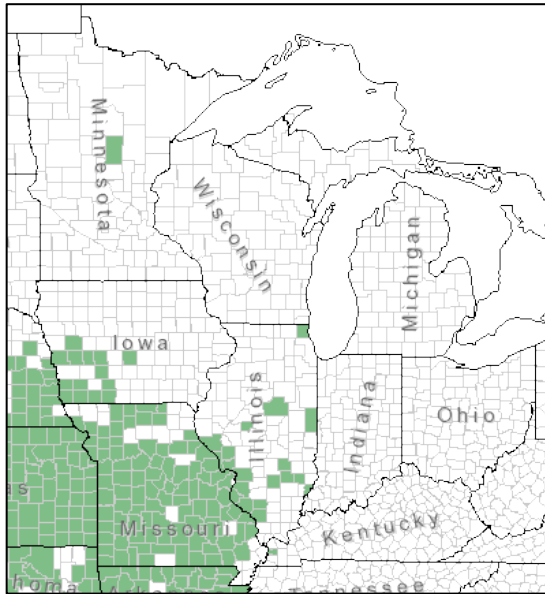


Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center

# Important Plants of the Monarch Butterfly



Close-up of flower/flowering



Leaves



Close-up of flower buds



Senescence

## Bearded Beggarticks

## Aster Family

**Other Common Names:** tickseed sunflower, awnless beggarticks

**Scientific Name:** *Biden aristosa* (Michx.) Britton

**Plant Symbol:** BIAR

**Family:** Asteraceae

**Duration:** Annual or Biennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 5 ft.

**Blooms/Fruits:** April - October

**Distinguishing characteristics:** Leaves opposite on the stem, 1 - 2 times dissected with multiple segments on each leaf; flower heads with bright to golden yellow rays and with a black and yellow center; seeds lack the characteristic awns on top of most beggartick species, but may have two pointed “bumps” or may just be rounded on the top of the seed.

**Pollinator Value:** Highly attractive to monarch butterflies and many other insects including diverse species of native bees.

**Habitat:** Low moist ground, wetlands, ditches, and low ground.

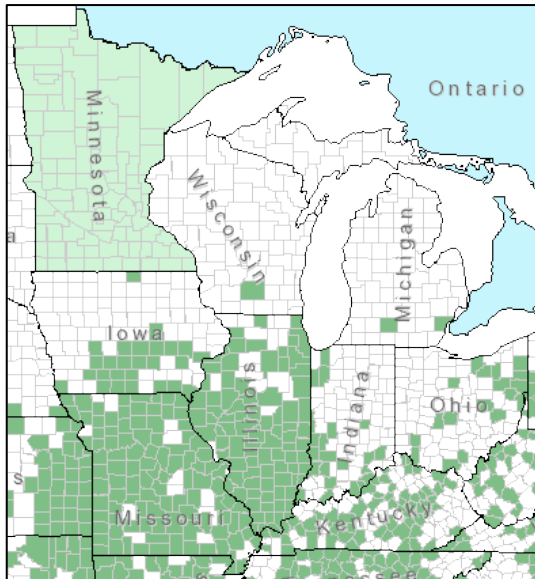


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Full flowering/close-up of flower



Stem and leaf



Seedling



Seed

## Blackeyed Susan

## Aster Family

**Other Common Names:** common black-eyed Susan, brown-eyed Susan, brown Betty, poor-land daisy, English bulls-eye

**Scientific Name:** *Rudbeckia hirta* L.

**Plant Symbol:** RUH12

**Family:** Asteraceae

**Duration:** Annual; Biennial; Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 3 ft., erect

**Blooms/Fruits:** June - October

**Distinguishing characteristics:** Flower heads daisy-like in overall appearance, but with yellow to orange-yellow rays and a dark purple to brown conical center, the rays may have a deep maroon to purple base; leaves are variable - larger and with a leaf-stem towards the base, smaller and without a leaf-stem towards the middle and top of the plant, all leaves with short, stiff hairs and have a raspy feel; stems are hairy as well.

**Pollinator Value:** The gorgone checkerspot and bordered patch butterflies use this plant as a larval food source. It may attract butterflies.

**Habitat:** Open dry woods, prairies, pastures, old fields, and roadsides.

**Note:** There are 4 botanical varieties within the U.S., all going by the common name blackeyed Susan. Only 2 of the varieties occur natively in the Midwest Region: *R. hirta* var. *hirta* and *R. hirta* var. *pulcherrima*. Blackeyed Susan is a commonly cultivated plant and cultivars exist as well.

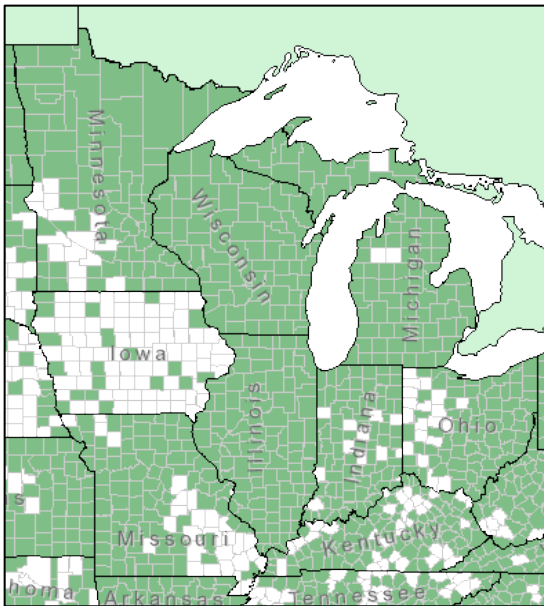


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



# Important Plants of the Monarch Butterfly



Seedlings



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Photo: Thomas Muller, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: Stanley Harmon, Lady Bird Johnson Wildflower Center

Mature plant



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center

Stem and leaf

## Blacksamson Echinacea

## Aster Family

**Other Common Names:** blacksamson, narrow-leaf purple coneflower, narrow-leaf echinacea

**Scientific Name:** *Echinacea angustifolia* DC.

**Plant Symbol:** ECAN2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

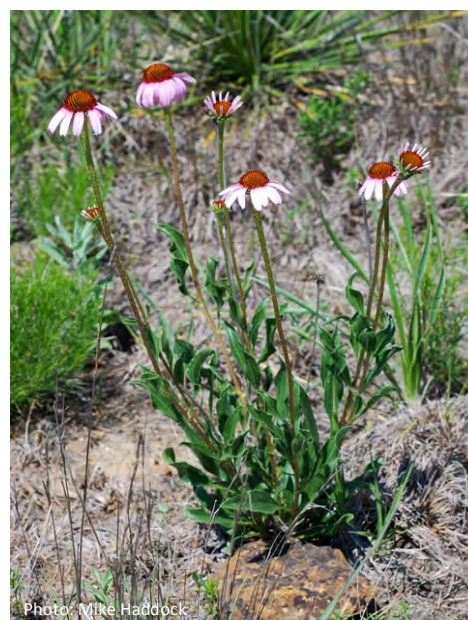
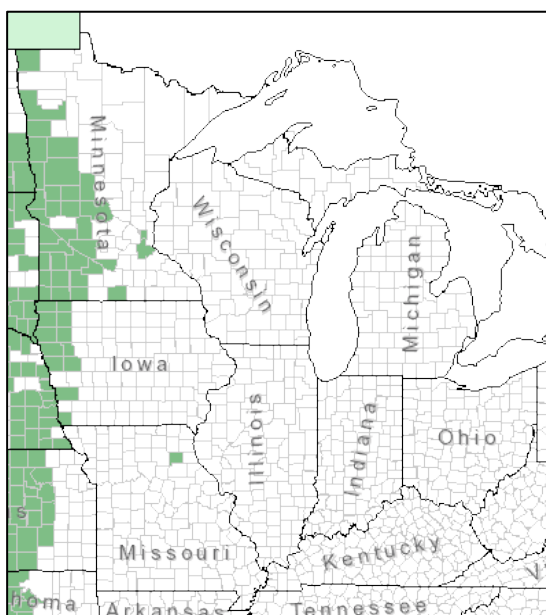
**Plant Height:** 2 - 3 ft.

**Blooms/Fruits:** May - July

**Distinguishing characteristics:** Large flowering heads with pale pink to purple drooping ray petals and a dark, conical, center beset with strong, stout spine-like projections; stem leaves very narrow, covered with short, stiff hairs that have swollen pustular bases, very rough to the touch.

**Pollinator Value:** Blacksamson echinacea is self-incompatible, and it is attractive to a variety of insect pollinators. It is especially popular with butterflies and long-tongued bees.

**Habitat:** Dry open prairies, barrens, rocky to sandy-clay soils.





# Important Plants of the Monarch Butterfly



Seedlings



Full flowering



Early flower development



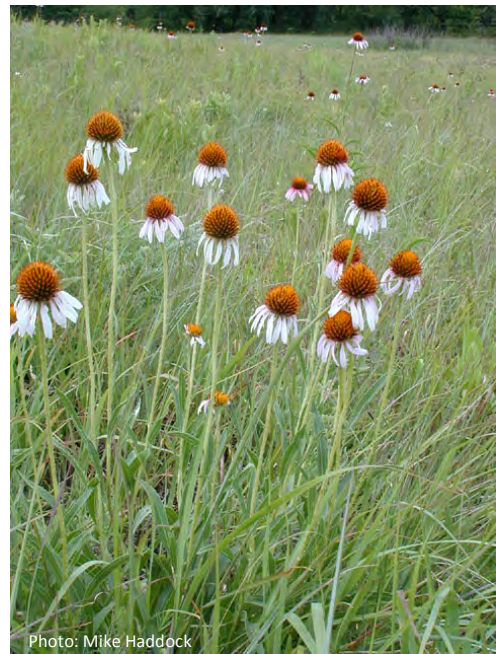
Mature flower head



Leaf arrangement



Close-up of leaf



Habit of black-samson Echinacea at flowering

## Blue Mistflower

## Aster Family

**Other Common Names:** wild ageratum, blue boneset

**Scientific Name:** *Conoclinium coelestinum* (L.) DC.

**Plant Symbol:** COCO13

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 feet

**Blooms/Fruits:** July - November

**Distinguishing Characteristics:** Clusters of fluffy blue, blue-violet, or rosy-violet flower heads, rarely white; stems usually with short curly hairs; leaves fairly wide in shape, triangular or rounded; leaves opposite with margins toothed or scalloped.

**Pollinator Value:** Blue mistflower is a wonderful nectar source, favored by many bees and butterflies. Male Queen butterflies, another species of milkweed butterflies similar to the Monarch, collect alkaloids from the nectar of these flowers to use in their courtship of females. Males can be seen nectaring in huge aggregations on these plants.

**Habitat:** Streambanks, wet meadows, low woods, floodplains, ditches, and disturbed sites. May become weedy

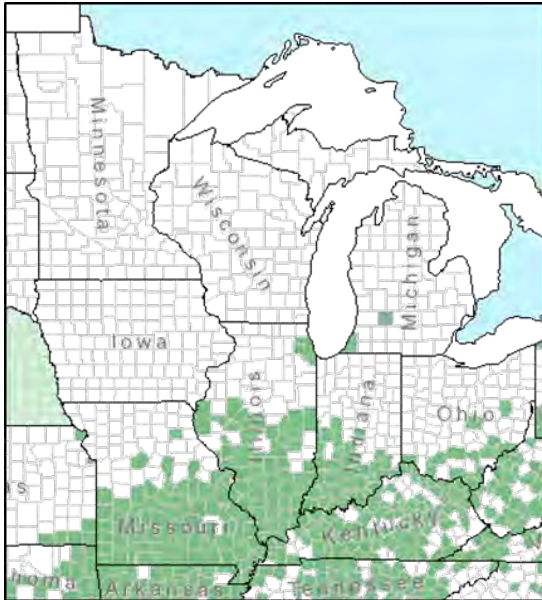


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Photo: Joseph A. Marcus, Lady Bird Wildflower Center

Early flower development



Photo: Carolyn Fannin, Lady Bird Johnson Wildflower Center

Photo: Mike Haddock

Flowering



Photo: Peggy Romfh, Lady Bird Johnson Wildflower Center

Stem and leaf characteristics



Photo: Mike Haddock



## Butterfly Milkweed

## Milkweed Family

**Other Common Names:** orange milkweed, butterfly weed

**Scientific Name:** *Asclepias tuberosa* L.

**Plant Symbol:** ASTU

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** up to 2.5 ft.

**Blooms/Fruits:** May - October

**Distinguishing characteristics:** brick red or orange flowers; hairy stem; long and narrow leaves with smooth leaf margins; sap not milky like other milkweed species.

**Pollinator Value:** Larval host plant for monarch butterfly. The plant is very attractive to butterflies because it is a high quality nectar source.

**Habitat:** Upland; sandy, loamy, or rocky limestone soils.

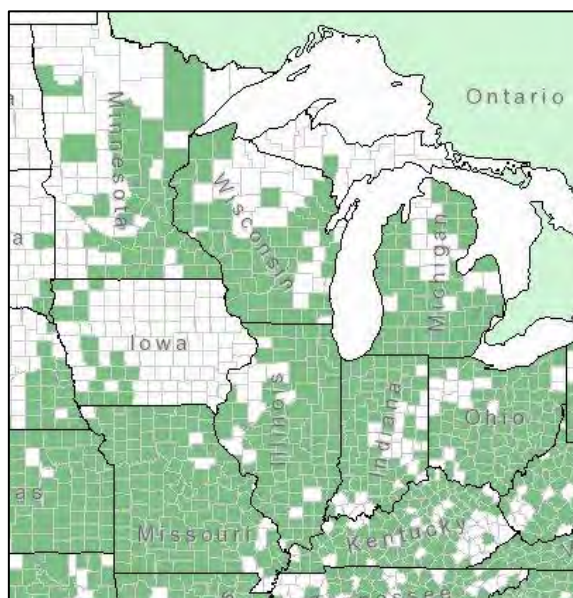


Photo: Edith Bettinger, Lady Bird Johnson Wildflower Center

## Important Plants of the Monarch Butterfly



Seedling



Early flowering/close-up view of flower



Full flowering



Fruit



Mature fruit with seed

## Button Eryngo/Rattlesnake Master

## Carrot Family

**Other Common Names:** button snakeroot, bristle-leaf eryngo

**Scientific Name:** *Eryngium yuccifolium* Michx.

**Plant Symbol:** ERYU

**Family:** Apiaceae

**Plant Height:** up to 3.5 ft.

**Blooms/Fruits:** May - August

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Distinguishing characteristics:** Tall, erect, flowering stem with a basal rosette of linear, 2 - 3 ft. long leaves, leaves reduced up the flowering stem; leaves slightly toothed along the margin and are monocot in appearance with parallel veined (resembling *Yucca*); flowers grayish-white in compact, round, spiny heads.

**Pollinator Value:** This plant is of high value to native bees, beneficial insects, and butterflies. It is also the host plant of the rattlesnake master borer moth.

**Habitat:** Prairies and open rocky woodlands.

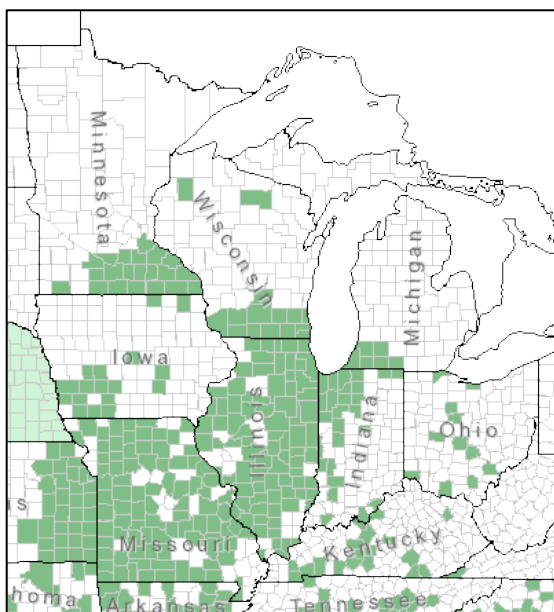


Photo: Carolyn Fannon Lady Bird Johnson Wildflower Center



# Important Plants of the Monarch Butterfly



Photo: USDA-NRCS



Photo: USDA-NRCS

Seedling (note the toothed leaf margin)



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Mature



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Flowering/close-up of flower



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center



Photo: Sally and Andy Watson, Lady Bird Johnson Wildflower Center

Early vegetative growth



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Toothed leaf margin

## Canada Goldenrod

## Aster Family

**Other Common Names:** Canadian goldenrod, tall goldenrod, giant goldenrod, verge d'or du Canada

**Scientific Name:** *Solidago canadensis* L.

**Plant Symbol:** SOCA6

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6+ ft.

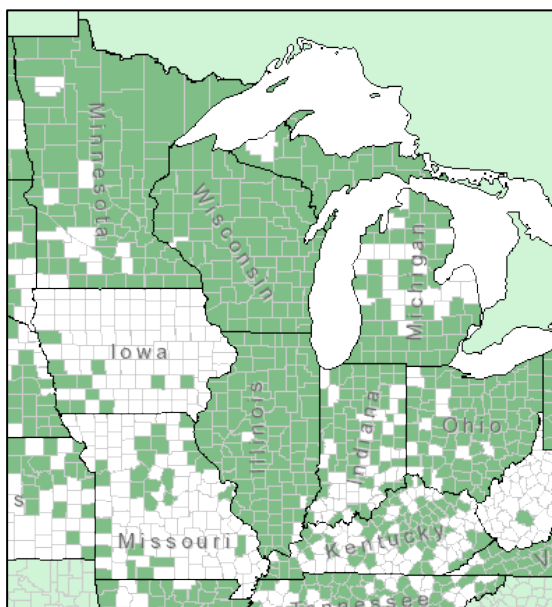
**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flowering heads small with yellow rays and a yellow center; inflorescence terminal and shaped into a broad pyramid with branches bent backwards and the individual flowers oriented upward (second); leaves alternate on the stem, with 3 main veins, lance-shaped, the upper surface raspy to the touch from short, stiff hairs with bulbous bases; the basal and lower leaves withered at flowering; stems hairy except towards the base of the plant.

**Pollinator Value:** Goldenrods are very attractive to pollinators and other beneficial insects. They host a number of oligolege bees.

**Habitat:** Bottomland forests, mesic pastures and prairies, stream and river banks, and roadsides.

**Note:** There are many plants commonly called goldenrods that belong to different plant genera, *Solidago*, *Euthamia*, and *Oligoneuron*, and they are all fairly similar. They generally have yellow, clustered flowers, but some species are white. The flowering stems can be elongate and recurved or flat-topped.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement; close up of underside of leaf



## Cheerful Sunflower

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Helianthus x laetiflorus* Pers.

**Plant Symbol:** HELA

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6 ft.

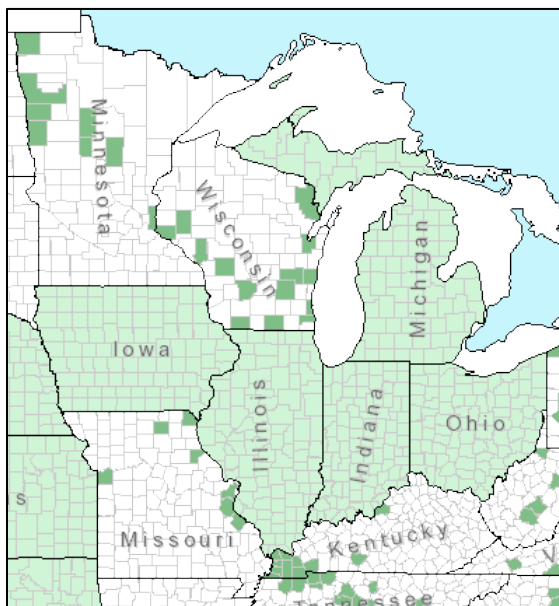
**Blooms/Fruits:** August - September

**Distinguishing characteristics:** Flowering heads few, 3 - 6 per plant and on long stalks (3 - 6 in.), rays yellow-orange, disc dark yellow to reddish; leaves opposite on the stem, broadly lance shaped, with saw-toothed margins, leaf surface raspy to the touch and with interspersed glands.

**Pollinator Value:** This plant is a great late summer and fall nectar source. Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Roadsides, waste places, and escape from cultivation.

**Note:** Cheerful sunflower is a hybrid, with back-crosses, between Jerusalem artichoke (*Helianthus tuberosus*) and stiff sunflower (*H. pauciflorus*), and is variable in appearance. These hybrids/backcrosses do occur naturally. Cheerful sunflower is commonly cultivated and escapes.



## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement



## Common Blue Wood Aster

## Aster Family

**Other Common Names:** heartleaf aster, broadleaf aster, aster cordifolié

**Scientific Name:** *Symphyotrichum cordifolium* (L.) G.L. Nesom

**Plant Symbol:** SYCO4

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads many in loosely ascending, multi-branched inflorescence; floral rays blue to purple with yellow centers that become purple with age; leaves in basal rosettes and with smaller leaves up the stem, leaves of the basal rosette clearly heart shaped and with a long leaf-stem, margins are saw-toothed.

**Pollinator Value:** These flowers provide abundant nectar and pollen in the summer. They attract butterflies. There are a number of aster-oligolege bees that feed on the pollen.

**Habitat:** Rich, mostly mesic, rocky to loamy soils, open wooded slopes and bluffs, stream banks, moist ledges, swampy woods, clearings, roadsides, and along ditches.

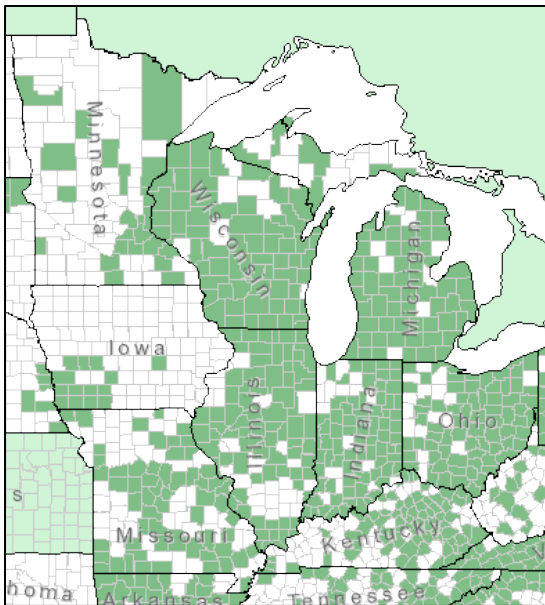


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Close-up vegetative growth and leaf

## Common Boneset

## Aster Family

**Other Common Names:** thoroughwort

**Scientific Name:** *Eupatorium perfoliatum* L.

**Plant Symbol:** EUPE3

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 5 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads white in small fuzzy clusters on a many branched, flat-topped inflorescence; leaves are opposite one another (rarely whorled), hairy, with a pointed tip, and are very distinctive where the leaf bases wrap around the stem and appears as if the stem is growing through the middle of the leaf; stems are densely hairy.

**Pollinator Value:** This summer through fall blooming flower is highly attractive to butterflies and native bees.

**Habitat:** Damp low ground, banks of ponds and streams, fens, sloughs, marshes, crop fields, and fallow fields.

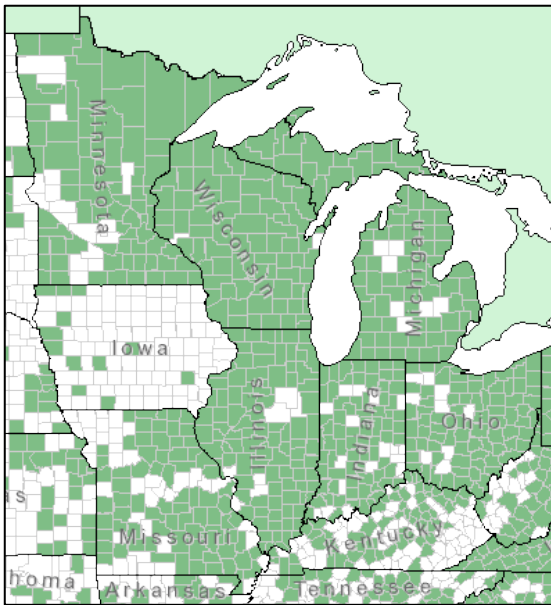


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Sarah Linn, Lady Bird Johnson Wildflower Center



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Close-up of leaf arrangement



Photo: Sarah Linn, Lady Bird Johnson Wildflower Center



## Common Milkweed

## Milkweed Family

**Other Common Names:** none

**Scientific Name:** *Asclepias syriaca* L.

**Plant Symbol:** ASSY

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

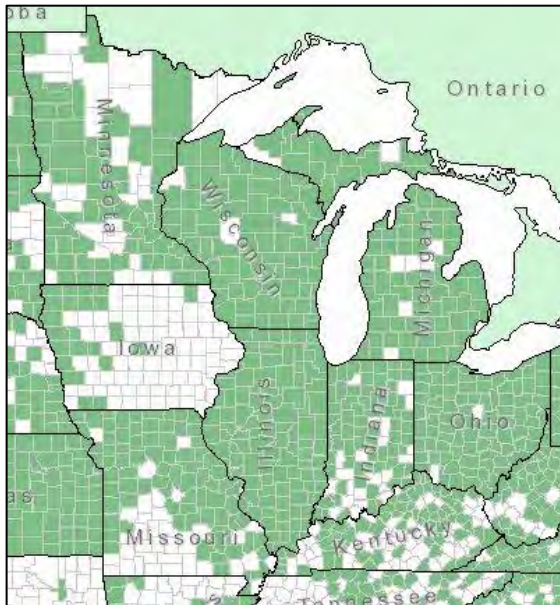
**Plant Height:** 2 - 5 ft.

**Blooms/Fruits:** May - August

**Distinguishing characteristics:** Flowers in circular clusters from the leaf axils on the upper portion of the plant, each flower on a long stalk; petals reflexed, lavender or pink but may be greenish or white with pink highlights; leaves are in pairs (opposite) along the stem, lance-shaped to elliptical. Forms colonies.

**Pollinator Value:** Larval host plant for the monarch butterfly. Flowers attract butterflies. High value summer nectar source.

**Habitat:** Roadsides, disturbed areas, field borders, bottomland & upland prairies, pastures, and old fields.



## Important Plants of the Monarch Butterfly



Flowering/close-up of flowers



Stem and leaf arrangement



## Common Sunflower

## Aster Family

**Other Common Names:** sunflower, Kansas sunflower, mirasol

**Scientific Name:** *Helianthus annuus* L.

**Plant Symbol:** HEAN3

**Family:** Asteraceae

**Duration:** Annual

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 10 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowering heads large with yellow rays and a dark central center disk; leaves alternate but some basal leaves may be opposite, triangular to egg-shaped with a pointed tip, and very rough or raspy surface; stems solitary with one to many flowering heads.

**Pollinator Value:** Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Widespread roadside weed, old fields, ditch banks, upland pastures, field borders, and escapes from cultivation.

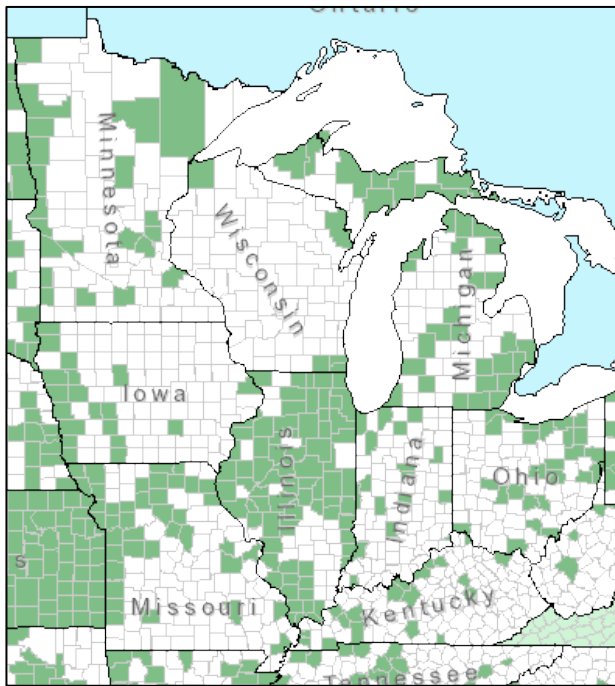


Photo: David Northington, Lady Bird Johnson Wildflower



# Important Plants of the Monarch Butterfly



Seedling



Full flowering



Close-up of stem



Mature plant



Developing flower bud

## Compassplant

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Silphium laciniatum* L.

**Plant Symbol:** SILA3

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Leaves thick, leathery, deeply lobed to dissected; flowering heads with yellow rays and dark centers; basal leaves long stemmed, the leaves reduced in size up the stem; basal leaves generally oriented in a north-south direction and are angled sideways.

**Pollinator Value:** This flower provides nectar and pollen to bees and other beneficial insects. It may attract butterflies.

**Habitat:** Glades, open prairie, openings in dry upland forests, and roadsides.

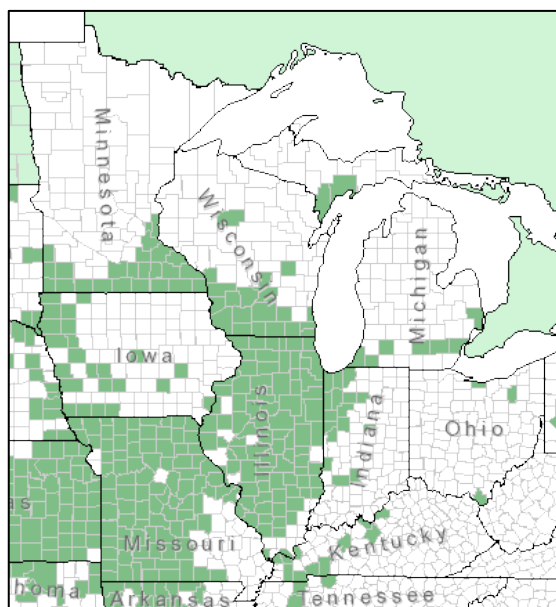


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly - Midwest Region

Photo: W.D. and Dolphia Bradford, Lady Bird Johnson Wildflower Center



Photo: Julie Makin, Lady Bird Johnson Wildflower Center



Close-up of flowers and unopened flower bud



Photo: USDA-NRCS

Seedling



Photo: Paul Cox, Lady Bird Johnson Wildflower Center



Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Leaf



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

## Culver's Root

**Other Common Names:** Bowman's Root

**Scientific Name:** *Veronicastrum virginicum* (L) Farw.

**Family:** Scrophulariaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6 ft.

**Blooms/Fruits:** July - September

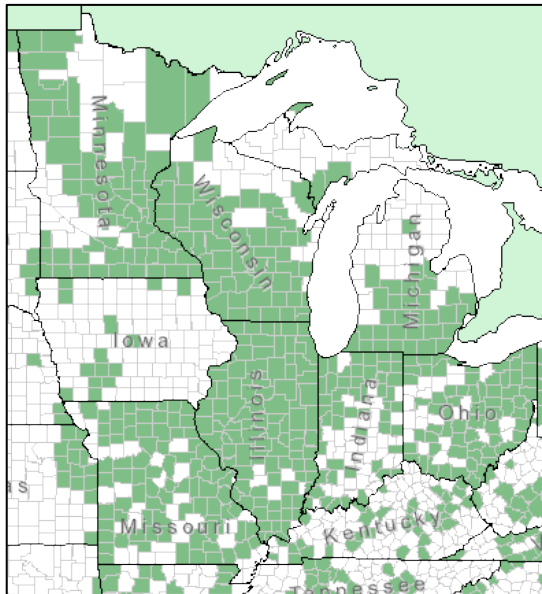
**Distinguishing characteristics:** Flowering stems 1 to several at the top of the plant, with branched, elongate inflorescences appearing candelabra-like; flowers numerous on short flower stalks, white to cream colored, occasionally light pink with 4 petals per flower; leaves in whorls along the stem, variable in size from 1.5 - 5 in. long, lance-shaped with a pointed tip and sharply toothed edges.

**Pollinator Value:** This flower is highly attractive to many types of bee, butterfly, and other beneficial insects.

**Habitat:** Bottomland and upland prairies, openings in mesic to upland forests, pastures, and roadsides.

## Figwort Family

**Plant Symbol:** VEVI4





Important Plants of the Monarch Butterfly



Photo: Mike Haddock



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



© 2007 K. Chayka



Photo: Mike Haddock

Stem and Leaf arrangement



© K. R. Robertson  
Illinois Natural  
History Survey

Mature plant

## Cup Plant

## Aster Family

**Other Common Names:** cup rosinweed

**Scientific Name:** *Silphium perfoliatum* L.

**Plant Symbol:** SIPE2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

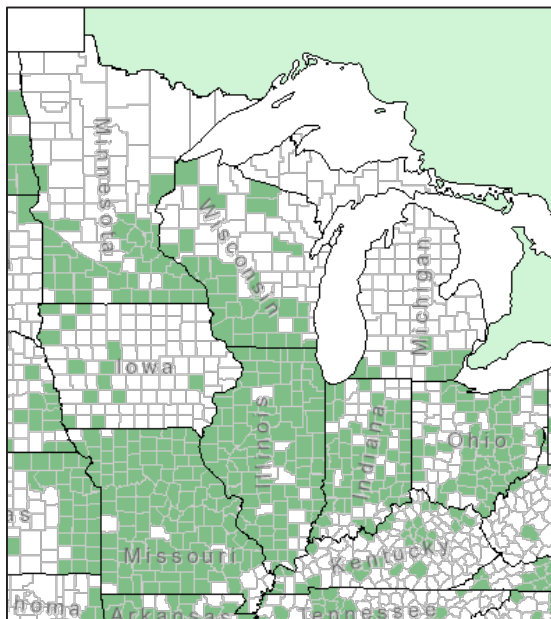
**Plant Height:** 3 - 7+ ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowering heads in loose, open inflorescences; rays yellow and the central disc yellow; leaves opposite on the stem and, except the basal leaves, characteristically have the leaf bases fused together with its opposite leaf making a “cup” around the stem and appearing as if the square stem is growing through the middle of the leaf, the leaves are thickened but not leathery.

**Pollinator Value:** This flower provides nectar and pollen to bees and other beneficial insects. It also attracts butterflies.

**Habitat:** Bottomland forests, banks of rivers and streams, moist low ground, and ditches.





Important Plants of the Monarch Butterfly



© 2009 Katy Chayka

Full flowering/close-up of flowers and mature flowers



Photo: John Hilty, Illinois Wildflowers



Photo: © 2009 Kathy Chayka

© 2009 Katy Chayka



© 2009 Katy Chayka

Photo: © 2009 Kathy Chayka

Leaf arrangement



Photo: © 2009 Kathy Chayka

© 2009 Katy Chayka

Close-up of stem



## Dense Blazingstar

## Aster Family

**Other Common Names:** button snakeroot, dense gayfeather, dense liatris, marsh blazing star, marsh gayfeather, marsh liatris

**Scientific Name:** *Liatris spicata* (L.) Willd.

**Plant Symbol:** LISP

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 – 4 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowering heads are in rose-purple tufts tightly clustered along an elongated spike-like inflorescence which flowers from the top down; leaves are linear (about 8 – 10 in. long), clustered near the base of the stem, but also occurring up the stem where they become shorter.

**Pollinator Value:** Bees and butterflies are attracted to the flowers of this late summer nectar source.

**Habitat:** Upland prairies, meadows, and slopes.

**Note:** There are several *Liatris* species that are similar in appearance to Dense Blazingstar. This species can be distinguished from others by having small, tightly crowded flower heads and the leafy bracts under each flower head (involucre) rounded on the tip with a short blunt tip.

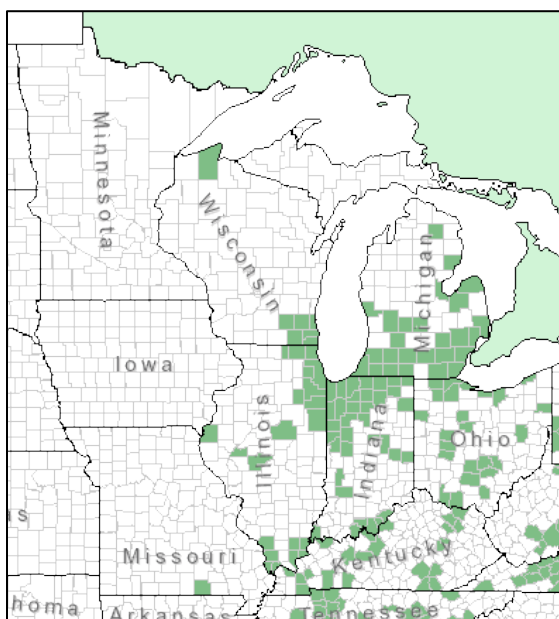


Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Important Plants of the Monarch Butterfly



Seedling



Fulling flowering/close-up of flowers



Stem and leaf arrangement



Mature plant



## Devil's Bite

## Aster Family

**Other Common Names:** large blazing star, large gayfeather, large liatris, savanna blazing star, savanna gayfeather, savanna liatris

**Scientific Name:** *Liatris scariosa* (L.) Willd.

**Plant Symbol:** LISC2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft., erect

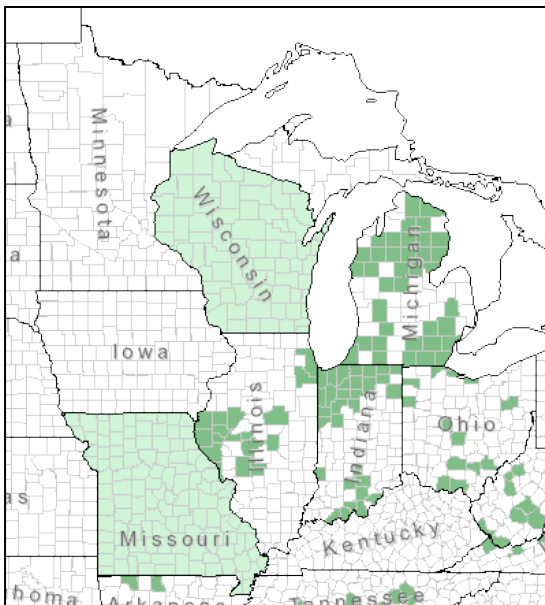
**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowering heads few and widely spaced along a terminal inflorescence, powder-puff in appearance, blue to lavender to light purple, and hairy inside the flower tube; terminal flower head larger than the rest; the small bract leaves under each flower head have thin, papery, clear to purple edges; lower leaves narrow but widest above the middle and with a long leaf stalks; middle and upper leaves narrow, lance-shaped and without a leaf stalk.

**Pollinator Value:** This plant is a highly preferred monarch nectar source. Its flowers also attract bees and butterflies.

**Habitat:** Upland prairies and exposed ledges, openings in forests, pastures, and dry open areas.

**Note:** There are several *Liatris* species that are similar in appearance to Devil's Bite. This species can be distinguished from others by having widely spaced flower heads on long stalks and the small leafy bracts under the flower head (involucre) with thin, papery, clear edges.



© K. R. Robertson  
Illinois Natural  
History Survey



Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement



Mature plant

## Dotted Blazing Star

## Aster Family

**Other Common Names:** liatris, narrow-leaved gayfeather, Nebraska blazing star, blazing star, button snakeroot, prairie snakeroot, starwort.

**Scientific Name:** *Liatris punctata* Hook.

**Plant Symbol:** LIPU

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Clusters of puffy blue flowers loosely spaced along a spike-like inflorescence, inflorescence axis easily visible between the flower clusters; leaves narrow and crowded, slightly up-curved, with dotted glands on the surface.

**Pollinator Value:** Bees and butterflies are attracted to the flowers of this late summer/fall nectar source.

**Habitat:** Common on upland, rocky ridges, grassy and sagebrush prairies, roadsides, in sandy or clayey.

**Note:** There are several *Liatris* species that are similar in appearance to Dotted Blazing Star. This species can be distinguished from others by having a thickened taproot, 3 – 8 individual flowers in each flower head, and having small, translucent glands (punctae) on the leaves.

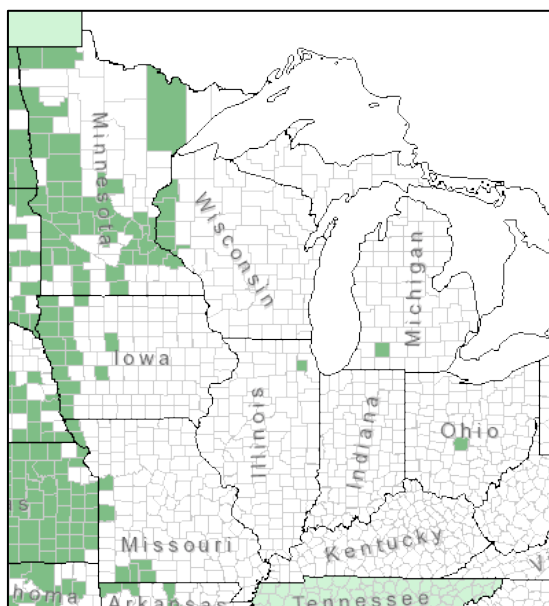


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



# Important Plants of the Monarch Butterfly



Photo: Steven Schwartzman, Lady Bird Johnson Wildflower Center

Flower buds



Photos: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Plants flowering/close view of flowers



Photo: Steven Schwartzman, Lady Bird Johnson Wildflower Center

Seed maturation

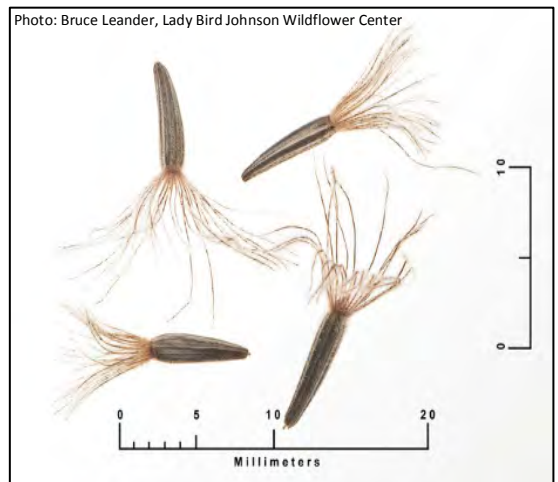


Photo: Bruce Leander, Lady Bird Johnson Wildflower Center

Seed

## Downy Pagoda-Plant

## Mint Family

**Other Common Names:** sunny woodmint, Ohio horsemint

**Scientific Name:** *Blephilia ciliata* (L.) Benth.

**Plant Symbol:** BECI

**Family:** Lamiaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 2 ft.

**Blooms/Fruits:** May - August

**Distinguishing characteristics:** Flowers in 1 or more tight, spherical clusters which terminate the stem; flowers two-lipped, pale lavender with dark purple spots on the lower lip; leaves opposite, widest near the middle, leaves on the lower portions of the stem absent at flowering; stems hairy.

**Pollinator Value:** Known to serve as a high-value summer nectar source for the monarch butterfly. Also attracts other pollinators and beneficial insects.

**Habitat:** Mesic to dry upland forests, stream banks, and wooded hillsides.

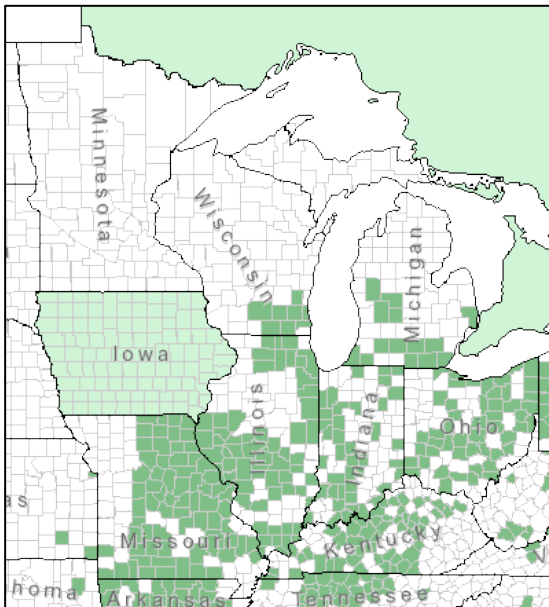


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Flowering/close-up of flowers



Close-up of stem and leaf

## Dutchman's Breeches

**Other Common Names:** dicentre à capuchon

**Scientific Name:** *Dicentra cucullaria* (L.) Bernh.

**Family:** Fumariaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** up to 1 ft.

**Blooms/Fruits:** March - May

**Distinguishing characteristics:** Flowers white with yellow markings, on elongated inflorescences, each flower with two upright spurs making the flower appear as a pair of upside-down pantaloons with a yellowish "belt"; leaves are all basal, finely divided or dissected and appearing feathery, bright green on top and pale green on the undersurface. Rootstock with clusters of small, teardrop-shaped bulbils/bulblets.

**Pollinator Value:** This spring wildflower is of special value to early spring bumble bees, upon which it relies for pollination.

**Habitat:** Deciduous woods and clearings, ravines, and bases of bluffs.

## Fumitory Family

**Plant Symbol:** DICU

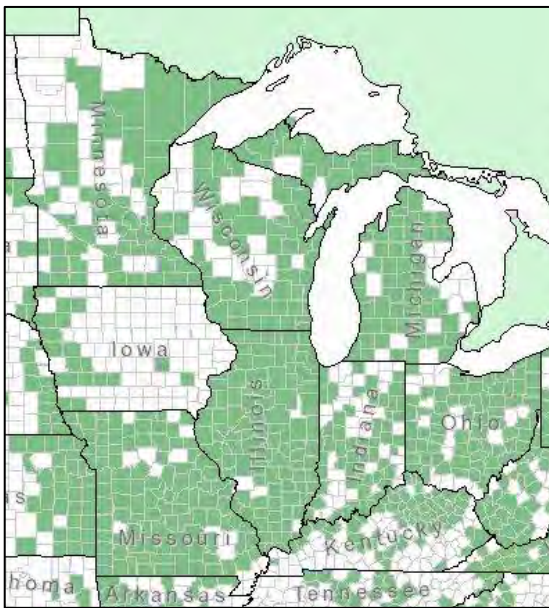


Photo: R.W. Smith, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center



Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Leaf



Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Bulblets

## Dwarf Larkspur

**Other Common Names:** spring larkspur

**Scientific Name:** *Delphinium tricorne* Michx.

**Family:** Ranunculaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** April - May

**Distinguishing characteristics:** Flowers blue to deep purple with an obvious spur projecting out the back of the flower; leaves are mostly in a basal rosette with a few additional leaves (2 - 4) up the stem, somewhat rounded in overall shape but are deeply palmately-cut.

**Pollinator Value:** This spring wildflower attracts long-tongued bees and butterflies.

**Habitat:** Slopes in hardwood forests, edges of thickets, moist prairies.

## Buttercup Family

**Plant Symbol:** DETR

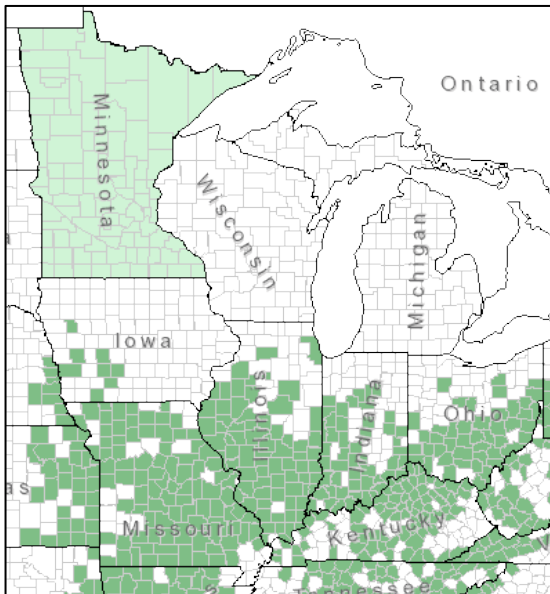


Photo: W.D. and Daphnia Bransford, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Photo: Craig Van Boskirk

Leaf

## Eastern Bluestar

## Dogbane Family

**Other Common Names:** bluestar, willow amsonia, woodland bluestar

**Scientific Name:** *Amsonia tabernaemontana* Walter     **Plant Symbol:** AMTA2

**Family:** Apocynaceae

**Duration:** Perennial     **Growth Habit:** Herbaceous

**Plant Height:** 2 - 3 ft.     **Blooms/Fruits:** March - May

**Distinguishing characteristics:** Flowers in clustered inflorescences on the upper portions of the plant; petals light blue, 5-parted and spreading widely, very hairy within the center of the flower; leaves alternate or sub-opposite on the stem with short leaf-stems, lance to broadly lance-shaped; fruits slender, elongate, and usually erect, surpassing the leaves in height. Old stem bases of previous year often present.

**Pollinator Value:** Spring nectar source. Attracts butterflies and long-tongued bees.

**Habitat:** Wet, sandy sites and wooded areas, prairies, and bottomland.

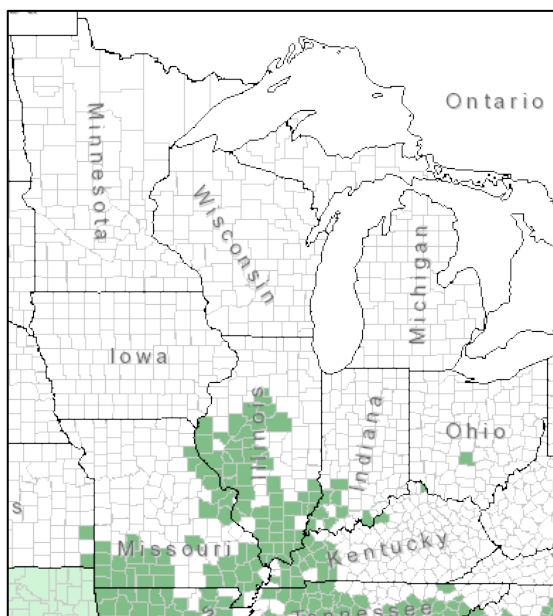


Photo: Clarence Rechenhin, Plants Database



Important Plants of the Monarch Butterfly



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: George Brusco, Lady Bird Johnson Wildflower Center

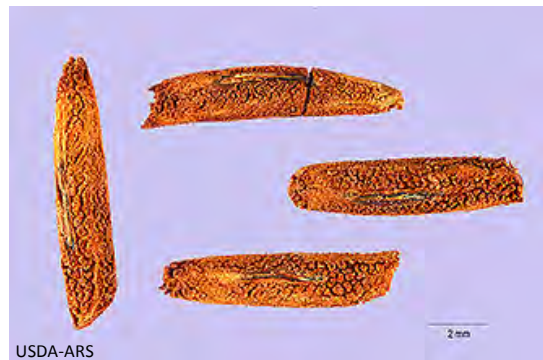


Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Stem and leaf



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center



USDA-ARS

2 mm

Seed

## Eastern Purple Coneflower

## Aster Family

**Other Common Names:** echinacea, snakeroot, Kansas snakeroot, narrow-leaved purple coneflower, scurvy root, Indian head, comb flower, black susans, and hedge hog

**Scientific Name:** *Echinacea purpurea* (L) Moench

**Plant Symbol:** ECPU

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** May - October

**Distinguishing characteristics:** Flowering heads with reddish-purple to pink rays (2 - 3" long) which are generally reflexed slightly at flowering; central disk conical with reddish-orange, blunt tipped spines and a dark center; leaves largest basally and reduced in size up the stem, and with coarsely saw-toothed margins. The only *Echinacea* in our range with leaves 3 - 5 in. wide and with rounded or heart-shaped leaf bases, and fibrous roots.

**Pollinator Value:** This flower attracts butterflies and native bees. It is somewhat self-incompatible.

**Habitat:** rocky prairies, open wooded, thickets, often near waterways

**Note:** Eastern purple coneflower is a common horticultural plant with several cultivars which do escape into natural environments. These cultivars will appear somewhat different in size and flower color compared to native individuals.

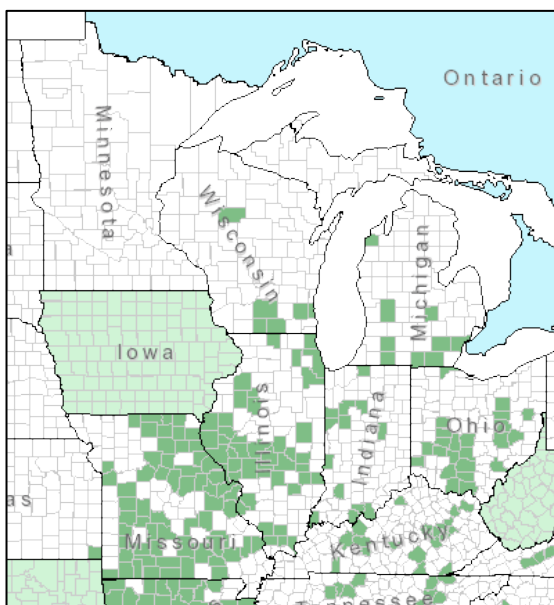


Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: USDA-NRCS

Photo: USDA-NRCS

Seedling



Photo: Doug Sherman, Lady Bird Johnson Wildflower Center

Full flowering/close-up of flower and mature seedhead



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center

Stem and leaf



Photo: Bruce Leander, Lady Bird Johnson Wildflower Center

Seed

## Fall Phlox

## Phlox family

**Other Common Names:** perennial phlox, garden phlox, summer phlox

**Scientific Name:** *Phlox paniculata* L.      **Plant Symbol:** PHPA9

**Family:** Polemoniaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** June - September

**Distinguishing characteristics:** Flowers in large hemispheric to pyramidal clusters; individual flowers with 5 spreading petals, pink to pinkish-purple to purple to purplish-blue, rarely white; leaves opposite, widest across the middle or towards the top, and have a distinctive vein pattern where the veins turn upward near the leaf margin and connect to other veins forming closed loops.

**Pollinator Value:** This phlox blooms later than others, attracting butterflies in summer.

**Habitat:** Cultivated and often escaped, moist shaded sites, bottomland forests, pastures, and shaded disturbed areas.

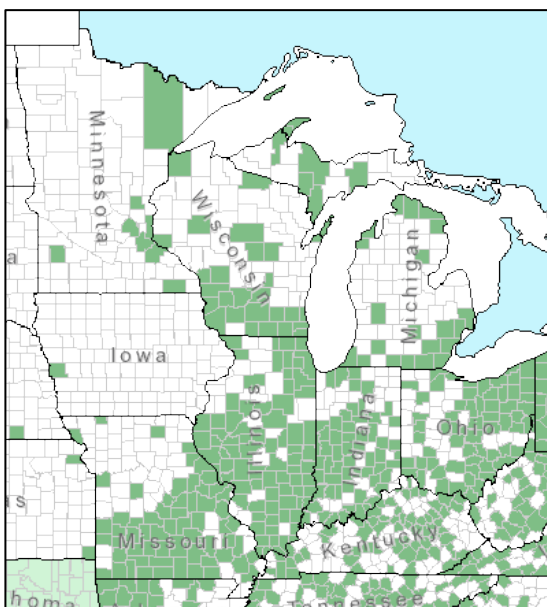


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower



Important Plants of the Monarch Butterfly - Midwest Region



Full flowering/close-up of flowers



Stem and leaf arrangement; close up of leaf

## False Boneset

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Brickellia eupatorioides* (L.) Shinnars

**Plant Symbol:** BREU

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flower heads in small clusters of few flowered, flat-topped inflorescences; individual flower heads appearing elongate and without rays; individual flowers in each head are pale yellow, yellowish green, to pinkish lavender; leaves are alternately arranged on the stem but are closely crowded together and may appear opposite or whorled, their shape ranges from linear to broadly lance shaped, and with glandular hairs underneath. May have a woody base.

**Pollinator Value:** This flower provides nectar from summer through fall for monarchs and other invertebrates.

**Habitat:** Open prairies and plains, dry open forests, pastures, old fields, and roadsides.

**Note:** Six varieties of false boneset occur in the US, three of which are native to the Midwest: varieties *var. corymbulosa*, *var. eupatorioides*, and *var. texana*.

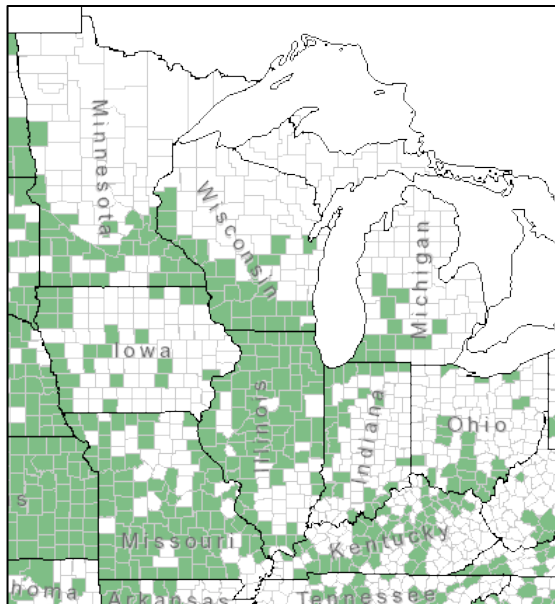


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Photo: Mike Haddock



Photo: Mike Haddock

Full flowering/close-up of blooms/seed



Photo: Mike Haddock



Photo: Mike Haddock

Early flowering

## Field Thistle

**Other Common Names:** roadside thistle

**Scientific Name:** *Cirsium discolor* (Muhl. Ex Willd.) Spreg.

**Family:** Asteraceae

**Duration:** Biennial; Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 8 ft.

**Blooms/Fruits:** July - November

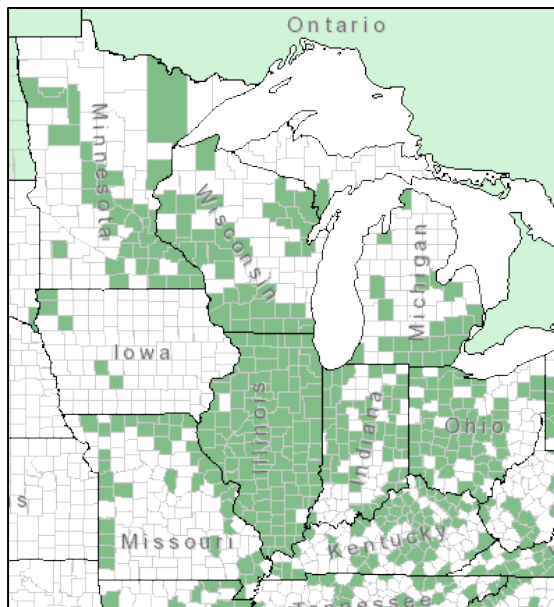
**Distinguishing characteristics:** Flower heads solitary on the ends of branches, pinkish to reddish purple in a “cup” of spine-tipped bracts underneath the inflorescence; leaves are deeply dissected more than ½ way from the margin to the midrib, and spiny, the upper surface green and the undersurface densely hairy and appearing white.

**Pollinator Value:** This native thistle is highly attractive to numerous pollinators, from bumble bees to the monarch butterfly. It is also a host plant for the painted lady butterfly.

**Habitat:** Upland prairie, glades, bluffs, old and fallow fields, and openings in dry upland forests.

## Aster Family

**Plant Symbol:** CIDI



© K. R. Robertson  
Illinois Natural  
History Survey



Important Plants of the Monarch Butterfly



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

© K. R. Robertson  
Illinois Natural History Survey

Full flowering/close-up of bloom



© K. R. Robertson  
Illinois Natural History Survey



© K. R. Robertson  
Illinois Natural History Survey

Stem and leaf



Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center

Mature flowers and seed



Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center



## Flodman's Thistle

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Cirsium flodmanii* (Rydb.) Arthur

**Plant Symbol:** CIFL

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

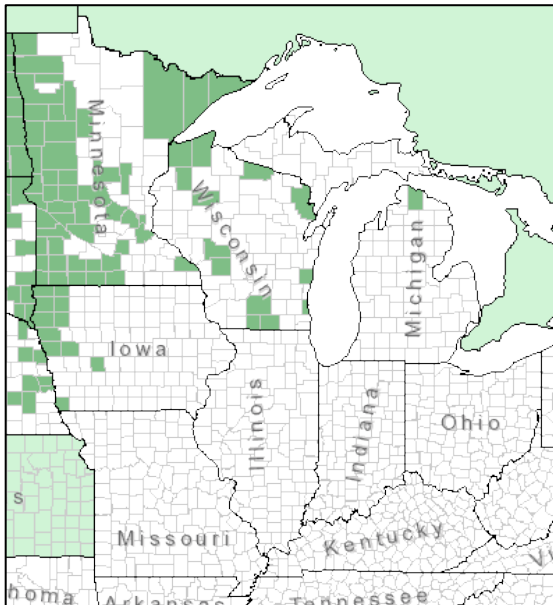
**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** June - September

**Distinguishing characteristics:** Flowering heads dark purple to pink (rarely white), borne singly on the upper stem branches and thus appearing inflorescence-like; leaves lobed or dissected and bearing spines along the margins and on the tip of each lobe, heavily white-hairy on both the top and bottom, but more so on the bottom of the leaf; leaf stalk winged. Elongate, sprouting rhizomes.

**Pollinator Value:** This native thistle is highly attractive to numerous pollinators, from bumble bees to the monarch butterfly.

**Habitat:** Tall, short, and mixed grass prairies, meadows, pastures, commonly on moist ground, and moist disturbed sites.





Important Plants of the Monarch Butterfly



Close-up of flower/flowering and seedling



Seed development



Stem and leaf arrangement



Close-up of leaf



## Giant Sunflower

## Aster Family

**Other Common Names:** swamp sunflower, tall sunflower, hélíanthe géant

**Scientific Name:** *Helianthus giganteus* L.

**Plant Symbol:** HEGI

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

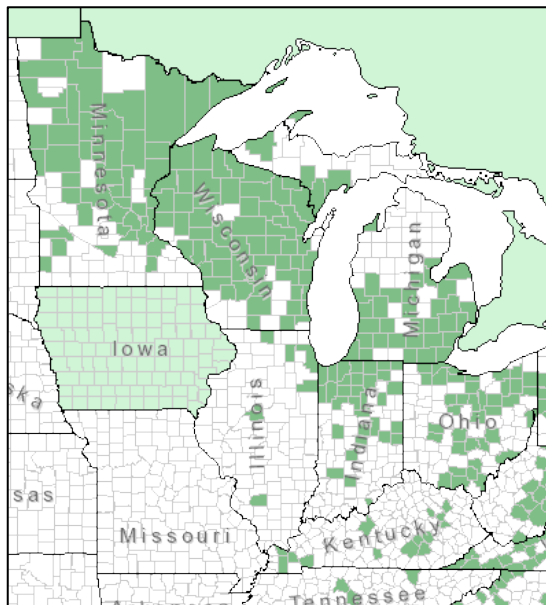
**Plant Height:** Up to 10 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Very tall with numerous sunflower type flowering heads (2 - 3 in. across) and with reddish to purplish stems; flower heads with yellow rays and dark red to black centers; leaves alternate on the stem, widely lance-shaped, very raspy to the touch on the upper surface, and with long stiff hairs on the undersurfaces.

**Pollinator Value:** Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Swamps and other moist places.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement

## Gray Goldenrod

## Aster Family

**Other Common Names:** grayleaf goldenrod, dwarf goldenrod, old field goldenrod, prairie goldenrod

**Scientific Name:** *Solidago nemoralis* Aiton

**Plant Symbol:** SONE

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 0.5 - 2.5 ft.

**Blooms/Fruits:** July - November

**Distinguishing characteristics:** Small yellow flower clusters on recurved terminal branches; stems densely hairy with extremely short, curved hairs; leaves forming a basal rosette and are gradually reduced in size up the stem; basal rosette leaves persistent when flowering; leaves oblong, widest towards the top end, with only 1 prominent vein; stems and leaves densely covered with hairs, giving the plant a grayish appearance.

**Pollinator Value:** This flower is very attractive to butterflies. Goldenrods are quality nectar and pollen sources for pollinators and other beneficial insects. It hosts a number of oligolege bees.

**Habitat:** Dry upland prairie, ledges and tops of bluffs, openings in dry woods, old fields and pastures

**Note:** There are many plants commonly called goldenrods that belong to different plant genera, *Solidago*, *Euthamia*, and *Oligoneuron* and are all fairly similar. They generally have yellow, clustered flowers, but some species are white. The flowering stems can be elongate and recurved or flat-topped.

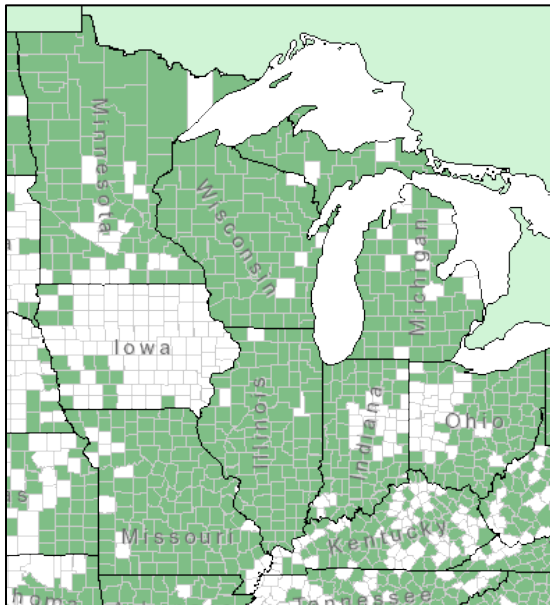


Photo: R. W. Smith, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photos: Ray Mathews/Bruce Leander, Lady Bird Johnson Wildflower Center

Unopened flowers



Photo: Bruce Leander, Lady Bird Johnson Wildflower Center



Photo: Ray Matthews, Lady Bird Johnson Wildflower Center

Close-up of Flowers



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Full bloom



Photo: Easy Living Native Perennial Wildflowers

Mature plant



Photo: USDA-ARS

Seed

## Great Blue Lobelia

## Bellflower Family

**Other Common Names:** blue cardinal flower, blue lobelia, great lobelia

**Scientific Name:** *Lobelia siphilitica* L.

**Plant Symbol:** LOSI

**Family:** Campanulaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowers are blue with a white center, strongly two-lipped with 3 sharp-pointed petals hanging downward and two pointed upwards; inflorescence is terminal, elongate, and leafy; leaves variable ranging from lance shaped to widest near the tip, are gradually reduced in size from the stem midpoint to the top, and are attached directly to the stem or with a short leaf stalk.

**Pollinator Value:** This plant is a favorite of bumblebees and butterflies. It blooms in late summer and attracts long-tongued bees.

**Habitat:** Moist depressions, banks of streams and ponds, swamps, sloughs, pastures, and ditches.

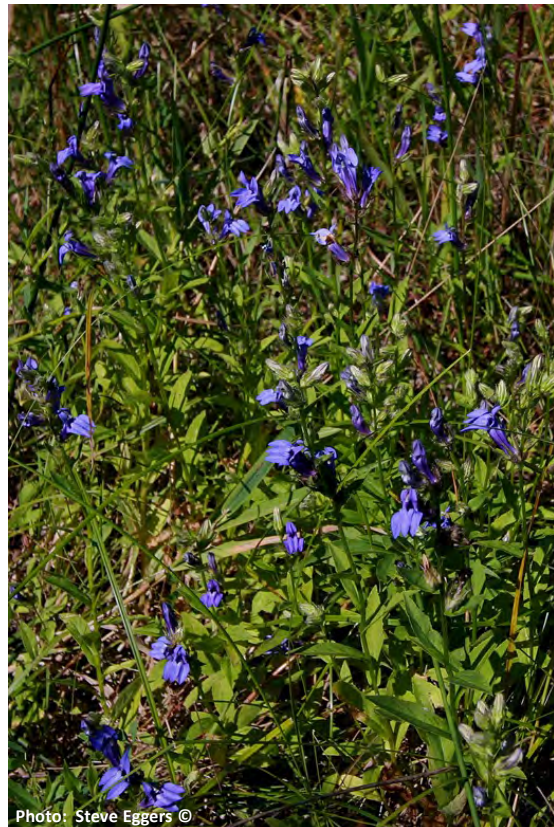
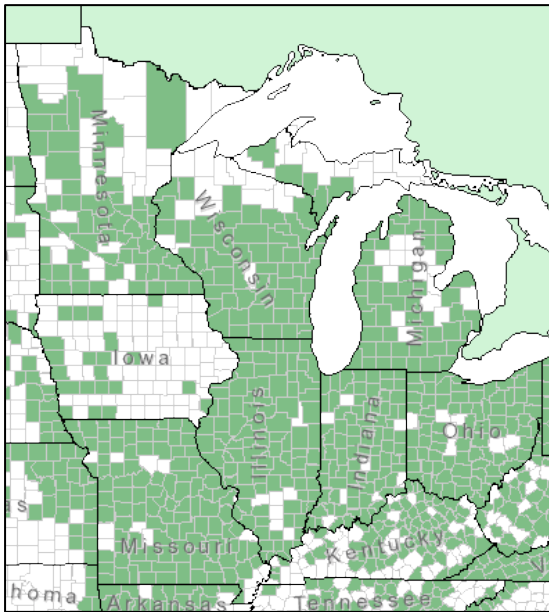


Photo: Steve Eggers ©



Important Plants of the Monarch Butterfly

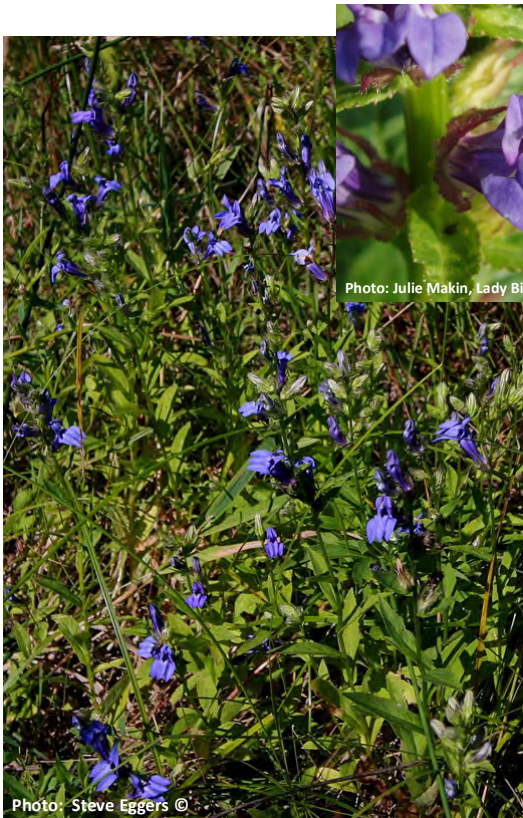


Photo: Steve Eggers ©



Photo: Julie Makin, Lady Bird Johnson Wildflower Center



Photo: Steve Eggers ©

Full flowering/close-up of blooms



Photo: Stefan Bloodworth, Lady Bird Johnson Wildflower Center

Close-up of stem, flower and leaf/leaf arrangement



Photo: Sally and Andy, Lady Bird Johnson Wildflower Center

## Hairy Pagoda-plant

## Mint Family

**Other Common Names:** hairy woodmint

**Scientific Name:** *Blephilia hirsuta* (Pursh) Benth.

**Plant Symbol:** BLHI

**Family:** Lamiaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 3 ft.

**Blooms/Fruits:** May - September

**Distinguishing characteristics:** The inflorescences are of tight clustered flowers that terminate the stem and appear very hairy; flowers are small, white, and two-lipped with dark purple spots on the lower lip; leaves are opposite on the stem, widely lance-shaped, the upper surface slightly hairy and the undersurfaces moderately hairy; stems square and densely hairy with short spreading hairs.

**Pollinator Value:** Bees, beneficial insects, and butterflies are all drawn to this plant by its nectar.

**Habitat:** Bottomland forests, bases of ledges and cliffs, stream banks, and roadsides.

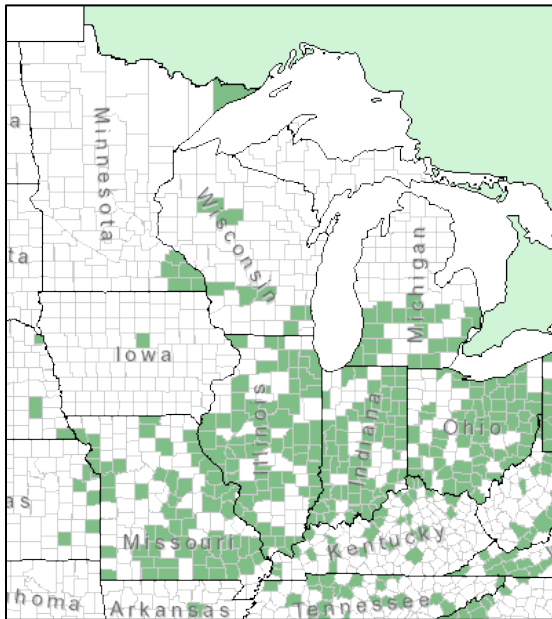


Photo: John Hilty, Illinois Wildflowers



Important Plants of the Monarch Butterfly



2012 © Peter M. Dziuk

Full flowering/close-up of flowers



2012 © Peter M. Dziuk



Photo: John Hilty, Illinois Wildflowers



2012 © Peter M. Dziuk

Close of stem and leaf and leaf arrangement



Photo: John Hilty, Illinois Wildflowers

Photo: John Hilty, Illinois Wildflowers

## Hairy White Oldfield Aster

## Aster Family

**Other Common Names:** white heath aster, oldfield weed, frost aster, white aster, aster poilu

**Scientific Name:** *Symphyotrichum pilosum* (Willd.) G.L. Nesom

**Plant Symbol:** SYPI2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** August - November

**Distinguishing characteristics:** Flowering heads small (<1 in. across), numerous on multiple stem branches, each flower oriented upwards, rays white, center yellow; leaves without leaf stems or very short ones on lower leaves; basal and lower leaves widest above the middle and withered at flowering time; middle and upper leaves lance-shaped and smaller than basal leaves; stems generally very hairy.

**Pollinator Value:** These flowers provide abundant nectar and pollen in the fall. They attract butterflies. There a number of aster-oligolege bees that feed on the pollen.

**Habitat:** Old fields, fallow fields, prairies, pastures, openings in forests, fencerows, roadsides, and disturbed areas.

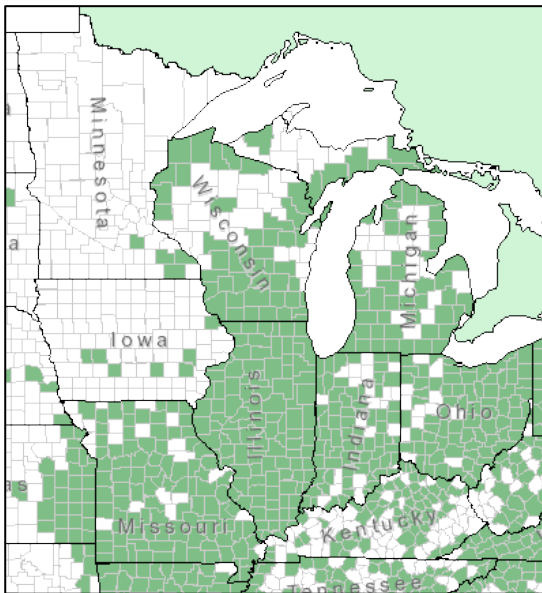


Photo: Julie Makin, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Seedling; stem and leaf arrangement; close-up of leaf

## Hemlock Waterparsnip

## Carrot Family

**Other Common Names:** water parsnip, water parsley

**Scientific Name:** *Sium suave* Walt.

**Plant Symbol:** SISU2

**Family:** Apiaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 6 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Inflorescences flat-topped or slightly-domed, with umbrella-like branching, and occurring at both terminal and axillary positions along the stem; individual flowers are very small with short white petals; leaves are pinnate-compound with 3 - 8 pairs of leaflets and one terminal, single leaflet.

**Pollinator Value:** This flower provides nectar and pollen to bees and other beneficial insects.

**Habitat:** Moist depressions, marshes, swamps, springs, banks of rivers and streams, and ditches.

**Note:** This plant is not poisonous but looks very similar to the highly poisonous water hemlock (*Cicuta maculata*) and poison hemlock (*Conium maculatum*).

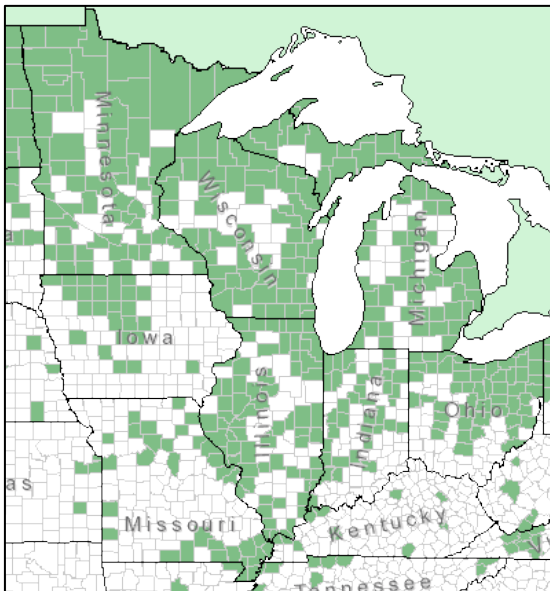


Photo: John Hilty, Illinois Wildflowers



## Important Plants of the Monarch Butterfly



Flowering



Close-up of stem and leaf arrangement

## Hoary Puccoon

## Borage Family

**Other Common Names:** orange puccoon

**Scientific Name:** *Lithospermum canescens* (Michx.) Lehm.

**Plant Symbol:** LICA12

**Family:** Boraginaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

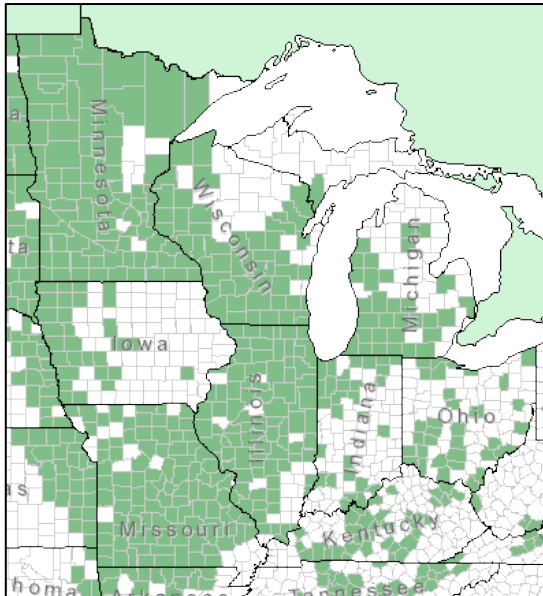
**Plant Height:** 0.5 - 1.5 ft.

**Blooms/Fruits:** March - June

**Distinguishing characteristics:** Flowers yellow-orange to orange, tubular with 5 spreading petals, clustered at the top of the plant; leaves bright green, but covered in dense, grey hairs giving the plant a greyish (hoary) color, narrowly lance-shaped, and thickened; stems also covered with dense, grey hairs.

**Pollinator Value:** This flower is a spring nectar source to pollinators and other beneficial insects.

**Habitat:** Roadside banks, dry open woods, prairies, pastures, roadsides, and open disturbed areas.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers/seedling



Stem and leaf arrangement

## Hoary Verbena

## Verbena Family

**Other Common Names:** hoary vervain, tall vervain, woolly verbena, woolly verbena

**Scientific Name:** *Verbena stricta* Vent.

**Plant Symbol:** VEST

**Family:** Verbenaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

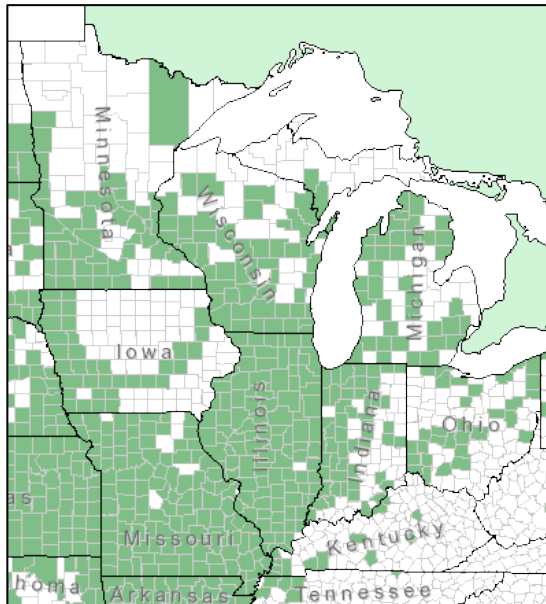
**Plant Height:** 1 - 4 ft.

**Blooms/Fruits:** June - September

**Distinguishing characteristics:** Flowers blue to purple on long (up to 1 ft.) terminal spikes, flowering occurs at the bottom of the spike first and progressively flowers upward; leaves are opposite each other on the stem, attached directly to the stem without a leaf-stalk, or with a short-leaf stalk <1/4 in. long, shape is widely lance-shaped to almost elliptical; stems and leaves densely covered with short hairs giving the plant an overall “grayish” appearance.

**Pollinator Value:** This flower is known to attract butterflies. It is also a larval food source for the common buckeye.

**Habitat:** Upland prairies, loess and sand prairies, open upland forests, overgrazed pastures, old fields, and disturbed areas.





Important Plants of the Monarch Butterfly



Photo: R. W. Smith, Lady Bird Johnson Wildflower Center

2004 © Peter M. Dziuk

Full flowering/close-up of blooms

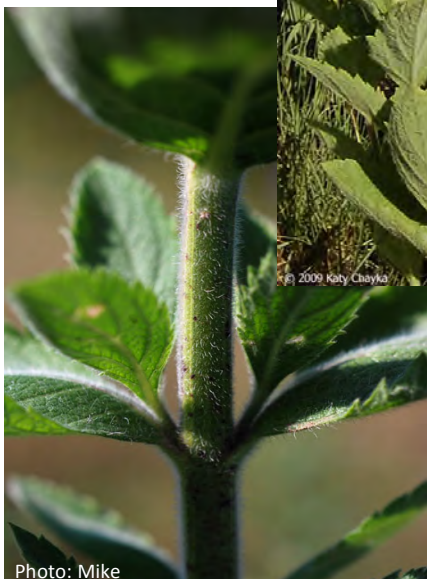


Photo: Mike

Close-up of stem and leaf



© 2009 Katy Chayka



© 2013 Katy Chayka

Mature plant

## Indianhemp

## Dogbane Family

**Other Common Names:** Indianhemp bane, hemp dogbane, indianhemp dogbane, prairie dogbane, honeybloom, bitter root, black hemp, lechuguilla, westernwall

**Scientific Name:** *Apocyanum cannabinum* L.

**Plant Symbol:** APCA

**Family:** Apocyanaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 6 ft.

**Blooms/Fruits:** May - September

**Distinguishing characteristics:** Inflorescences located on the upper portions of the plant and composed of clusters of small, white to greenish-white bell-shaped flowers that are often drooping; leaves are opposite on the stem, broadly lance shaped or oblong; fruit in long, drooping, cylindrical pods which are always in pairs. Indianhemp superficially resembles milkweed with flowers in clusters and milky sap.

**Pollinator Value:** High-value nectar source in the summer for the monarch butterfly.

**Habitat:** Prairies, open woodlands, roadsides, disturbed sites; quite common.

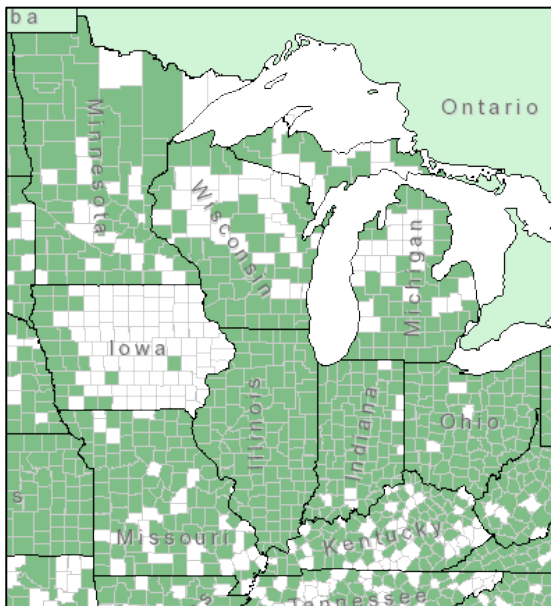


Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf arrangement

## Jerusalem Artichoke

**Other Common Names:** sunchoke

**Scientific Name:** *Helianthus tuberosus* L.

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

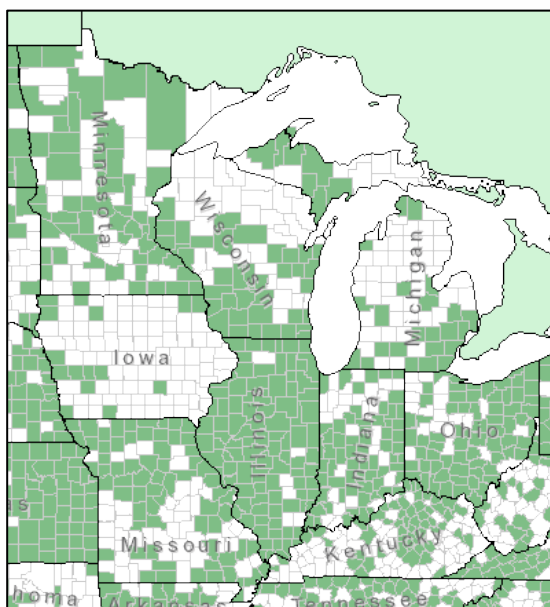
**Plant Height:** 3 - 6 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowering heads single or more often in open clusters of heads; each head fairly large and sunflower like in appearance with yellow rays and a yellow center; leaves are opposite on the lower half of the stem and alternate on the upper half, widely lance-shaped, rough to the touch on the upper surface and less rough to the touch on the lower surface; the leaf stems are usually slightly winged; characteristically the underground rhizomes produce an edible potato-like tuber with multiple “eyes” sold commercially.

**Pollinator Value:** This plant is a great late summer and fall nectar source. Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Ditches and ditch banks, along streams and rivers, in prairie depressions, margins of lakes and ponds, pastures, prairies, and moist roadsides. It can become aggressive and escape cultivation.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Leaf arrangement; close-up of stem; roots with developing tubers



## Late-flowering Thoroughwort

## Aster Family

**Other Common Names:** white boneset, late boneset, late-flowering boneset

**Scientific Name:** *Eupatorium serotinum* Michx.

**Plant Symbol:** EUSE2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads white in terminal, flat-topped to slightly domed-shaped clusters; leaves opposite (except for the uppermost leaves), lance shaped, pointed tip, margins toothed, moderately hairy on both sides and dotted with glands; leaf stem  $\frac{1}{2}$  - 1 in. long.

**Pollinator Value:** Late-flowering thoroughwort is attractive to a variety of insects, including butterflies and bees.

**Habitat:** Bottomlands, moist woods, and banks of ponds and streams; can become weedy.

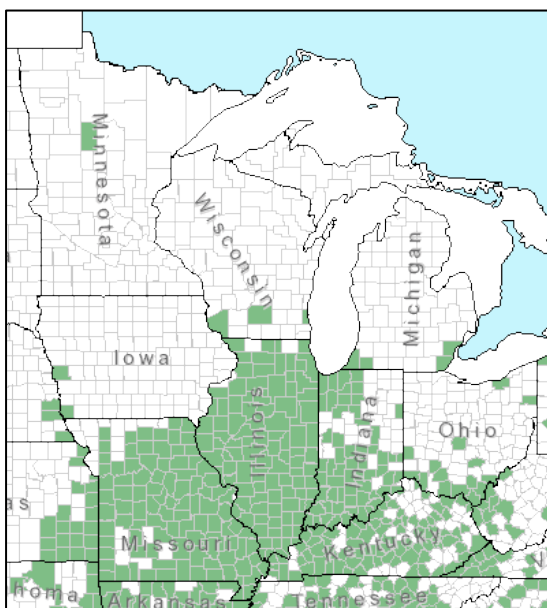


Photo: Robert Stone, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Robert Stone, Lady Bird Johnson Wildflower Center



Photo: Steven Schwartzman, Lady Bird Johnson Wildflower Center

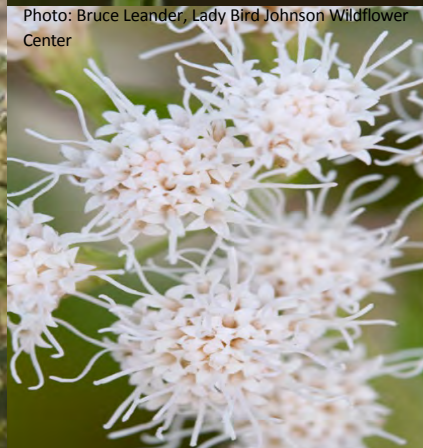


Photo: Bruce Leander, Lady Bird Johnson Wildflower Center

Flowering/close-up of flower heads



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: Carl Fabre, Lady Bird Johnson Wildflower Center

Photos showing stem and leaf arrangement

## Leadplant

## Pea Family

**Other Common Names:** leadplant amorphia, prairie shoestring

**Scientific Name:** *Amorpha canescens* Pursh

**Plant Symbol:** AMCA6

**Family:** Fabaceae

**Duration:** Perennial

**Growth Habit:** Shrub; Subshrub

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** May - August

**Pollinator Value:** Highly attractive to native bees. Provides nectar and pollen in the summer.

**Distinguishing characteristics:** Flowers small and purple in narrow, elongate terminal spike-like inflorescences, and unlike most pea flowers leadplant has only a banner petal; leaves are covered with short dense hairs giving the plant its distinctive grayish appearance (lead color), leaves are compound with 15 – 20 pairs of leaflets and a single terminal leaflet; taproots very deep, extending to 4 ft.

**Habitat:** Upland prairies, loess hill prairies, openings in dry upland forests, pastures, and roadsides.

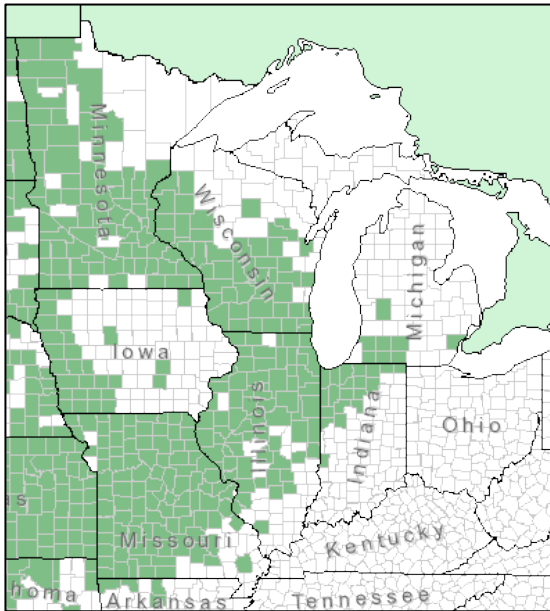


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms

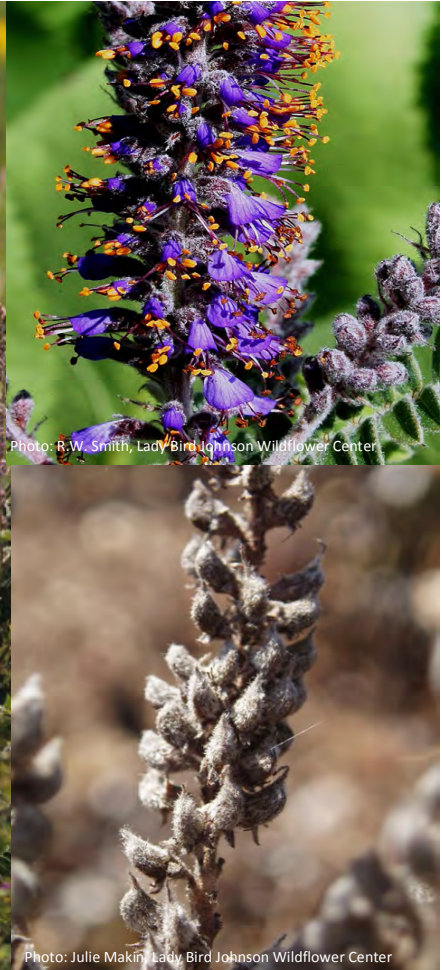


Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Photo: Julie Makin, Lady Bird Johnson Wildflower Center

Mature flower head



Photo: Julie Makin, Lady Bird Johnson Wildflower Center



Photo: Norman Flaigg, Lady Bird Johnson Wildflower Center

Close-up of leaflets and vegetative growth

## Maximilian Sunflower

## Aster Family

**Other Common Names:** Max sunflower

**Scientific Name:** *Helianthus maximiliani* Schrad.

**Plant Symbol:** HEMA2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 10 ft.

**Blooms/Fruits:** August - November

**Distinguishing characteristics:** flower head similar to common sunflower but much smaller and more numerous; stems tall, leafy, and unbranched; leaves long, narrow, up to 10 inches long, coarse and hairy, and slightly toothed and pointed.

**Pollinator Value:** This plant is a great late summer and fall nectar source. Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Adapted to many soil types, from sands to clays; favors good internal drainage and sunny locations.

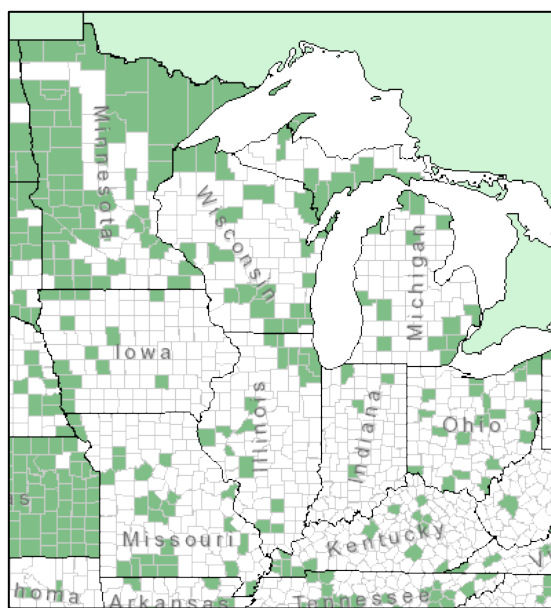


Photo: USDA-NRCS



Important Plants of the Monarch Butterfly



Seedling



Mature plant



Full flowering



Late vegetative

## New England Aster

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Symphotrichum novae-angliae* (L.) G.L. Nesom

**Plant Symbol:** SYNO2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft.

**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flower heads in many branched inflorescences; rays numerous (40 - 100) in each flower head, reddish-purple to purple and the disc reddish-purple; the leaves are widest at the ends, with a blunt tip and tapering base that clasps the stem, with 3-main veins per leaf, the middle and lower leaves absent at flowering; stems are hairy with interspersed gland-tipped hairs, 1 to several from the base and branched towards the top.

**Pollinator Value:** These flowers provide abundant nectar and pollen in the fall. They attract butterflies. There are a number of aster-oligolege bees that feed on the pollen.

**Habitat:** Bottomland prairies, moist depressions, fens, stream banks, pastures, fencerows, and roadsides.

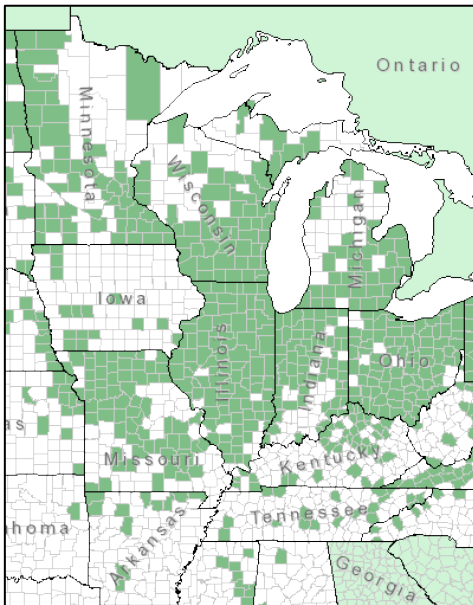


Photo: Steve Eggers ©



## Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf arrangement



Seedlings

# Northern Dewberry

**Other Common Names:** ronce à flagelles

**Scientific Name:** *Rubus flagellaris* Willd.

**Family:** Rosaceae

**Duration:** Perennial

**Growth Habit:** Subshrub

**Plant Height:** 1 ft.

**Blooms/Fruits:** May - June

**Distinguishing characteristics:** Stems of 2-kinds: first year “primocanes” lowly arching and trailing across the ground, rooting at the tip and along the stem, persistent through winter, usually with 5-leaflet palmately-compound leaves, and, second year “floricanes”, 3-leaflet palmately-compound leaves which die-back to the ground in winter; flowers 5-parted, white, with 1 - 6 flowers per inflorescence which are produced on upright stalks arising from the “floricanes”; fruit dark red to black, persistent on the plant; prickles with a broad base, bent backwards, approximately 5-prickers per ½ inch.

**Pollinator Value:** These flowers provide nectar and pollen in the early spring, and their stems can serve as habitat for tunnel-nesting bees. They are also attractive to butterflies.

**Habitat:** Upland prairies and open woodland, pastures, pastures, old fields, roadsides, and disturbed areas.

**Note:** There are many dewberries, blackberries, and raspberries which all appear similar. Commonly “dewberries” grow across the ground (prostrate) while blackberries and raspberries grow with upright and arching stems.

# Rose Family

**Plant Symbol:** RUFL

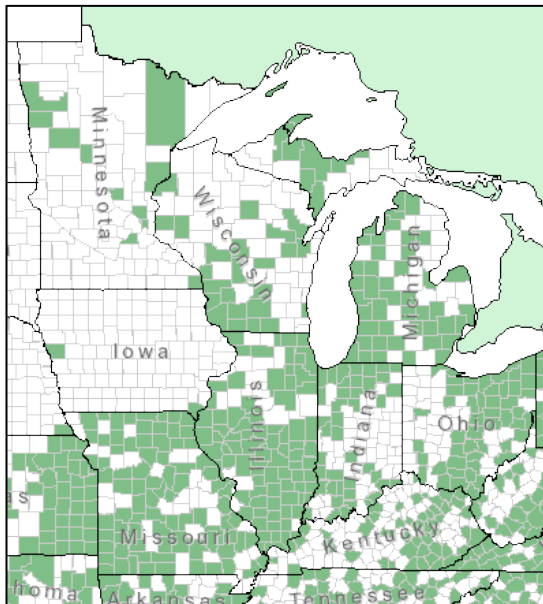


Photo: John Hilty, Illinois Wildflowers



## Important Plants of the Monarch Butterfly



Photo: John Hilty, Illinois Wildflowers

Early growth



Photo: John Hilty, Illinois Wildflowers

Flowering/close-up of flowers



Photo: John Hilty, Illinois Wildflowers

Stem with prickles

## Obedient Plant

## Mint Family

**Other Common Names:** fall obedient plant, false dragonhead, Virginia lions-heart

**Scientific Name:** *Physostegia virginiana* (L) Benth.

**Plant Symbol:** PHV18

**Family:** Lamiaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft.

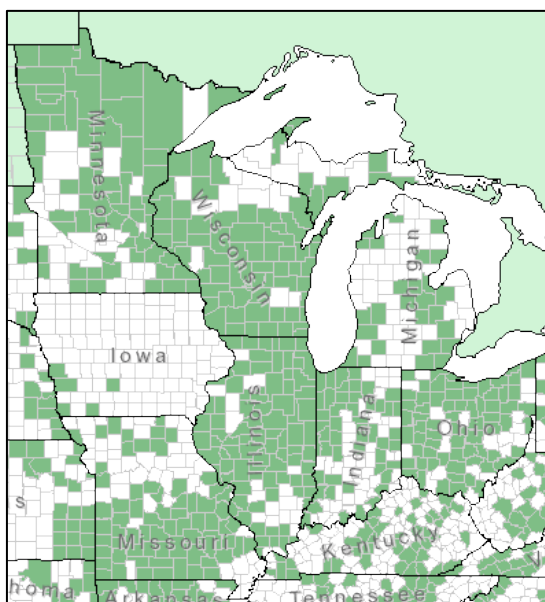
**Blooms/Fruits:** May - October

**Distinguishing characteristics:** Flowers snapdragon-like in appearance, white to lavender to pinkish-purple, crowded on an elongated terminal inflorescence; leaves are opposite on the stem, generally lance-shaped, between 3 - 7 in. long, the longest leaves are towards the base and gradually becoming shorter towards the top; stems are square.

**Pollinator Value:** These flowers are especially attractive to bumble bees. They are also popular with other long-tongued bees.

**Habitat:** Upland and bottomland prairies, open mesic and upland forests, pastures, swamps, and acid seeps.

**Note:** When the individual flowers are pushed sideways it will stay where it is pushed; hence the common name obedient plant.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



© 2009 Katy Chayka



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Photo: John Hilty, Illinois Wildflower

© 2007 K. Chayka



Photo: © 2007 K. Chayka

Stem and leaf arrangement



© K. R. Robertson  
Illinois Natural  
History Survey

Mature plant



# Ontario Blazing Star

# Aster Family

**Other Common Names:** Ontario gayfeather, Ontario liatris, dwarf blazing star, dwarf gayfeather, dwarf liatris

**Scientific Name:** *Liatris cylindracea* Michx.

**Plant Symbol:** LICY

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 2 ft.

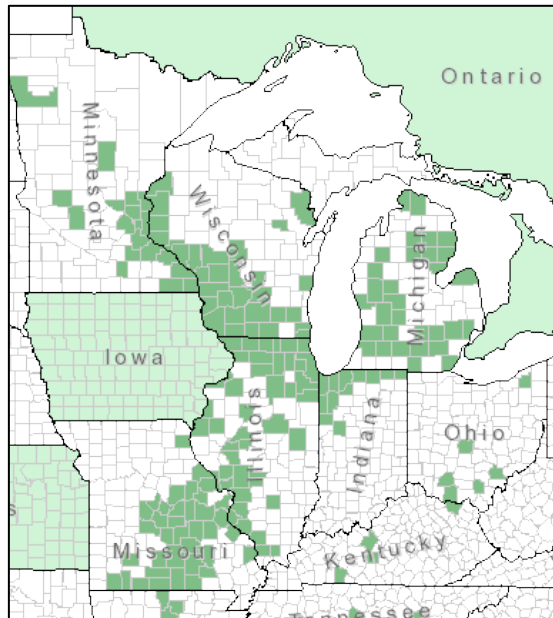
**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads blue and resembling powder puffs, are widely spaced along the inflorescence axis with the axis clearly visible between the heads; leaves are very narrow, linear and either with a very short leaf-stalk or attached directly onto the stem, and have 3 main veins per leaf; leaf margins are hard, thickened, often curl under.

**Pollinator Value:** Bees and butterflies are attracted to the flowers of this late summer/fall nectar source.

**Habitat:** Glades, openings in upland forests, prairies, pastures, and roadsides.

**Note:** There are several *Liatris* species that are similar in appearance to Ontario blazing star. This species can be distinguished from others by having leaf with 3 main veins, and the outer whorl of bracts under the flower head about the same size as the inner whorl, and the tips of the bracts strongly ascending or bent outwards.



© K. R. Robertson  
Illinois Natural History Survey



Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement

## Oval-leaf Milkweed

## Milkweed Family

**Other Common Names:** dwarf milkweed

**Scientific Name:** *Asclepias ovalifolia* Decne.

**Plant Symbol:** ASOV

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** Up to 1.5 ft.

**Blooms/Fruits:** May - July

**Distinguishing characteristics:** Inflorescences few towards the top of the stem with 8 - 20 flowers each; flowers greenish-white to cream colored (sometimes purple), petals reflexed with upturned ends; leaves are opposite on the stem or sub-opposite and broadly lance-shaped, sparsely to moderately hairy on the underside with very fine hairs. Shallow, slender rhizomes.

**Pollinator Value:** Larval host plant for the monarch butterfly. High value summer nectar source for other insects.

**Habitat:** Uncommon on sandy, clayey prairie soils, and open woodlands; more common after fires.

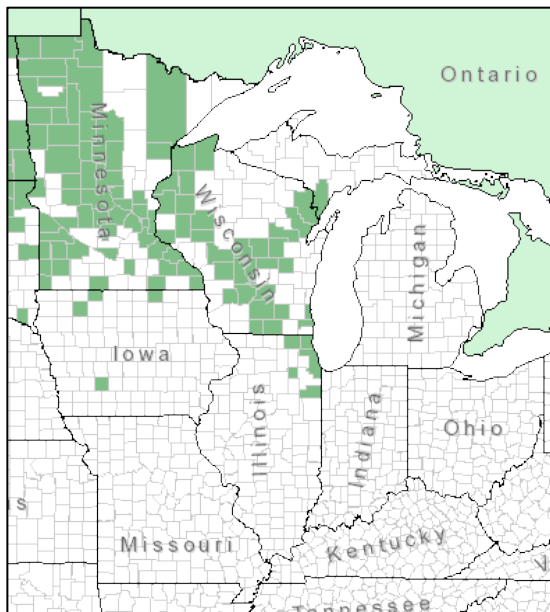


Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Foliage



Photo: John Hilty, Illinois Wildflowers

Stem and leaf arrangement

## Pale Purple Coneflower

## Aster Family

**Other Common Names:** pale echinacea, pale coneflower

**Scientific Name:** *Echinacea pallida* (Nutt.) Nutt.

**Plant Symbol:** ECPA

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 5 ft.

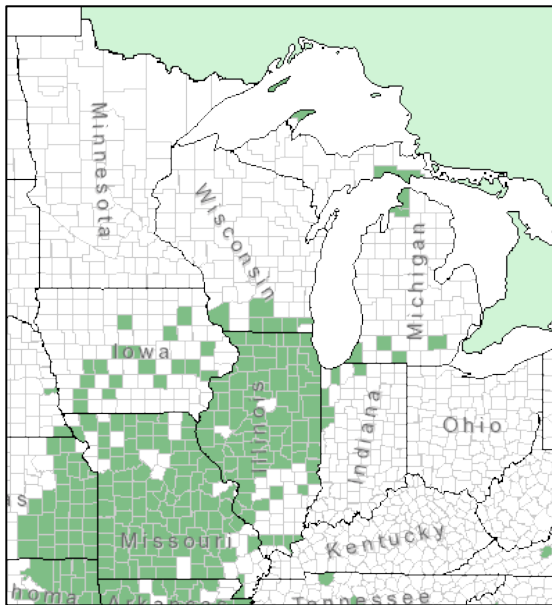
**Blooms/Fruits:** May - June

**Distinguishing characteristics:** Flower heads appearing daisy-like with pale pink, narrow, with obviously drooping rays, and with a dark purple to pink cone-shaped center; leaves much longer than broad, linear to widest in the middle, and with short, stiff hairs on the surfaces thus feeling raspy to the touch; stems with short stiff hairs that may be swollen (pustular) at the base of the hair.

**Pollinator Value:** This flower attracts butterflies and native bees.

**Habitat:** Upland prairies, glades, savannas, and other dry open sites.

**Note:** This species is similar to blacksamson (*E. angustifolia*), but pale purple coneflower has white pollen while black Samson's pollen is yellow.





Important Plants of the Monarch Butterfly



Photo: Johnny Johnson, Lady Bird Johnson Wildflower Center



Photo: Johnny Johnson, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



© K. R. Robertson  
Illinois Natural

Stem and leaf arrangement



© K. R. Robertson  
Illinois Natural History Survey



© K. R. Robertson  
Illinois Natural History Survey

Mature coneflower



© K. R. Robertson  
Illinois Natural History Survey

## Paleleaf Woodland Sunflower

## Aster Family

**Other Common Names:** paleleaf sunflower, woodland sunflower

**Scientific Name:** *Helianthus strumosus* L.

**Plant Symbol:** HEST

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

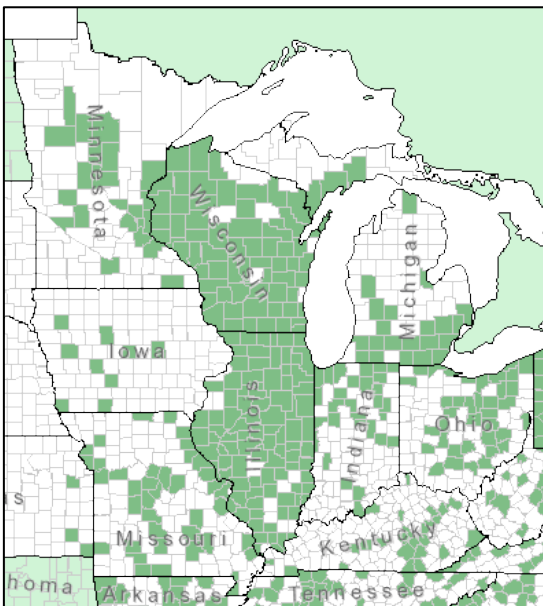
**Plant Height:** 3 - 6+ ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowering heads few to numerous in open clusters at the ends of the branches; rays yellow and the central disc yellow; leaves opposite on the stem, thick-textured and about 3 - 5x longer than broad, the upper surface with raspy feeling short, stiff hairs, and the undersurface with softer hairs and appears pale in color.

**Pollinator Value:** This plant is a great summer nectar source. Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Mesic upland forests, bottomland forests, banks of streams and rivers, upland prairies, and roadsides.

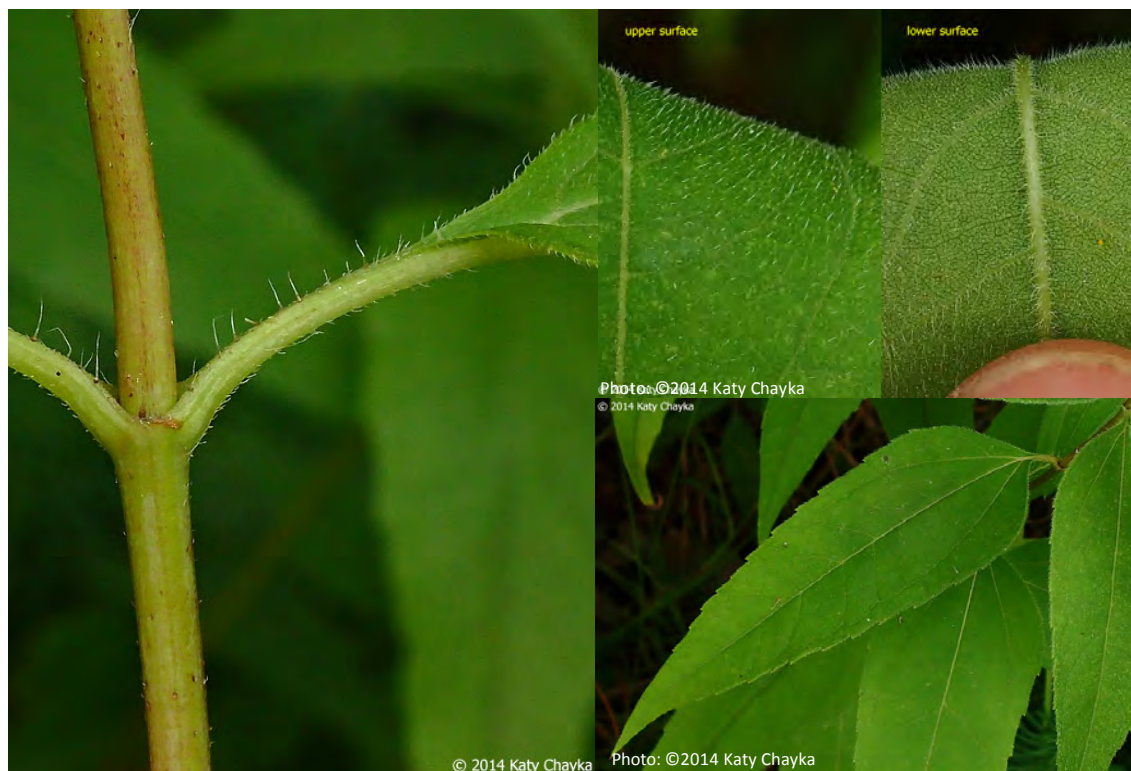




## Important Plants of the Monarch Butterfly



Full flowering/ close-up of flower



Close up of stem and leaf characteristics



## Parasol Whitetop

## Aster Family

**Other Common Names:** flat-top aster, flat-topped white aster, tall white aster

**Scientific Name:** *Doellingeria umbellata* (Mill.) Nees

**Plant Symbol:** DOUM2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

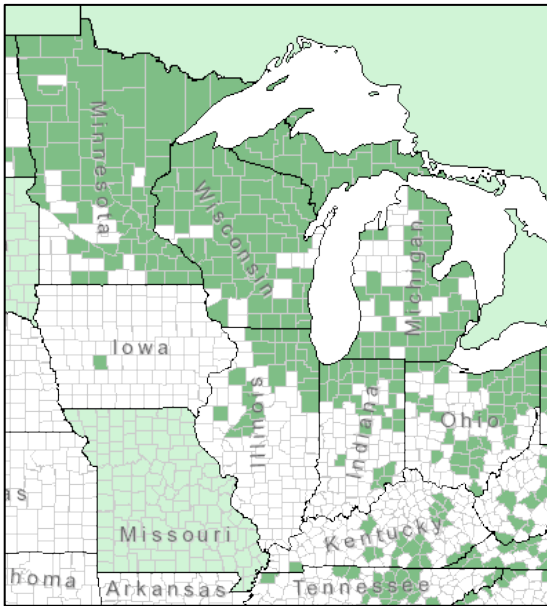
**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads daisy-like with white rays and a yellow center, and  $\frac{1}{2}$  to  $\frac{3}{4}$  in. across; inflorescence is flat-topped, branched with densely clustered flower heads; the stem has fine longitudinal lines of many small curved hairs; leaves are lance-shaped to widest in the middle, sharp pointed at the tip, have smooth margins, and do not have leaf stalks. Thick, sometimes woody rhizome.

**Pollinator Value:** This late summer blooming plant is highly attractive to a variety of bees and other invertebrates.

**Habitat:** Wetland margins, seeps, forest edges, meadows, fields, and disturbed areas.





## Important Plants of the Monarch Butterfly



Flowering/close-up of flowers



Stem and leaf arrangement



## Prairie Blazing Star

## Aster Family

**Other Common Names:** prairie gayfeather, prairie liatris, Kansas blazing star, Kansas gayfeather, Kansas liatris, cat-tail blazing star, cat-tail gayfeather, cat-tail liatris, hairy button-snakeroot

**Scientific Name:** *Liatris pycnostachya* Michx.

**Plant Symbol:** LIPY

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft.

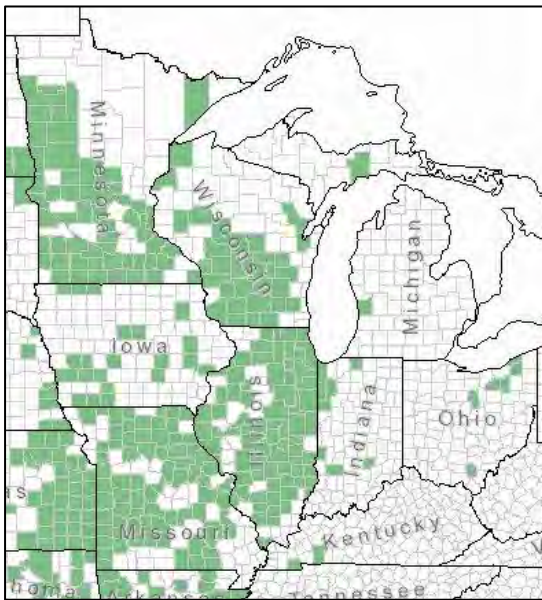
**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flowering heads purplish-blue to lavender powder-puffs and tightly clustered on an elongate inflorescence (spike) that may be half the length of the entire plant; flowering occurs from the top of the inflorescence first and then downward as the season progresses; leaves crowded on the stem and linear up to 6 in. long towards the base, but shorter upward.

**Pollinator Value:** Bees and butterflies are attracted to the flowers of this late summer through fall nectar source.

**Habitat:** Upland prairies, openings in mesic to upland forests, stream and ditch banks, fencerows, and pastures.

**Note:** There are several *Liatris* species that are similar in appearance to Prairie Blazing Star. This species can be distinguished from others by having several distinguishing characteristics: lower leaves with 3 or 5 main veins, each flowering head with 4 – 9 tubular flowers in each, and the leafy bracts under each flower head has a long pointed taper-tip that bends outwards.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Mature plant



Stem and leaf

## Prairie Ironweed

## Aster Family

**Other Common Names:** none

**Scientific Name:** *Vernonia fasciculata* Michx.

**Plant Symbol:** VEFA2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

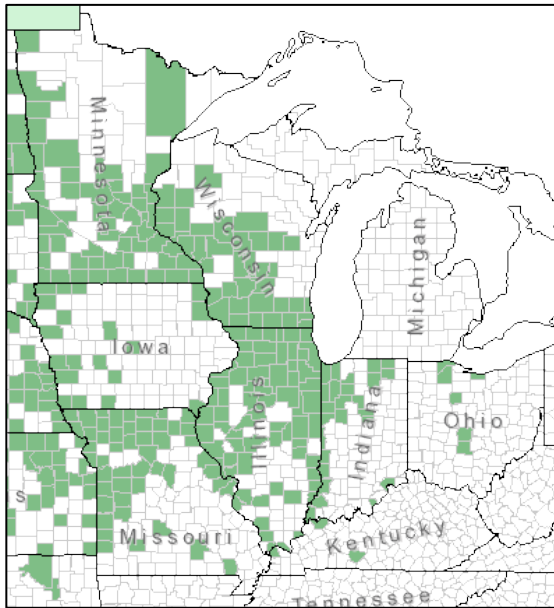
**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flower heads reddish-purple to purple in a much branched inflorescence; leaves are alternate on the stem and mostly attached directly without a leaf-stem, shape is widely lance-shaped and tapering at both ends, the undersurface has small, indented glands; the dark green leaves with the vivid purple flowers makes it easy to identify.

**Pollinator Value:** This flower attracts bees and butterflies. It supports an oligolege bee with its pollen.

**Habitat:** Bottomlands, ditches, low prairies, marshes, fens, and low fields.



2009 © Peter M. Dziuk



## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers and mature flowers



Close-up of leaf/stem and leaf arrangement



## Prairie Milkweed

## Milkweed Family

**Other Common Names:** smooth milkweed

**Scientific Name:** *Asclepias sullivantii* Engelm. ex A. Gray

**Plant Symbol:** ASSU3

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** June - August

**Distinguishing characteristics:** Inflorescences 15 - 40 flowered, in roundish clusters from the axils of the upper leaves; flowers borne on 2 - 3 in. stalks, pinkish-rose to purple colored and reflexed; leaves opposite one another and attached directly to the stem without leaf-stalks, broadly spear-shaped, and spreading but with the ends often ascending. Deep, fleshy rhizomes.

**Pollinator Value:** Larval host plant for the monarch butterfly. Flowers attract butterflies. High value summer nectar source.

**Habitat:** Sandy, loamy, and rocky calcareous prairie soils and roadsides.

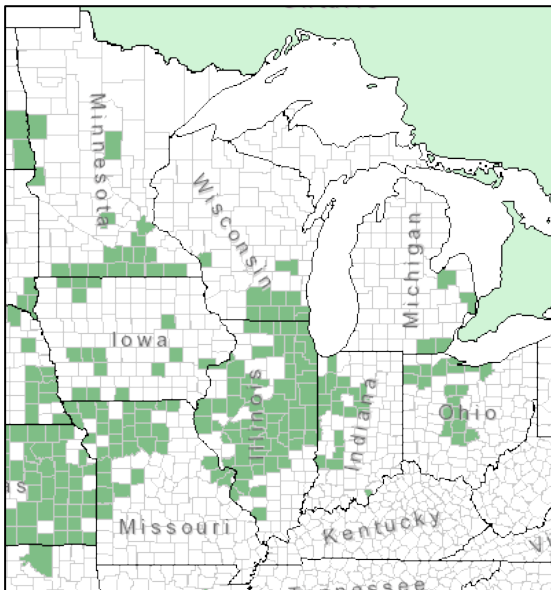


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Leaf arrangement

## Purple Milkweed

## Milkweed Family

**Other Common Names:** None

**Scientific Name:** *Asclepias purpurescens* L.

**Plant Symbol:** ASPU2

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

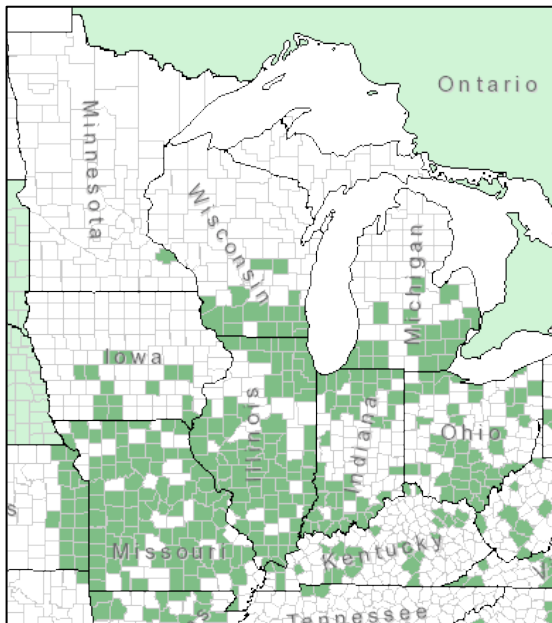
**Plant Height:** 1.5 - 3 ft.

**Blooms/Fruits:** May - July

**Distinguishing characteristics:** Flowers in umbrella-shaped clusters towards the top of the stem; flowers green to purple in bud, reddish to dark purple with reflexed petals in flower; leaves opposite on the stem, but may rarely be in whorls of 4, lance shaped to elliptic with a narrow base and a sharp pointed tip. Deep-set rhizomes.

**Pollinator Value:** Larval host plant for the monarch butterfly. Flowers attract butterflies. High value summer nectar source for other insects.

**Habitat:** Upland prairies, savannahs, pastures, open upland forests, and pastures.





Important Plants of the Monarch Butterfly



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center

Full Flowering/close-up of flowers



Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center

Foliage/leaf arrangement



Photo: Albert F.W. Vick, Lady Bird Johnson Wildflower Center

Multiple inflorescences

# Rocky Mountain Blazing Star

# Aster Family

**Other Common Names:** Rocky Mountain gayfeather, Rocky Mountain liatris, meadow blazing star, meadow gayfeather, meadow liatris

**Scientific Name:** *Liatris ligulistylis* (A. Nels) K. Schum

**Plant Symbol:** LILI

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

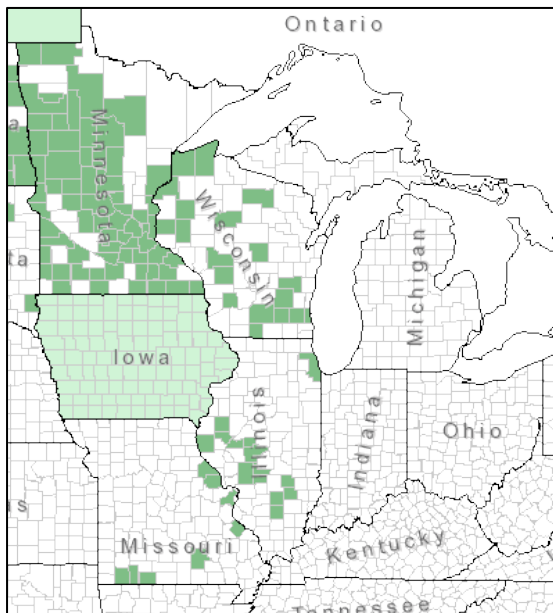
**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flower heads blue and appearing as small powder-puffs along a spike-like inflorescence, the terminal flower head will usually flower first and is clearly larger than those below it; leaves are numerous along the stem, narrow and widest towards the top and tapering towards the stem.

**Pollinator Value:** Arguably the most highly preferred monarch nectar plant. Bees and butterflies are also attracted to the flowers.

**Habitat:** Open moist sites, pine barrens, roadsides, ditches, and along railroads.

**Note:** There are several *Liatris* species that are similar in appearance to Rocky Mountain blazing star. This species can be distinguished from others by having the terminal flower head on the inflorescence larger than the lower ones when it is in flower and the inside of the floral tube is not hairy.





## Important Plants of the Monarch Butterfly



Full flowering



Stem and leaf arrangement



Close-up of flowers



Mature flowers

## Sawtooth Sunflower

## Aster Family

**Other Common Names:** hélíanthe à grosses dents

**Scientific Name:** *Helianthus grosseserratus* M. Martens

**Plant Symbol:** HEGR4

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Forb/herb

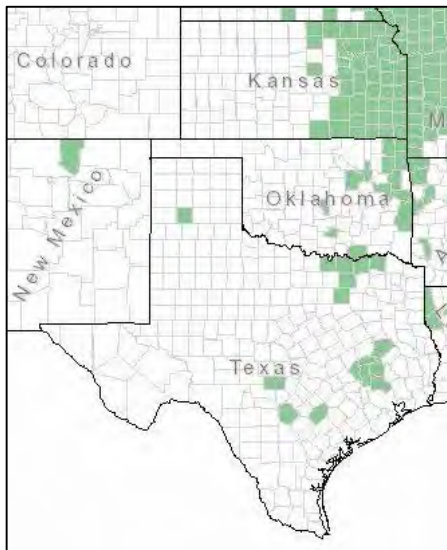
**Plant Height:** 3 - 12 ft.

**Blooms/Fruits:** August - November

**Distinguishing characteristics:** Flower heads with yellow rays and center; leaves are obviously sawtoothed on the margins, broadly lance shaped, and with 3 in. long leaf bases, upper leaf surface rough/raspy; stems arise from stout rhizomes and are hairless, but with a white waxy coating on the lower half of the stem.

**Pollinator Value:** These flowers are known to attract butterflies and other pollinators. They provide both pollen and nectar to foraging bees.

**Habitat:** Dry to wet prairies, open sites, wooded stream bottoms.





## Important Plants of the Monarch Butterfly



Full flowering and close-up of flowers



Leaf arrangement



Stem and close-up of leaf

## Showy Goldenrod

## Aster Family

**Other Common Names:** prairie goldenrod, showy-wand goldenrod

**Scientific Name:** *Solidago speciosa* Nutt.

**Plant Symbol:** SOSP2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 5 ft.

**Blooms/Fruits:** August - November

**Distinguishing characteristics:** Flower heads yellow in branched inflorescences arising both terminal and from the axils of the upper leaves, ascending to spreading; leaves are not hairy, variable in shape; those on the lower portions of the plant widest in the middle or the end of the leaf and leaves above the middle of the plant are widest towards the base of the leaf, all leaves have 1 main vein; stems with longitudinal ridges or grooves, non-hairy.

**Pollinator Value:** This flower is very attractive to bumble bees and butterflies. Goldenrods are quality nectar and pollen sources for pollinators and other beneficial insects. It hosts a number of oligolege bees.

**Habitat:** Upland prairies, dry to mesic upland forests, dry open site, and roadsides.

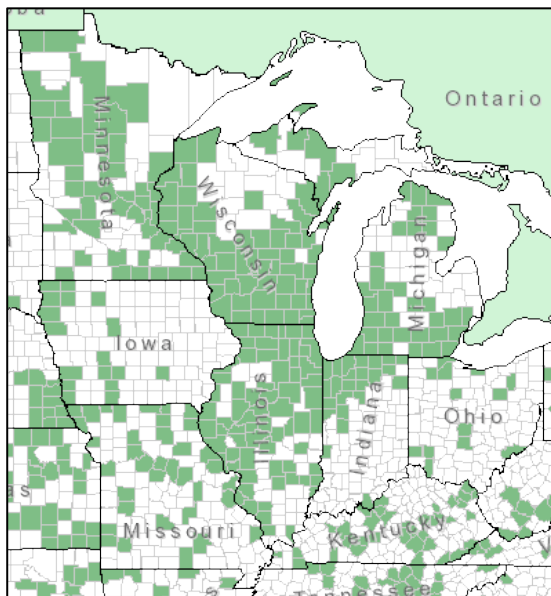


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: R.W. Smit, Lady Bird Johnson Wildflower Center

Close-up of Flowers



Photo: R.W. Smit, Lady Bird Johnson Wildflower Center



© K. R. Robertson  
Illinois Natural History Survey

Mature plant



Photo: John Hilty, Illinois Wildflowers

Leaf

## Showy Milkweed

## Milkweed Family

**Other Common Names:** None

**Scientific Name:** *Asclepias speciosa* Torr.

**Plant Symbol:** ASSP

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1.5 - 3 ft., but may reach 6 ft.

**Blooms/Fruits:** May - September

**Distinguishing characteristics:** Flowers in umbrella-shaped clusters borne on hairy flower stalks; petals reflexed with upturned tips, greenish-purple to pink with an overall hour-glass shape; leaves are opposite on the stem, pointed at the tip, rounded at the base, and hairy on the under surface; stems are hairy and may be branched.

**Pollinator Value:** Larval host plant for the monarch butterfly. Flowers attract butterflies. High value summer nectar source.

**Habitat:** Wet prairies, savannahs, and roadside ditches.

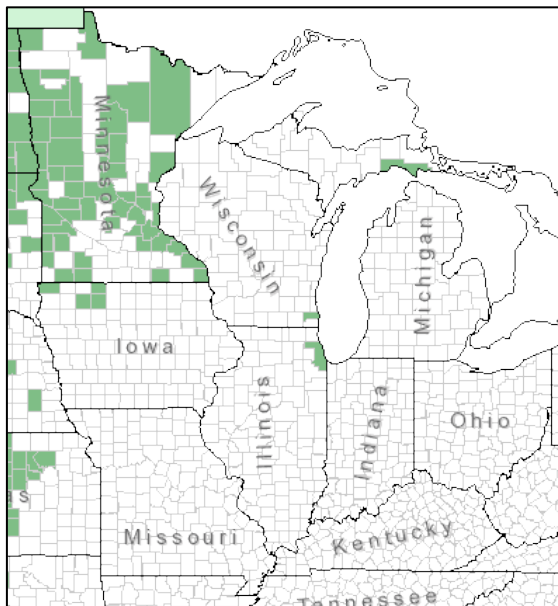


Photo: John Hix, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Fruit



Stem and Leaf arrangement



Mature fruit with seed

## Skyblue Aster

## Aster Family

**Other Common Names:** sky blue American-aster, azure aster, blue devil

**Scientific Name:** *Symphotrichum oolentangiense* (Riddell) G.L. Nesom

**Plant Symbol:** SYOO

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

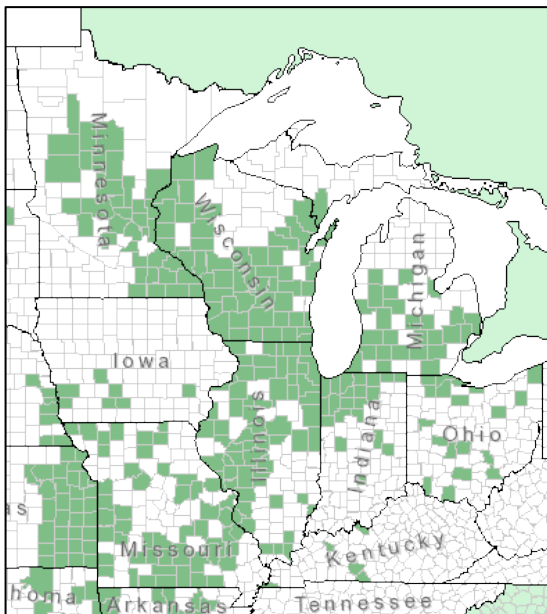
**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flowering heads in small clusters at the ends of branches, each flower head 0.5 - 1.0 inch across; rays blue to lavender, center yellow but becoming dark purple with age; leaves both basal and along the stem at flowering time; basal and lower leaves with a long leaf-stems which are commonly winged; upper leaves smaller and with shorter leaf-stems; leaf undersurfaces densely hairy with short stiff hairs and raspy to the touch.

**Pollinator Value:** These flowers provide abundant nectar and pollen in the fall. They attract butterflies. There are a number of aster-oligolege bees that feed on the pollen.

**Habitat:** Open, dry, sandy, or rocky soils, upland prairies, open forests, and rocky slopes.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement; close up of leaf



Mature plant

## Smooth Beggarticks

## Aster Family

**Other Common Names:** smooth bidens, smooth bur marigold, larger bur marigold, showy bur marigold

**Scientific Name:** *Biden laevis* (L.) Britton, Sterns & Poggenb.

**Plant Symbol:** BILA

**Family:** Asteraceae

**Duration:** Annual; Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flowering heads solitary on the top of numerous branches, generally upright in flower and nodding in fruit, rays and disc yellow to yellow orange; leaves opposite (may be whorled at base), widest at the middle or above the middle with toothed margins and a pointed tip; fruits with 4-barbed awns on top.

**Pollinator Value:** This flower is a summer and fall nectar source. It is known to attract butterflies and other invertebrates.

**Habitat:** Marshes, wetlands, stream banks, moist prairies, pastures, and roadside ditches.

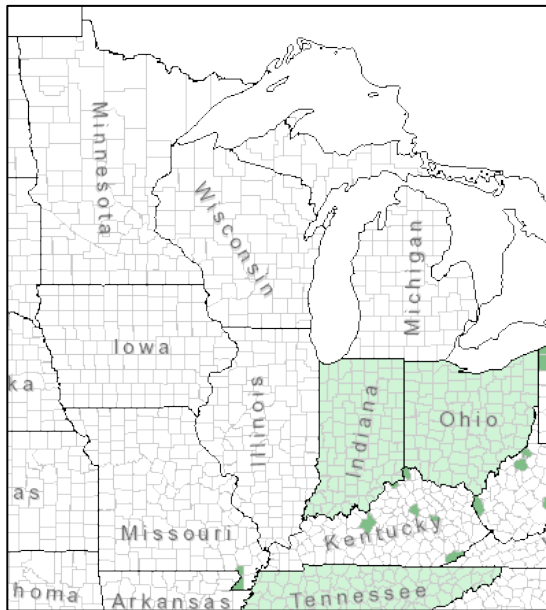


Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center

Flowering/close-up of flower heads



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center

Photo: John Hilty, Illinois Wildflowers



Photo: John Hilty, Illinois Wildflowers



Photo: John Hilty, Illinois Wildflowers

Close-up of leaf

## Smooth Blue Aster

## Aster Family

**Other Common Names:** smooth aster

**Scientific Name:** *Symphotrichum laeve* (L.) Á. Löve & D. Löve

**Plant Symbol:** SYLA3

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

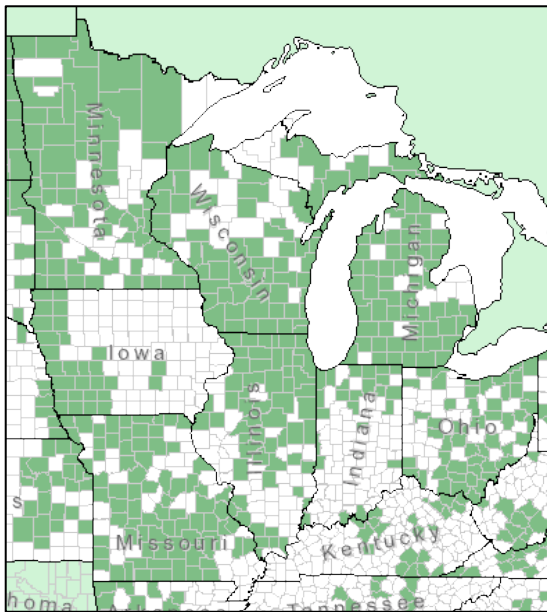
**Plant Height:** 2 - 4 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flowering heads few to many on the ends of ascending branches; rays are blue to lavender and the center is yellow; leaves are widest near the middle and sometimes heart-shaped, generally without hairs; leaf-stems absent or very short; basal leaves and those on the lower half of the stem generally absent/withered at flowering.

**Pollinator Value:** These flowers provide abundant nectar and pollen in the fall. They attract butterflies. There are a number of aster-oligolege bees that feed on the pollen.

**Habitat:** Open or drying sites, upland prairies, open forests, and roadsides.





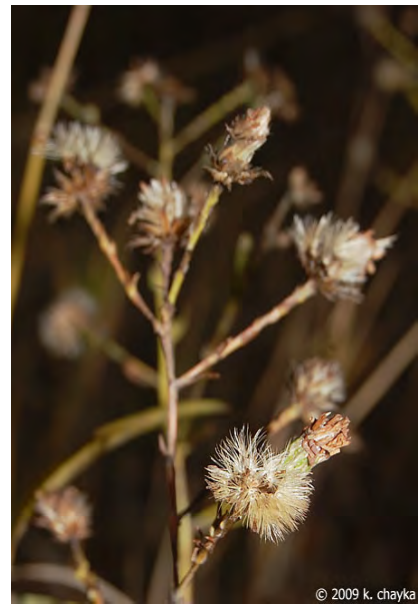
Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement



Mature plant

## Smooth Oxeye

## Aster Family

**Other Common Names:** oxeye sunflower, false sunflower

**Scientific Name:** *Heliopsis helianthoides* (L.) Sweet

**Plant Symbol:** HEHE5

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

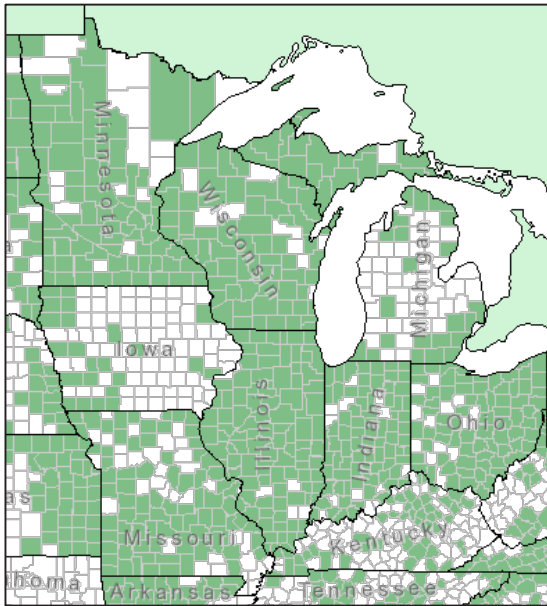
**Plant Height:** 3 - 5 ft., erect

**Blooms/Fruits:** June - September

**Distinguishing characteristics:** Flower heads with persistent yellow rays and a cone-shaped yellow-orange center which superficially looks like a small version of common sunflower; leaves are opposite on the stem, have a rough texture to the touch, with coarsely saw-toothed margins, 3 main veins, and a pointed tip.

**Pollinator Value:** This summer blooming flower is of high value to many pollinators and beneficial insects. It has its own oligolege bee, and it attracts butterflies.

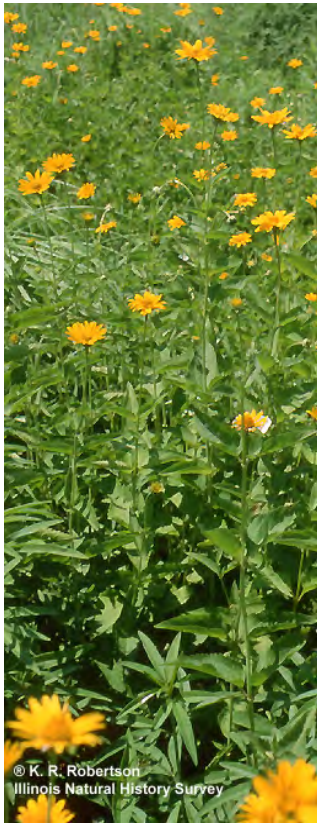
**Habitat:** Dry areas, prairies, edges of woods, roadsides, open woods, edges of fields and thickets.



© K. R. Robertson  
Illinois Natural History Survey



# Important Plants of the Monarch Butterfly



© K. R. Robertson  
Illinois Natural History Survey

Full flowering/close-up of blooms



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center



Julie Makin, Lady Bird Johnson Wildflower Center



Photo: Robert Stone, Lady Bird Johnson Wildflower Center

Mature plant



Photo: John Hilty, Illinois Wildflowers

Stem arrangement



Photo: John Hilty, Illinois Wildflowers

Leaf

## Smooth Phlox

## Phlox Family

**Other Common Names:** marsh phlox

**Scientific Name:** *Phlox glaberrima* L.

**Plant Symbol:** PHGL4

**Family:** Polemoniaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

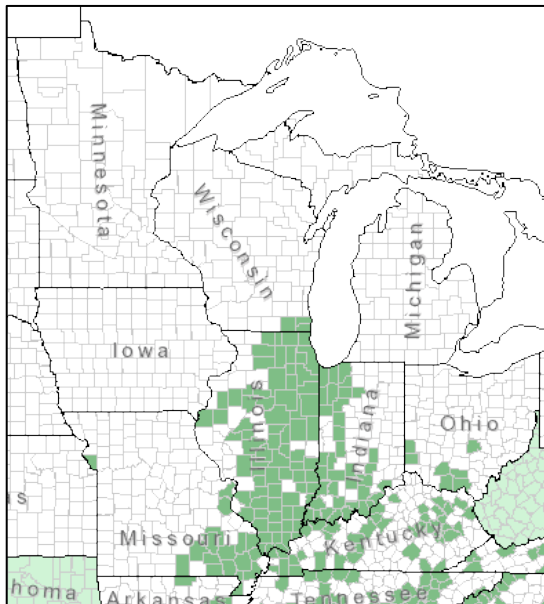
**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** May - July

**Distinguishing characteristics:** Flowers in loose clusters in a dome-shaped inflorescence, pink to pinkish purple in color, the 5 petals widely spreading with a narrow floral tube below; leaves are opposite on the stem, very narrow towards the plant base and becoming lance-shaped further up the stem. Smooth phlox does not have separate vegetative and flowering stems as in some other *Phlox* species.

**Pollinator Value:** This is another spring-blooming flower that attracts butterflies.

**Habitat:** Fens, acid seeps, bottomland prairies and forests, and swamps.





Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Close-up of leaf/ stem and leaf arrangement

## Soft-hair Marbleseed

## Borage Family

**Other Common Names:** soft-hair false gromwell, false gromwell, western marbleseed

**Scientific Name:** *Onosmodium bejariense* DC. ex A. DC.

**Plant Symbol:** ONBE

**Family:** Boraginaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** May - August

**Distinguishing characteristics:** Flowers tubular shaped and small (0.5 in.) on long, coiled inflorescences, white, cream, or yellowish-green in color; inflorescences are coiled like a fern frond or scorpion's tail and unroll as the flowers develop; leaves are alternate, lance to egg shaped, with a tapering tip and very hairy on the top and undersurfaces; basal leaves usually falling off at flowering time.

**Pollinator Value:** This spring blooming flower relies on bumble bees for pollination.

**Habitat:** Grasslands, forest openings, and limestone outcrops.

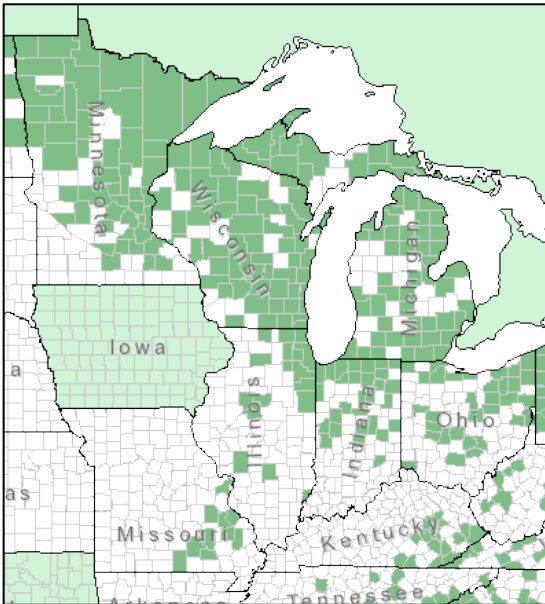


Photo: W.D. and Dolphia Branford, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: Bruce Leander, Lady Bird Johnson Wildflower Center

Close-up of flowers; stem and leaf arrangement



Photo: Corey Raimond

Seedling



Photo: Corey Raimond

Seed

## Spotted Beebalm

## Mint Family

**Other Common Names:** dotted beebalm, horse mint, dotted horse mint

**Scientific Name:** *Monarda punctata* L.

**Plant Symbol:** MOPU

**Family:** Lamiaceae

**Duration:** Perennial; Biennial; Annual

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 2 ft.

**Blooms/Fruits:** June - September

**Distinguishing characteristics:** The inflorescences are in a series of ball-like clusters of flowers terminating the stems; flowers two-lipped with a hood (top) and lip (bottom), cream-colored to pale yellow or pinkish with prominent purplish-brown to maroon spots; leaves are lance shaped and moderately hairy on both the top and bottom surfaces; the stems are square like most mints.

**Pollinator Value:** Hummingbirds may be attracted by the nectar. Also popular with butterflies and long-tongued bees.

**Habitat:** Sand prairies, crop field margins, open disturbed sites, and along roadsides.

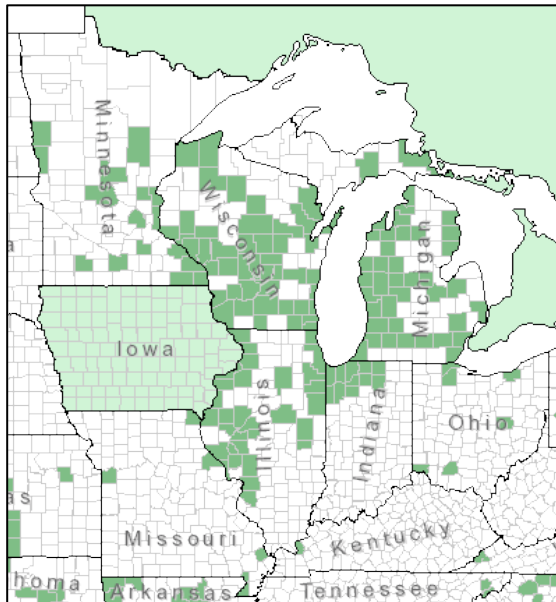


Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf arrangement/ close-up of leaf

## Spotted Joe Pye Weed

## Aster Family

**Other Common Names:** spotted trumpetweed, eupatoire maculée

**Scientific Name:** *Eutrochium* (=Eupatorium) *maculatum* (L) E.E. Lamont **Plant Symbol:** EUMA9

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6 ft., erect

**Blooms/Fruits:** August - September

**Distinguishing characteristics:** Flower heads are terminal in large, purple, dome-shaped inflorescences; leaves are in whorls of 4 to 5 (except towards the top where they can be alternate), tapering to a point at the tip, have margins sharply toothed, undersurfaces with both short hairs and glandular hairs, and only 1 main vein per leaf; the stems are solid (except at the very base) and are colored with dark purple mottling or uniformly dark purple tinged.

**Pollinator Value:** This late summer flower provides nectar for long-tongued bees and butterflies.

**Habitat:** Pastures & disturbed sites, moist areas, and open sun or partial shade.

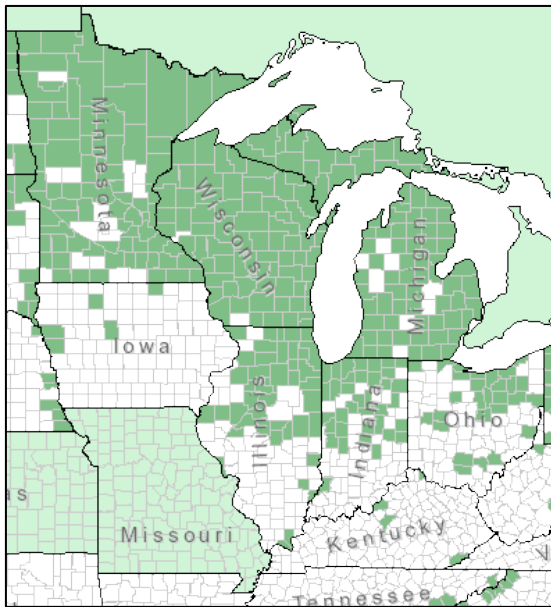


Photo: Steve Eggers ©



Important Plants of the Monarch Butterfly



Full flowering



Stem and leaf arrangement

## Stiff Goldenrod

## Aster Family

**Other Common Names:** ridged goldenrod

**Scientific Name:** *Oligoneuron rigidum* (L) Small

**Plant Symbol:** OLRI

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft., erect

**Blooms/Fruits:** July - November

**Distinguishing characteristics:** Flower heads in branched, flat-topped to mildly rounded inflorescences; individual flower heads small with yellow rays and yellow centers; leaves with basal rosettes that are persistent at flowering as well as smaller stem leaves; leaf surfaces with short, usually dense, curved hairs making the surface feel rough; stems with several fine grooves/ridges and with pubescence of curved hairs.

**Pollinator Value:** This flower supports pollinators and beneficial insects. It attracts butterflies, including the monarch.

**Habitat:** Bottomland and upland prairies, dry upland forests, old fields, and pastures.

**Note:** There are many plants commonly called goldenrods that belong to different plant genera, *Solidago*, *Euthamia*, and *Oligoneuron*, and they are all fairly similar. They generally have yellow, clustered flowers, but some species are white. The flowering stems can be elongate and recurved or flat-topped.

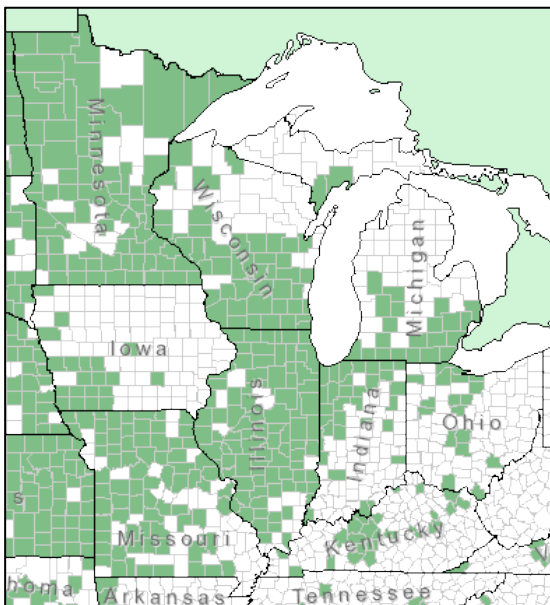


Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



## Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf arrangement



## Stiff Sunflower

## Aster Family

**Other Common Names:** prairie sunflower, few-leaved sunflower

**Scientific Name:** *Helianthus pauciflorus* Nutt.

**Plant Symbol:** HEPA19

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 4 - 6 ft.

**Blooms/Fruits:** August - October

**Distinguishing characteristics:** Flower heads single or a few and terminal, rays yellow and the central disc reddish-brown to dark purple; leaves few, opposite on the stem, and are mostly towards the base of the plant, thick-textured and somewhat leathery, covered with short stiff hairs making the surfaces feel rough/raspy, and with 3 main veins. Forms dense colonies from rhizomes.

**Pollinator Value:** This plant is a great summer nectar source. Sunflowers are work-horse plants, supporting bees, butterflies, and other beneficial insects. Many species of native bee are oligoleges on its pollen. Checkerspot butterflies feed on its leaves as caterpillars.

**Habitat:** Upland prairies, loess hill prairies, openings in dry upland forests, pastures, and roadsides.

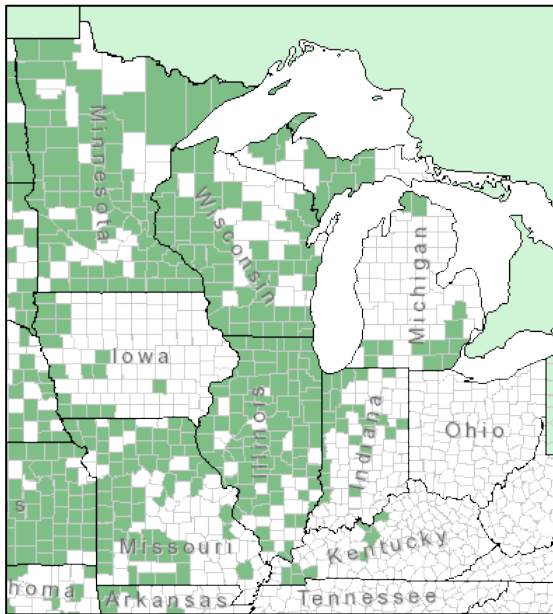


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Mike Haddock



Photo: Mike Haddock

Photo: Mike Haddock

Stem and leaf arrangement/close-up of leaf

## Stiff Tickseed

## Aster Family

**Other Common Names:** stiff coreopsis, finger coreopsis

**Scientific Name:** *Coreopsis palmata* Nutt.

**Plant Symbol:** COPA10

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

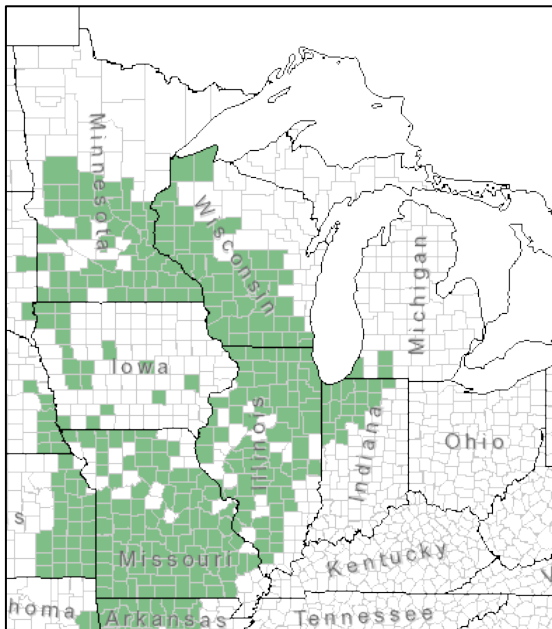
**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** May - September

**Distinguishing characteristics:** Flowering heads with yellow rays and a yellow center, 2 - 3 in. across, borne singly or in a loose clusters of flower heads; leaves are opposite on the stem and sessile, each leaf divided into 3-lobes resembling skinny fingers. Long, creeping rhizomes.

**Pollinator Value:** This summer blooming wildflower provides nectar and pollen to native bees and other invertebrates.

**Habitat:** Upland prairies, openings in forests, old fields, and fallow areas.



© K. R. Robertson  
Illinois Natural History Survey



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf



Mature plant

# Swamp Milkweed

# Milkweed Family

**Other Common Names:** rose milkweed, pleurisy root, white Indian hemp

**Scientific Name:** *Asclepias incarnata* L.      **Plant Symbol:** ASIN

**Family:** Asclepiadaceae

**Duration:** Perennial      **Growth Habit:** Herbaceous

**Plant Height:** 2 - 6 ft., erect      **Blooms/Fruits:** June - October

**Distinguishing characteristics:** Inflorescences long stalked and with 2 - 12 per plant, both terminal and in the leaf axis toward the upper end of the stem; flowers pink to pinkish-white; petals reflexed; leaves opposite on the stem, lance-shaped, and with an abrupt or rounded base; leaf stalk short.

**Pollinator Value:** Larval host plant for the monarch butterfly. Flowers attract butterflies.

**Habitat:** Wetland habitats: swamps, sloughs, marshes, and edges of ponds.

**Note:** Swamp milkweed is poisonous if consumed in larger quantities by people and livestock. Sheep are especially susceptible.

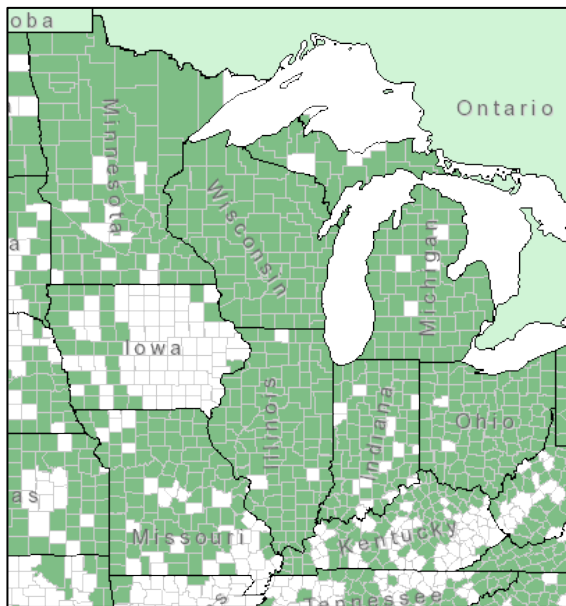


Photo: Jennifer Anderson ©



Important Plants of the Monarch Butterfly



Photo: Jennifer Anderson ©

Full flowering/close-up of blooms



Photo: Joseph Marcus, Lady Bird Johnson Wildflower Center



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Leaf arrangement



Photo: Steve Eggers, USACE

Fruit

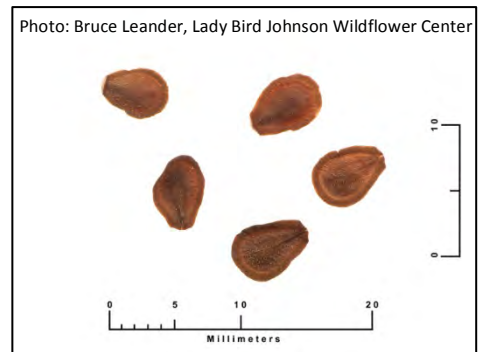


Photo: Bruce Leander, Lady Bird Johnson Wildflower Center

Seed

## Swamp Thistle

## Aster Family

**Other Common Names:** dunce-nettle, horsetops, chardon mutique

**Scientific Name:** *Cirsium muticum* Michx.

**Plant Symbol:** CIMU

**Family:** Asteraceae

**Duration:** Biennial

**Growth Habit:** Herbaceous

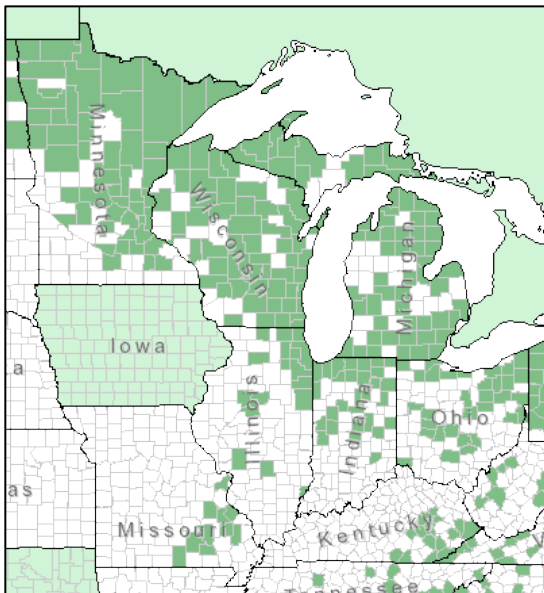
**Plant Height:** 3 - 7+ ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowering heads few, in clusters of 2 -3 on branches, powder-puff shaped heads about 1 in. tall and 1 in. wide, lavender to purple in color; leaves about 1 ft. long, deeply divided into segments which may be divided some more, each division tipped with a spine along with a few spines along the margins of the divisions; leaf undersurfaces densely covered with tufts of white wooly hairs.

**Pollinator Value:** This native thistle is highly attractive to numerous pollinators, from bumble bees to the monarch butterfly.

**Habitat:** Low moist woodland margins, riverbanks, and meadows.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers/seedling



Stem and leaf

## Sweetscented Joe Pye Weed

## Aster Family

**Other Common Names:** sweet joe pye weed, green-stemmed joe pye weed, purple joe pye weed

**Scientific Name:** *Eutrochium* (=Eupatorium) purpureum (L.) E.E. Lamont

**Plant Symbol:** EUPU21

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 6+ ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flower heads pale-pink to light purple in large dome-shaped, terminal inflorescence; leaves are in whorls of 3 - 4 at each leaf node, broadly lance-shaped; stems have dark purple splotches at the leaf nodes on an otherwise green stem.

**Pollinator Value:** This late summer flower provides nectar for long-tongued bees and butterflies.

**Habitat:** Bottomland forests, open wooded areas, and banks of rivers and streams.

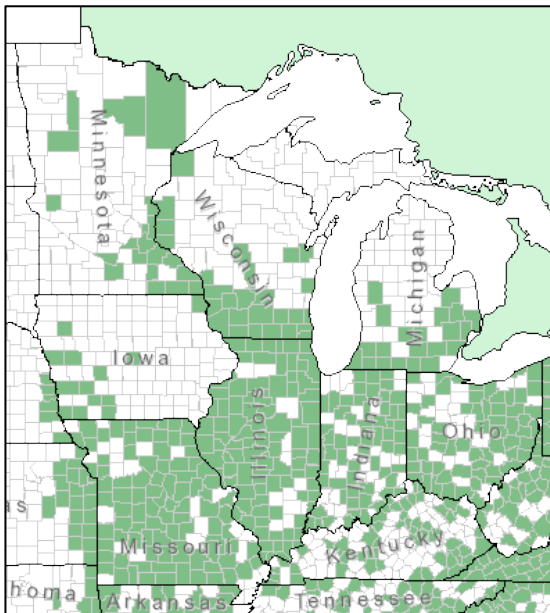


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Full flowering/ close-up of flower



Close-up of leaf and stem



Mature plant

## Tall Blazing Star

## Aster Family

**Other Common Names:** rough gayfeather

**Scientific Name:** *Liatris aspera* Michx.

**Plant Symbol:** LIAS

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft., erect

**Blooms/Fruits:** August - November

**Distinguishing characteristics:** Flower heads are in small powder-puffs interspersed along an elongate spike-like inflorescence; the leaves are widest towards the middle or tip of the leaves, but they are always very narrow, appearing linear.

**Pollinator Value:** Monarchs are known to visit this plant. Bees and butterflies are attracted to the flowers of this late summer/fall nectar source.

**Habitat:** Upland prairies, glades, openings of mesic to dry upland forests, pastures, and roadsides.

**Note:** There are several *Liatris* species that are similar in appearance to Tall Blazing Star. This species can be distinguished from others by having the bracts under the flower heads with thin, transparent margins which are purplish-tinged and appearing torn. The individual flowers are hairy within the floral tube, and the terminal head is NOT larger than the rest of the heads.

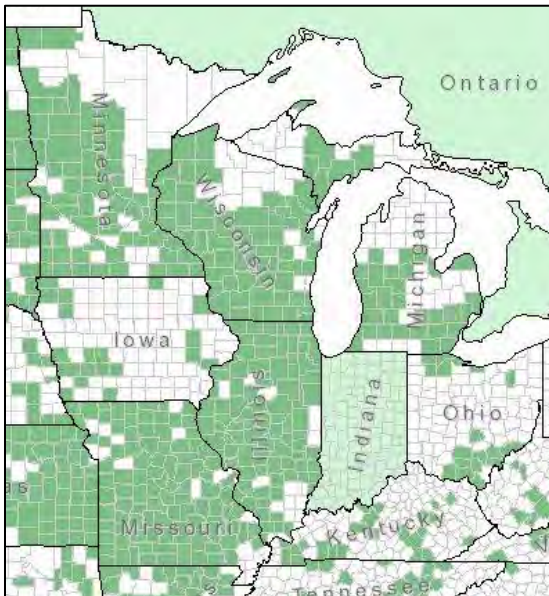


Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



R.W. Smith, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



© K. R. Robertson  
Illinois Natural  
History Survey

Mature plant



Photo: USDA-NRCS



Photo: USDA-NRCS

Seedlings

## Tall Thoroughwort

## Aster Family

**Other Common Names:** tall boneset

**Scientific Name:** *Eupatorium altissimum* L.

**Plant Symbol:** EUAL3

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 6 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flower heads white, in terminal, broadly dome-shaped to flat-topped inflorescences, usually 5 disc flowers per head; leaves opposite, but the uppermost leaves may be sub-opposite to alternate, attached to the stem directly without a leaf-stalk or with a very short one, lance-shaped with sharply pointed tips and tapering bases, the leaves have 3 main veins arising from the base; stems are hollow and with purple-tinged or brownish-mottles.

**Pollinator Value:** These flowers serve as a late summer nectar source for a variety of bees, butterflies, and other beneficial insects.

**Habitat:** Upland prairies, glades, savannahs, forest openings, old fields, pastures, and ditches.

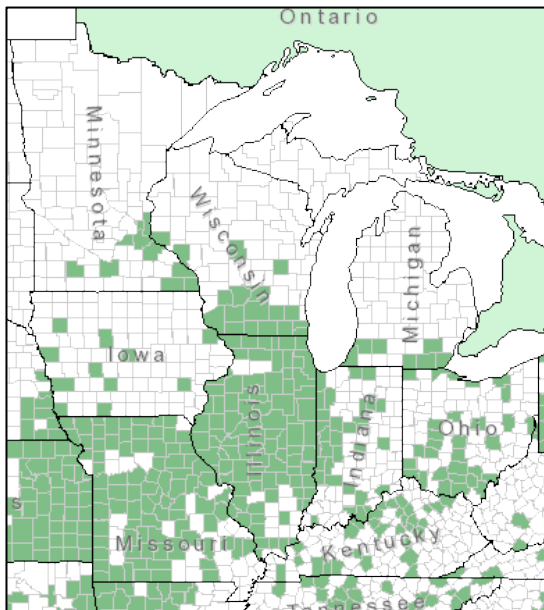


Photo: Kimberly Kline, Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf arrangement



Seed

## Tall Tickseed

## Aster Family

**Other Common Names:** tall coreopsis, tall tickseed

**Scientific Name:** *Coreopsis tripteris* L.

**Plant Symbol:** COTR4

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

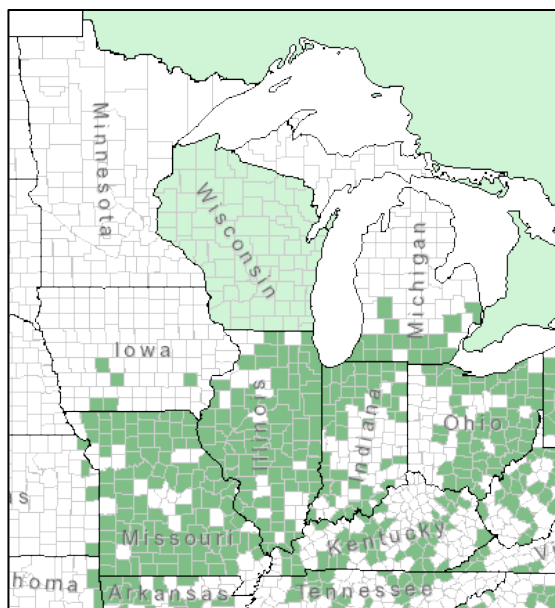
**Plant Height:** 3 - 6 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flower heads with yellow rays and dark purple or reddish-brown centers; leaves are opposite on the stem, deeply divided into 3-segments or sometimes divided into 3 leaflets, and with a leaf stalk, only the upper leaves un-divided and without a leaf stalks; seeds generally have two terminal awns/barbs or sometimes they are awnless.

**Pollinator Value:** This summer blooming flower attracts butterflies. It also provides nectar and pollen to native bees and beneficial insects.

**Habitat:** Open wooded stream banks, moist or upland prairies, old fields, and roadsides.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Stem and leaf



Mature plant

# Trumpetweed

# Aster Family

**Other Common Names:** hollow joeypyweed, hollow-stemmed joeypyweed

**Scientific Name:** *Eutrochium* (=Eupatorium) *fistulosum* (Barratt) E.E. Lamont      **Plant Symbol:** EUFI14

**Family:** Asteraceae

**Plant Height:** 3 - 9+ ft., erect

**Growth Habit:** Herbaceous

**Duration:** Perennial, herbaceous

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Individual flowering heads small, pinkish-purple, in large dome-shaped inflorescences, rays absent; leaves in whorls of 4 - 7, lance-shaped and finely toothed on the margins; stems purplish or purple blotched throughout, covered with a thin, white-waxy coating (glaucous), and hollow except where the leaves attach (nodes) and the top of the plant.

**Pollinator Value:** This flower blooms in the summer and is visited by numerous species of pollinator and beneficial insects. It is known to attract butterflies.

**Habitat:** Wet lowlands, bottomland forests, alluvial woods, along stream and river banks, moist meadows, bogs, marshes, moist pastures, and roadsides.

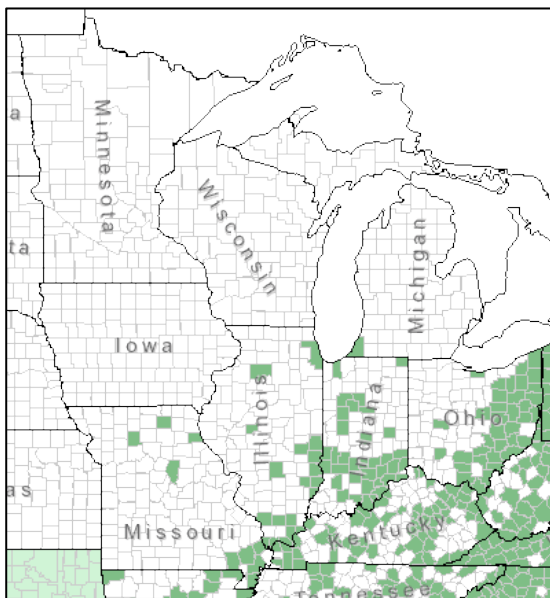


Photo: W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement

## Turk's-cap Lily

## Lily Family

**Other Common Names:**

**Scientific Name:** *Lilium superbum* L.

**Plant Symbol:** LISU

**Family:** Liliaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 7 ft., erect

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowers large, nodding on long flower-stems, orange with dark spots, the petals strongly curved backwards, and the base of each petal/sepal is a green stripe making a green star shape in the center; leaves whorled on the stem, long and narrow, widest in the middle.

**Pollinator Value:** This flower attracts hummingbirds and butterflies. It cannot self-pollinate.

**Habitat:** Wet meadows, moist ground, and coves.

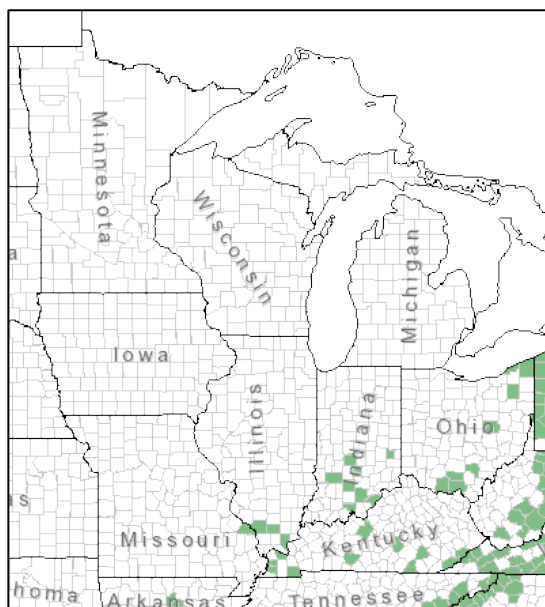


Photo: John Hilty, Illinois Wildflowers



## Important Plants of the Monarch Butterfly



Photo: John Hilty, Illinois Wildflowers



Photo: Bennie Bengston, Lady Bird Johnson Wildflower Center



Photo: Alan Cressler, Lady Bird Johnson Wildflower

Full flowering/close-up of flowers



Photo: Alan Cressler, Lady Bird Johnson Wildflower



Photo: John Hilty, Illinois Wildflowers

Stem and leaf arrangement

## Two-flower dwarf dandelion

## Aster Family

**Other Common Names:** two-flower cynthia, dwarf dandelion

**Scientific Name:** *Krigia biflora* (Walter) S.F. Blake

**Plant Symbol:** KRBI

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 0.5 - 1.5 ft.

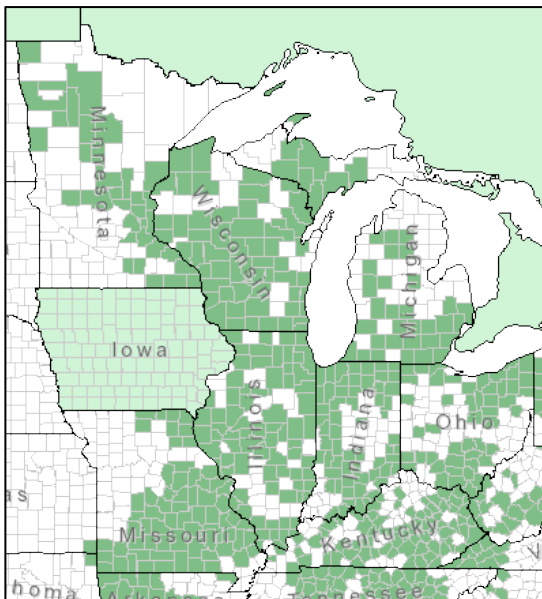
**Blooms/Fruits:** May - August

**Distinguishing characteristics:** Flower heads yellow-orange to orange, resembling a small dandelions, all flowers in the heads are rays; flower heads usually 2 - 6 borne in pairs on stalks from the leaf axils; leaves mostly a basal rosette with a few leaves up the stem; basal leaves narrowly lance-shaped and with a leaf-stalk; stem leaves few, without a leaf stalk and the leaf bases are often clasping the stem; stems have a few pronounced branches above the midpoint.

**Pollinator Value:** This plant is a summer nectar source for many pollinators and beneficial insects. This flower also supports a species of oligolege bee.

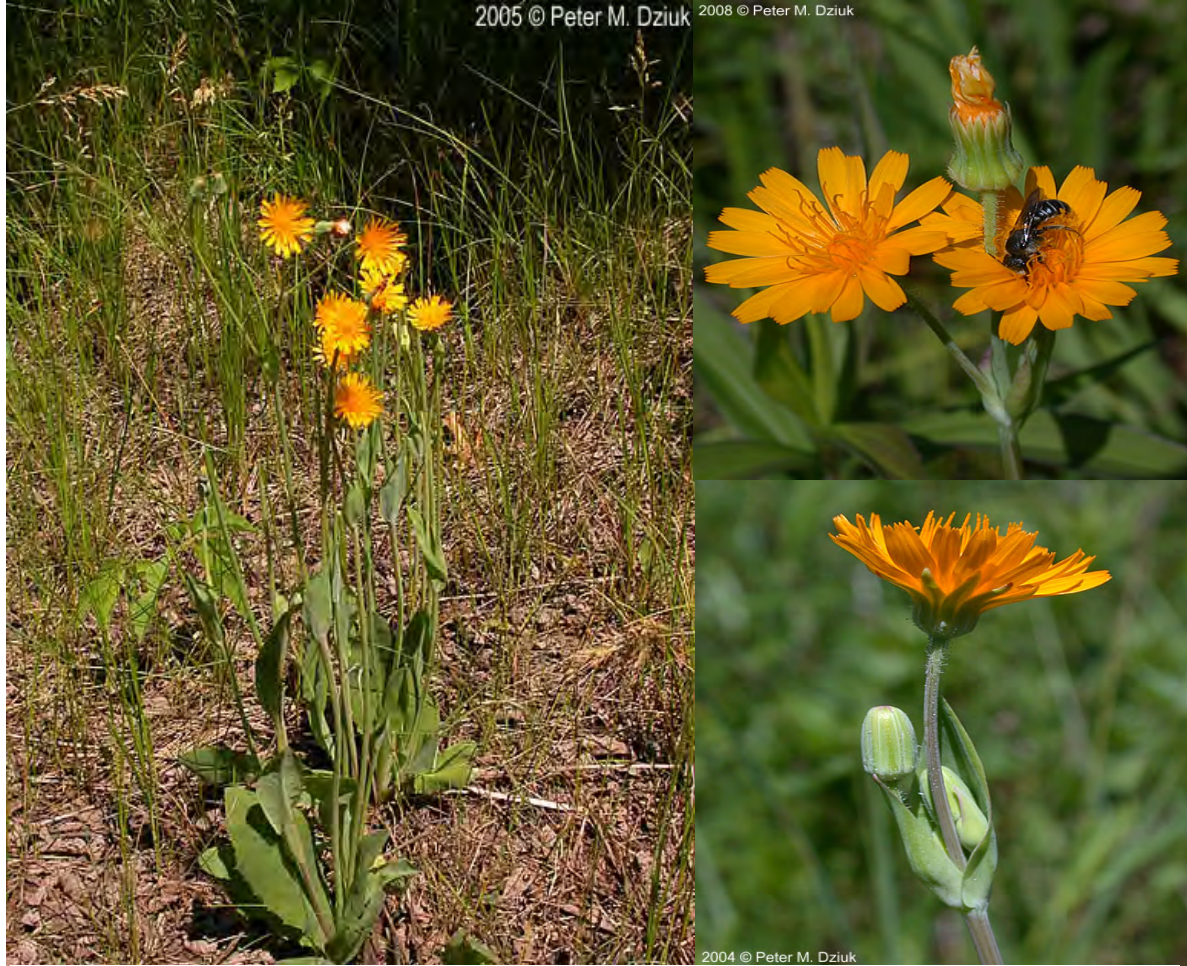
**Habitat:** Dry to mesic forests, prairies, pond and stream banks, pastures, roadsides, and lawns.

**Note:** This plant is very similar to potato dwarf dandelion (*Krigia dandelion*). Two-flower dwarf dandelion has a taproot and a few leaves on the stem. Potato dwarf dandelion produces small tubers and has no leaves up the stem.





Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf; seedling; leaf clasping stem



# Virginia Bluebells

# Borage Family

**Other Common Names:** bluebells, Virginia cowslip

**Scientific Name:** *Mertensia virginica* (L.) Pers. ex Link

**Plant Symbol:** MEVI3

**Family:** Boraginaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 2 ft.

**Blooms/Fruits:** March - May

**Distinguishing characteristics:** Flowers blue, funnel to bell-shaped, 1.5 - 2 in. long in drooping clusters; leaves broadly egg-shaped to widest in the middle with leaf margins smooth, the lower leaves larger and with short, winged leaf-stalks while the upper leaves are smaller, without a leaf-stalk, and wings extending down the stem.

**Pollinator Value:** Attracts butterflies. This flower is a spring nectar source to pollinators and other beneficial insects.

**Habitat:** Moist woods and stream sides, shady woodlands, bottomland forests, commonly cultivated and escaped.

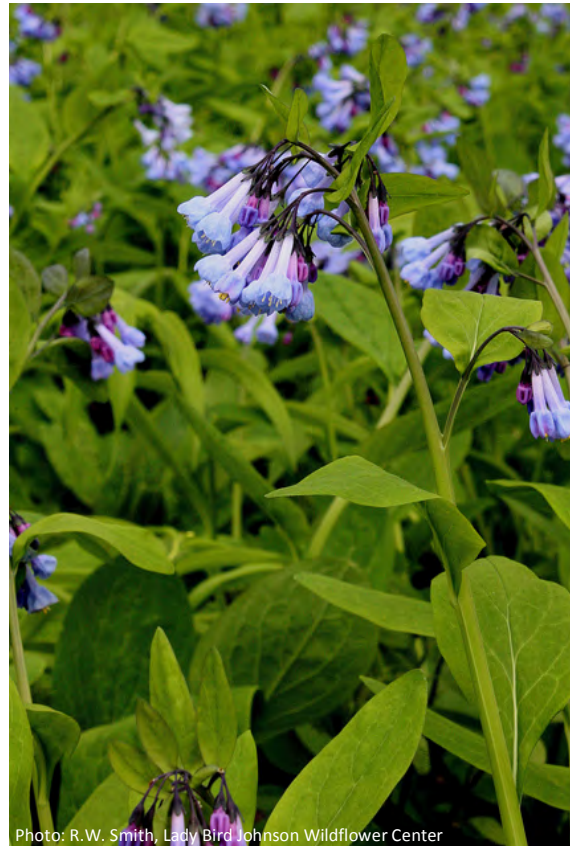
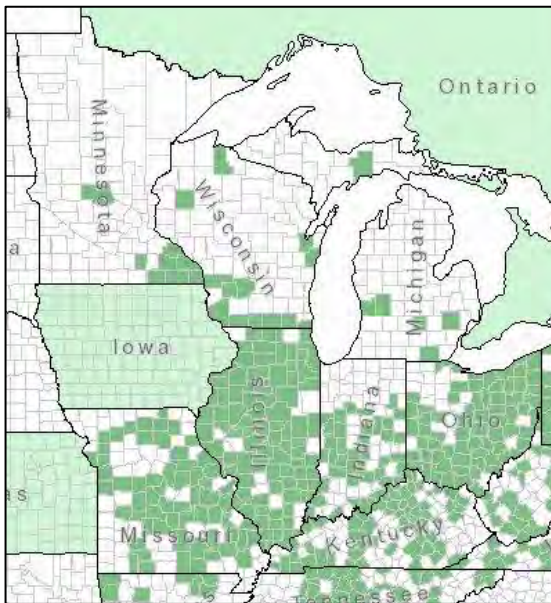
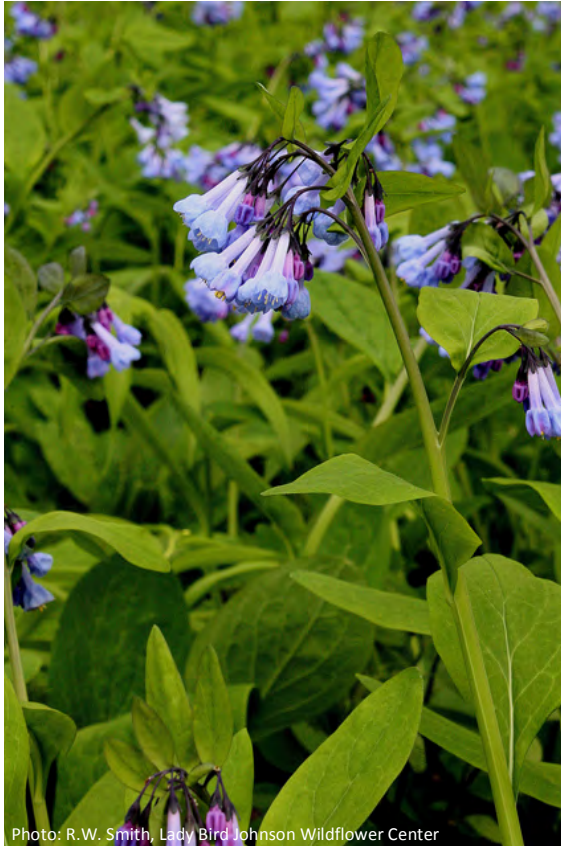


Photo: R.W. Smith, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Flowering/close-up of flowers



Stem and leaf arrangement



Close-up of leaf

# White Doll's Daisy

# Aster Family

**Other Common Names:** asterlike boltonia, false aster, false starwort

**Scientific Name:** *Boltonia asteroides* (L.) L'Hér.

**Plant Symbol:** BOAS

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 2 - 4 ft.

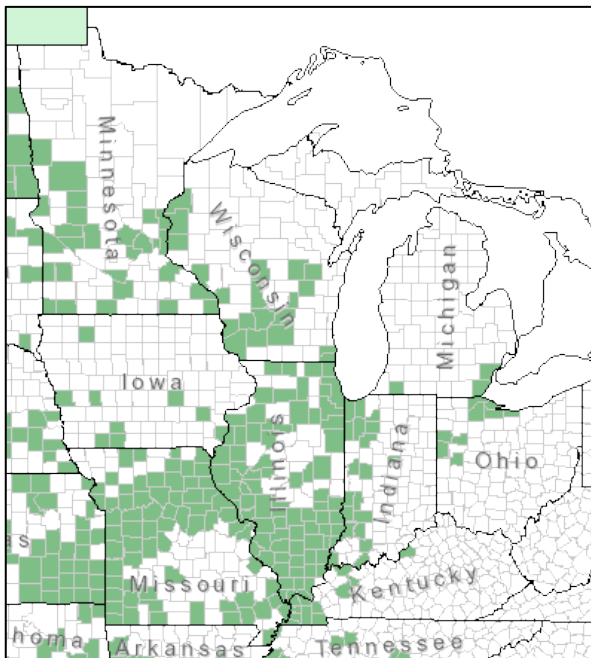
**Blooms/Fruits:** July - October

**Distinguishing characteristics:** Flower heads in a loosely ascending, leafy, many branched inflorescence; individual flower heads with white to pink or light blue rays and a yellow center; leaves are linear to spear-shaped and attached directly to the stem without a leaf stalk. Multiple stems from stolons.

**Pollinator Value:** This flower provides nectar from summer through fall for monarchs and other invertebrates.

**Habitat:** Open damp or drying sites, streambanks, bottomland prairies and forests, fens, ditch banks, and edges of cultivated fields.

**Note:** There are 3 recognized varieties occurring in the US, only two of which occur in the Midwest region: *B. a. var. latisquama* and *B. a. var. recognita*. *Boltonia asteroides var. asteroides* does not occur in the Midwest.





## Important Plants of the Monarch Butterfly



Full flowering/ close-up of flower



Close-up of leaf and stem



## White Prairie Clover

## Pea Family

**Other Common Names:** none

**Scientific Name:** *Dalea candida* Michx. ex Willd.

**Plant Symbol:** DACA7

**Family:** Fabaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

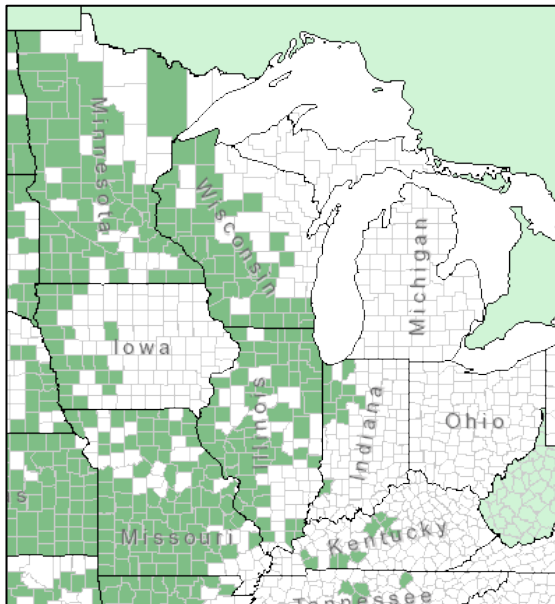
**Plant Height:** 1 - 2 ft.

**Blooms/Fruits:** May - August

**Distinguishing characteristics:** Flowers small, two-lipped, white, and in cylindrical or thimble-shaped clusters at the top of the stem; flowering in a ring at the base of the cylindrical inflorescence first and the ring moves up the inflorescence; leaves compound with 3 - 5 pairs of leaves with one on the top; stems 1 to several from a thick taproot.

**Pollinator Value:** This flower provides nectar and pollen to bees and butterflies. It is also a larval host plant for the Dogface butterfly.

**Habitat:** Prairies, open woodland, stream valleys, and roadsides.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers



Stem and leaf arrangement

## Wholeleaf Rosinweed

## Aster Family

**Other Common Names:** entire-leaf rosinweed, rosinweed

**Scientific Name:** *Sliphium integrifolium* Michx.

**Plant Symbol:** SIIN2

**Family:** Asteraceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

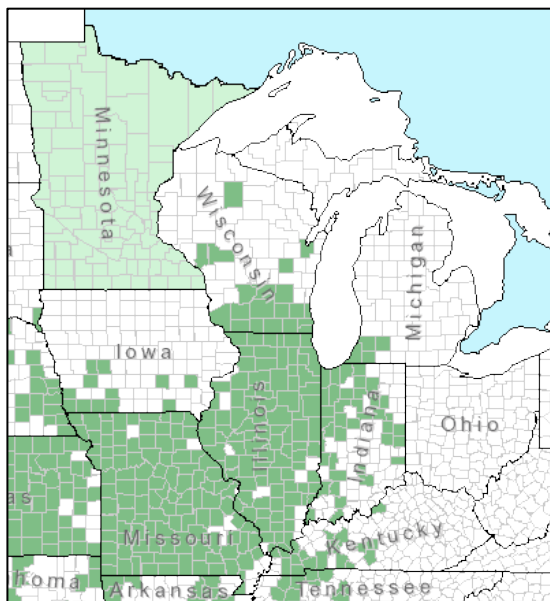
**Plant Height:** 2 - 6 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowering heads in open loose inflorescences, rays yellow and the central disc yellow; leaves occur somewhat uniformly along the stem, are opposite each other on the stem, are widely lance-shaped to heart shaped, except for some basal leaves they are attached directly to the stem and without a leaf stalk; the leaf bases are heart shaped and clasping the stem or taper down the stem but do not fuse together with the leaf on the opposite side of the stem.

**Pollinator Value:** This flower provides nectar and pollen to bees and other beneficial insects.

**Habitat:** Upland prairies, open upland forests, banks of streams and rivers, edges of crop fields, and roadsides.





## Important Plants of the Monarch Butterfly



Full flowering/close-up of flowers and base of flower



Vegetative growth and close-up of stem and leaf

## Whorled Milkweed

## Milkweed Family

**Other Common Names:** horsetail milkweed

**Scientific Name:** *Asclepias verticillata* L.

**Plant Symbol:** ASVE

**Family:** Asclepiadaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 1 - 3 ft.

**Blooms/Fruits:** May - September

**Distinguishing characteristics:** Leaves very linear/narrow and whorled along the stem; flower clusters in loose roundish clusters, white to greenish-white sometimes with a purple tinge; petals reflexed but with upturned tips; stems solitary or few from the root mass.

**Pollinator Value:** Larval host plant for the monarch butterfly. Provides nectar in the summer and early fall. Flowers attract butterflies.

**Habitat:** Upland prairies, savannahs, pastures, roadsides, and open upland forests.

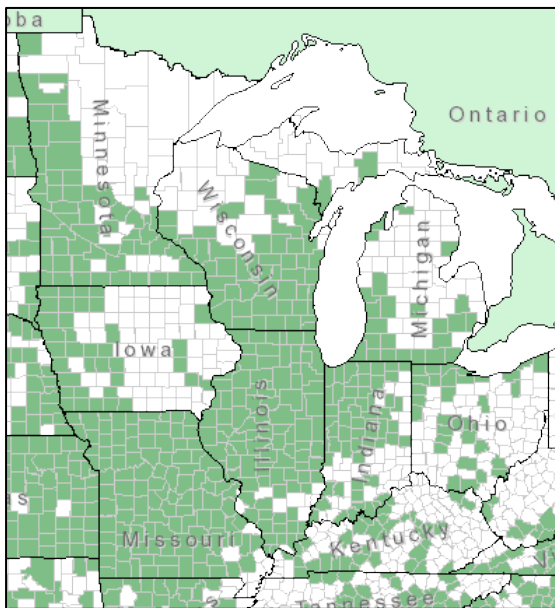


Photo: Beth Anderson, Lady Bird Johnson Wildflower Center



Important Plants of the Monarch Butterfly



Photo: Beth Anderson, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Janice Lynn, Lady Bird Johnson Wildflower Center



Photo: Edith Bettinger, Lady Bird Johnson Wildflower Center

Stem and leaf arrangement



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Multiple inflorescences



Photo: Carolyn Fannon, Lady Bird Johnson Wildflower Center

Fruit (left) and mature fruit with seed (right)



Photo: Janice Lynn, Lady Bird Johnson Wildflower Center

## Wild Bergamont

**Other Common Names:** beebalm

**Scientific Name:** *Monarda fistulosa* L.

**Family:** Lamiaceae

**Duration:** Perennial

**Plant Height:** 1.5 - 4 ft.

**Growth Habit:** Herbaceous

**Blooms/Fruits:** May - September

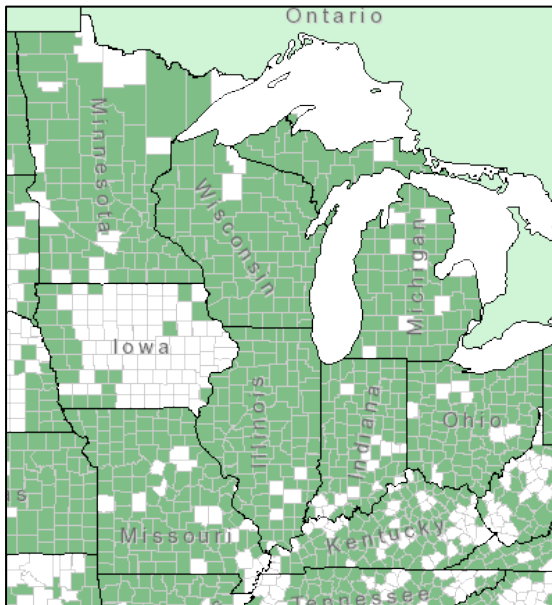
**Distinguishing characteristics:** Flowers in tight ball-like clusters terminating the branches, strongly 2-lipped with the upper lip erect and the lower lip downturned, pale to dark lavender, but rarely white; leaves opposite, variable from lance-shaped to widely lance-shaped, the undersurface has small, clear spots (punctae) that are visible when holding the leaf up to the light; stems are square and with backwards-pointed hairs on the upper half of the stem.

**Pollinator Value:** This flower is highly attractive to long-tongued bees and butterflies.

**Habitat:** Dry open woods, fields, wet meadows and ditches, and at the edges of woods and marshes; calcareous or acidic soils.

## Mint Family

**Plant Symbol:** MOFI





## Important Plants of the Monarch Butterfly



Photo: Alan Cressler, Lady Bird Johnson Wildflower Center



Photo: Eric Beckers, Lady Bird Johnson Wildflower Center



Photo: Thomas Muller, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Sandy Smith, Lady Bird Johnson Wildflower Center

Flower bud



Photo: W.D. and Dolfia Bransford, Lady Bird Johnson Wildflower Center

Foliage/leaf arrangement

## Wild Blue Phlox

## Phlox Family

**Other Common Names:** Louisiana phlox, blue woodland phlox, sweet william, wild sweet william

**Scientific Name:** *Phlox divaricata* L.

**Plant Symbol:** PHD15

**Family:** Polemoniaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 0 - 2 ft.

**Blooms/Fruits:** April - June

**Distinguishing characteristics:** Stems of 2 types: vegetative and flowering. Vegetative stems are spreading to slightly ascending and densely hairy, flowering stems are ascending to partially erect with moderate hairiness some of which are gland-tipped; leaves are all opposite on the stem, elliptic on the vegetative stems and widest towards the tip on flowering stems; flowers are lavender, light purple, to pale blue in dome-shaped clusters, each flower has 5-spreading petals with an elongate tube extending to the base.

**Pollinator Value:** This flower is a spring nectar source to butterflies. It is also popular with long-tongued bees.

**Habitat:** Bottomland and upland forests, and moist woodlands.

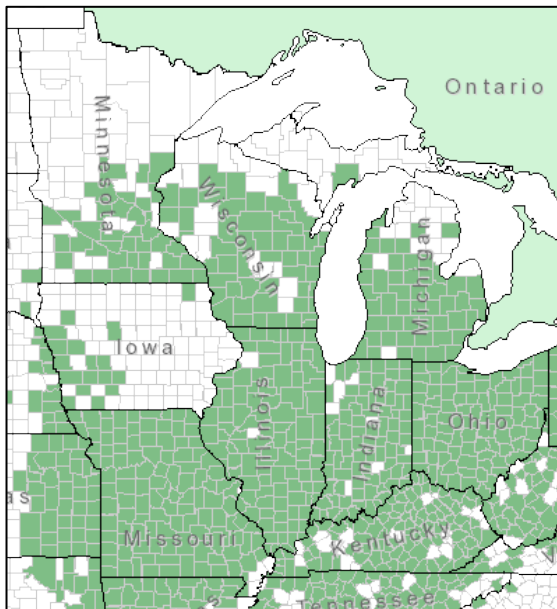


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Full flowering/close-up of blooms



Close-up of stem and leaf (red circle)/habitat

# Yellow Giant Hyssop

# Mint Family

**Other Common Names:** catnip giant hyssop

**Scientific Name:** *Agastache nepetoides* (L.) Kuntze

**Plant Symbol:** AGNE2

**Family:** Lamiaceae

**Duration:** Perennial

**Growth Habit:** Herbaceous

**Plant Height:** 3 - 5 ft.

**Blooms/Fruits:** July - September

**Distinguishing characteristics:** Flowers yellow to yellowish-green in a compact, elongate spike-like inflorescences terminating the stem; petals two-lipped with a tubular base; leaves are opposite on the stem, broadly lance-shaped, about 1.5x longer than broad, undersurfaces hairy at least on the veins; stems have a fine ring of short hairs where the leaves attach to the stem.

**Pollinator Value:** The plant serves as a late summer and fall nectar source for the monarch butterfly, native bees, and other beneficial insects. It is highly attractive to many types of pollinator.

**Habitat:** Rocky wooded hillsides, riparian woodlands, pastures, and moist open sites.

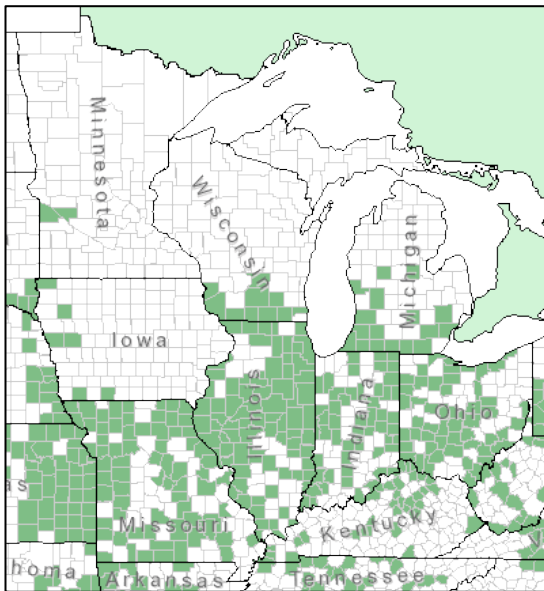


Photo: Mike Haddock



Important Plants of the Monarch Butterfly



Photo: Mike Haddock



Photo: Mike Haddock



Photo: R.W. Smith, Lady Bird Johnson Wildflower Center

Full flowering/close-up of blooms



Photo: Mike Haddock



Photo: Mike Haddock

Close-up of Stem and leaf



United States Department of Agriculture

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

## Photo Credits

- Lady Bird Johnson Wildflower Center
- Xerces Society
- USDA-NRCS
- USDA-ARS
- Mike Haddock, Kansas State University
- John Hilty, Illinois wildflower
- Peter Dziuk, Minnesota Wildflowers
- Katy Chayka, Minnesota Wildflowers
- Kenneth Robertson, Illinois Natural History Survey
- Steve Eggers, Corp of Engineers
- Easy Living Native Perennial Wildflowers
- Craig Van Boskirk
- Corey Raimond
- J.K. Marlow, Native and Naturalized Plants of the Carolinas and Georgia
- Clarence Rechenhth

## Credits-Midwest Pollinator Plants:

### Distribution Maps

USDA - National PLANTS Database:

<http://plants.usda.gov>

### Other Resources:

Flora North America Project, Online Flora

<http://floranorthamerica.org>

Gleason, H.A., and A. Cronquist, 1991.

Manual of Vascular Plants of the Northeastern United States and Adjacent Canada, New York Botanical Garden, NY. Second Edition. 910 pp.

Great Plains Flora Association, 1986. Flora of the Great Plains, University Press of Kansas, Lawrence, KS. 1402 pp.

Lady Bird Johnson Wildflower Center, Online resources <http://www.wildflower.org/>

Magee, D.W. and H.E. Ahles, 1999. Flora of the Northeast: a manual of the vascular flora of New England and adjacent New York. University of Massachusetts Press, Amherst, MA. 1213 pp. NRCS, 1989.

Midwestern Wetland Flora: Field Office Guide to Plant Species, internal publication. 600 pp.

Radford, A., H.E. Ales, and C.R. Bell. 1964. Manual of the Vascular Flora of the Carolinas, University of North Carolina Press, Chapel Hill, NC. 1183 pp.

USDA - National PLANTS Database: Facts Sheets and Plant Guides <http://plants.usda.gov/java/factSheet> Voss, Edward G., 1996.

Michigan Flora. University of Michigan, Ann Arbor, MI, vol. III, 622 pp.

Yatskievych, G., 2006. Steyermark's Flora of Missouri, Missouri Botanical Garden Press, St. Louis, MO. Vol 2, 1181 pp.

Yatskievych, G., 2013. Steyermark's Flora of Missouri, Missouri Botanical Garden Press, St. Louis, MO. Vol 3, 1382 pp.

**Helping People Help the Land**

*An equal opportunity provider, employer and lender.*