

## MONARCH NECTAR PLANTS

# Great Lakes



*Left to right: Monarch on eastern purple coneflower, smooth oxeye, and whorled milkweed.*

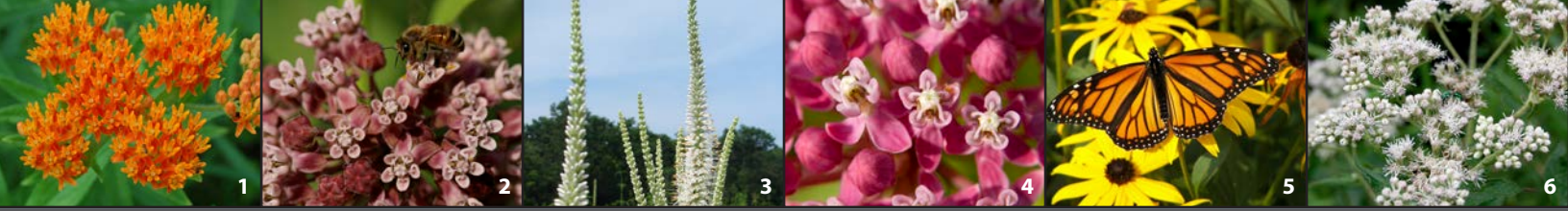
The Great Lakes region encompasses eastern Minnesota, Wisconsin, Michigan, Ohio, northern Pennsylvania, and most of western and central New York. Within this area lies vast tallgrass prairies, sprawling wetlands, and mixed broadleaf forests. These communities are home to an impressive diversity of butterflies, including the northern migratory population of the monarch butterfly, which depends on the floral resources available within these habitats for its survival.

Each spring, monarchs leave overwintering sites in coastal California and the mountains of central Mexico and fan out across North America to breed and lay eggs on milkweed, the monarch's host plant. Several generations are produced over the course of the spring and summer. In late summer and early fall, adults migrate back to the overwintering sites, where they generally remain in reproductive diapause until the spring, when the cycle begins again.

Monarchs at overwintering sites in Mexico and California have declined dramatically since monitoring began in the late 1990s. Across their range in North America, monarchs are threatened by a variety of factors. Loss of milkweed from extensive herbicide use has been a major contributing factor, and habitat loss and degradation from other causes, natural disease and predation, climate change, and widespread insecticide use are probably also contributing to monarch declines. Because of the monarch's migratory life cycle, it is important to protect and restore habitat across their

entire range. Adult monarchs depend on diverse nectar sources for food during all stages of the year, from spring and summer breeding to fall migration and overwintering. Caterpillars, on the other hand, are completely dependent on their milkweed host plants. Inadequate milkweed and nectar plant food sources at any point may impact the number of monarchs that successfully arrive at overwintering sites in the fall.

Providing milkweeds and other nectar-rich flowers that bloom where and when monarchs need them is one of the most significant actions you can take to support monarch butterfly populations. This guide features Great Lakes native plants that have documented monarch visitation, bloom during the times of year when monarchs are present, are commercially available, and are known to be hardy. These species are well-suited for wildflower gardens, urban greenspaces, and farm field borders. Beyond supporting monarchs, many of these plants attract other nectar- and/or pollen-seeking butterflies, bees, moths, and hummingbirds, and some are host plants for other butterfly and moth caterpillars. For a list of native plants that host butterflies and moths specific to your zip code see [www.nwf.org/nativeplantfinder](http://www.nwf.org/nativeplantfinder). The species in this guide are adaptable to growing conditions found across the state. Please consult regional floras, the Biota of North America's North American Plant Atlas (<http://bonap.net/napa>), or the USDA's PLANTS database (<http://plants.usda.gov>) for details on species' distributions in your area.



Bloom	Common Name	Scientific Name	Flower Color	Max. Height	Water Needs
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	Forbs			(Feet)	Low, Medium, or High	
Summer	1 Butterfly milkweed	<i>Asclepias tuberosa</i>	Orange	2	L	
	2 Common milkweed	<i>Asclepias syriaca</i>	Pink	5	L/M/H	
	3 Culver's root	<i>Veronicastrum virginicum</i>	White	6	M	
	4 Swamp milkweed	<i>Asclepias incarnata</i>	Pink	4	M/H	
Summer to Fall	5 Black-eyed Susan	<i>Rudbeckia hirta</i>	Yellow	2	L	
	6 Common boneset	<i>Eupatorium perfoliatum</i>	White	6	M/H	
	7 Eastern purple coneflower	<i>Echinacea purpurea</i>	Pink/purple	5	L/M	
	8 Field thistle	<i>Cirsium discolor</i>	Pink/purple	7	L	
	9 Marsh blazing star	<i>Liatris spicata</i>	Purple	5	M/H	
	10 Meadow blazing star	<i>Liatris ligulistylis</i>	Purple	5	M	
	11 Ontario blazing star	<i>Liatris cylindracea</i>	Purple	2	L	
	12 Rough blazing star	<i>Liatris aspera</i>	Purple	4	L	
	13 Sawtooth sunflower	<i>Helianthus grosseserratus</i>	Yellow	10	M	
	14 Showy goldenrod	<i>Solidago speciosa</i>	Yellow	5	L	
	15 Smooth oxeye	<i>Heliopsis helianthoides</i>	Yellow	5	L/M	
	16 Spotted beebalm	<i>Monarda punctata</i>	White/pink/yellow	3	L	
	17 Spotted joe pye weed	<i>Eutrochium maculatum</i>	Pink	6	H	
	18 Stiff goldenrod	<i>Oligoneuron rigidum</i>	Yellow	5	L/M	
	19 Swamp thistle	<i>Cirsium muticum</i>	Pink/purple	7	H	
	20 Whorled milkweed	<i>Asclepias verticillata</i>	White	3	L	
	21 Wild bergamot	<i>Monarda fistulosa</i>	Purple	5	L/M	
	Fall	22 Aromatic aster	<i>Symphyotrichum oblongifolium</i>	Purple	2	L
		23 Maximilian sunflower	<i>Helianthus maximiliani</i>	Yellow	8	L
		24 New England aster	<i>Symphyotrichum novae-angliae</i>	Pink/purple	6	M







## Notes

All species perennials, unless otherwise noted. Monarchs are present June through October in the Great Lakes Region.

Host plant for monarch caterpillars and excellent nectar plant for adults. Very showy flowers. Prefers dry soils and full sun.

Host plant for monarch caterpillars and excellent nectar plant for adults. Fragrant flowers. Thrives in a wide range of soils.

Excellent landscaping plant. Beautiful flowers attract butterflies, bumble bees, and other insects.

Excellent monarch caterpillar host plant and nectar plant. A great option for shorelines, rain gardens, and riparian buffers.

Biennial but can self-seed. Butterfly attractant. Also visited by longhorn bees, green sweat bees, and other pollinators.

Tolerates sandy or clay soils but needs constant moisture. Also attracts bees and an amazing assortment of beneficial wasps.

Attracts a number of butterflies, native bees, and hummingbirds. Native range includes most of the region apart from MN.

Not to be confused with exotic thistles, this non-aggressive native thistle is exceptional for pollinators and songbirds. Biennial.

Highly adaptable and easy to grow. Attracts many butterflies, bees, and hummingbirds. A great *Liatris* for wet soils.

The ultimate monarch magnet, even compared to other *Liatris*. Native range stretches east only as far as WI. Medium soils.

Shorter than other *Liatris* species and tends to bloom later in the year. Requires dry soils.

Another incredibly attractive *Liatris* for monarchs as well as many other insects. Drought tolerant.

Tolerates many soil types. Can be quite large in the garden. Continues blooming late into the fall. Rhizomatous.

An excellent monarch nectar plant; also visited by beneficial solitary wasps, pollen-eating soldier beetles, and more.

Also known as early sunflower, this plant has a long bloom period from July to October. Tolerates clay and moist soils.

Prolific blooms are highly attractive to beneficial wasps and bees. Prefers dry, sandy soils. A beautiful, unique flower.

Prefers moist soils. Attracts numerous butterflies and bees, including the very rare rusty patched bumble bee.

This plant offers abundant and accessible pollen and nectar—a utopia for insects! Flat-top flower is unusual for a goldenrod.

This lovely native thistle attracts numerous butterflies and bees. Host plant for the swamp metalmark butterfly. Wet soils. Biennial.

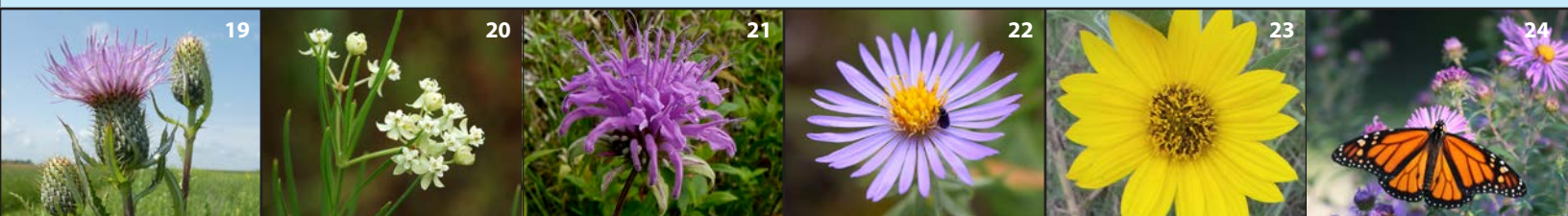
Monarch caterpillar host plant and exceptional nectar plant. This small milkweed plant is great for landscaping. Dry soils.

A superb bumble bee plant, also known as bee balm. Also attracts hawk moths and hummingbirds. Aromatic foliage.

Very late blooming aster with fragrant foliage. Stiff stems branch out to create a bush-like appearance. Full sun and dry soils.

Very showy and vigorous plant. Caterpillar host plant for the silvery checkerspot and bordered patch butterflies.

One of the latest fall-blooming plants. Butterfly magnet and important food resource for pre-hibernation bumble bee queens.



## Planting for Success

Monarch nectar plants often do best in open, sunny sites. You can attract more monarchs to your area by planting flowers in single species clumps and choosing a variety of plants that have overlapping and sequential bloom periods. Monarchs are present June through October in the Great Lakes region. Providing nectar plants that bloom from early summer through fall will be important for breeding and migrating monarchs in the region.

### Why Plant Native?

Although monarchs use a variety of nectar plant species, including exotic invasives such as butterfly bush and English ivy, we recommend planting native species. Native plants are often more beneficial to ecosystems, are adapted to local soils and climates, and help promote biological diversity. They can also be easier to maintain in the landscape, once established.

Tropical milkweed is a non-native plant that is widely available in nurseries. This milkweed can persist year-round in mild climates, allowing monarchs to breed throughout the winter rather than going into diapause. Tropical milkweed may foster higher loads of a monarch parasite called *Oe* (*Ophryocystis elektroscirrha*), which negatively impacts monarch health. Because of these implications, we recommend planting native species of milkweeds in areas where they historically occurred. You can read more about *Oe* in a fact sheet by the Monarch Joint Venture: [http://monarchjointventure.org/images/uploads/documents/Oe\\_fact\\_sheet.pdf](http://monarchjointventure.org/images/uploads/documents/Oe_fact_sheet.pdf).

## Protect Monarchs from Pesticides

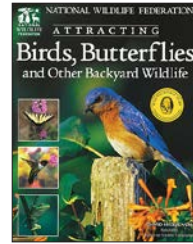
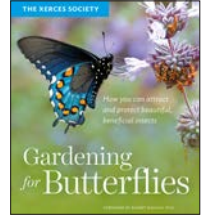
Both insecticides and herbicides can be harmful to monarchs. Herbicides can reduce floral resources and host plants. Although dependent on timing, rate, and method of application, most insecticides have the potential to poison or kill monarchs and other pollinators. Systemic insecticides, including neonicotinoids, have received significant attention for their potential role in pollinator declines (imidacloprid, dinotefuran, clothianidin, and thiamethoxam are examples of systemic insecticides now found in various farm and garden products). Because plants absorb systemic insecticides as they grow, the chemicals become distributed throughout all plant tissues, including the leaves and nectar. New research has demonstrated that some neonicotinoids are toxic to monarch caterpillars that are poisoned as they feed on leaf tissue of treated plants. You can help protect monarchs by avoiding the use of these and other insecticides. Before purchasing plants from nurseries and garden centers, be sure to ask whether they have been treated with systemic insecticides. To read more about threats to pollinators from pesticides, please visit: [www.xerces.org/pesticides](http://www.xerces.org/pesticides).

## Additional Resources

### Publications & Resources

#### *Gardening for Butterflies*

The Xerces Society's newest book introduces you to a variety of butterflies who need our help, and provides suggestions for native plants to attract them, habitat designs to help them thrive, and garden practices to accommodate all stages of their life. Available through [www.xerces.org/books](http://www.xerces.org/books).



#### *Attracting Birds, Butterflies, and Other Backyard Wildlife*

This award-winning book by the National Wildlife Federation's naturalist David Mizejewski is full of information on gardening for birds, pollinators and other wildlife, including illustrated how-to projects, recommended plant lists, and gorgeous color photos. You'll learn everything you need to know to create a Certified Wildlife Habitat. Available through <http://bit.ly/1Xhxfgu>.

#### Conservation Status and Ecology of the Monarch Butterfly in the U.S. Report

[www.xerces.org/us-monarch-consv-report](http://www.xerces.org/us-monarch-consv-report)

#### Milkweed Seed Finder

[www.xerces.org/milkweed-seed-finder](http://www.xerces.org/milkweed-seed-finder)

### Websites

The Xerces Society [www.xerces.org/monarchs](http://www.xerces.org/monarchs)

Monarch Joint Venture [www.monarchjointventure.org/resources](http://www.monarchjointventure.org/resources)

#### Natural Resources Conservation Service

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

National Wildlife Federation [www.nwf.org/butterflies](http://www.nwf.org/butterflies)

### Citizen Science Efforts in the Great Lakes Region

Journey North [www.learner.org/jnorth/monarch](http://www.learner.org/jnorth/monarch)

Monarch Larva Monitoring Project [www.mlmp.org](http://www.mlmp.org)

Project Monarch Health [www.monarchparasites.org](http://www.monarchparasites.org)

#### Peninsula Point Monitoring Project

[www.nab-net.org/program/peninsula-point-monitoring-project](http://www.nab-net.org/program/peninsula-point-monitoring-project)

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