

POLLINATOR PLANTS

Great Lakes Region



Butterfly milkweed, prairie blazing star, and lanceleaf coreopsis.

The Great Lakes region includes an incredibly diverse range of plant communities from wild blueberry barrens and northern boreal forest in Ontario, Michigan, and Minnesota, to tallgrass prairie and lakeshore dunes in Illinois and Indiana, to mixed broadleaf forests in Ohio, Pennsylvania, and New York.

Corresponding to this striking diversity of plant communities is an equally remarkable range of pollinators including the endangered Karner blue butterfly, more than twenty species of bumble bees, and the northernmost population of migrating monarch butterflies. As a group, these and other pollinators maintain healthy, productive plant communities, provide food that sustains wildlife, and play an essential role in crop production.

Providing wildflower-rich habitat is the most significant action you can take to support pollinators. Adult bees, butterflies, and other pollinators require nectar as their primary food source. Female bees also collect pollen as food for their offspring. Native plants, which are adapted to local soils and climates, are usually the best sources of nectar and pollen for native pollinators. Incorporating native wildflowers, shrubs, and trees into any landscape promotes local biological diversity and provides shelter and food for a diversity of wildlife. Additional advantages of native plants are that they require less water than non natives, do not require fertilizers, and are less likely to become weedy.

This guide features regional native plants that are highly attractive to pollinators and are well-suited for small-scale plantings in gardens, on business and school campuses, in urban greenspaces, and in farm field borders. In addition to supporting native bees and honey bees, many of these plants attract nectar-seeking butterflies, moths, and hummingbirds, and some are host plants for butterfly and moth caterpillars. With few exceptions, these species occur broadly across the region and can be purchased as seed or transplants. Please consult regional floras or the Biota of North America Program's web-based North American Plant Atlas for details on species' distributions in your specific area.

**BRING BACK
THE
POLLINATORS**
A Xerces Society Conservation Campaign

Our Bring Back the Pollinators campaign is based on four principles: grow pollinator-friendly flowers, protect bee nests and butterfly host plants, avoid pesticides, and spread the word. You can participate by taking the Pollinator Protection Pledge and registering your habitat on our nationwide map of pollinator corridors.

www.bringbackthepollinators.org



Bloom Period	Common Name	Scientific Name	Annual, Perennial, or Biennial	Flower Color	Max. Height (feet)	Water Needs*	Notes
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Forbs *L: low water needs; M: medium water needs; H: high water needs.

Early	1	Smooth penstemon	<i>Penstemon digitalis</i>	P	white	2	M	Semi-evergreen; prolific nectar producer; visited by a huge diversity of butterflies, moths, and bees, including honey bees
	2	Wild lupine	<i>Lupinus perennis</i>	P	blue-purple	2	L	Larval host plant for the endangered Karner blue butterfly (<i>Lycaeides melissa samuelis</i>)
	3	Lanceleaf coreopsis	<i>Coreopsis lanceolata</i>	P	yellow	2	L	This early bloomer can hold its own among grasses and taller species; bees and syrphid flies are common visitors

Mid	4	Butterfly milkweed	<i>Asclepias tuberosa</i>	P	orange	2	L	Milkweeds are host plants for the monarch butterfly (<i>Danaus plexippus</i>), and nectar sources for many bees
	5	Dotted mint	<i>Monarda punctata</i>	A, B, P	purple	2	L	Tolerates dry, sandy soils, blooms prolifically, and is highly attractive to beneficial wasps and bees, including honey bees
	6	Great blue lobelia	<i>Lobelia siphilitica</i>	P	blue	3	H	Great blue lobelia is an exceptional bumble bee plant, and is excellent for rain gardens
	7	Purple coneflower	<i>Echinacea purpurea</i>	P	purple	4	M	Visitors include bees in the genera <i>Bombus</i> , <i>Melissodes</i> , and <i>Svastra</i> , and the leafcutter bee (<i>Megachile pugnata</i>)
	8	Virginia mountainmint	<i>Pycnanthemum virginianum</i>	P	white	3	M	This and related species have fragrant foliage, and are visited by blue and copper butterflies, honey bees, and more

Mid-late	9	Wild bergamot	<i>Monarda fistulosa</i>	P	purple	4	M	Hawk moths, hummingbirds, and long tongued bumble bees (such as <i>Bombus pensylvanicus</i>) are common visitors
	10	Purple giant hyssop	<i>Agastache scrophulariifolia</i>	P	purple	6	M	This and other wild hyssops provide long-lasting, nectar-rich flowers and mint-like foliage
	11	Cup plant	<i>Silphium perfoliatum</i>	P	yellow	8	M	Attracts many bees and butterflies; thick hollow stems make excellent nests for leafcutter bees and small carpenter bees
	12	Prairie blazing star	<i>Liatris pycnostachya</i>	P	purple	6	M	Blazingstars support a broad community of butterflies including monarchs, swallowtails, skippers, and sulfurs
	13	Purple prairie clover	<i>Dalea purpurea</i>	P	purple	2	L	Honey bees and bumble bees are voracious visitors, as well as several specialist polyester bees (genus: <i>Colletes</i>)
	14	Rattlesnake master	<i>Eryngium yuccifolium</i>	P	white	4	M	Attracts incredible insect diversity and is the host plant for the rattlesnake master borer moth (<i>Papaipema eryngii</i>)
	15	Sweet Joe Pye weed	<i>Eupatorium purpureum</i>	P	pink	7	H	Primarily known as a butterfly plant, sweet Joe Pye weed also attracts bees and is tolerant of partial shade and wet soils
	16	Wingstem	<i>Verbesina alternifolia</i>	P	yellow	6	H	A major honey producer and great as a shade-tolerant rain garden or wetland edge plant; may be hard to find in nurseries

Late	17	Bottle gentian	<i>Gentiana andrewsii</i>	P	blue	2	M	Its flower petals never open; almost exclusively pollinated by bumble bees, which pry the petals apart to climb inside
	18	Calico aster	<i>Symphyotrichum lateriflorum</i>	P	white	2	M	Its shallow nectaries attract more insect diversity than some related species; is also tolerant of partial shade
	19	Field thistle	<i>Cirsium discolor</i>	B, P	purple	6	M	Not to be confused with non-native thistles; a now uncommon but important plant for butterflies and bumble bees
	20	New England aster	<i>Symphyotrichum novae-angliae</i>	P	purple	6	M	One of the latest fall blooming plants; frequented by honey bees and pre-hibernation bumble bee queens
	21	Showy goldenrod	<i>Solidago speciosa</i>	P	yellow	5	M	Goldenrods are frequented by beneficial solitary wasps, pollen-eating soldier beetles, honey bees, and much more

Shrubs

Early	22	Cockspur hawthorn	<i>Crataegus crus-galli</i>	P	white	20	L	Tough native tree that attracts bumble bees, honey bees, species of mining bees (genus: <i>Andrena</i>), as well as songbirds
Mid	23	Leadplant	<i>Amorpha canescens</i>	P	purple	3	L	Leadplant is generally tolerant of disturbed soils, and readily visited by leafcutter bees, honey bees, and other insects
	24	New Jersey tea	<i>Ceanothus americanus</i>	P	white	4	M	Pollinator magnet that attracts species of flies, wasps, bees, and butterflies; slow growing and prone to deer browsing



Planting for Success

Sun Exposure

Most pollinator-friendly plants prefer sites that receive full sun throughout most of the day and are mostly open, with few large trees. A southern exposure can provide the warmest habitat, but it is not required.

Plant Diversity

Choosing a variety of plants with overlapping and sequential bloom periods will provide food for pollinators throughout the seasons.

Habitat Size and Shape

Habitat patches that are bigger and closer to other patches are generally better than those that are smaller and more isolated from one another. However, even a small container garden can attract and support pollinators!

Planting Layout

Flowers clustered into clumps of one species will attract more pollinators than individual plants scattered through a habitat patch. Where space allows, plant clumps of the same species within a few feet of one another.

Seeds or Transplants

It's usually cheaper to establish large habitat areas from seed; however, seeding native wildflowers on a large-scale is an art unto itself. For step-by-step instructions, see the *Upper Midwest Pollinator Habitat Installation Guide* (listed in the Additional Resources section). For smaller areas like gardens, transplants are usually easier to use, and plants will bloom faster than when started from seed.

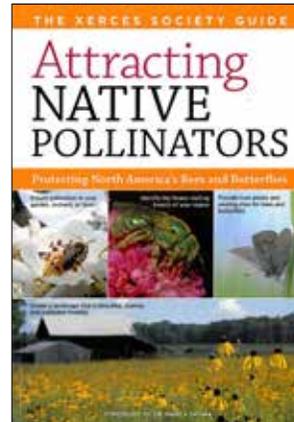
Protect Pollinators from Insecticides

Although dependent on timing, rate, and method of application, all insecticides have the potential to poison or kill pollinators. Systemic insecticides in particular 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 plant tissues and are sometimes present in pollen and nectar. You can help protect pollinators 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 insecticides. To read more about threats to

pollinators from pesticides, please visit: www.xerces.org/pesticides.

Additional Resources

Attracting Native Pollinators: Protecting North



America's Bees and Butterflies.

Our best-selling book highlights the role of native pollinators in natural ecosystems, gardens, and farms. Introductory sections explore the natural history and habitat needs of bees, butterflies, pollinating beetles, and much more. Advanced sections provide guidance on conserving pollinators in multiple landscapes. The

book also includes a first-of-its-kind guide to all common native bee genera of North America. Available in bookstores everywhere, and through www.xerces.org/books.

Xerces Society Pollinator Conservation Resource Center

Our Pollinator Conservation Resource Center is an online database of additional pollinator plant recommendations, guidelines on establishing and protecting pollinator habitat, and a directory of native plant nurseries for every region of the United States and Canada. www.xerces.org/pollinator-resource-center/

Ladybird Johnson Wildflower Center

The Ladybird Johnson Wildflower Center has developed a collection of pollinator-friendly native plants as part of their extensive native plant database. Along with this special pollinator plant collection, the Center's website features image galleries, how-to articles on native plant gardening, and more. www.wildflower.org/collections

Upper Midwest Pollinator Habitat Installation Guide

This how-to guide, developed in collaboration with the USDA Natural Resources Conservation Service, provides in-depth, step-by-step instructions for developing a large-scale wildflower meadow for bees and a list of regional native seed vendors and native plant nurseries. www.xerces.org/pollinator-conservation/agriculture/pollinator-habitat-installation-guides

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