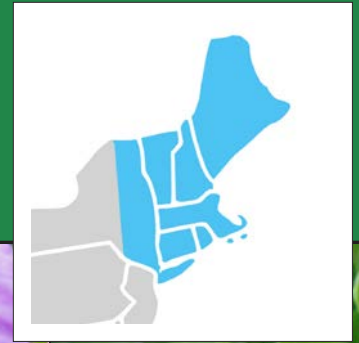


MONARCH NECTAR PLANTS

Northeast



Left to right: Monarch on showy goldenrod, obedient false dragonhead, and coastal sweet-pepperbush.

The Northeast region, composed of the New England states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut, as well as eastern New York, is characterized by shifting coastal dunes, deciduous forests, and riparian corridors. Rich floral diversity within these habitats supports thousands of species of bees, butterflies, and other pollinators, including northern populations of summer breeding and fall migrating monarchs. Depending on the year, monarchs can be found throughout the region, often favoring open fields and meadows, river valleys, and coastlines.

Each spring, monarchs leave overwintering sites in the mountains of central Mexico and coastal California 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 from the northern U.S. and southern Canada 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 or 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 Northeast native plants that have documented monarch visitation, bloom 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. The species in this guide are adaptable to growing conditions found across the Northeast. 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	Notes
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	Forbs			(Feet)	Low, Medium, or High	All species are perennials. Monarchs are present from June through September in the Northeast.
Summer	1 Butterfly milkweed	<i>Asclepias tuberosa</i>	Orange/yellow	2	L	Monarch caterpillar host plant and nectar source for many bees.
	2 Common milkweed	<i>Asclepias syriaca</i>	White/purple	8	L	Monarch caterpillar host plant.
	3 Swamp milkweed	<i>Asclepias incarnata</i>	Pink	4	M	Monarch caterpillar host plant.
	4 Woodland sunflower	<i>Helianthus divaricatus</i>	Yellow	6	L	Drought tolerant.
Summer to Fall	5 Boneset thoroughwort	<i>Eupatorium perfoliatum</i>	White	6	M/H	Tolerates sandy or clay soils but needs constant moisture.
	6 Canada goldenrod	<i>Solidago altissima</i>	Yellow	4	L	Attracts many species of bees and butterflies.
	7 Common yarrow	<i>Achillea millefolium</i>	White/pink	3	L	Can become aggressive if not cut back regularly.
	8 Devil's bite	<i>Liatris scariosa</i>	Purple	3	L	Plant only in residential areas to avoid hybridization with the endemic and at-risk <i>L. scariosa</i> var. <i>novae-angliae</i> .
	9 Flat-top goldentop	<i>Euthamia graminifolia</i>	Yellow	6	M/H	Attracts many species of bees, wasps, flies, butterflies, moths, and beetles.
	10 Heart-leaved American-aster	<i>Symphyotrichum cordifolium</i>	Purple	4	L	
	11 New England aster	<i>Symphyotrichum novae-angliae</i>	Pink/purple	6	L	One of the latest fall-blooming plants. Frequented by bees and pre-hibernation bumble bee queens.
	12 New York aster	<i>Symphyotrichum novi-belgii</i>	Pink/purple	5	L	Attracts monarchs and other butterflies and bees.
	13 New York ironweed	<i>Vernonia noveboracensis</i>	Purple	8	L	Easy to grow and tolerates a wide range of soils, although prefers rich, moist soils.
	14 Obedient false dragonhead	<i>Physostegia virginiana</i>	Pink/purple	4	L	Tolerates wet soils. Great nectar producer that attracts many bees and butterflies.
	15 Seaside goldenrod	<i>Solidago sempervirens</i>	Yellow	8	L	Tolerates saltwater spray and sandy soils. An important nectar source for coastal migrating monarchs.
	16 Showy goldenrod	<i>Solidago speciosa</i>	Yellow	5	L/M	Also frequented by a number of beneficial solitary wasps, pollen-eating soldier beetles, and more.
	17 Sweetscented joe pye weed	<i>Eutrochium purpureum</i>	Pink/purple	6	M	Very attractive to butterflies, with attractive seedheads that persist into winter.
	18 Trumpetweed	<i>Eutrochium fistulosum</i>	Pink/purple	7	M	Great nectar plant that attracts many pollinator species.
	19 Whitetop aster	<i>Doellingeria umbellata</i>	White	5	M	Nectar and pollen attract many butterflies, wasps, bees, and flies. Birds eat the seeds.
	20 Wild bergamot	<i>Monarda fistulosa</i>	Purple	5	L	Aromatic foliage. Flowers attract butterflies, bees, and hummingbirds.

Shrubs and Vines

Summer	21 Buttonbush	<i>Cephalanthus occidentalis</i>	White	12	M	Fragrant, showy flowers that attract butterflies.
	22 Climbing hempvine	<i>Mikania scandens</i>	White	10	M	Low-climbing vine used by butterflies for nectar.
Summer to Fall	23 Coastal sweet-pepperbush	<i>Clethra alnifolia</i>	White/pink	12	M	Tolerates clay soils and shade. Leaves turn yellow and gold in the fall.
	24 White meadowsweet	<i>Spiraea alba</i>	White	4	M/H	Good for wet areas. Needs constant moisture.



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 early October in the Northeast. 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.

Protect Monarchs from Pesticides

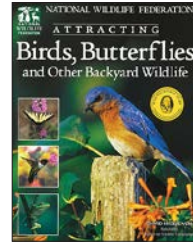
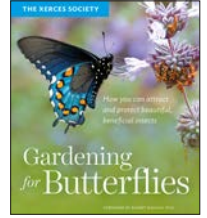
Both insecticides and herbicides can be harmful to monarchs. Herbicides can reduce floral resources and host plants. Although dependent on timing, rate, and method of application, most insecticides have the potential to poison or kill monarchs and other pollinators. Systemic insecticides, including neonicotinoids, 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.

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.



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

Eastern U.S. Monarchs and Milkweeds <http://bit.ly/2bAaZx0>

Milkweed Seed Finder www.xerces.org/milkweed-seed-finder

Websites

The Xerces Society www.xerces.org/monarchs

Monarch Joint Venture www.monarchjointventure.org/resources

Natural Resources Conservation Service www.nrcs.usda.gov/monarchs

National Wildlife Federation www.nwf.org/butterflies

Citizen Science Efforts in the Northeast

Journey North www.learner.org/jnorth/monarch

Monarch Larva Monitoring Project www.mlmp.org

Project Monarch Health www.monarchparasites.org

Acknowledgements

Nectaring data and observations, background information, and other contributions to this publication were taken from the published literature and generously provided by multiple researchers, gardeners, partners, and biologists. For the full list of data sources, please visit our website: www.xerces.org/monarch-nectar-plants. Funding provided by the Monarch Joint Venture and USDA Natural Resources Conservation Service. Additional support comes from Cascadian Farm, Ceres Trust, Cheerios, CS Fund, Disney Conservation Fund, The Dudley Foundation, The Edward Gorey Charitable Trust, General Mills, National Co-op Grocers, Nature Valley, Sarah K. de Coizart Article TENTH Perpetual Charitable Trust, Turner Foundation, Inc., Whole Foods Market and its vendors, and Xerces Society Members.

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This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 65-7482-15-118. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture.