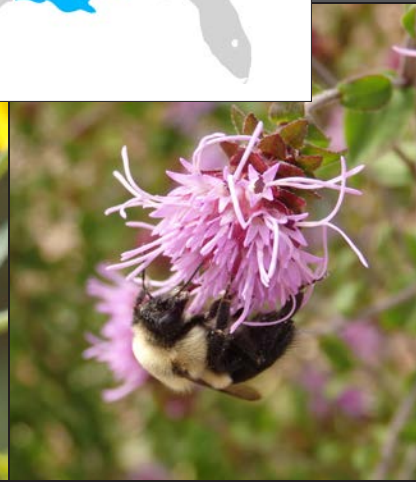


POLLINATOR PLANTS

Southeast Region



Butterfly milkweed, wingstem, and marsh blazing star.

The Southeast Region encompasses Alabama, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, and Tennessee. Variation in topography, soils, and climate creates tremendous ecological diversity in the region. Wonderfully rich coastal marshes, longleaf pine communities, blackland prairie, mixed pine and deciduous forests, and riparian corridors provide diverse habitats from the Gulf and Atlantic Coasts to the Smokey, Blue Ridge, and Appalachian Mountains.

These habitats support a striking diversity of pollinators including specialist bees like the southeastern blueberry bee, squash bees, and hibiscus (or okra) bee; 18 bumble bee species; and thousands of other native bees, butterflies, flower flies, beetles, wasps, and moths. As a group, these pollinators maintain healthy, productive plant communities, provide food that sustains other wildlife, and play an essential role in crop production. Yet, ongoing declines in native plant communities threaten many pollinators in the region, including the Diana fritillary butterfly, Hesper's skipper, and Hessel's hairstreak.

Providing wildflower-rich habitat is the most significant action you can take to support pollinators. Adult bees, butterflies, and other pollinators require nectar and/ or pollen as their primary food source. Female bees also collect pollen and nectar 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 by providing shelter and

food for wildlife. Native plants are better adapted to regional climate cycles, do not need fertilizers, and are less likely to become weedy.

This guide features 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, 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's distributions in your area.



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

THE XERCES SOCIETY
FOR INVERTEBRATE CONSERVATION

Protecting the life that sustains us



Bloom Period	Common Name	Scientific Name	Flower Color	Max. Height	Water Needs	Notes
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Forbs (Feet) L: low; M: medium; H: high All species are perennials, unless otherwise noted. Max. Height is an average, individual plants may vary.

Early	1	Golden Alexanders	<i>Zizia aurea</i>	yellow	3	H	Host plant for black swallowtail butterfly and grass miner moth; also attracts small beneficial wasps, bees, and flies.
	2	White wild indigo	<i>Baptisia alba</i>	white	4	L	Legume; very attractive to bees; host for hoary edge and frosted elfin butterflies, and the black-spotted prominent moth.
Early-Mid	3	Butterfly milkweed	<i>Asclepias tuberosa</i>	orange	3	L	Host plant for monarch and queen butterflies, and the unexpected cynthia tiger moth; fantastic nectar source for many insects.
	4	Clasp cone flower	<i>Dracopis amplexicaulis</i>	yellow/ red	3	M-H	This showy annual coneflower is relatively low cost and establishes easily from seed; excellent for mass plantings.
	5	Eastern smooth penstemon	<i>Penstemon laevigatus</i>	lavender	3	M	Attracts bumble bees and mason bees, who squeeze into its beautiful tubular flowers. <i>P. digitalis</i> and <i>P. smallii</i> are also excellent.
	6	Lanceleaf coreopsis	<i>Coreopsis lanceolata</i>	yellow	2	L	Extended bloom period makes coreopsis a valuable addition to pollinator gardens; host plant for the common tan wave moth.
Mid	7	Black-eyed Susan	<i>Rudbeckia hirta</i>	yellow	3	L	Supports bees and birds with nectar and seed; host for the gorgone checkerspot and bordered patch butterfly; easy to grow.
	8	Rattlesnake master	<i>Eryngium yuccifolium</i>	white	6	M	Supports a huge diversity of bees, butterflies, wasps, and more; host plant for the twirler moth. <i>E. aquaticum</i> good for wet sites.
	9	Wild bergamot	<i>Monarda fistulosa</i>	purple	4	M	Along with dotted mint (<i>M. punctata</i>), is excellent for bees, butterflies, moths, and hummingbirds.
Mid-Late	10	Eastern rosemallow	<i>Hibiscus moscheutos</i>	white/ pink/ red	8	H	Showy flowers offer nectar to many insects; a host for the specialist hibiscus bee, gray hairstreak, and Io and other moths.
	11	Joe Pye weed	<i>Eutrochium fistulosum</i>	pink	7	H	Excellent late-season nectar source for bees, hummingbird moths, and other insects; host for common pug and arctiid moths.
	12	Marsh blazing star	<i>Liatris spicata</i>	purple	4	M	A butterfly magnet that is also wonderful for bees late in the season. <i>L. squarrosa</i> is good for drier sites.
	13	Narrowleaf mountain mint	<i>Pycnanthemum tenuifolium</i>	white	2.5	M	Mountain mints (<i>Pycnanthemum</i> spp.) have fragrant foliage and are visited by blue and copper butterflies, bees, wasps, and flies.
	14	New York ironweed	<i>Vernonia noveboracensis</i>	purple	7	H	Attracts many butterflies and bees, including <i>Melissodes denticulata</i> , a specialist longhorn bee. <i>V. gigantea</i> is also recommended.
	15	Wingstem	<i>Verbesina alternifolia</i>	yellow	6	M	Supports a great diversity of bees and wasps; host plant for the silvery checkerspot, the summer azure, and the gold moth.
Late	16	Narrowleaf sunflower	<i>Helianthus angustifolius</i>	yellow	6	M-H	Supports many longhorned bees that are sunflower specialists; host plant for numerous butterflies and moths.
	17	Wrinkleleaf goldenrod	<i>Solidago rugosa</i>	yellow	6	M-H	Goldenrods support a huge diversity of bees, butterflies, moths, wasps, and flies; vital resource for fall-migrating monarchs.

Shrubs and Trees

Early	18	Cockspur hawthorn	<i>Crataegus crus-galli</i>	white	35	L	An important early spring nectar source for bees; supports a large number of moths, butterflies and other insects.
	19	Eastern redbud	<i>Cercis canadensis</i>	pink	30	L	An important spring nectar source for bees; host plant for many butterflies and moths; leafcutter bees use leaves for nesting.
Early-Mid	20	Highbush blueberry	<i>Vaccinium corymbosum</i>	white/ pink	12	M	Supports the southeastern blueberry bee, mining bees, and bumble bees, plus many butterflies and moths; brilliant fall color.
	22	New Jersey tea	<i>Ceanothus americanus</i>	white	3	L-M	An excellent early spring pollen and nectar source for bees; host plant for many butterflies and moths.
	21	Pasture rose	<i>Rosa carolina</i>	pink	3	L	Provides nectar and pollen for bees and is a host for a wide diversity of butterflies and moths; edible petals and rosehips.
Mid-Late	23	Buttonbush	<i>Cephalanthus occidentalis</i>	white	12	H	Blooms are butterfly magnets, vital in mid-season when little else is in flower; hosts many butterflies and moths.
	24	Purple passionflower, maypop	<i>Passiflora incarnata</i>	purple	vine	L-M	Attracts bees and hosts gulf and variegated fritillaries, the Plebeian sphinx moth, and the zebra longwing; fruits are edible.



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 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 is 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 *Establishing Pollinator Meadows from Seed* and the Pollinator Habitat Installation Guides listed in the Additional Resources section. For smaller areas like gardens, transplants are usually easier to use and will bloom faster than plants started from seed.

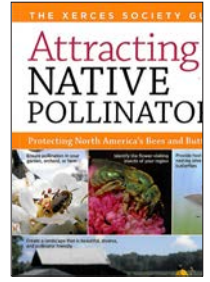
Protect Pollinators from Insecticides

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

Our best-selling book highlights the role of native pollinators in natural ecosystems, gardens, and farms. This comprehensive guide includes information about pollinator ecology, detailed profiles of over 30 common bee genera, and habitat designs for multiple landscapes with over 50 pages of fully illustrated regional plant lists. Available in bookstores everywhere, and through www.xerces.org/books.



The Xerces Pollinator Conservation Resource Center

Our Pollinator Conservation Resource Center includes regional information on pollinator plants, habitat conservation guides, nest management instructions, bee identification and monitoring resources, and directories of native pollinator plant nurseries. www.xerces.org/pollinator-resource-center

Lady Bird Johnson Wildflower Center

The Xerces Society has collaborated with the Lady Bird Johnson Wildflower Center to create lists of plants that are attractive to native bees, bumble bees, honey bees, and other beneficial insects, as well as plant lists with value as nesting materials for native bees. These lists can be narrowed down with additional criteria such as state, soil moisture, bloom time, and sunlight requirements. The Center's website also features image galleries, how-to articles on native plant gardening, and more. http://www.wildflower.org/conservation_pollinators/

Establishing Pollinator Meadows from Seed

These guidelines provide step-by-step instructions for establishing pollinator meadows from seed in areas that range in size from a small backyard garden up to an acre. Topics include: site selection, site preparation, plant selection, planting techniques, and ongoing management. www.xerces.org/establishing-pollinator-meadows-from-seed/

Pollinator Habitat Installation Guides

These regional guidelines, developed in collaboration with the USDA's Natural Resources Conservation Service, provide in-depth practical guidance on how to install nectar and pollen habitat for bees in the form of wildflower meadow plantings or linear rows of native flowering shrubs. Region-specific seed mixes and plant recommendations are included in the appendices of each guide. www.xerces.org/pollinator-conservation/agriculture/pollinator-habitat-installation-guides

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Written by Nancy Lee Adamson, Brianna Borders, Jessa Kay Cruz, Sarah Foltz Jordan, Kelly Gill, Jennifer Hopwood, Eric Lee-Mäder, and Mace Vaughan. Designed by Kaitlyn Rich. Formatted by Sara Morris. PHOTO CREDITS: Nancy Lee Adamson, The Xerces Society: 1, 5, 6, 11, 12 (cover and inside), 13, 15 (cover), 16, 17, 19, 20, 22, 23, 24. Larry Allain, USGS: 2. Sarah Foltz Jordan, The Xerces Society: 3. Dr. Thomas G. Barnes, USFWS*: 4. Brynn*: 7. Ernst Conservation Seed: 8. Eric Lee-Mäder, The Xerces Society: 9. R.W. Smith, Lady Bird Johnson Wildflower Center: 10. Judy Stierand: 14. Nadiatalent*: 18. Scott Seigfreid: 3 (cover), 21. *Courtesy of Wikimedia Commons. Photographs remain under the copyright of the photographer.

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