

Native Insect Pollinators Of the Southeastern United States



Green-eyed wasp

Honey bee

Beyond the Honey Bee

When people think about pollination, the honey bee immediately comes to mind. But honey bees are not native to the Americas. There are many other native insects that also provide the valuable service of plant pollination. Just about any insect that moves from flower to flower is capable of serving as a pollinator. Actually, it is really incredible how many insect species do pollinate. More than 4,000 species of bees, 750 species of butterflies, and thousands of species of wasps, flies and beetles act as pollinators for 75 percent of U.S. flowering plant species.

Native pollinators are extremely important because they maintain productive, diverse plant communities and help pollinate many of our agricultural crops. Unfortunately, native pollinator populations have declined in many parts of the United States. Land development, agricultural practices, habitat loss, pesticides, pathogens, and climate change are some of the factors shown to cause native pollinator decline. Consequently, the growing network of yards, community greenspaces, rights-of-way, and agricultural systems in conjunction with wild lands is becoming an ever more important resource for pollinators.

How can we help native pollinators?



PARTRIDGE PEA
Chamaecrista fasciculata

1 Plant native wildflowers

Wildflowers bloom at different times of the year, so plant a variety to provide food throughout the spring, summer and fall. Many species of wildflowers are easy to grow. Their variety of shapes and colors attract a multitude of different pollinators.



2 Provide nesting habitats

Set out *hollow bamboo sticks* and *drilled, untreated wood blocks* as habitat for many beneficial native bees and wasps.

Leave bare ground and do not till the soil. This allows ground-nesting bees and other pollinators to maintain and establish new nesting sites.

Leave some organic debris on the ground. Many pollinating flies and beetles use dead vegetation or wood for habitat.



Select Native Wildflowers

- Swamp Sunflower (*Helianthus angustifolius*)
- Giant Ironweed (*Vernonia gigantea*)
- Mountainmint (*Pycnanthemum* spp.)
- Trumpetweed (*Eutrochium fistulosum*)
- Spiderwort (*Tradescantia ohiensis*)
- Goldenrod (*Solidago* spp.)
- Aster (*Symphyotrichum* spp.)
- Blazing Star (*Liatris* spp.)



INDIAN BLANKET
Gaillardia pulchella

SWAMP MILKWEED
Asclepias incarnata

BUTTERFLY MILKWEED
Asclepias tuberosa

OBEDIENT PLANT
Physotegia virginica

SPOTTED BEEBALM
Monarda punctata

BLACKEYED SUSAN
Rudbeckia hirta

3 Spray wisely and minimize mowing

Limit pesticide use in the landscape. When pesticides are used, application should occur during early morning, late afternoon, or at night, when pollinator activity is low. Always follow label directions.

Many so-called “weeds” also provide forage for multiple bees and other flower-visiting insects. Therefore, minimizing mowed areas is a great way to enhance pollinator activity.

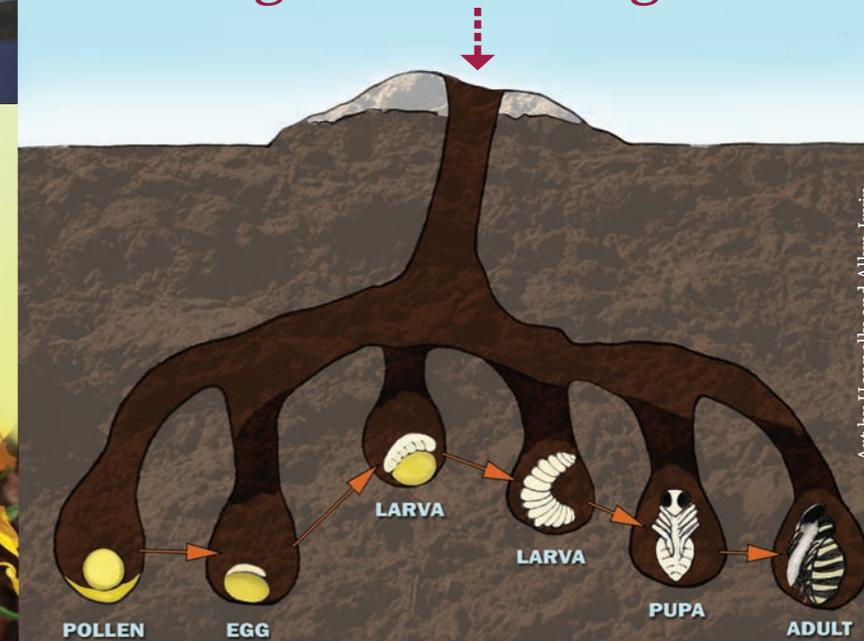


MONARCH CATERPILLAR

Butterflies need host plants

Butterflies have four life stages: 1) egg, 2) caterpillar, or larva, 3) pupa, and 4) adult. During the larval stage, the caterpillar feeds on certain plants in order to grow and eventually pupate.

Underground bee nest showing the life cycle of a ground-nesting bee





Sweat bee



Cuckoo wasp



Potter wasp



Leaf-cutting bee



Bee fly



Green bottle fly



Hover fly



Flesh fly



Featherlegged fly

Know Your Pollinators

Learn to identify the many native pollinators you may encounter in the great outdoors.



Longhorned beetle



Soldier beetle



Metallic wood-boring beetle



Scarab beetle



Tumbling flower beetle

Meal time

Flower-visiting beetles, flies and bees gather pollen *and* nectar, while butterflies, moths and most wasps take *only* nectar.



Hawkmoth



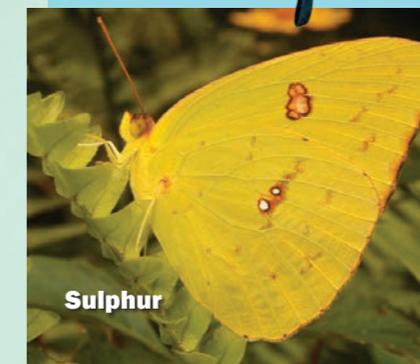
Skipper

A natural "straw"

Butterflies and moths have long, tubular mouthparts they use to draw out nectar that many other insects cannot reach.



Swallowtail



Sulphur



Hairstreak

Good providers

Bees feed their young pollen and nectar, while wasps feed their young spiders and/or insects. Wasps are good natural enemies of garden and agricultural pests.

No hive required

Unlike honey bees, most native bees and wasps are solitary and build their nests in the ground or in tunnel-shaped cavities.



Sand wasp

NATIVE BEES and WASPS

FLIES

BEEETLES

BUTTERFLIES and MOTHS

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