

Little Known Pollinators

The pollinators that live in our native plant communities and around our homes are as important (if not more important) as the black bear or the gopher tortoise. Without these insects to pollinate our native plants neither bear nor tortoise would have anything to eat as the saw palmetto and gopher apple would be unable to produce any fruit. Insect pollinators include bees, wasps, beetles & flies, as well as the familiar butterflies and moths.

Bee flies (*Bombyliidae* family)

The Large Bee Fly (*Bombylius* spp.) looks like a furry mosquito on steroids. Average size is 1/2 inch in length. The adult frequents fields and open meadows in search of nectar. Larva are parasitic on solitary bees. The female follows a solitary bee to her nest, waits for the bee to leave, then lays a single egg in the tunnel.

A Progressive Bee Fly (*Exoprosopa* spp.) looks like a furry fly. Average size is 1/2 inch in length. Preferred habitat is meadows, fields, and bare ground. Adult drinks nectar and the larva are parasitic preferring robber fly larvae, but also prey on bees, wasps, and ants.



Hover flies (*Syrphidae* family)

The Drone Fly (*Eristalis tenax*) resembles a honey bee, however, there is no waist between the thorax and abdomen. Average size is 5/8 inch in length. Preferred habitat is meadows and fields. Adults feed on nectar, pollen and their larva feed on organic matter. Eggs are laid in crevices near stagnant water.

The American Hover Fly (*Metasyrphus americanus*) is brown with yellow cross bands. Average size is 3/8 inch in length. The adults drink nectar and the larva prey on aphids and scale insects. Preferred habitat is meadows and fields. Eggs are laid on aphid infested foliage. Larva are pale gray and slug like and pupate in leaf litter.

Horse and deer flies (*Tabanidae* family)

The Deer Fly (*Chrysops* spp.) is a stout broad headed fly. Average size is 5/8 inch in length. The male drinks nectar, and the female sucks blood from mammals. Preferred habitat is woodlands, meadows and roadsides near water. Eggs are laid on plant material just above the water. Larva feed on aquatic insects and pupate in the mud.



The American Horse Fly (*Tabanus americanus*) is a huge fly with an average size of 1 1/8 inch in length. The male eats pollen and drinks nectar, and the female sucks blood from mammals. Preferred habitat is swamps, marshes and ponds. Eggs are laid on plant material overhanging fresh water. Larva feed on aquatic insects.

Vespid wasps (*Vespidae* family)



The Paper Wasp's (*Polistes* spp.) average size is 1 inch in length. The adults drink nectar and the juice from rotting fruit. Preferred habitat is meadows, fields and gardens. The larva feed on insects. Paper like structures are built to house the larva. Paper wasps are much more tolerant of disturbances than yellow jackets or hornets.

The Yellow Jacket (*Vespulas* spp.) has a stout body with black and yellow stripes. Average size is 5/8 inch in length. Adults drink nectar. The larva feed on insects pre-chewed by the adults. Preferred habitat is meadows and forest edges. Nests are built underground, or in stumps, or fallen logs. Yellow jackets sting with little provocation.

The Bald Faced Hornet (*Vespuila maculata*) has black and white patterns. Average size is 3/4 inch in length. Adults drink nectar, fruit juices and the larva feed on insects. Preferred habitat is meadows, forest edges and lawns. Nests are large, paper like, pendulous structures suspended from tree branches. Bald faced hornets will sting repeatedly if their nest is disturbed.

Sphecoid wasps (*Sphecidae* family)

The Florida Hunting Wasp (*Palmodes dimidiatus*) has an average size of 7/8 inch in length. Adults drink nectar and the larva feed on camel crickets and long horned grasshoppers. Preferred habitat is fields and woods. The female excavates a short burrow in the earth and places an anesthetized victim in the burrow with a single egg, and then seals the entrance.



The Cicada Killer (*Sphecius speciosus*) has an average size of 1 5/8 inches in length. Adults drink nectar and larva feed on cicadas. Preferred habitat is forest edges and city parks. Burrows are dug in the soil to house two to three egg cells. Cicadas are placed in each cell to feed the larva.



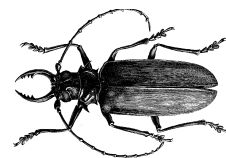
Bees (*Apoidea* family)

The Virescent Green Metallic Bee (*Agapostemon virescens*) is a small, 3/8 inch in length, shiny green bee. Adults drink nectar and larva feed on nectar and pollen. Preferred habitat is meadows and gardens with sandy soil. The colony's nest is built in bare soil, or vertical banks.

The Carpenter Bee (*Xylocopa* spp.) closely resembles a bumble bee. Average size is 1 inch in length. Adults drink nectar and the larva feed on nectar and pollen. Preferred habitat is forests and adjacent meadows. The female chews a tunnel in dry wood and places eggs in partitions that she has constructed with cemented wood chips.

The Bumble Bee (*Bombus* spp.) is a large hairy bee with an average size of 7/8 inch in length. Adults drink nectar and eat honey. Preferred habitat is forests, roadsides and open areas. The colony is housed in a nest built underground, and has a social structure similar to the honey bee.

Long horned beetles (*Cerambycidae* family)



The Notch-tipped Flower Longhorn (*Typocerus sinuatus*) is an orange beetle with long antennae. Adults drink nectar and eat pollen. Average size is 1/2 in length. Preferred habitat is forest and clearings. Larva feed on decaying wood and tunnel inside to pupate.

The Elder Borer (*Desmocerus palliatus*) is a bright orange and black beetle with an average size of 1 inch in length. The adults feed on pollen. Preferred habitat is moist forests and stream edges. Larva feed on elderberry roots. Eggs are laid on the elderberry stems and the larva burrow into them, progress to the roots, and pupate in the soil.

Here are some things that you can do to ensure that your property has plenty of pollinators:

- * Don't use pesticides!
- * Learn to like the bugs! Read your field guides and get to know the insects.
- * Plant native plants that provide nectar and pollen.
- * Allow a portion of your property to be wild - ground nesting insects will appreciate the sanctuary.
- * Provide stumps or blocks of wood for insects to nest in.
- * Just in case you missed it - Don't use pesticides!

Flowers that are pollinated by large bees:

Agalinis purpurea (False foxglove)
Argemone albiflora (Prickly poppy)
Clematis crispa (Leather flower)
Dicerandra linearifolia (Dicerandra)
Kosteletzkya virginica (Marsh mallow)
Pontederia cordata (Pickerel weed)
Sagittaria lancifolia (Arrowhead)

Flowers that are pollinated by wasps:

Bumelia tenax (Tough bumelia)
Ilex vomitoria (Yaupon holly)
Monarda punctata (Dotted horsemint)
Prunus serotina (Black cherry)
Viburnum obovata (Walter's viburnum)

Flowers that are pollinated by small bees:

Asclepias tuberosa (Butterfly milkweed)
Cassia chapmanii (Cassia)
Dyschoriste angusta (Dwarf twinflower)
Galactia pinetorium (Milk pea)
Jacquemontia curtisii (Pineland morning glory)
Phyla nodiflora (Frog fruit)
Serenoa repens (Saw palmetto)

Flowers that are pollinated by beetles:

Asimina spp. (Paw paw)
Cephalanthus occidentalis (Button bush)
Clethra alnifolia (Sweet pepperbush)
Rhus copallina (Winged sumac)
Solidago spp (Goldenrod)

by Sharon LaPlante

The Audubon Society Field Guide to North American Insects and Spiders. Knopf: New York, NY. 1980