

Beneficial Insects, Spiders and Mites in the Southeast



A pictorial guide to common beneficials in the garden and landscape.

Authors

Kris Braman, Extension Entomologist, University of Georgia

Frank Hale, Extension Entomologist, University of Tennessee

Ayanava Majumdar, Extension Specialist, Auburn University

How to Use This Guide

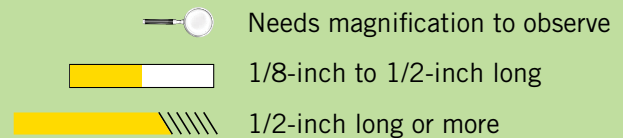
The purpose of this guide is to help users identify insects, spiders and mites that are beneficial to the garden. Such beneficials help manage pests that can damage plants.

Due to limited space, only the most common beneficials are listed. There are many others that are not included, like dragonflies, soldier beetles, rove beetles, predaceous plant bugs and earwigs.

By protecting and promoting beneficial populations, the use of chemical pesticides can be reduced.

Size Key

The key below indicates the size of the insect.



Tips to Conserve and Protect Beneficials

- Use pesticides only when necessary.
- Spot-spray pesticides rather than cover-spraying.
- Apply pesticides that are less toxic to beneficials.
- Plant a variety of flowering plants for season-long nectar, pollen and alternative prey.
- Provide water and shelter.
- Develop a tolerance for some plant damage to allow beneficial insects to increase.
- Plant flowers that attract beneficials.

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H. A. Pase III



Spiders

- All have two body parts and eight legs.
- Tend to avoid people. Most are harmless to humans.
- Important in reducing several kinds of landscape pests.

International Institute of Tropical Agriculture, Flickr



Mites

- Most are pear-shaped and shiny, with noticeably long legs. They seem see-through.
- Predaceous mites are more active and mobile than pest mites.
- Predatory mites prevent pest mite outbreaks.

J. Ruberson



Two-spined soldier bugs

- Adults are light brown and shield-shaped.
- Known predator of more than 100 pest species. Caterpillars and leaf beetle larvae are their most common prey.

J. Berger



Predaceous damsel bugs

- Most are slender and elongated. May be cream-colored, dark brown or black.
- Most active in mid-summer.
- Feed on eggs and immature stages of many pests.

J. Ruberson



Minute pirate bugs

- Adults are black and white. Depending on instar, nymphs are a colorful yellow-orange-brown.
- An effective predator of thrips and the eggs of many pest insects and mites.

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R. Brame, University of Georgia



Assassin bugs

- Generally appear oval or elongated. Head is noticeably long and narrow.
- Usually black, orange-red or brown.
- Will inflict a painful bite if handled.
- Feed on most other insects.

B. Higbee, Parmount Farming



Big-eyed bugs

- Stout-bodied. Prominent eyes give the insect its name.
- Usually found with populations of chinch bugs. Also feed on caterpillars and insect eggs.

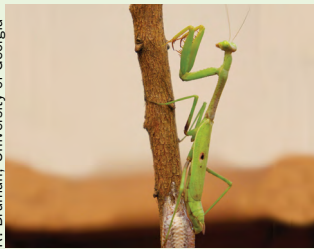
M. Talbot, Flickr



Lacewings

- Adults are green or brown. Wings show a network of veins. Larvae are oblong and soft-bodied with distinctive sickle-shaped mandibles.
- Often called "aphid lions" because they prey on aphids.

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Praying mantids

- Usually green, gray or brown. Front legs are covered with stout spines for grasping prey.
- Egg capsules become hardened mass on twigs or stems.

D. Cappaert



Syrphid flies

- Most are yellow with brown or black bands on the abdomen. Some resemble wasps, many mimic bees.
- Larvae are maggot-like and prey on aphids and other soft-bodied insects.

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C. M. Abraham

Paper wasps

- Most are reddish-brown with yellow markings.
- Prey on caterpillars. Adults sting, paralyze and carry the caterpillar to the nest and feed it to developing wasps.



F. Hale, University of Tennessee

Ground beetles

- Many species are metallic. Others are plain brown or black.
- Active on the ground, primarily at night.
- Prey on armyworms, cutworms, small mole crickets and other insects.



R. J. Reynolds Tobacco Company Slide Set

Lady beetles

- Adults are oval-shaped.
- Larvae are elongated and covered with spines.
- Adults and larvae feed on aphids, scale insects, mites and mealybugs.



F. Peairs

S. K. Braham, University of Georgia

Parasitic wasps

- Size range varies with species.
- Most are rarely seen.
- Look for brown, swollen, hollowed-out remains of parasitized aphids; darkened scale insects or whiteflies; or exit holes on dead insects.



D. Cappaert

Parasitic flies

- Vary in appearance. Many resemble common houseflies, while others look like bees.
- Deposit an egg or larva on or near the body of their host.
- Attack a variety of pests.

Flowers That Attract Beneficials



Top left to right, by row: angelica, aster, butterfly weed, coneflower, cosmos, parsley, rudbeckia, sedum, sunflower, veronica, yarrow, zinnias

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