

Beneficial bugs prove not all insects are pests

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Landscapes are full of bugs: Some are harmless, others harmful but many still are helpful.

This is one of the reasons behind development of a management strategy commonly called integrated pest management. This method combines the use of cultural, biological and chemical control of insects to achieve effective, economical pest control with less effect on non-target organisms and the environment.

One of the main biological control methods is the use of beneficial or good bugs that eat the bad bugs.

There are many species of ground beetles in Florida that feed on both lawn and crop pests such as mole crickets, cutworms, armyworms and others. The young life stage of beetles is called larvae, and they live entirely underground. As a rule of thumb, most ground beetles in Florida are less than an inch and are hard shelled; these, as a general rule, do not harm lawns or landscapes. They are predators of the bugs that do.

Tiger beetles are varied in color from black to shiny silver with stripes or spots. They are found in sandy areas near open water, such as beaches. Adults can fly or hop very fast and will eat most any bug they can catch.

As their name implies, they are a predator and a darned good one. They are great fun to watch if you have some free time at a sandy spot without much wind. They will be the long-legged beetle on the beach hopping and flying from place to place, but often they stake out an area that they will work for minutes to hours. They spend their time pouncing on other insects, sometimes ones larger than themselves.

Assassin bugs are another great predator of the bug world; some of the larger species, such as wheelbugs, have the ability to puncture the skin of a human. This is extremely unlikely, unless you are holding them, as I once did after catching one for an entomology class. And they really hurt. I would advise against catching any bugs without gloves.

Assassin bugs get their name for the speed with which they capture and kill their prey.

Adult assassin bugs in South Florida range from ½ inch to 1 inch and have a hard outer shell;

the head is elongated with a curved beak that they stab into their prey. Adults range in color from brown or black to brightly colored outer shells. The nymph stages are soft-bodied and generally brighter in color but are fast and predatory also.

Paper wasps are often considered pests, yet they are beneficial to the landscape. Very few people are ever stung by them, unless they are attempting to tear down the nest or spray them with insecticide. Their nests can be unsightly, but in South Florida urban areas the nests are generally quite small — 1/2 inch to 3 inches. In other areas of the world, especially wilderness or remote regions, paper wasp nests can reach several feet across.

The adult wasps drink nectar and juice from old fruits; they also hunt harmful insects, chew them up and regurgitate them to the larvae. The larvae develop and live in the paper nest until they are able to fly. Paper wasps are much less aggressive than hornets or yellow jackets, both of which are also predators.

Pictures of all these as well as many other beneficial bugs can be found in insects field guides and on the Internet. A great small ID deck of Good Lawn Bugs has been developed by the University of Florida and can be purchased for \$6 at the IFAS bookstore. The phone number is (800) 226-1764 or visit www.ifasbooks.com.

Other information on good bugs can be found at the listed Web sites, or you can call the Palm Beach County Cooperative Extension Service master gardener hotline at 233-1750.

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