



Extension FactSheet

Entomology, 1991 Kenny Road, Columbus, OH 43210-1000

Praying Mantis

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The "Praying Mantis" is truly a most remarkable creature with a striking appearance and curious habits! Over the past few years, populations appear to be increasing throughout Ohio. More and more inquiries are received at the Ohio State University Extension Entomology office regarding biology and life cycle of this beneficial insect. They do not bite humans, damage household furnishings, nor spread disease. However, when handled, their spiny-like forelegs can be readily felt as a "sharp pinch." Mantids are most commonly seen in late September and early October either resting on a plant or "fluttering" through the air, sometimes mistaken for a hummingbird. Some appear to resemble leaves or flowers in shape and color.

The common name comes from the manner in which they hold up the forepart of the body, with its enormous front legs, as though in an attitude of prayer. They might also be called "preying mantes" for they are carnivorous, eating other insects. The body is elongate with the front legs modified into prominent grasping organs that catch and hold prey. The wings are well developed, but mantids commonly remain quiet in one place until another insect comes into reach. However, they sometimes cautiously stalk their prey.

The "Praying Mantis" is not an endangered species nor protected by Ohio or federal law.

Identification

Both native and introduced species are quite large, some over 3 to 4 inches long. The body is tannish-brown with the longitudinal forewing's outer margins edged in a pea green color. The forelegs are modified to close like a knife blade back against its handle (pocket knife-like). Prey are held securely between these serrated, spiny forelegs.

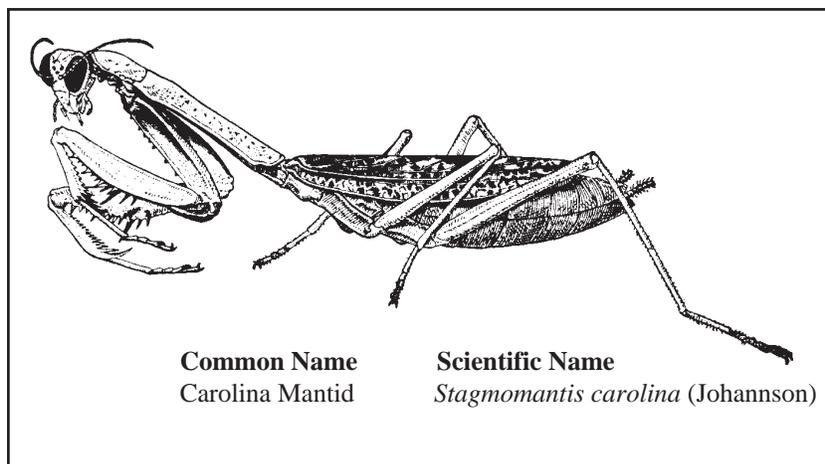
Life Cycle and Habits

One generation develops each season. In the autumn, females lay eggs in a large mass or cluster (an inch or so long), in a frothy, gummy substance glued to tree twigs, plant stems and other objects. Overwintering occurs in the egg stage in this case. Tiny nymphs emerge from the egg mass in the spring or early summer.

Rearing Mantids

The space involved and the time required in rearing food material are the most difficult aspects of mantid rearing. Mantids are among the more difficult of insects to rear. They are carnivorous, feeding in nature on smaller insects and other small animals. Rearing mantids requires rearing of other insects - such as vinegar flies or aphids - as food material (in large quantities)!

Small developing nymphs tend to become cannibalistic and require separation or isolation in the later stages. Adults will mate readily in captivity.



Common Name
Carolina Mantis

Scientific Name
Stagmomantis carolina (Johannson)

After mantids have completed their early stages, they may be fed insects larger than aphids and vinegar flies such as mosquitoes, flies, and roaches. Mature Chinese mantids readily attack, kill, and devour large crickets and grasshoppers. Some people like to watch the capture of this prey. Others like to collect adult mantids (especially females full of eggs), then place them in a large glass container (empty fish aquarium) and watch egg masses being glued to an inserted tree branch. After egg laying, mantid death usually occurs a few weeks later.

Egg masses, collected in September or October and brought into the warm classroom, have been known to hatch in early December of the same year. Then, large numbers of very tiny mantids will suddenly appear and, if not furnished fresh, live food, they will eat each other until only one or a few mantids are left. In the laboratory, the egg mass may be refrigerated for a few weeks, and then incubated at room temperature. Often, no refrigeration appears necessary.

Pest Control

While the praying mantis plays a very important part in nature's insect control plan, one should not expect to achieve total pest control with the use of praying mantids alone. Nevertheless, the mantid is the only predator which feeds at night on moths (most moths are active only after darkness) and the only predator fast enough to catch mosquitoes and flies. Since mantids are quite large and more visible than most beneficial insects, they are "fun" to watch, and children are fascinated to see a Praying Mantis grasp its prey.

For best pest control, commercial suppliers recommend using 3 egg cases for under 5,000 sq. ft. (50 ft. x 100 ft. area). Approximate prices are as follows:

3 egg cases	\$4.00
5 egg cases	\$6.00
10 egg cases	\$10.00
11 egg cases and up	\$0.85 each

Source:

Planet Natural
1612 Gold Avenue
P.O. Box 3146
Bozeman, MT 59772
To order: 800-289-6656

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