

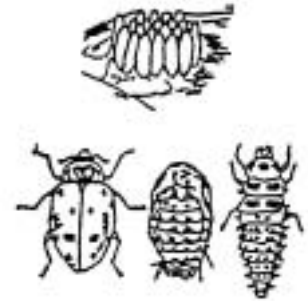
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# Beneficial Insects: Nature's Pest Control

With the ecological mistakes of humanity now becoming more apparent, it is reassuring to know that nature has established certain controls which prevent some insects from overpopulating the environment. Learning to identify beneficial insects and foster their habitats will aid in the increase of insect predator populations.

## Ladybird Beetles or Ladybugs

The ladybird beetles are small, oval, convex and often brightly colored insects. Most species of this family are predaceous both as larvae and adults and feed chiefly on aphids. Other hosts include scale insects and mealybugs. Lady beetles are found frequently on vegetation where aphids are numerous. They hibernate as adults, commonly under leaves and debris in large aggregations. The most important local species is probably the Multi-Colored Asian Ladybug, a species that especially colonizes trees.



## Lacewings

The lacewing, with its gauzy green (sometimes brown) lace wings and jewel-like gold eyes, produces aphid-devouring larvae. The larvae are grayish brown with curved jaws that extend beyond the head. They crawl along the leaf surface in search of aphids, scales, mealybugs, thrips, mites and insect eggs. Their appetite seems to increase with each pest consumed. One lacewing larva can consume more than 100 insects a day.



## Ground beetles

This beetle family contains hundreds of species that exhibit differences in size, shape and color. Most of these insects are somewhat flattened, dark and shiny. They may be found under stones, logs, bark, debris or running about on the ground. Most of them hide during the day and feed at night. Nearly all are predaceous on other insects and many are beneficial. There are also some that feed on snails.



## Braconids and other wasps

There are many species of parasitic wasps, most of which are quite small. Like the related Ichneumens, they feed on the inner body fluids of the hosts. The most common ones are parasitic on Sphinx moth larvae like the tobacco and tomato hornworms.



## Praying mantids

These insects are highly predaceous and feed on a variety of insects. They wait to ambush their prey with the front legs in an upraised position that gives them their name. The egg cases may be found on tree twigs and in fields, and for some fun, watch them hatch in your own garden next spring. Gather the egg cases by cutting the twig you find them on, then tying the case to a branch in your garden. The young come tumbling out of their nests by the hundreds in the spring. Praying mantids are cannibals and will eat one another. Only a few will survive under home grounds conditions.

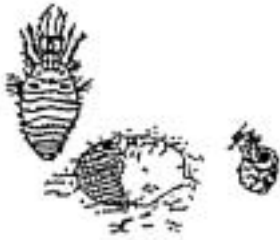


## Dragonflies

These large insects may be seen soaring and darting about near and over ponds and streams in a manner to arouse the envy of the most daredevil aviator. They both catch and eat their insect prey while flying. Mosquitoes and other flies make up a large part of their diet. Both the adults and the aquatic immature stages are predators.

## Syrphid flies

Syrphid flies are commonly called flower flies – they may be brightly colored and many resemble wasps and bees hovering over the flowers. However, they do not sting. The larvae of most species are predaceous, feeding on aphids or the young of other mites, ants or bees.



## Ant lions

The larvae, or doodlebugs, are odd-looking creatures with long sickle-shaped mouthparts. These insects are more commonly found in the south and southwest, but there are a few species found locally. The larvae hide in burrows in the ground waiting for an ant to stumble into the burrow. Once inside, the ant is quickly consumed.

## Lightning bugs

During the early summer the adult insects fly about in the evenings, conspicuous by their blinking yellow light. Most of the larvae are luminescent and are given the name “glow-worms”. The larvae feed on various smaller insects and snails.



**Note:** Some predatory insects such as ladybird beetles and praying mantids are available for sale. Ladybird beetles purchased in the spring have likely been collected during their winter hibernation. After emerging from hibernation they will soon fly away, often far from their release site. Home gardeners buying predators in hopes that their insect problems will be solved will likely be disappointed. It may be more useful to attempt to conserve the natural predators already present in an area by learning to recognize the eggs and immature stages of beneficial species, by using insecticides carefully and by maintaining nectar and pollen sources throughout the growing season.

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