

## Beneficial Insects - Nature's Pest Control

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With the ecological mistakes of humans now becoming more apparent, it is reassuring to know that nature can establish certain controls which prevent some destructive insects from overpopulating the environment. We can encourage and prepare the conditions for an increase in insect predator populations. The first step is to be able to identify the beneficial insects.

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, and upon release will soon fly away, often far from their release site. If a home gardener buys predators feeling that his insect problems will be solved by their action, he is likely to be disappointed. It may be more useful to attempt to conserve the natural predators already present in an area.

### Ladybird Beetles or Ladybugs

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Ladybird beetle larva and aphids.  
From [Bugwood.org](http://Bugwood.org) Clemson University,  
USDA Cooperative Extension Slide Series.



Ladybird beetle feeding on a colony of scale insects.  
From [Bugwood.org](http://Bugwood.org) William M. Ciesla,  
Forest Health Management International.

The ladybird beetles are also called lady beetles or ladybugs.

They are small, oval, convex and often brightly colored insects. Most of this family are predaceous both as larvae and adults, and feed chiefly on aphids. They also eat scale insects and mealybugs. Ladybird beetles are found frequently on vegetation where aphids are numerous. They hibernate as adults, commonly under leaves and debris in large aggregations.

An important local species is the two-spotted lady beetle, which is orange red in color, with one black spot

on each wing cover. A species often seen around houses in the autumn is the [multicolored Asian lady beetle](#), which varies in color and number of spots.

## Lacewings

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Adult Lacewing. From [Bugwood.org](#) Edward L. Manigault, Clemson University Donated Collection

Lacewings, with their gauzy green (sometimes brown) lace wings and jewel-like gold eyes, produce aphid-devouring larvae. The larvae are grayish brown, with sharp curved jaws that extend beyond the head. Larvae crawl along the leaf surface in search of aphids, scales, mealybugs, thrips, mites and insect eggs. It seems that the larva's appetite increases with each pest consumed -- large larvae can consume 100 or more insects a day.

## Ground Beetles

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Adult Ground Beetle

This beetle family contains hundreds of species and exhibits 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 slugs and snails.

## Braconids and Other Wasps

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Braconid pupae on a hornworm caterpillar. From [Bugwood.org](#) R.J. Reynolds Tobacco Co.

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

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Adult Praying mantis. From [Bugwood.org](http://Bugwood.org) Edward L. Manigault, Clemson University Donated Collection.

These highly predaceous insects feed on a variety of other 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, you may wish to watch them hatch in your own garden next spring. Egg cases may be gathered 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 case by the hundreds in the spring. Praying mantids are cannibalistic and will eat one another. Only a few will survive under home garden conditions.

## Dragonflies

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Adult Dragonfly

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.

## Syrphid Flies

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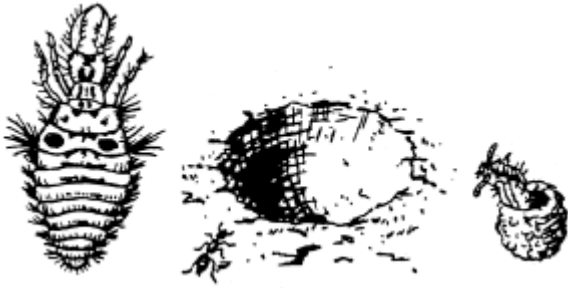


Adult Syrphid Fly

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

## Ant Lions

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FROM LEFT TO RIGHT: Larva or "doodlebug"; pit trap; and pupa

The larvae, or doodlebugs, are queer looking creatures with long sickle-shaped mouthparts. These insects are more commonly found in the south or 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

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Adult Lightning Bug

During the early summer the adult insects fly about in the evenings and are conspicuous by their blinking yellow light. The larvae feed on various smaller insects and on snails. The larvae of some species are luminescent and are given the name "glowworms."

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