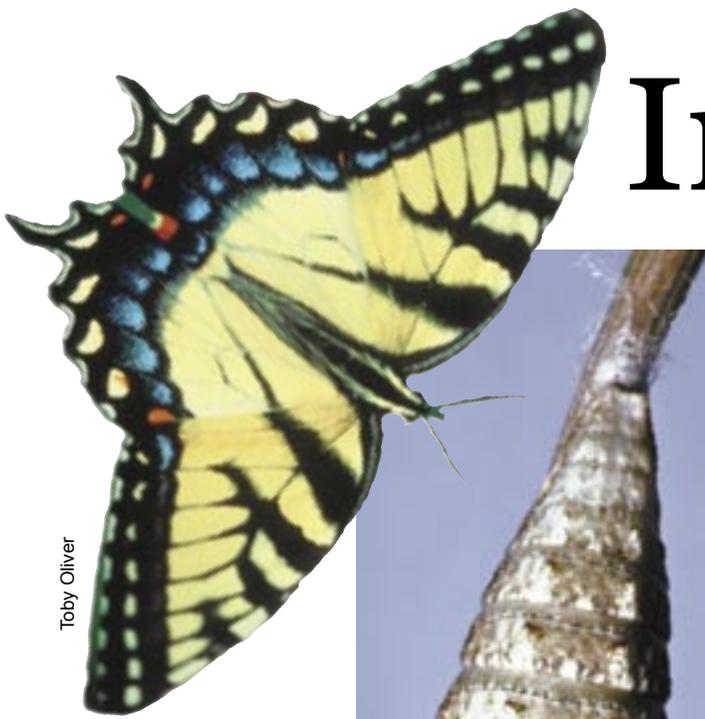


Insects That



Toby Oliver

By Emily Grafton

It's easy to discover something new about insects in spring and summer. Most anywhere you look, some six-legged critter, winged or wingless, is hopping, buzzing, whizzing or crawling by. But during the bleak days of winter, the whirl of dragonflies, the determined march of ground beetles, and the myriad waltzes of butterflies are noticeably absent.

Unlike the monarch butterfly that migrates before winter, many insect species spend the winter near their summer habitat. If you were to visit a pond near a woodland, you could find the winter stage of most insects that live in the open during the growing season. The catch is, you would have to look more carefully, and become familiar with the egg, pupa or larval stage of the adult creature you enjoyed observing before winter.

To find insects in winter

you have to look under leaf litter, dig in the soil, look under loose bark on trees or dig into the mud around the edges of seeps, streams or lakes. Very often insects leave their eggs or pupa on the surfaces of tree branches, on dead wood or even under rocks. You would be surprised how much you could observe by simply walking slowly through a garden or woodland.

Some insects do spend the winter in the adult stage. For example, ground beetles burrow deep into the woodland soil, waiting for warm temperatures to thaw the ground in spring. The firefly, which is a type of beetle, also burrows into the ground for winter. However, you might also find the short worm-like larval stage of fireflies in the soil right in your own backyard.



The chrysalis of a swallowtail butterfly, above, can sometimes be found gently tied to a branch with silken threads.

Arnold T. Drooz, USDA Forest Service, www.forestryimages.org

According to former DNR biologist Tom Allen, our native species of butterflies spend the winter in a wide range of stages. Some of the skippers spend the winter in the caterpillar stage, tightly rolled up in a dead leaf on a twig or branch. The mourning cloak butterfly and other angle wing butterflies spend their winter as adults nestled under loose bark or in hollow trees. Our seven native species of swallowtail butterflies overwinter in the chrysalis stage. The brown or green chrysalis is attached to a twig by a silken pad, and supported by a silk



Robert L. Anderson, USDA Forest Service, www.forestryimages.org



Terry Price, GA Forestry Commission, www.forestryimages.org

The tent caterpillar, above, creates cottony "tents" in the spring after the egg masses, left, overwinter on twigs.

Chill in the Winter



Chris Spencer

The praying mantis overwinters in grayish brown egg cases, right, that can often be found in evergreen trees.

thread or girdle. Look for them on tree trunks or under loose siding near the bottom of buildings.

Remember those large, beautiful yellow grasshoppers you saw flying over the weeds in old fields, often near ponds? Well, their offspring are more than likely living in the ground as eggs. During the fall months, the female grasshoppers drilled little holes in the earth and deposited her tiny eggs for a long winter's sleep. In the spring these eggs will hatch into miniature grasshoppers, called nymphs. Some insects have only three life stages: adult, egg and nymph. The nymphs will feed, grow and shed their skins (molt) repeatedly through the summer until they reach their adult size.

What about those magnificent dragonflies which zoom around ponds and streams all summer? Would you believe you could find them in the mud at the bottom of a body of water? The behavior and appearance of the nymph stage of drag-

onflies more aptly fit the name of dragon. The nymph looks more like a terrestrial insect with its six legs, dull brownish colors and armored-looking body. Its head bears a lower lip shaped like an arm with hooks used for catching tadpoles and insects.

Dragonfly nymphs may spend a long time in a dormant stage at the bottom of the pond. In the spring they emerge and begin feeding. They grow and shed their skins as they mature. In the spring or summer when



Edward Manigault, Clemson U. www.forestryimages.org

Dragonfly nymphs will begin to molt in spring, after being submerged in water all winter.

and an adult dragonfly will crawl out, wait for its wings to dry and begin a summer-long feeding frenzy.

One of the most exciting insect finds in the winter is a case of praying mantis eggs. In the fall an adult female mantid deposits foamy liquid on a plant stem. She then deposits her eggs into the foamy mass. After the eggs are deposited, the mass hardens leaving the eggs well protected from predators and the cold. These dome shaped masses look just like a clump of hardened



David J. Moorhead, Univ. of Ga., www.forestryimages.org

grayish sea foam that range from one-half inch to an inch across.

Most of us are all too familiar with those cottony tents constructed by eastern tent caterpillars in

the forks of branches on wild black cherry or fruit trees. Hundreds of tiny caterpillars emerge from the tents during the day to feed on leaves of the cherry trees. At night and during adverse conditions, they retreat into the tents for shelter. In winter, look for the shiny brown egg masses wrapped around small twigs.

There are hundreds of species of insects that can be found hibernating in plain sight during the winter. You just need to look closely and carefully for odd little shapes and structures on plants, under rock ledges or leaf litter, and in the soil. So, don't let the presumed scarcity of living things keep you indoors this winter.

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