

INSECTS

Tent caterpillar egg mass

Some INSECTS spend winter as **eggs.**

Herbert A. "Joe" Pase III, Texas Forest Service, Bugwood.org

Others overwinter as **larvae,** wrapped in a cozy cocoon for the season.

Polyphemus moth cocoon

Lacy L. Hyché, Auburn University, Bugwood.org

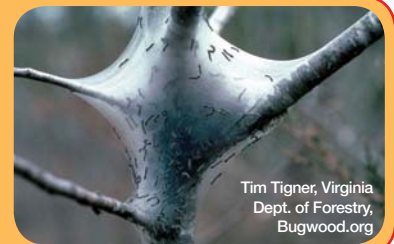
And some spend winter as adults.

Diapause (die-a-paws) is the name given to the special kind of dormancy insects go through. During diapause growth is put "on hold." It can begin well before conditions get bad and can last long after conditions have improved. Insects develop glycerol, a sugary alcohol that acts like antifreeze, as winter approaches. This keeps them from freezing to death, even though they're above the frost line. The glycerol breaks down when the weather warms, and normal growth begins again.

TENT CATERPILLARS

Where are **TENT CATERPILLARS** in winter?

A close look at trees and shrubs along the forest edge may reveal a hard, shiny, brown material wrapped around the twigs: an egg mass. When spring arrives, watch for tiny caterpillars to hatch out and begin feasting on the buds and leaves. Look especially on black cherry, apple, and sugar maple trees.



Tim Tigner, Virginia Dept. of Forestry, Bugwood.org



Penn. Dept. of Conservation & Natural Resources-Forestry Archive, Bugwood.org

Adult **LADYBUGS**, also known as ladybird beetles, hibernate under the bark of a tree or in the leaf litter near the tree's roots. Sometimes they're even found hibernating in clusters inside people's homes. Don't worry. They won't harm your home and they'll leave in the spring!

WOOLLY BEAR CATERPILLARS,

larvae of the Isabella tiger moth, spend the winter curled up in a sheltered place—under a log, or perhaps under some loose bark. In spring they'll spin their cocoon and pupate into adult moths.

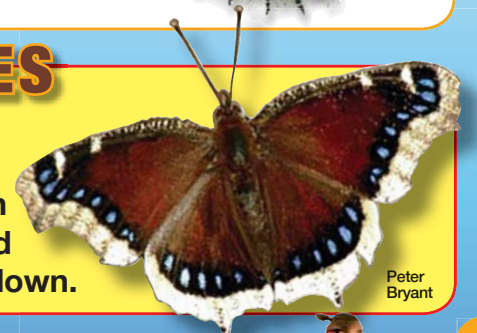


Patricia Kernan

Jean Gawalt

MOURNING CLOAK BUTTERFLIES

are sometimes spotted on the first warm days of spring. Why are they out so early? They spent the winter tucked under crevices of bark. When the warm spring sun shines on the bark it warms them, too. They'll return to their sheltered hideaway before the cold settles in again as the sun goes down.



Peter Bryant