

Gypsy Moth (*Lymantria dispar*) in Wisconsin

Division of Extension

Management guide for homeowners

Note: Clicking on an image will open a larger version for easier viewing

AUGUST–SEPTEMBER: Watch for pinholes in egg masses.

Pinholes indicate the presence of the tiny parasitic wasp *Ooencyrtus kuvanae*. These wasps do not sting humans but will attack gypsy moth (*Lymantria dispar*) eggs as long as the weather is above freezing.

Photo Credit: Gyorgy Csoka, Hungary Forest Research Institute. 5371176. ForestryImages.org.



Ooencyrtus kuvanae on a gypsy moth (*Lymantria dispar*) egg mass.

MID-OCTOBER–MID-APRIL: Destroy egg masses.

Destroy egg masses by spraying them with a horticultural oil labeled for gypsy moth (*Lymantria dispar*) egg masses (available at lawn and garden centers or online) or by scraping them off and killing them. Do not use motor oil, mineral oils, non-horticultural oils or others not labeled for *Lymantria dispar*. Spray the oil onto the egg mass until it is soaked. If you scrape off egg masses, be very careful not to harm the bark of the tree. You could do more damage than good that way. Use a knife or paint scraper to gently scrape all of the eggs into a jar. Eggs can be killed by soaking them in soapy water for 2 days before discarding them in the trash. Don't just scrape egg masses onto the ground or try to crush them with your shoe as they will survive to hatch next spring. Any parts of the egg mass you are unable to scrape off can also hold surviving eggs.

Photo Credits: Bill McNee WI DNR; Cliff Sadoff Purdue University.



Spraying *Lymantria dispar* egg masses with an approved horticultural oil



Scraping egg masses into a can of soapy water

LATE APRIL: Place barrier bands on tree trunks.

Just after gypsy moth (*Lymantria dispar*) caterpillars have hatched, when they are small and young, barrier bands will prevent them from climbing back into trees after ballooning or when they have fallen. Barrier bands can be purchased or made using duct tape or other nonporous material that can be wrapped around a tree trunk and coated with a commercially available sticky material such as TangleFoot® or Vaseline®. **NEVER** put sticky material directly on the tree trunk. On thin-barked trees, tie butcher paper or paper bags around the trunk before using the duct tape. The sticky material may need to be re-applied periodically due to rain and other environmental conditions as well as when the bands are covered with caterpillars.

Photo Credit: Bill McNee, WI DNR.

MAY–JUNE: Apply insecticides.

If you choose to use pesticides to control gypsy moth (*Lymantria dispar*) caterpillars, they must be applied at this time. There are two options: biological and chemical pesticides. For assistance in applying insecticides, consider **contacting a certified arborist**.

Biological pesticides. The most common treatment used against *Lymantria dispar* caterpillars is a spray of *Bacillus thuringiensis*, commonly called Bt. This biological pesticide is highly specific, meaning different varieties of Bt affect only very specific species. ***Bacillus thuringiensis kurstaki (Btk)*** is the certain strain that must be used to control *Lymantria dispar*. This bacterial insecticide kills caterpillars that eat it within a week of its application. Bt causes the cells of the caterpillar's stomach lining to rupture. Bt is found naturally in soil and degrades within a week when exposed to sunlight. The variety of Bt used against *Lymantria dispar* only affects caterpillars of moths and butterflies that feed on treated leaves. Bt has no affect on animals, birds, people, or even other insects. It is sold under various labels (Dipel, Foray, and Thuricide, to name a few). Bt must be applied to trees in May when caterpillars are less than 1/2-inch long. Timing is critical as Bt is significantly less effective on older/larger caterpillars.

Chemical insecticides. Numerous insecticides are registered as being effective against *Lymantria dispar* caterpillars in Wisconsin. Many products are available at your local garden center or nursery. Check the label to make sure *Lymantria dispar* are listed. Acephate, bifenthrin, and carbaryl are the most common active ingredients and are available in several formulations. If you elect to use a chemical insecticide, consider the potential impact on beneficial insects and natural enemies such as predators, parasites, and honeybees. **ALWAYS** read and precisely follow the label directions.

EARLY JUNE: Replace barrier bands with collection bands.

Collection bands can be made from medium-weight, neutral-colored cloth or burlap approximately 12–18 inches wide and long enough to completely wrap around a tree. Using a piece of cord or twine, fasten the middle of the cloth



Sticky barriers can be used to trap caterpillars from April into the summer.

band to the trunk at chest height. Fold the top half of the cloth down to cover the bottom half. Older caterpillars are attracted to these “skirts” when looking for a place to hide during the day. Remove and destroy the caterpillars each day by scraping them into a bucket of soapy water.



Monitor the burlap bands for caterpillars each day in the late afternoon and sweep any collected caterpillars into a bucket of soapy water.

Photo Credits: Bill McNee, WI DNR.

JULY: “Crush & brush” pupae and adult females

Gypsy moth (*Lymantria dispar*) is immobile during its pupal stage and can be crushed or brushed into a container of soapy water to prevent them from making it to the adult stage. If caterpillars have been abundant in your area, do some thorough scouting to check for the brownish pupae (3/4 – 2 1/2 inches long), which are often tucked away in protected spots.

Adult *Lymantria dispar* moths appear within two weeks. Adult females (pale colored) have limited mobility and can also be crushed or brushed into a container in soapy water. Since each female can easily lay upwards of 1,000 eggs, eliminating adult female moths could help prevent future problems!



At chest height, wrap a 12 – 18 inch tall piece of burlap or light colored cloth around the tree and fasten it with twine around the middle.



Drop the top half of the burlap over the twine and over the bottom half of the burlap to create a “skirt”.



Lymantria dispar adult male (left) and female (right)



Lymantria dispar Pupae

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