Spongy Moths in Ottawa County FAQ 2024

(Formerly known as the Gypsy Moth)

What is a Spongy Moth? Spongy moths, formerly known as gypsy moths, are an invasive species that were introduced in 1869 by an amateur naturalist trying to create a hybrid silkworm. Since that accidental release, they have spread across much of the United States and Canada.

Why are they invasive? Spongy moths are considered invasive species because they are a non-native species that cause both ecological and economic harm. In peak years, spongy moth caterpillars can completely defoliate trees. They eat 300 species of trees, with a preference for oaks in our region. Spongy moths are now considered a naturalized species because of the relatively effective biological control methods that have been developed but population dynamics are acutely cyclical in nature. Population peaks, which occur approximately every 10 years, are followed by population crashes.

When am I likely to see the Caterpillars or Moths?

May through Sept in their various life stages: egg, caterpillar or moth.

How do I identify them?

- Spongy moth caterpillars emerge from tan, fuzzy egg masses in April and feed on leaves through late June.
- Caterpillars are hairy, with a yellow and black head and 5 pairs of blue spots, followed by 6 pairs of red spots.
- Mature caterpillars are 1.5 to 2 inches in length.
- Leaf debris and small, round frass (insect poop) found under trees are indications of spongy moth infestation.
- Male moths' wings have a wavy pattern of brown to dark-brown and span 1.5 inches.
- Female moths are larger than males and do not fly. Wings are white to cream with wavy black markings.

Will they kill my trees?

Spongy moths typically do not kill trees. Healthy trees can survive being defoliated several times. The second flush of leaves that grows following the June defoliation usually provides adequate energy to sustain the tree through the rest of the growing season. Trees that are already diseased or experiencing an additional stressor like drought or soil compaction may sustain more damage than a healthy tree would.

What should I do if I see them?

Michigan State Extension offers several tried-and-true methods of spongy moth management including:

- <u>Biological Control</u>-Several biological controls help manage spongy moths including a
 virus and a fungus. Although spongy moths are a nuisance, especially in high population
 years, the best method for managing large areas is to wait for the populations to crash
 through natural controls.
- Offer life support for landscape trees- watering infested trees regularly, will help the tree during the time of stress and help regrow a new set of leaves.
- Burlap bags for special trees-Wrap an 18-inch-wide band of burlap around the tree trunk with some overlap. Tie a string around the center of the band to make a two-layered skirt around the trunk. When caterpillars climb trees daily to feed, they will get caught in the band. Scrape them into a bucket of soapy water to kill them.
- **Scraping** Scrape egg masses into soapy water or a container to burn the eggs. Soak in the soapy water for 24 hours.
- **Bt sprays** are an organic insecticide that targets caterpillars. Bt is a bacterium, *Bacillus thuringiensis*, that works best when the caterpillars are small, and the leaves are thoroughly covered with the spray. Although Bt is less hazardous to nontarget species than other insecticides, it does also kill beneficial species of caterpillars that are important for wildlife, such as bluebirds. For this reason, it is recommended for individual trees during peak years, not for large-scale management.

Large-scale Treatments

- Why don't we spray? As previously mentioned, the most effective long-term option when dealing with a spongy moth infestation is to wait for the population to crash. Population crashes are typically caused by a virus (NPV or Nucleopolyhedrosis virus) which occurs naturally with all spongy moth populations and transmits readily within populations when they reach high enough levels of density. There is also an introduced fungus (E. Maimaiga) that remains in the soil from year to year and is activated by soil moisture in the spring. Annual spraying can potentially prevent the population from reaching the density needed for a crash and therefore prolong the infestation indefinitely. Relying on the biological controls reinforces the population cycle and allows for 10 or so years of smaller spongy moth populations.
- **Grand Haven Township's 2024 Aerial Application** Certain selected areas in Grand Haven Charter Township received aerial application of the insecticide Bacillus thuringiensis var. kurstaki (B.t.k.) for the suppression of spongy (gypsy) moth larvae

earlier this spring. Applications took place in May and ranged approximately from Ferris St., north to the Grand River and from 164th Ave. (Moorland Rd.), east to 144th Ave.

• Robinson Township did not spray in 2024.

How can I get more information?

For more information on spongy moths:

- Some 're-leaf:' Limited and declining spongy moth populations continue in 2024
- Spongy Moth (Lymantria dispar), formerly gypsy moth Integrated Pest Management (msu.edu)
- Dealing with Spongy Moth Around Your Home or Property
- For more information on the importance of caterpillars:
- Meet the Ecologist Who Wants You to Unleash the Wild on Your Backyard | Science |
 Smithsonian Magazine