Moths

From pupa cases, moths or the adults emerge. **Moths do not eat** and live about a week. Female moths have white wings with brown chevron or "V-shaped" markings. They do not fly, but emit a pheromone to attract the males. The males have smaller chevron-marked brown wings, are able to fly, and fertilize several females before dying. Females deposit egg masses encased in hairs from their abdomen. Eggs are dormant until spring (late April or early May).

How do spongy moths travel?

Young caterpillars hang from silk strands and are carried by the wind. Humans also move egg masses or pupa cases on travel trailers, firewood, cars, etc. Vehicular travel is how they came to Macomb County! Make sure you do not give the spongy moth a ride!

How do I know if I have the spongy moth?

A number of MSU Extension (MSUE) bulletins can help you identify the spongy moth and caterpillar. You can also use the Macomb County MSUE diagnostic facility. There is a small fee for some services.

What does spongy moth damage look like?

Spongy moth caterpillars feed on tree leaves creating "swiss cheese" type holes. They **do not** cause pre-mature leaf drop, browning, or curling of leaves. They **do not** make a web or tent in trees.

What happens when trees are defoliated?

Trees defoliated more than 40% use next year's energy reserves to grow new leaves. Healthy trees may withstand several years of defoliation stress. Trees with other stress factors such as drought, disease or poor growing conditions could die sooner. Evergreens are unable to replace their needles and may die when defoliated. Keep trees watered and fertilized to lessen any damage.

How do I report a spongy moth infestation?

Report potential infestations to Macomb County MSU Extension office. An egg mass survey can be done to assess the level of infestation and determine if an area qualifies for the program. For more information and insect identification, please **call**: **Macomb MSU Extension Spongy Moth Program (586) 469-6432.**

For more information, visit:
http://msue.anr.msu.edu/uploads/files/e2634.pdf

Macomb MSU Extension
21885 Dunham Road, Suite 12
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MACOMB COUNTY

SPONGY MOTH

(formerly called Gypsy Moth)

INFORMATION

586-469-6432

MICHIGAN STATE UNIVERSITY | Extension

Macomb County Health and Community Services

SPONGY MOTH SUPPRESSION

What is spongy moth and its impacts?

The spongy moth is an invasive pest with few native predators to keep populations in check. Caterpillars feed on tree leaves, preferring those of oak, aspen, poplar, and birch. When those are not available, other tree species and evergreens are also at risk. Large populations can defoliate entire wooded areas. Caterpillars in large numbers and their waste (frass) are a nuisance on residential property. Spongy moth **cannot** be eradicated, but they can be suppressed to tolerable levels.

What are the goals of suppression efforts?

- Reduce high caterpillar populations to tolerable levels.
- Protect tree foliage to prevent more than 40% defoliation.
- Provide control options that limit the use of more toxic chemical applications.
- Provide educational information.

How are populations suppressed?

Spongy moth can be suppressed in three ways. A combination of these methods is recommended.

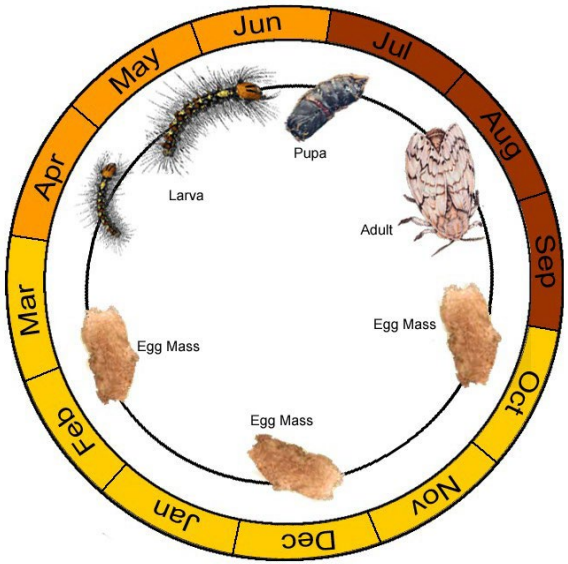
1. Egg masses can be scraped off surfaces and put in either soapy water then buried or in a metal container where the egg masses are burned.
2. Trees can be banded when the egg masses hatch to prevent the caterpillars from moving up into the tree canopy. (https://www.canr.msu.edu/resources/using-bands-to-protect-shade-trees-from-spongy-moth)
3. Effected areas can be aerially sprayed using Bacillus thuringiensis (Bt) variety kurstaki. Bt is a naturally occurring bacterium found in the soil and is not harmful to pets, birds, fish, wildlife, plants, beneficial insects, and humans.

It has been approved for use by Michigan Department of Agriculture and Rural Development (MDARD) and the U.S. Forest Service. Bt is applied when the caterpillars are young (usually in May) to ensure the greatest impact in reducing numbers.

What is the spongy moth life cycle?

The Spongy moth life cycle has four main stages, and takes one year to complete:

- egg
- caterpillar
- pupae
- moth



Ohio Department of Agriculture

Egg stage

The first part of August, female moths deposit their eggs forming buff or tan colored "masses" that are oval shaped, firm, and about the size of a quarter. These egg masses contain between 50 and 1,500 eggs. Egg masses are laid on any surface, such as rocks, woodpiles, decks, buildings, outdoor equipment and, of course, tree bark. (It is helpful to keep yards clean and free of debris where adult moths could lay their eggs.) Spongy moth complete only one life cycle per year, and eggs deposited in August do not hatch until spring.

Caterpillar

Eggs hatch into caterpillars in late April or early May. Weather directly affects hatch date. The colder the spring, the later the hatch. Once they hatch, the caterpillars will sit on the egg mass a few days before leaving to feed. In its short lifetime, a caterpillar can eat one square meter of leaves. The warmer the temperature, the more the caterpillars feed and develop, generally feeding at night and resting during the day. Mature caterpillars are about two inches in length, with long hairs grouped in bundles. They have a head with black and yellow markings, and five pairs of blue dots and six pairs of red dots running down their backs.

Pupae

In mid-July to mid-August mature caterpillars stop feeding and weave silk around their bodies to form a hard, brown shell or cocoon. This is the pupa stage, when caterpillars start their metamorphosis or change into the moth stage of the life cycle. This process takes about two weeks.