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, 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 Gypsy Moths travel?

Caterpillars trail a silk strand as they move. Young caterpillars hang from this silk, and are carried by the wind. (This is called 'ballooning'.) 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 Gypsy Moth a ride!

How do I know if I have the Gypsy Moth?

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

For insect identification, call Macomb MSUE:
(586) 469-6086
Thursday and Friday
9AM-Noon

For more information, visit:
http://msue.anr.msu.edu/uploads/files/e2634.pdf
https://archive.lib.msu.edu/DMC/Ag.%20Ext.%20
2007-Chelsie/PDF/e1983-1990.pdf

What does gypsy moth damage look like?

Gypsy 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.
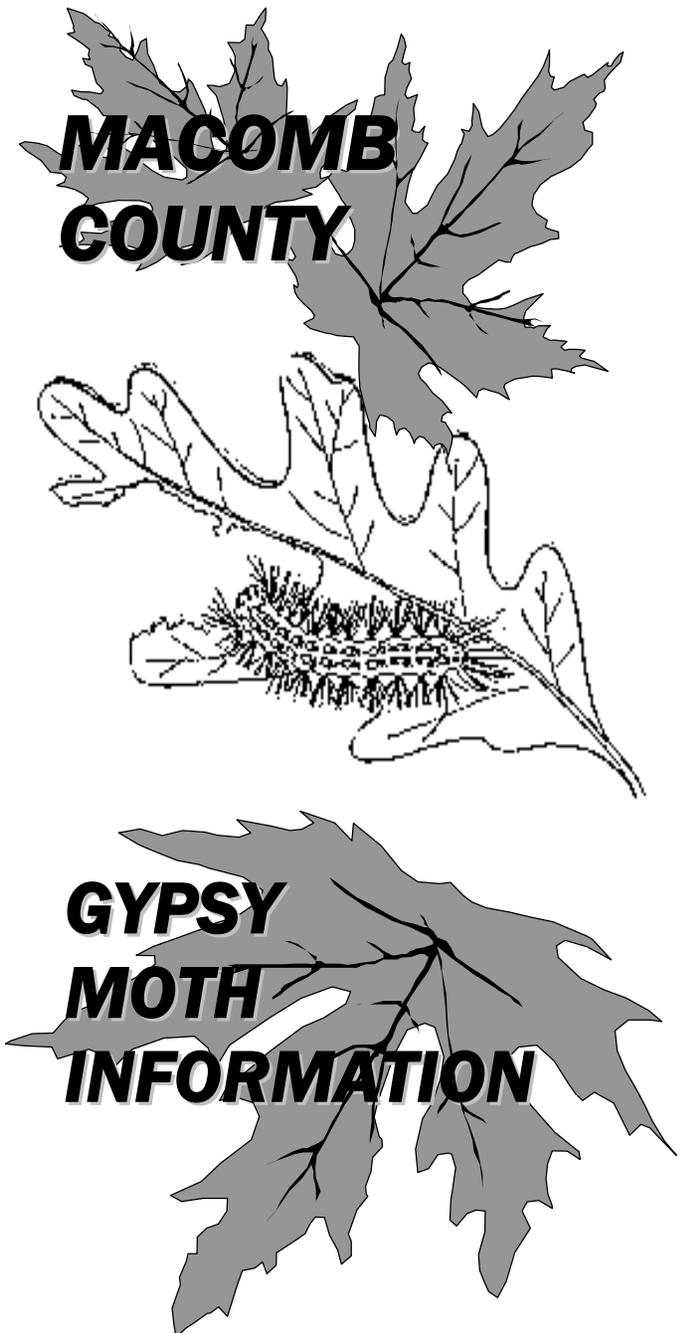
Should I report a Gypsy Moth Infestation?

YES, to determine if your property is eligible for the Gypsy Moth Suppression Program. Report all infestations to the program educator at the 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, please call: **Macomb MSU Extension Gypsy Moth Program (586) 469-6086.**

MACOMB COUNTY

GYPSY MOTH INFORMATION

PHONE: 586-469-6086

GYPSY MOTH SUPPRESSION

What is Gypsy Moth and the impacts?

The Gypsy Moth is a foreign 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. Gypsy Moths can not 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. Prevent more than 40% defoliation to stop refoliation.
- Provide control options that limit the use of more toxic chemical applications.
- Provide educational information.
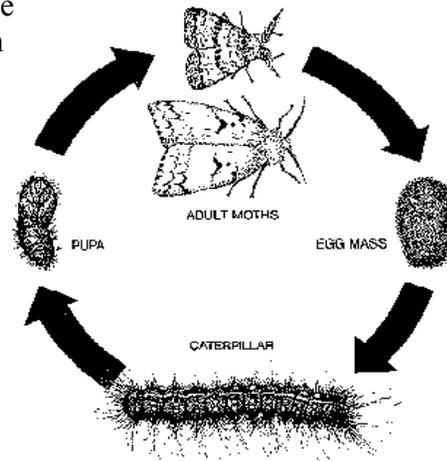
How are Gypsy Moth Populations Suppressed?

The aerial application of Btk (Bacillus thuringiensis variety kurstaki) is used to reduce high populations of gypsy moth caterpillars at sites that meet MDA requirements for spraying. Bt is a naturally occurring bacterium found in the soil and is not harmful to pets, birds, fish, wildlife, plants, beneficial insects, and humans. Bt is applied when the caterpillars are young (usually in May) to insure the greatest impact in reducing numbers. Alternative mechanical techniques, such as tree banding and egg mass scraping, also reduce caterpillar numbers. The Suppression Program recommends the use of a combination of methods.

What is the Gypsy Moth Life Cycle?

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

- egg
- caterpillar
- pupae
- moth

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.) Gypsy moths 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. Hatch date is directly effected by weather. 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 2" 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.

Continued