

Roscommon County Gypsy Moth Program

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roscommoncounty.net/218/Gypsy-Moth-Program · facebook.com/GypsyMothRoscommon/

STRATEGIES FOR LANDOWNERS TO MANAGE GYPSY MOTH

***To avoid harming native species, please confirm that what you are seeing is gypsy moth. See the Gypsy Moth Lifecycle information on the back of this sheet to help you identify gypsy moth at each stage.**

***Avoid damaging tree bark, which can leave trees vulnerable to other pests and disease.**

January - April:

Remove and destroy egg masses prior to hatch. *Every mass you destroy prevents 100 to 1,000 caterpillars from hatching!*

-Search for gypsy moth egg masses on trees, firewood, outdoor furniture, and other outdoor surfaces.

-Scrape egg masses into a container of soapy water and let sit overnight, or burn the egg masses.

*Any eggs that fall to the ground or get left behind can still hatch.

March - April:

Spray egg masses with biologic oil once temperatures are above 45 degrees.

-Biologic Golden Pest Oil: https://www3.epa.gov/pesticides/chem_search/ppls/057538-00011-20040309.pdf

March - June:

Wrap trees with sticky barrier bands to trap caterpillars as they move up and down the trunks.

<https://fyi.extension.wisc.edu/gypsymothinwisconsin/making-a-sticky-barrier-band/>

*Follow precautions stated in the article to protect your trees from damage.

Wrap trees with folded burlap barrier bands to trap the caterpillars: <https://fyi.extension.wisc.edu/gypsymothinwisconsin/making-a-burlap-barrier-band-trap/>

May - August:

Manage gypsy moth caterpillar, pupa, and moth populations.

-Drop caterpillars into a bucket of soapy water and let sit for 48 hours. (Caution: their hairs can be irritating; use a brush or wear gloves when handling gypsy moth caterpillars.)

-Spray caterpillars and moths directly with a strong mixture of dish soap and water. (Caution: can make deck surfaces slippery.)

-Monitor and maintain barrier bands.

In hot, dry weather, water prized trees defoliated by gypsy moth.

-Run a sprinkler for about an hour in the morning, soaking the ground under the spread of the branches.

<https://extension.umn.edu/planting-and-growing-guides/watering-established-trees-and-shrubs>

September - December:

Leave egg masses in place. Do not remove them until January to allow the Gypsy Moth Program to complete its survey of gypsy moth egg masses to determine next spring's spray map.

MORE INFORMATION

Report gypsy moth on your Roscommon County property: <http://bit.ly/GypsyMoth2021>

Roscommon County Gypsy Moth Suppression Program: roscommoncounty.net/218/Gypsy-Moth-Program

Roscommon County Gypsy Moth Suppression Program Facebook: facebook.com/GypsyMothRoscommon/

MSU Extension Integrated Pest Management: Gypsy Moth: canr.msu.edu/ipm/invasive_species/gypsy-moth/



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Gypsy Moth Lifecycle

September - May: Embryo and Diapause Stage

A single egg mass contains 100-1,000+ eggs insulated in a matting of hair from the female's body. Masses are tan-colored, oblong and range from 1 to 3 inches. Larva is fully formed and ready to hatch within a month. The larva goes into diapause, becoming insensitive to cold.



Mid - Late May: Hatching Stage

Hatching coincides with the opening of tree leaf buds. Newly hatched larvae are less than 1/8 inch long and appear black in color. They climb trees or other objects and drop on silken threads to be dispersed by the wind in a behavior called ballooning. Once landing in its host tree, the larva begins feeding. Hatching and ballooning may last for 7-10 days.



June - Early July: Larval Feeding Stage (caterpillar)

Caterpillars molt, shedding their exoskeleton (5 times for a male and 6 times for a female). Each molt is called an *instar*. Fourth instar caterpillars are identified by a beige head and dark marks, 5 pair of blue dots followed by 6 pair of red dots down their back. Larvae feed at night and generally rest during the heat of the day unless populations are very large and under stress. They continue to feed, molt, and feed until they are about 2 1/2 inches long. A single caterpillar eats an average of one square meter of foliage during this stage.



Late June - Mid-July: Pupa Stage

During this stage the caterpillar looks for a protected place to pupate (change into a moth) where it will be safe from predators like mice, birds, and parasitic wasps. The caterpillar sheds its skin, and its new pupal skin is leathery and a dark, reddish-brown color. It is usually attached to a tree trunk, rock, or other sheltered place by a loose net of silken threads. After about 10 days of metamorphosis the adult winged moth emerges, leaving the pupal case behind. Female pupae are larger than male pupae.



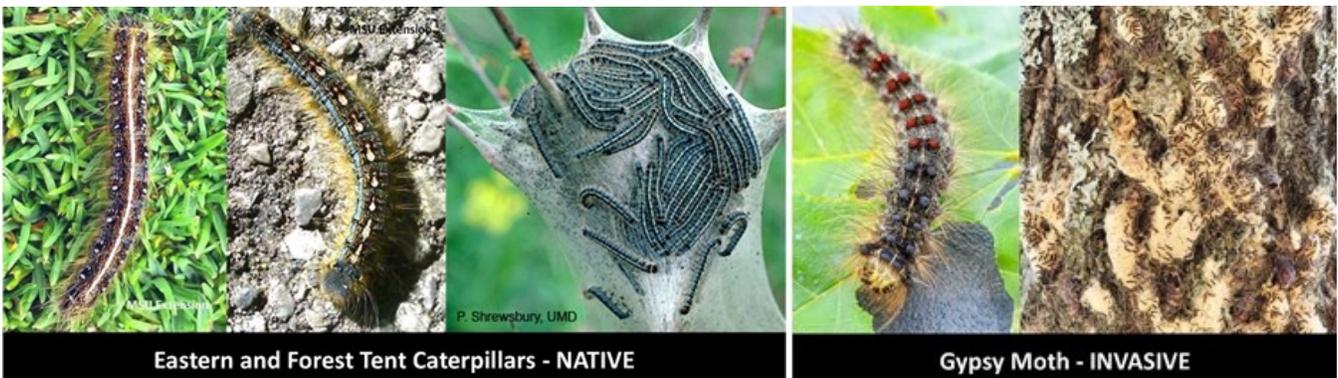
July - August: Mating & Egg Mass Laying Stage

The female moth cannot fly, and is larger and creamy white with dark chevron marks on her wings. Males are mottled brown and gray, and also have chevron wing bands. In the late afternoon they fly in zigzag patterns following the scent of female pheromones they sense with their large, feathery antennae. After mating the female lays her eggs in a single mass she covers with hairs from her body. The adult gypsy moth cannot feed; its only function is to reproduce. The moth lives about two weeks, completing a one-year life cycle.



Native vs Invasive

To avoid harming native species, it is important to confirm that what you are seeing is a gypsy moth. The gypsy moth caterpillar is a destructive, invasive pest, but it is often confused with Eastern tent and forest tent caterpillars, which are benign native species. While some find their tents unsightly, tent caterpillars are a natural and important part of our Michigan ecosystem, clearing foliage to allow sunlight to reach smaller plants at ground level and acting as a food source for native birds and other animals.



Eastern and Forest Tent Caterpillars - NATIVE

Gypsy Moth - INVASIVE