

# The Life Stages of the Gypsy Moth

## May to June

In May, gypsy moth caterpillars emerge from an egg mass when the weather warms. Newly emerged caterpillars hang by silk strands, which catch the wind, allowing them to be blown to nearby trees where they begin feeding on leaves.

## June to mid-July

The mature caterpillars stop feeding, find a sheltered spot and pupate, forming a protective shell similar to a cocoon. Over the next 10 to 14 days, they develop into adult moths.

## July to August

Moths emerge from cocoons. The females can't fly, so they emit a scent (pheromone) to lure males. After mating, the female lays an egg mass covered with her body hair. Shortly after, the adults die.

## August to May

The egg masses survive the winter insulated by the covering of the female moth's hair. Egg masses are usually laid in crevices and under branches. They also are laid on signs, buildings and any outdoor item.

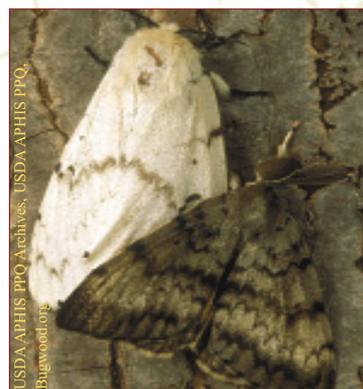
Mature caterpillar with its red and blue spots



Pupae (cocoons)



Male (right) and larger, white female moths



Caterpillars emerging from egg mass in May.



## What Should You Do?

- Check your vehicles, equipment and other outdoor items for gypsy moth life stages (see color photos) before you leave on vacation and again before you return home. Don't let gypsy moth hitch a ride with you.
- In the fall, examine your patio furniture, other outdoor items, trees and sheltered spots for egg masses. If found, completely scrape them off into a bucket of hot soapy water. Let them soak for a few days, then discard.
- Learn how to protect your trees and keep them healthy by visiting the website [gypsymoth.wi.gov](http://gypsymoth.wi.gov).
- Cooperate with agencies working with you to slow the spread of the gypsy moth.

## About the Programs Involved

There are two different and complementary programs managed by two agencies to combat gypsy moth in Wisconsin:

**The Wisconsin Slow the Spread Program** is coordinated by the Wisconsin Department of Agriculture, Trade and Consumer Protection. This program consists of aerial treatments, trapping and egg mass surveys. The goal of this program is to slow the spread of gypsy moth by finding and treating small, isolated populations. It focuses its efforts mainly in western Wisconsin, where gypsy moth is not yet well established.

**The Gypsy Moth Suppression Program** is coordinated by the Wisconsin Department of Natural Resources. This program consists of aerial treatments and does not set traps for gypsy moth. The goal of this program is to prevent tree defoliation and mortality by reducing caterpillar populations. It serves areas that are generally infested with gypsy moth, mainly in eastern Wisconsin.

## For More Information

Call Toll-free **1-800-642-6684**

E-mail [gypsymoth@wisconsin.gov](mailto:gypsymoth@wisconsin.gov)

Visit the Website [gypsymoth.wi.gov](http://gypsymoth.wi.gov)



# Gypsy Moth: Unwelcome in Wisconsin

Imagine a Wisconsin where the trees in your backyard stand as bare in July as in January, where you lie awake at night, listening to millions of tiny jaws munching on leaves.

This could be the reality throughout Wisconsin as gypsy moth keeps spreading and becomes established in more areas. Unfortunately, the bare trees and waves of caterpillars already happen periodically in some areas in the eastern half of the state. Fighting the gypsy moth is a constant battle, and our mobile society helps spread it further westward. Armed with a little knowledge and a lot of vigilance, we can help protect our trees and at least, slow the gypsy moth's advance.

## Who Should Be Concerned?

- Homeowners
- Woodlot owners
- People with allergies
- Campgrounds
- Environmentalists
- Timber workers
- Resorts
- Tourism employees
- Paper mills
- Firewood dealers
- Sawmills/lumberyards
- Moving/storage firms
- Trucking firms
- Christmas tree dealers
- Nursery businesses

## Why Be Concerned?

The gypsy moth is a serious threat to our economy, environment and health. At high populations, gypsy moth caterpillars may eat all the leaves off trees and shrubs. After heavy defoliation, trees may be so weak that other pests and diseases kill them. Wisconsin's timber and tourist industries depend upon forests, so gypsy moth poses an economic threat. But, it threatens us in other ways, too:

- Federal and state governments quarantine infested areas, requiring costly and inconvenient inspections before moving raw or manufactured goods, including outdoor household items, out of the quarantined areas. Infestations cost homeowners money when they need to apply pesticides or remove and replace trees. This may affect property value.
- Caterpillars and frass (caterpillar droppings) can be a nuisance in yards, parks and picnic areas, and could make any outdoor activity unpleasant.
- High populations of gypsy moth may out-compete native species, upsetting natural ecosystems.
- Skins and hair shed by growing caterpillars may provoke rashes or respiratory ailments in sensitive people.

## How Did This Happen?

Gypsy moths don't belong in Wisconsin—or anywhere in North America. French amateur entomologist Etienne Leopold Trouvelot imported them from Europe into Boston in 1869, hoping to breed them with silkworms to produce a hardier species. Unfortunately, some gypsy moths escaped.

Since then, gypsy moth has spread through the Northeastern and Eastern states, portions of Canada and into the Upper Midwest, defoliating millions of acres of woodlands. People spread the moth unintentionally, carrying egg masses on campers, nursery stock and even patio furniture.

Gypsy moth was first found in Wisconsin in a trap in 1971. Reproducing populations were first found in Door and Kewaunee counties in the late 1980s. Currently, the eastern and central part of the state are generally infested with gypsy moth, and it continues to spread westward.

## What Are We Doing About It?

State and federal agencies cooperate in an aggressive and environmentally sound program to slow the spread and suppress outbreaks of the gypsy moth. Strategies used include:

- Trapping, using a pheromone (sex attractant) as bait to lure male moths, as a method of monitoring the gypsy moth spread and population.
- Aerial applications of:
  - B.t.k. (*Bacillus thuringiensis* sub. sp. *kurstaki*), a natural bacteria that kill gypsy moth caterpillars when they eat it.
  - Mating disruptant, which saturates the environment with the female moth's pheromone and makes it difficult for males to find females.
  - Nucleopolyhedrosis virus (NPV), a virus specific to gypsy moth caterpillars.
- Releasing biological agents including a fungus and parasitic insects that are specific to gypsy moth.
- Raising public awareness and involvement through outreach and education.

## Some Startling Facts

- Although the caterpillars prefer oak, they eat leaves from more than 500 kinds of trees and shrubs.
- One gypsy moth egg mass may produce up to 1,000 caterpillars.
- For every egg mass we can see, there may be many hidden.
- Gypsy moth caterpillars grow from 1/16-inch long at hatching to as much as 2 inches long, multiplying their weight 1,000 times.
- One 2-inch caterpillar can eat more than a square yard of leaves.

## It's NOT a Gypsy Moth If It Is...

- Building a cottony nest or web in trees.
- A white moth that flies.
- A colorful moth.
- A caterpillar with long stripes on its back or sides.
- Flying in springtime.

*Heavy defoliation by larvae in the Legend Lake area in the summer of 2010.  
Bill McNee, Wisconsin Department of Natural Resources.*

