

## Tactics Directed Against the Gypsy Moth

- Remove objects around the outside of the home that provide shelter for Gypsy Moth larvae and pupae, such as flaps of bark, dead tree branches, dead trees, boxes, cans, or old tires.
- Diversify the composition of trees and plants on your property to include species not preferred by the Gypsy Moth, such as tulip or yellow poplar, honeylocust, ash, hickory, dogwood, mountain ash and many conifers.
- Destroy egg masses found on outbuildings, on fencing, and in woodpiles. Simply scraping egg masses onto the ground will not destroy them. Burn them or soak them in kerosene or soapy water. Caution is urged because the hairs that coat the egg masses can cause allergic reactions. Egg masses can also be destroyed by painting them with commercially available products, such as liquid detergents.
- Place burlap on trees, especially oaks, to provide shade and shelter for older larvae when they seek out protected resting places during the day. The number of larvae and pupae that rest under the burlap provides valuable information about the severity of infestation on your property. When populations are sparse, larvae and pupae beneath burlap can be manually destroyed.
- Use barrier bands, consisting of commercially available double sided sticky tapes, or sticky material such as Tanglefoot, petroleum jelly, or grease, to prevent larvae from crawling up the trunks of susceptible trees. These products should be applied to the surface of an impermeable material, such as duct tape or tar paper, and not applied directly to the bark. Petroleum-based products can cause injury on thin barked trees.

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Fact Sheet

## Gypsy Moth

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Advertising Message  
or more information Here

What's  
Eating  
At Our  
Trees?



To prevent the infestation of uninfested areas some states have implemented a quarantine in place to prohibit the movement of articles known to attract and pose a significant threat of spreading Gypsy Moths. If you are planning to move or are having a yard sale, estate sale or plan on shopping at one in your area, etc. and need more on information on items in question please call.

## Associated Equipment Known To Transport Larvae:

Articles associated and moved with mobile homes, such as, but not limited to, awnings, tents, outdoor furniture, bikes, L. P. gas containers, barbecue grills, trailer blocks and trailer skirts. Other items known to harbor and traffic Gypsy Moths are lawn mowers, golf bags, outdoor pet houses, swing sets, recreational and hauling trailers, boats, garden tools, outdoor equipment, firewood, pulpwood and wood chips (whole tree chips), trees without roots (e.g. cut Christmas trees) and both trees and shrubs with roots and persistent woody stems, except if greenhouse grown throughout the year.

## Insect Out Of Control!

The Gypsy Moth is one of the most notorious pests of hardwood trees in the Eastern United States. The Gypsy Moth has defoliated close to a million or more forested acres each year. In 1981, a record 12.9 million acres were defoliated. This is an area larger than Rhode Island, Massachusetts and Connecticut combined.

During periods of infestation when trees are visibly defoliated, Gypsy Moth larvae crawl up and down walls, across roads, over outdoor furniture and even inside homes. During periods of feeding they leave behind a mixture of small pieces of leaves and frass or excrement.

The Gypsy Moth passes through four stages: egg, larva, pupa and adult (moth stage). Only the larvae damage trees and shrubs.

Gypsy Moth egg masses are laid on branches and trunks of trees, but egg masses may be found in any sheltered location. Egg masses are buff colored when first laid but may bleach out over the winter months when exposed to direct sunlight and weathering.

The hatching of Gypsy Moth eggs coincides with budding of most hardwood trees. Larvae emerge from egg masses from early spring through mid-May.

Larvae develop into adults by going through a series of progressive molts through which they increase in size. Instars are the stages between each molt. Male larvae normally go through five instars (females, through six) before entering the pupal stage. Older larvae have five pairs of raised blue spots and six pairs of raised brick-red spots along their back.

During the first three instars, larvae remain in the top branches or crowns of host trees. The first stage or instar chews small holes in the leaves. The second and third instars feed from the outer edge of the leaf toward the center.



When population numbers are sparse, the movement of the larvae up and down the tree coincides with light intensity. Larvae in the fourth instar feed in the top branches or crown at night. When the sun comes up larvae crawl down the trunk of the tree to rest during daylight hours. Larvae hid under flaps of bark, in crevices, or under branches - any place that provides protection. Mice, shrews and Colosoma beetles can prey on larvae hiding under leaf litter. At dusk, when the sun sets, larvae climb back up to the top branches of the host tree to feed.

The larvae reach maturity between mid-June and early July. They enter the pupal state. This is the stage during which larvae change into adults or moths.



During periods when population numbers are dense, pupation is not restricted to locations where larvae rested. Pupation will take place in sheltered and non-sheltered locations, even exposed on the trunks of trees or on foliage of non-host trees.

## Hosts

Gypsy Moth larvae prefer hardwoods, but may feed on several hundred different species of trees and shrubs. In the East the Gypsy Moth prefers oaks, apple, sweetgum, speckled alder, basswood, gray and white birch, poplar, willow and hawthorn, although other species are also affected. The list of hosts will undoubtedly expand as the insect spreads south and west.

To date, the Gypsy Moth has avoided ash, yellow poplar, sycamore, butternut, black walnut, catalpa, flowering dogwood, balsam fir, red cedar, American holly, and shrubs such as mountain laurel, rhododendron and arborvitae.

Thinning results in a short term "shock effect" to residual trees. This shock effect, coupled with defoliation caused stress, renders trees vulnerable to attack by disease organisms such as Annillaria.



## The Use of Pesticides Against the Gypsy Moth

The decision to use pesticides is influenced by a number of factors:

- The number of visible egg masses.
- The percentage of preferred hosts in a mixed stand of trees (50 percent or more of oak).
- Whether trees already have dead or dying branches, especially near the top branches or crown.
- Whether the property is located adjacent to wooded areas heavily infested with Gypsy Moths.

During periods when numbers of Gypsy Moth larvae are dense, pesticides may be the most effective method of reducing the number of larvae and protecting the foliage of host trees. Application of pesticides should be done by a certified applicator, because special equipment is required. Large acreages, such as wooded residential areas and forests, should be treated by aircraft.