

European Gypsy Moth

Description

European Gypsy Moth (*Lymantria dispar*) is a defoliating insect that can severely weaken or kill trees. It is a major introduced pest to North America.



There are four stages in the development of this insect: egg, caterpillar, pupa and moth.

- ❖ Egg masses laid by the white female moth are a flat irregular shape, covered with hairs from the females.
- ❖ Caterpillars are 5-7 cm long and are dark and hairy with five pairs of blue dots followed by six pairs of red dots along their back.
- ❖ The pupa is reddish-brown and about 2-3 cm long.
- ❖ The adult male moth is dark brown with black bands across its forewings.



Caterpillars hatch from overwintering eggs in mid-spring. They feed on tree leaves at night for about seven weeks.

In mid-summer the caterpillars pupate in sheltered areas. Adult moths emerge about two weeks later in early August. Soon after mating, females lay oval shaped egg masses on tree limbs, rocks, buildings, vehicles, and other sheltered areas.

Preferred hosts are apple, basswood, birch, oak, poplar, willow, beech, elm, cherry, maple, serviceberry and walnut. Rare hosts are ash, catalpa, horsechestnut, locust, London plane and coniferous trees.

Caterpillars chew small holes on the upper surface of leaves. Older larvae may eat entire leaves, except the major veins. Young caterpillars disperse on silk threads to be carried by the wind to other trees. Most deciduous trees can withstand only one or two consecutive years of severe defoliation. Repeated leaf loss stresses trees and can lead to their death. During outbreaks the caterpillars are an extreme nuisance; trees lose their foliage, caterpillars crawl everywhere, and their droppings rain from trees.

General Management Practices To Improve Plant Health

- ❖ Water your trees during dry spells. Infrequent, but deep soaking preferably during the early morning hours is recommended. Water absorbing roots are located in the upper 25 cm of the soil and extend outward well beyond the canopy dripline.
- ❖ Place organic mulch (e.g., wood chips) or living mulch (e.g., ground cover plants) around tree bases to keep the soil moist for longer periods and encourage healthier roots.
- ❖ Avoid unnecessary excavating, grade changes, soil compaction, root cutting or hard surfacing around trees. These activities destroy vital roots, which may lead to the decline or death of trees.
- ❖ Refrain from using salt or herbicides around trees.



GYPSY MOTH CONTROL I N T O R O N T O

For more information:

Toronto Parks, Forestry & Recreation
Toronto Urban Forestry
www.toronto.ca/trees
416-338-TREE (8733)



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Gypsy Moth Control Methods G u i d e f o r H o m e o w n e r s

 **TORONTO** Parks, Forestry & Recreation

Gypsy Moth Control Methods

Guide for Homeowners

November-late April

Remove and destroy egg masses.



egg masses on the tree



scraping egg masses



using plug-in vacuum

Gypsy Moth is in the egg stage between early September and late April. Egg masses can be found on tree trunks, branches, buildings and on objects around the house. As one egg mass contains about 300 eggs, by destroying them you will significantly reduce the number of caterpillars that emerge in the spring.

Scrape off egg masses with a dull knife and place them in soapy water for a few days before discarding them in the garbage. If they fall on the ground crush them with your shoe.

Egg masses are easy to vacuum off trees, buildings and other objects with a portable or a household vacuum cleaner. You can reach egg masses that are located at higher elevations on the tree by adding a number of extension pipes to the vacuum hose, or with the help of a ladder. Place collected egg masses in soapy water for a few days and then discard them in the garbage.

Late April to Early May

Place sticky barriers, or bands on the tree trunk



apply a band of duct tape



apply a coat of sticky material



young caterpillars are caught

Wrap duct tape around the tree trunk and apply a thin coat of sticky material (commercially available at most garden centres) to the duct tape. Alternatively you may use a double band of duct tape, the outer band with the sticky side out. This band will prevent some of the young caterpillars from crawling up the tree.

Late April to mid-May

Spray with bacterial insecticide, *Bacillus thuringiensis ssp. kurstaki* (Btk)

The primary objective is to protect vulnerable trees from moderate to severe defoliation. Reducing the nuisance factor caused by the presence of gypsy moth is an additional benefit of this treatment.

Consider having your trees sprayed with Btk by a licensed pesticide applicator if:

- ◆ There are a high number of egg masses that cannot be removed mechanically from the trees.
- ◆ Large numbers of egg masses are on susceptible tree species, primarily on oaks, birches, beeches and spruces.
- ◆ Damage caused by gypsy moth was severe for at least one or two previous years, therefore another severe defoliation may cause decline or death of trees.

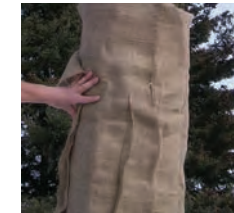
What is Btk and how does it work?

Bacillus thuringiensis ssp. kurstaki (Btk.) is a biological insecticide designed to control caterpillars of moths and butterflies. The active ingredients in Btk work only in the gut of moth and butterfly larvae and these conditions are not found in humans, mammals, birds or other animals. It must be ingested by the feeding caterpillars to be effective. Good spray coverage of the entire canopy is necessary. The timing of the application is critical as there is normally a period of approximately two to three weeks in the early development of the gypsy moth larva when Btk is most effective.

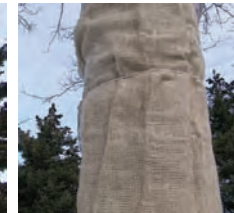
Late May to August

Replace sticky bands with burlap (cloth) bands

Trap and destroy caterpillars by placing burlap (cloth) bands on trees. Wrap burlap that is approximately one metre wide around the tree trunk, tie it at the middle with a rope and fold it.



wrap the burlap around the stem



tie a rope in the middle



fold the burlap in half



caterpillars will congregate under the burlap

Caterpillars feed at night and find shelter from the heat during the day. They will congregate under the burlap. Destroy caterpillars from under the burlap every late afternoon before they crawl back to the canopy to feed.

Caterpillars can be killed by squishing them or placing them in soapy water. Use this method until all the caterpillars finish their life stage, usually in August, and turn into cocoons and later into adult moths.