



# GYPSY MOTH *(Lymantria dispar)*

The Gypsy Moth is a non-native, invasive insect that was brought to North America in the 1860s from Europe. It was first established in Massachusetts and spread to Ontario by 1969. It is now a well-established forest pest throughout much of the province.

An important characteristic of the Gypsy Moth is that their populations are cyclical in nature. Their population surges approximately every 7-10 years and when it rises rapidly, it has historically been followed by a crash. This may be due to competition for resources or mortality from a host-specific virus or fungus.



An adult female laying eggs. Photo: SSEA

In Ontario, major outbreaks have peaked in 1985, 1991, 2002, and 2008, and there was an upsurge in the Severn Sound area starting in 2019.

## IMPACTS

Gypsy Moth larvae (caterpillars) feed on the foliage of over 300 host plant species, mainly hardwood trees. Some of their preferred hosts are oak, maple, birch and aspen, alder and pine, depending on the region. The larvae chew holes in vegetation or consume entire leaves.

A single Gypsy Moth caterpillar can eat an average of 1 m<sup>2</sup> of leaves over its lifetime<sup>1</sup>. Typically, leaf loss of 50% or more of canopy cover is required for several years in a row to cause tree mortality<sup>2</sup> and some trees will regrow new leaves later in the summer.

<sup>1</sup> Government of Canada (2013). Retrieved from <https://www.canada.ca/en/health-canada/services/pest-control-tips/gypsy-moths.html>

<sup>2</sup> Sadof, C. (2018). Retrieved from <https://www.purduelandscapereport.org/article/will-my-trees-recover-after-losing-their-leaves/>

## LIFE CYCLE & IDENTIFICATION

Understanding the gypsy moth's lifecycle is important for managing its spread and outbreaks. There are four main stages in their life cycle:

### 1. EGG

- Laid in late summer and hatch in spring
- Oval-shaped egg mass, 30-60 mm long
- Covered in tan coloured hairs

### 2. LARVA (Caterpillar)

- Occur from April to July
- Light gray to black with hairs
- 6 pairs of red dots & 5 pairs of blue dots

### 3. PUPA

- Cocoons can occur from July to August
- Dark brown shell

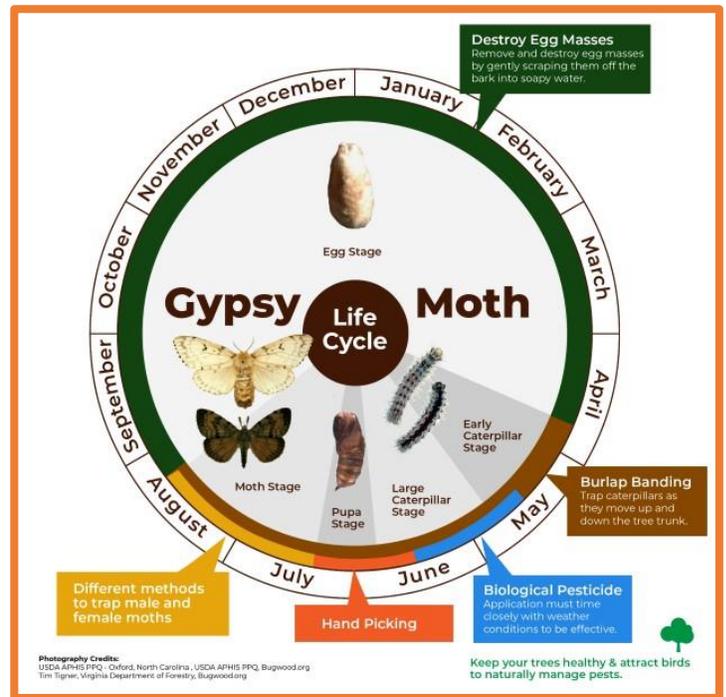
### 4. ADULT

- Moths emerge from July to September
- Males are brown, females are white and cannot fly
- Lack mouthparts and no longer feed on trees

## CONTROL MEASURES

Property owners can undertake various actions to help reduce defoliation by Gypsy Moth. As the population peaks, natural controls like Nucleopolyhedrosis virus (NPV) and *Entomophaga maimaiga* fungus have historically caused populations to collapse.

**What property owners can do:** Wear gloves since Gypsy Moth hairs can cause skin irritation. Scrape and remove egg masses year-round; set up shade traps and collect caterpillars and moths in the spring and throughout the summer; place in soapy water for 48+ hours. Watering trees during hot, dry conditions can reduce additional stress on trees from drought.



Life cycle and corresponding control methods.  
*Image: City of London*

Applying approved insecticides can help manage Gypsy Moth but will not eradicate the species. The biological pesticide Btk must be applied during Gypsy Moth early larval/caterpillar stage to be effective. It is important to note that Btk also kills native caterpillar species, therefore timing of Btk application is critical to target Gypsy Moths and reduce potential harm to non-target species.

To learn more about the Gypsy Moth's life cycle and species identification, watch videos on [SSEA's YouTube channel](#).



Gypsy Moth caterpillar. *Photo: SSEA*

To report an invasive species in the Severn Sound area, email us at: [InvasiveSpecies@SevernSound.ca](mailto:InvasiveSpecies@SevernSound.ca)

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