



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 has been an upsurge in the Severn Sound area in 2019/2020.

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 m² of leaves over its lifetime¹. Typically, leaf loss of 50% or more of canopy cover is required for several years in a row to cause tree mortality² and some trees will regrow new leaves later in the summer.

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

² 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

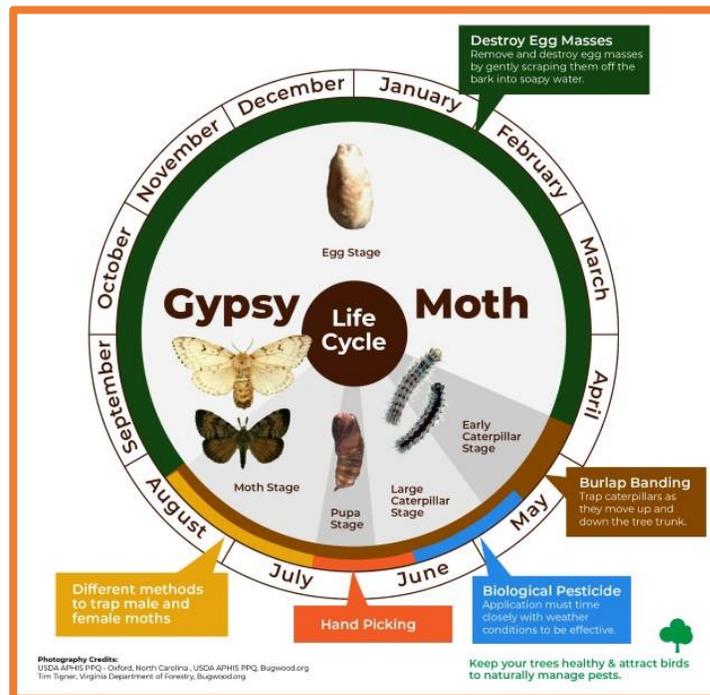
4. ADULT

- 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

As the Gypsy Moth population peaks, naturally occurring outbreaks of Nucleopolyhedrosis virus (NPV) and *Entomophaga maimaiga* (fungus) can occur and cause a population collapse.

What property owners can do: destroy egg masses year-round; set up shade traps and hand-pick caterpillars and moths in the spring and throughout the summer; and set up pheromone traps to target moths. Note: when handling larva/caterpillars, gloves should be used since their hairs can cause skin irritation. Watering trees during hot, dry conditions can also reduce stress and help them recover.



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

Applying insecticide can be an effective control method in some circumstances but must be applied during their early larval/caterpillar stage. It is also important to note that the pesticide used to kill Gypsy Moths (Btk) also kills native caterpillar species and can affect the food web.

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

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