

# Memorandum

Date: July 7, 2020

To: Members of Council

From: Brian Baird, Senior Manager, Operations, Finance and Infrastructure Services

Subject: Gypsy Moth

The European Gypsy Moth is considered to be a major pest in North America. In the caterpillar or larval stage, the insect eats the leaves of trees making them more susceptible to disease and damage from other insects. Gypsy Moths prefer oak trees but will eat all kinds of hardwoods including elm, birch, poplar and willow trees. In some rare cases, when the number of Gypsy Moth is extremely high, the caterpillar will feed on evergreens such as pine and spruce. They do not appear to like sycamore, butternut, black walnut, dogwood or balsam fir. Tree health and species are important factors. Generally healthy trees can survive Gypsy Moth. Defoliation from the larva feeding on leaves stops early summer and the moths are short lived. Infestations seem to occur in cycles so while there may be an infestation one year, it does not mean it will continue year after year.

Both genders die after the female lays its eggs on the limbs and trunks of trees, on rocks, buildings or in other sheltered areas. The egg masses remain in place all winter and hatch the following spring from late April to mid-May. Once hatched, the caterpillars begin to feed for approximately seven weeks.

Predators include other insects like wasps, flies, beetles, ants and spiders and animals such as chipmunks, squirrels and raccoons. When caterpillars first hatch, birds such as chickadees, blue jays, robins and nuthatches will prey on them. Gypsy Moth populations are also reduced by diseases caused by bacteria, fungi and viruses.

There are a number of ways of managing Gypsy Moth without the use of pesticides depending on the severity of infestation. These include:

## **Egg Mass Scraping**

This method involves scraping Gypsy Moth egg masses off of infected trees that are within reach into a container and then soaking them for at least 48 hours in soapy water to kill the eggs. As each egg mass contains 500-1000 eggs, this is an effective method to reduce caterpillar populations.

## **Burlapping**

This method involves placing a ring of burlap around a tree at chest height. The burlap is secured to the tree with a string at its centre and then folded over to make two layers. Gypsy Moth caterpillars will seek refuge under the burlap layers in the heat of the day and can be removed and eliminated. Caterpillars also occasionally pupate in the burlap.

## **Pheromone Traps**

Pheromone traps can be hung in trees in areas to attract male Gypsy Moths searching for females. Male moths that get stuck in traps and are then prevented from mating.

Pesticide control includes aerial or ground spraying with a chemical known as BTK or injections of pesticides such as TreeAzin or AceCap. Town of Caledon and provincial by-laws discourage pesticide use and staff would not engage in mass application of pesticides without Council direction and approved resources.

The Town does not provide any resources for private property management. Private property owners would need to consult with their chosen tree care professional to determine the best way to manage their own property. Gypsy Moth is investigated on Town property on a complaint basis. If a complaint is received, Town arborist staff would typically survey the area for egg masses and decide what to do based on the severity of the infestation, level of defoliation, tree health, tree species and available resources.

Some municipalities including the City of Toronto, City of Mississauga and Town of Oakville have tried aerial spraying of small select areas with large stands of mature oak trees in an effort to save those trees which are more susceptible to Gypsy Moth. The Town of Caledon does not have comparable stands of mature oak trees. The City of Toronto is the only municipality implementing aerial spray techniques that include private property. In Peel Region, the City of Mississauga and City of Brampton are not performing any treatment for Gypsy Moth on private property.

To date there has been no infestations reported on Town of Caledon owned property. The Conservation Authorities are not reporting infestations on their properties in Caledon. Concerns have been raised in the Palgrave Estate areas of Caledon with respect to infestations of Gypsy Moth on private property and residents have suggested a Town aerial spraying program as a control method. The Town has not used aerial spraying to control Gypsy Moth anywhere in the Town in the past. Also, as noted in this memo, the Town generally does not use pesticides, does not maintain/service private property, and there are alternate methods of managing Gypsy moth without the use of pesticides.