

# **Gypsy Moth Management Program – Frequently Asked Questions**

## **Gypsy Moths**

### **What are Gypsy Moths?**

Gypsy Moths are an invasive insect from Europe and Asia. Gypsy Moth caterpillars feed primarily on the leaves of deciduous trees. Caterpillars chew small holes in leaves and can potentially decrease canopy leaf coverage. They are five to 60 millimetres long, dark and hairy with five pairs of blue dots and six pairs of red dots on the back.

### **How much damage can they cause?**

High levels of Gypsy Moth caterpillars can cause trees to experience a loss of leaves, which could lead to weakness and make them more susceptible to diseases or weather fluctuations. As observed at Thunder Beach in 2020, they can strip a mature oak tree of all its leaves in less than a week! Efforts to decrease Gypsy Moth populations will help mitigate impacts to the tree canopy in the community. Most trees are able to withstand some defoliation. Concern exists when trees suffer multiple years of severe defoliation. Many trees do not recover after the 3<sup>rd</sup> year of defoliation and 2021 will be the 3<sup>rd</sup> year of a major infestation in the Thunder Beach community.

### **What types of trees do Gypsy Moth caterpillars affect?**

They are known to feed on hardwood trees such as oak, maple, ash, birch, cherry, elm, hickory, willow and apple species. Other deciduous trees and even conifers such as pine or spruce could be susceptible when Gypsy Moth populations are high.

### **Why does it matter if trees lose a few leaves from hungry caterpillars?**

As the caterpillars grow, they consume more leaves. As the growth cycle winds down in late June, trees can look as if they have lost their leaves overnight. Healthy trees are usually able to grow back their leaves within the season during the first two years of an infestation. However, several years of defoliation weakens trees and can have negative impacts on long-term health. 2021 will be the 3<sup>rd</sup> year of an increased gypsy moth population in the Thunder Beach community and severe defoliation could result.

The tree canopy provides health, social, environmental, and ecological benefits to communities.

*Trees help to:*

- Improve air quality
- Provide shade. Reduce energy demand for cooling in summer and heat in winter
- Prevent flooding
- Increase property values and aesthetics and strengthens communities
- Improve emotional well-being and mental health (stress reduction)
- Increase outdoor activity and walkability, leading to improved health
- Provide habitat for birds and other wildlife

### **Why are Gypsy Moths such a nuisance?**

Besides defoliating trees, Gypsy Moth caterpillars can become a nuisance crawling everywhere including up the sides of homes, rocks, on outdoor toys, decks and patio furniture. You can hear them munching on leaves and their droppings (“Frass”) smell and cause a mess.

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## Can Gypsy Moths affect my health directly?

It is recommended that residents avoid exposure to Gypsy Moth caterpillars. Children should be discouraged from playing with any Gypsy Moth caterpillars. Exposure to Gypsy Moth caterpillar hairs, silken threads and shed skins can cause welts and patchy skin rashes that can persist for 4-5 days and upper respiratory tract irritation in some people. (this happened to a few of us at Thunder Beach last season)

## Aerial Spraying Product Information:

Product information: *Bacillus thuringiensis* subspecies *kurstaki* (Btk), is a naturally occurring bacteria found in soil and a substance used frequently in organic agriculture to manage Gypsy Moth populations.

### Is Btk safe for humans?

Btk is an effective pesticide that has been shown to successfully manage Gypsy Moth populations. It has been extensively studied by Health Canada and the US Environmental Protection Agency (EPA). Research shows that Btk poses minimal risk to human health when used as directed. Btk is approved by Health Canada for aerial use over urban areas. Btk is not expected to have adverse effects on vulnerable populations including children with asthma, people with weakened immune systems, pregnant women or the elderly. Individuals who have concerns should take reasonable precautions to avoid exposure during an application period.

For more information on Btk, consult the [fact sheet](#) provided by Health Canada.

### Is Btk safe for animals?

According to Health Canada, Btk is only toxic in the caterpillar stage of the Gypsy Moth life cycle. Btk does not affect adult moths and butterflies, including the Monarch Butterfly, as it is not in the caterpillar stage at this time of year. Btk does not affect other insects, honeybees, fish, birds or mammals. Btk is not considered a risk to pets or animals. That said, it is recommended to bring pets indoors before spraying begins. This will reduce pets bringing Btk indoors.

### How does Btk affect the environment?

Once applied, Btk biodegrades quickly in approximately 1-4 days through exposure to sunlight and microorganisms. There are no groundwater contamination concerns, as Btk does not travel through the soil beyond 25 cm.

### When will spraying work occur?

There is a very narrow window in which the application of aerial spray will be effective against Gypsy Moths. (mid-May to mid-June) Treatment is restricted to the late spring when Gypsy Moth caterpillars are present and active. (small, hungry and feeding) Zimmer Air Services plan to undertake this work between mid-May to mid-June and will provide updates [to all property owners who sign up](#). The work is time sensitive and will vary based on weather conditions and when caterpillars hatch.

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### Why plan an aerial spray control program in the Thunder Beach community in 2021?

Aerial sprays are conducted in response to large scale, widespread increases in Gypsy Moth populations, and concern that increases in Gypsy Moths are a high risk to the tree canopy. 2021 will be the 3<sup>rd</sup> year of a Gypsy Moth infestation bringing an increased risk of permanent damage to the tree canopy in our community. In the early '90's, aerial spraying was successful at lowering Gypsy Moth populations at Thunder Beach and the tree canopy was protected. Left untreated, Gypsy Moth caterpillars will decrease the health of Thunder Beach's tree canopy. The program is intended to help manage the Gypsy Moth population.

Spraying this spring (2021) is the best approach for the health of trees, our environment and residents. The cost to remove a dead tree far exceeds the cost to sign up for Zimmer's gypsy moth aerial spraying program now. **Please reach out to your neighbours to sign up now for aerial spraying so we can protect the entire community!**

### Is it good enough to just remove the egg masses or put burlap or traps on trees?

Thank you for your efforts trying to reduce Gypsy Moth populations on your property. These Integrated Pest Management techniques work with limited success. Egg masses are still located in the upper section of trees that can't be reached and they can also be found under rocks or attached to wood piles. Each egg mass can have up to 1,000 eggs so it doesn't take long for caterpillars to travel and appear on the trees. Gypsy Aerial spray helps manage the population and has a greater impact protecting the trees in the entire community.

### What else can I do to help protect trees on my private property? (*in addition to signing up for aerial spraying NOW to take place this spring.*)

- JANUARY-MARCH – complete and **submit application to Zimmer Air Services per links on TBA website NOW**– to contract for aerial spraying in spring 2021. **Reach out to your neighbours** also to participate or sign the required waiver so that your property can proceed with aerial spraying. **Deadline = March 1, 2021.**
- MID-MAY to MID-JUNE: **Aerial Spray Program (recommended professional program, time sensitive application to be effective at controlling gypsy moth.) Sign up required by March 31, 2021.**
- MAY-JULY: Burlapping. Install a burlap skirt around the trunk of the tree. Gypsy Moth caterpillars will crawl under the burlap to find shade during the day, and can also pupate in the burlap. Check all layers of the burlap once daily and collect, crush or otherwise destroy pupae/cocoon when you see them and place Gypsy Moths in a bucket of soapy water for a minimum of 48 hours.
- LATE JUNE-MID-AUGUST – Collect, crush or otherwise destroy caterpillars/pupae/cocoons when you see them. (soak in soapy water for a minimum of 48 hours)
- JULY-AUGUST: Install pheromone traps. Male Gypsy Moths attracted to the pheromone will become trapped. Replace soapy water as the traps become full.
- SEPTEMBER–APRIL: Scrape egg masses from all surfaces (e.g. trees, rocks, sheds, eaves troughs) and soak them in soapy water for a minimum of 48 hours to destroy them. Remove burlap and traps.

*The Thunder Beach Association is providing this for information purposes based on our understanding of the problem and proposed solution. The decision to conduct spraying is up to each property owner.*