



# CITY OF EAST GRAND RAPIDS

750 LAKESIDE DRIVE SE • EAST GRAND RAPIDS, MICHIGAN 49506

(616) 940-4817

www.eastgr.org

## Spongy Moth Update

April 8, 2022

Dear Resident/Property Owner:

This notice/informational document is being provided to residents within the area where the city has previously treated and has been routinely monitoring spongy moth (previously called gypsy moth) activity. The purpose of this communication is to provide updated information with respect to recent surveys as well as mitigation options.

Over the past several years, the City of East Grand Rapids has been monitoring spongy moth population in an isolated area of the city. During the summers of 2017 and 2018 the city saw populations in several areas reach elevated levels leading to significant defoliation of some oak trees. In 2019 the City of East Grand Rapids provided tree bands for residents and had an aerial application of *Bacillus thuringiensis* (Bt) applied to the impacted area. Due to the treatment in 2019 and spread of natural disease pressure the population was determined by experts to be in decline since 2020. Due to the population decline, experts did not recommend aerial application of Bt in 2020, 2021 or in 2022. Though aerial application of Bt is not recommended, the city will be providing tree bands to residents in the area being monitored for free in 2022 as has been offered in 2020 and 2021.

The City Arborist/Forestry consultant from Davey Resource Group completed an egg mass survey and overall analysis this past winter/spring to provide an update regarding the spongy moth population. The report is enclosed.

### Background information:

Spongy moth (*Lymantria dispar*) is an invasive pest, native to Europe and Asia, which was accidentally introduced into Massachusetts in the late 1800s. Since its introduction, it has made its way west and is now well-established in Michigan. Spongy moth produce one generation per year, with a female moth laying eggs in early summer. The eggs overwinter on tree trunks and buildings and hatch into caterpillars the following spring. These caterpillars then move into tree canopies to start feeding. The caterpillar stage feed on trees while adult moths do not. Spongy moth caterpillars can feed on over 300 tree species however, their preferred species are oak. Spongy moth caterpillars are primarily a nuisance pest. When populations are low their impact is not generally noticeable, however, when populations are high caterpillars can completely defoliate trees. Most trees will survive a single or isolated defoliation, but multiple years of heavy defoliation along with other stresses (e.g., drought) can cause tree mortality.

### How will spongy moth be addressed in 2022?

#### Spongy moth mitigation strategies:

- **Relying on the natural predators to control the population.** This approach is recommended by both Michigan State University and the Michigan Department of Natural Resources. Heavy spongy moth infestations are cyclical, occurring approximately every 15-20 years. Normally their populations are kept in check by natural predators, specifically the fungus (*Entomophaga maimagia*) and virus (Nuclear Polyhedrosis Virus (NPV) that are naturally found in the environment. The fungus and virus infect the caterpillars leading to death.

The most recent spike in the spongy moth population has been due, in large part, to the dry springs of 2016 and 2017 that impacted the ability of the *Entomophaga* fungus to spread and infect caterpillars. The *Entomophaga* fungus is the primary natural predator that keeps the population under control. The wet springs over the past several years including 2022 have helped spread the fungus to the spongy moth population. While the *Entomophaga* fungus is weather dependent, the virus, NPV, is not. NPV builds up if there is a high density of spongy moth and typically leads to the spongy moth population crashing within three years, which is in alignment with what has been seen overall in the impacted area in East Grand Rapids. Caterpillars that are infected by NPV hang from a tree trunk in an upside down “V.”

As populations increase and spongy moths come in greater contact with one another, the virus and fungus can rapidly spread, causing populations to collapse. The City Arborist/Forestry consultant has determined that both natural fungus and virus are present and impacting the spongy moth population and has had an impact on their decline.

- **Providing treatments or control strategies for individual residents to use on private property.** For isolated populations of spongy moth, individualized treatment strategies such as insecticide implants, tree bands, and other products can be effective, if applied appropriately. In 2019 the city treated the impacted area with and aerial application of Bt and has provided residents rolls of “slippery tape” to band trees from 2019 each year since, including this year for 2022.

If you have received this update/notice, you are in the impacted area. The mitigation strategy for 2022 is to rely on the natural pressures that have had impacts as noted above as well as to provide each household in the impacted area with two rolls of caterpillar barrier tape at no cost.

*Caterpillar barrier tape:*

The purpose of the barrier tape is to keep the caterpillars from getting to their food source. This year the city is providing each property within the impacted area with two rolls of barrier tape at no cost. Tree barrier tape may be picked up at the East Grand Rapids Community Center/Municipal Complex at 750 Lakeside Drive, Monday through Friday between 8am-5pm at the Public Works Administration/Engineering counter in the lower level of the Municipal Complex/Community Center. Residents need to show an ID, tax/water/sewer bill or other form of proof to verify property is in the impacted area. Tree barrier tape requires correct installation and frequent maintenance and monitoring to be effective.

There is no singular approach that is completely effective when it comes to reducing spongy moth populations, so combined with the natural disease/fungus and the city providing barrier bands, residents may also seek to utilize tree implant/injection products or other treatment applications or strategies as well. Included with this spongy update is a guide for additional mitigation options that may be of interest for residents/property owners. For additional information on spongy moth please visit the “forestry” page on the city website.

For additional questions please contact Deputy City Manager, Doug La Fave, via email at [dlafave@eastgr.org](mailto:dlafave@eastgr.org) or Facilities Coordinator, Ryan Russell, via email at [rrussell@eastgr.org](mailto:rrussell@eastgr.org) or either by phone: 616-940-4817.

Thank you,

East Grand Rapids Department of Public Works



Corporate Headquarters

February 25, 2022

295 South Water Street, #300

Kent, Ohio 44240-5193

330.673.5685

Toll Free 1-800-828-8312

Fax 330.673.0860

Regional Office

Lee Mueller

Grand Rapids, Michigan 49506

248 221 0439

Doug La Fave  
Assistant City Manager  
750 Lakeside Drive Southeast  
East Grand Rapids, Michigan 49506

*RE: Invasive Moths*—City of East Grand Rapids, Michigan

Dear Mr. La Fave:

Over the last several years, the City of East Grand Rapids has monitored known infestations of invasive moths (*Lymantria dispar dispar*), often referred to as gypsy moths. Starting in 2018, significant defoliation of some trees were noted. Since the monitoring began, weather conditions favorable to natural diseases have led to a significant crash in *Lymantria* populations. While slightly elevated pockets of caterpillar activity may be observed, remaining populations do not appear high enough to cause serious concern to tree health.

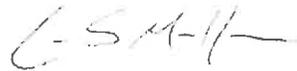
Many factors go into insect population dynamics. The recent population increase appears to be a result of relatively dry spring weather in 2016 and 2017. This dry weather may have reduced the effectiveness of natural disease pressure in *Lymantria* caterpillar populations. Generally, *Lymantria* populations may remain high for approximately 3 years, before natural diseases become endemic and cause the population to crash. Since 2019, a string of wet, cool springs appear to have led to increased disease pressure and a natural reduction in *Lymantria* populations.

To monitor *Lymantria* populations, visual surveys were performed in areas with known or reported concentrations of *Lymantria* activity in the summers of 2017, 2018, 2019, 2020, and 2021. Visual surveys are intended to observe *Lymantria* feeding pressure on trees. While healthy trees can withstand even complete defoliation in a given year, trees may not tolerate multiple years of subsequent defoliation. Severe defoliation was noted in a pocket of infestation on Coronado SE in 2017 and 2018. Feeding pressure appears to have subsided since 2019.

Doug La Fave  
City of East Grand Rapids  
February 25, 2022

Winter egg mass surveys were performed to further gauge *Lymantria* population levels in 2019, 2020, and 2021. In 2022, winter egg mass surveys were discontinued, as observations over several summers have indicated a reduction in feeding pressure on trees. As the primary trigger for pesticide treatment of *Lymantria* is concerns to tree health, **pesticide applications are not recommended.**

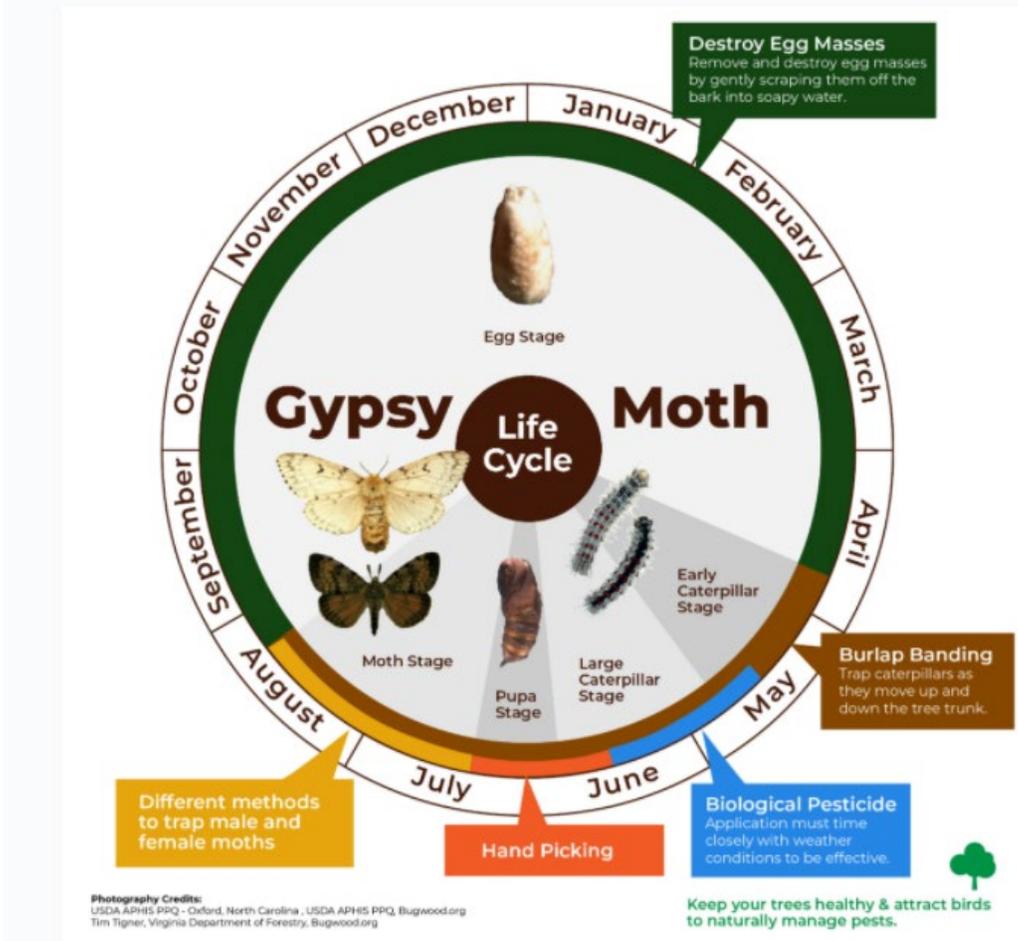
I will continue to coordinate with City staff to review reports of *Lymantria* activities and monitor and assess known population centers, as appropriate. If you have any questions or would like further information, please contact me by phone at 248-221-0439 or via email at [lee.mueller@davey.com](mailto:lee.mueller@davey.com).



Lee S. Mueller, CF  
SAF Certified Forester  
ISA Certified Arborist MI-4148A  
Tree Risk Assessment Qualified  
MI Registered Forester 46043

Lifecycle and multiple mitigation options for residents to also consider:

## EGM life cycle



**Tree banding-late April through August:** Tree banding prevents caterpillars from feeding on foliage. Irrespective of whether tree bands are approved to be provided to residents, residents may elect this mitigation option as well.

Tree band mitigation (below)



**Biological pesticide (Bacillus thuringiensis BT) mid-May through mid-June:** Application with garden hose on foliage. This is the same product that is used in aerial spraying.

Biological pesticide mitigation (see below)



Click image to open expanded view



**Systemic insecticide tree implants-spring:** Control a broad range of pests including spongy moth caterpillars. They can provide season-long control with 12 to 18 weeks residual in deciduous trees. Implants can be placed with basic household tools as noted in one product label noted below.

Systemic insecticide implant mitigation (below)

**NO MIXING, MEASURING, OR SPRAYING REQUIRED**

**SYSTEMIC INSECTICIDE TREE IMPLANTS**  
FOR CONTROL OF LISTED DESTRUCTIVE PESTS OF ORNAMENTAL TREES  
10 IMPLANTS WILL EFFECTIVELY TREAT UP TO A 14" TRUNK DIAMETER.

**EMERALD ASH BORER** **IDEAL FOR LARGE TREES**

**DELIVERED BY THE TREE'S OWN SAP** **EASY TO INSTALL**

**KILLS DESTRUCTIVE INSECTS**

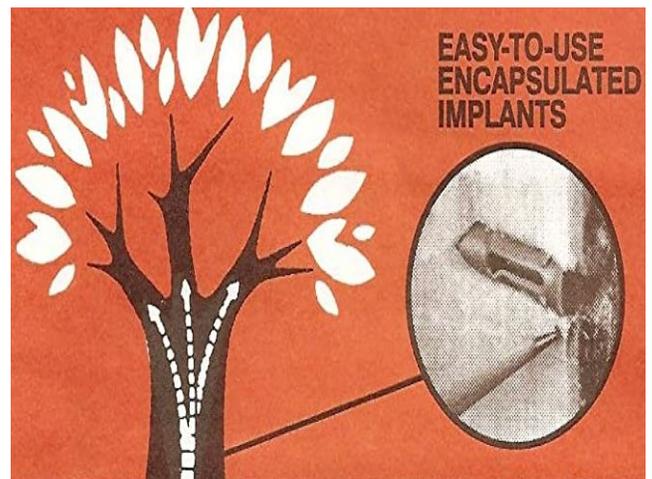
APHIDS    BORERS    **GYPHY MOTHS**    TENT CATERPILLAR    WEBWORMS    BAGWORMS

Production Lot No. **ACTIVE INGREDIENT BY WT.**  
Acetophenone (in 20-Gram) ..... 98.9%  
**OTHER INGREDIENTS** ..... 1.1%  
**TOTAL** ..... 100.0%  
Each Cartridge contains 5.00000 oz. Active ingredient.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**  
READ LABEL BEFORE USING. SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

**NET CONTENTS: 0.309647 OZ.**

**NO PAK**  
THIS PACKAGE CONTAINS 10 IMPLANTS



**Systemic granular application:** Apply anytime during the year when the soil is not waterlogged or frozen. The slow-release fertilizer can be applied to outdoor trees. The product is absorbed by the root system into the tree and foliage and kills feeding caterpillars. The ready-to-use granules requires no spraying and is easy to use. Can provide yearlong protection. EPA Registration Number: 92564-49.



**12 Month**  
**Tree & Shrub**  
**Protect & Feed**  
READY-TO-USE GRANULES II

**12 MONTH**  
**Insect Protection**  
PROTEGE por 12 MESES y FERTILIZA

**Plus Provides Slow Release Feeding**  
**Revitalizes Trees & Shrubs**

Japanese Beetle  
Whitefly  
Gypsy Moth

NO SPRAYING

TABLE ESPAÑOL

**Spongy moth traps-July through August:** Traps contain a special pheromone attractant. Since the female gypsy moth does not fly, she instead releases minute amounts of the sex lure (pheromone) to attract the flying male moth for the purpose of mating. The Spongy Moth Trap pulls male spongy moths in from a ¼-acre area to the trap which traps the male moths before they reach the waiting female.

Spongy Moth Traps should be first hung in early spring. The trap is effective if the moths are active and from late April through to late September.

When placing the trap, choose a tree and a location on the tree where air currents can circulate the smell of the attractant freely. The Spongy Moth Trap should be hung from a tree or placed on a stand approximately 4 to 5 feet from the ground. The south side of the tree is the best location.

Spongy moth trap (below)



**Remove Spongy moth egg masses-September through March:** Residents can use a variety of tools/scrapers to remove egg masses and deposit them into containers with soapy water.

Spongy moth egg removal (below)

