



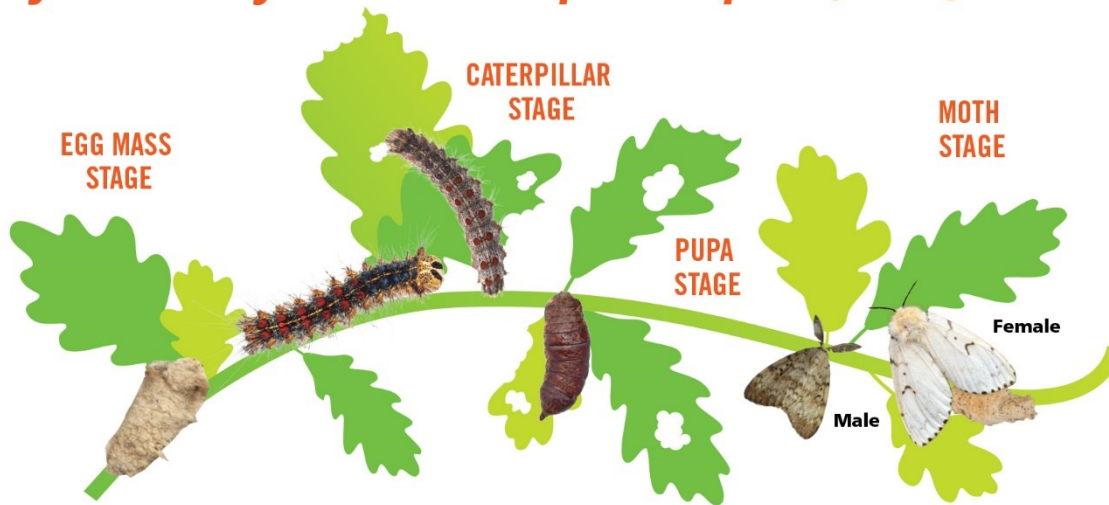
# **LDD (Lymantria dispar dispar) Control Options Update to General Committee July 13, 2021**

**David Plant – Senior Manager, Parks Horticulture and  
Forestry Division – Operations**



## LDD Lifecycle

### Gypsy moth/*Lymantria dispar dispar* (LDD) Life Cycle



JANUARY TO APRIL

#### Scrape and Destroy Egg Masses

Scrape egg masses off trees and place in a bucket of soapy water for a day or two.

APRIL TO JUNE

#### Consider Applying Insecticide

Some products have tight timing windows for application to be successful. Contact a licensed tree care company early in the season to discuss options.

MAY TO AUGUST

#### Burlap Bands

Trap caterpillars by wrapping burlap around the tree's trunk. This makes it easier to collect them.

JUNE TO JULY

#### Handpick Caterpillars

Remove caterpillars and place in a bucket of soapy water for a day or two.

AUGUST TO DECEMBER

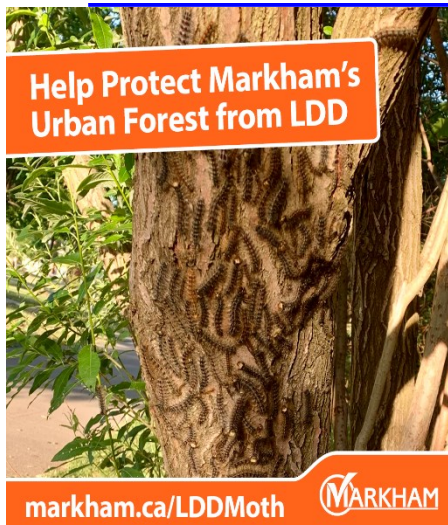
#### Scrape and Destroy Egg Masses

Scrape egg masses off trees and place in a bucket of soapy water for a day or two.



## Public Outreach Campaign

- Social media graphics and video (egg mass removal, burlap banding), City page LDD direct Tab, site content updates ongoing
- <https://www.markham.ca/wps/portal/home/neighbourhood-services/trees/LDD/01-Lymantria-dispar-dispar>





## LDD Overview

- Current outbreak is the 2<sup>nd</sup> year of an expected 4 year cycle
- Caterpillars are currently eating tree leaves with visible defoliation and a high volume of resident complaints for both public and private trees
- City staff estimate approximately 18,000 City trees are at risk and are tracking hotspots and monitoring defoliation rates compared to egg mass removals
- City staff removed egg masses from almost 6,000 City trees in the spring to reduce impacts
- City staff consulting with invasive species specialist at the Region of York and lower tier municipalities. LDD does not respect municipal or private land boundaries making control difficult



## LDD Management Options

- **Egg Mass Removal** – cost effective at \$8.66/city tree for approximately 18,000 trees, non invasive and removes the pest instead of treating it. Requires 6 part-time staff at with an estimated cost of \$156,000 to be funded from the 2021 Parks part-time personnel budget. Residents can carry out the same method to their own trees with little or no cost
- **BTK Spray**
  - Ground spray option for street tree is effective but costly (\$50-\$150/tree/spray) which treats the pest once present, requires 2 applications in ideal conditions, has low residual effects.
  - Aerial spray option for woodlots and non residential areas are more economical (\$980.00/ha TBA)
- **Tree Banding (burlap or sticky tape)** – effective method for residents using common materials at minimal cost
- **Do Nothing** – cost effective to monitor only and recommend tree replacements may be required at \$500.00/per tree



## Staff Recommendations

- That the presentation “LDD (Lymantria Dispar Dispar)” dated on July 13<sup>th</sup>, 2021 be received;
- That staff recommends continuation of the public outreach initiative encouraging resident participation including instructional videos and documents, dedicated website updates and frequent updates on growth cycle to manage expectations on various social media platforms;
- That staff recommends continuation of tracking through monitoring service requests, follow up patrols to understand defoliation results and information gathering to inform collaborative efforts with Region of York and municipal counterparts;
- That staff recommends continuation of egg mass removal program beginning in October 2021 onward utilizing 6 additional seasonal staff at a cost of approximately \$156,000.00 annually until the end of the infestation to be funded through the existing 2021 Parks part-time personnel budget; and
- That staff be authorized and directed to do all things necessary to give effect to this resolution



## Staff Recommendations - continued

- Continued Public Outreach Campaign – encourage participation through education, Markham staff videos, social media posts, website updates, mobile signs and links
- Continued Enhanced Monitoring – City staff monitoring damage and defoliation, resident feedback, continued participation in Region of York LDD working group with lower tier municipalities to develop and inform through collaborative efforts
- City Tree Egg Mass Removal – to commence in October 2021 and continue (weather and seasonal dependent) onward until the end of the infestation.





## Questions?

