

Gypsy Moth Update 2021

Gypsy moth Pheromone traps

Due to the extensive Gypsy moth outbreak we are currently experiencing, the MPOA will not be offering gypsy moth traps for sale this year. Traps probably reduce the number of fertilized females when moth populations are low between major outbreaks, however they offer virtually no benefit currently.

While it may be satisfying to empty a trap full of dead moths every few days during a major outbreak this does nothing to reduce defoliation. The caterpillars do all the munching, only males can fly and females are generally found on or near the trees they fed upon. Due to the number of male moths in flight last year and the expected number this year the use of female pheromone traps would do little to disrupt males from finding and fertilizing the real females.

Aerial spraying of *Bacillus thuringiensis*

Aerial spraying by a company like Zimmer aviation is expensive (about \$400 per lot up to one acre) but, if done at the critical time when eggs have just hatched around mid to late May, will definitely reduce defoliation on the sprayed area. Contracts with Zimmer are required no later than March 1, 2021. Some, including experts from the MNRF, argue that spraying may delay the emergence of some natural pests such as those listed below. For this reason and due to the expense of widespread spraying MNRF does not plan to do spraying on crown land near Mazinaw.

Natural enemies of the Gypsy moth

This **NPV (nucleopolyhedrosis virus)** is usually the most important factor in the collapse of gypsy moth outbreaks in North America. The virus is always present in a gypsy moth population and can be transmitted from the female moth to her offspring. It spreads naturally through the gypsy moth population, especially when caterpillars are abundant. During a gypsy moth outbreak, caterpillars become more susceptible to this virus disease because they are stressed from competing with one another for food and space. Typically, 1 to 2 years after an outbreak begins, the NPV disease causes a major die-off of caterpillars.

Another natural killer of gypsy moth caterpillars is a fungus called **Entomophaga maimaiga**. Fungal spores that overwinter in the soil will infect young caterpillars early in the summer. When the young caterpillars die, their bodies produce windblown spores that can spread and infect older caterpillars. Large caterpillars killed by the fungus will hang head down from the tree trunk, and the bodies of the dead caterpillars appear dry, stiff and brittle. Within several days, the cadavers fall to the soil and disintegrate, releasing the spores that will overwinter back into the soil.

Destroying egg masses

The best bet for management of future gypsy moth damage to your property in the short term if you choose not to spray is to remove and destroy egg masses in the late summer. Use a hand-held vacuum or scraper and collect eggs into a bucket that you fill with soapy water for 48 hours to kill them.