

Gypsy Moth

Gypsy moth has been getting a lot of attention from concerned landowners in the last couple years. Many people have heard of it and know that it can have a negative impact on their forests and yard trees, but what exactly does it do and how did it get here?

Gypsy moth was introduced into the U.S. in the late 1860s when a French amateur entomologist brought them over from Europe to create a stronger silkworm. They escaped from his Boston home and continued to spread from there.

Gypsy moths go through 4 life stages: egg, larvae (caterpillar), pupa, and adult. Gypsy moth caterpillars are large and hairy with 5 pairs of blue and 6 pairs of red spots that run down the caterpillar. The adult moths are dull brown (males) or white/cream (females). The adults do not feed but exist only for the purpose of reproduction. Females can lay a large amount of eggs (500-1000 in one egg mass). Egg masses are a tannish-brown and can be found on the trunks of many different hardwood trees including but not limited to oaks, aspen, beech, and birch. The masses are oval in shape and about 1.5 inches in length. If you find these, remove and destroy them (soaking in soapy water for 2 days is sufficient). Simply knocking them off the tree is not effective.

Gypsy moth caterpillars cause damage to trees by feeding on the leaves. Its favorite host is oak but will feed on hundreds of trees and other plants. They feed at night and hide during the day making it difficult to spot them. The good news about gypsy moth is that they usually do not kill a healthy tree. Healthy trees are even able to put on a second set of leaves later in the growing season after being defoliated by these pests. However, the problem with this is that it causes the tree to be stressed which opens it up to other disease and/or insect attacks. When a tree becomes stressed it makes it more difficult to deal with other stressors such as drought, lack of nutrients, or winter injury.

Controlling gypsy moth can be a difficult task. The insecticide normally used for control is *Bacillus thuringiensis* or Bt for short. It is a very selective insecticide and is a naturally occurring bacteria. The trouble with it however, is that it has a narrow window in which it is effective. It generally needs to be applied May-June when the caterpillars are young. It needs to be sprayed on the leaves of the plant because it needs to be ingested by the caterpillars. This is difficult for homeowners and landowners because many people do not have the equipment to spray large trees. Once a caterpillar is older it becomes more difficult to control as Bt is not as effective.

Prevention is the best solution to invasive species. While it is difficult to completely prevent the spread of invasives there are some precautions you can take. An easy and effective precaution everyone can take is to avoid moving firewood. Moving firewood is a major way for forest pests and diseases to move from one location to another. Be sure to abide by all quarantines set by state and federal governments. Check camping equipment, including shoes, for invasive hitch hikers. This applies to aquatic equipment as well. It is also important not to purposefully introduce new species to an area. This may seem like common sense but what may seem harmless can become destructive.

If you are interested in having your property sprayed for gypsy moth you can contact Hatfield Spraying Service at (616) 837-6979. For more information please contact the Conservation District at 989-826-8824 or oscodacd@gmail.com.

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