



Adult female gypsy moth with egg mass

In 2002, MDA sprayed 39,134 acres of trees statewide and only 112 acres of trees (untreated) were defoliated. As populations again began to collapse, spray acreage was reduced to 14,053 acres in 2003 and to 660 acres in 2004. There was no suppression spraying in 2005.

In 2006 and 2007, conditions seem to have been especially favorable for gypsy moth larvae. The large, healthy caterpillar populations fed voraciously on the oaks and other hardwoods in Maryland, defoliating the trees on 15,793 acres in the spring of 2006 and on 68,460 acres in the spring of 2007.

In 2006, in response to population data gathered in the fall of 2005, the MDA's Gypsy Moth Suppression Program sprayed the trees on 25,456 acres statewide. In 2007, the Suppression Program sprayed the trees on 50,173 acres statewide.

Responding to the defoliation in 2007 and to population predictions from the 2007 fall egg mass survey program, MDA's Gypsy Moth Suppression Program sprayed the trees on 99,222 acres in the spring of 2008. Defoliation surveys conducted in July revealed that the trees on better than 97% of the areas sprayed were protected from severe leaf destruction. The trees on 2,803 sprayed acres showed moderate to heavy defoliation. Statewide in 2008, the caterpillars defoliated the trees on 19,279 acres. The majority of the defoliation occurred in Allegany (5,905), Garrett (1,793), Washington (1,855) and Frederick (8,204) counties.

Gypsy moth caterpillars do all the harm. They hatch in



Suburban yard in late June - trees were defoliated by gypsy moth caterpillars.



Gypsy moth egg mass

large numbers - an egg mass can contain more than 1000 eggs - and the caterpillars feed ravenously on leaves.

Additionally, because they are not native to North America, they have few natural enemies and feed and reproduce in relative safety. Where populations are high and no control measures are taken, trees can be heavily defoliated.

Trees that lose more than 60 percent of their leaves often re-leaf depleting their energy reserves and leaving them under severe stress and vulnerable to attack by diseases and damaging insects. The combination of defoliation, re-leafing, and disease or insect activity, complicated by other factors such as drought or soil compaction, may kill the tree in one to three years. To protect valuable forest and shade trees, the Maryland Department of Agriculture maintains a monitoring and control program to manage the pest. Each fall MDA personnel survey all qualifying areas for gypsy moth egg masses to determine where populations of the pest might be growing. Natural enemies have been introduced statewide, but the most effective suppression results from spraying trees in infested areas with carefully selected insecticides to destroy the caterpillars early in their development.

In the more than 100 years since the gypsy moth was introduced into North America, it has steadily spread in spite of man's best efforts to control it. No one agency can hope to eliminate it, but by combining efforts and employing a variety of controls, property owners, neighborhood organizations, businesses, and government agencies can hope to limit its effects.

A native of Europe, the gypsy moth (*Lymantria dispar*) was accidentally released in Massachusetts in 1869. Infestations of the pest have gradually spread, leaving behind millions of acres of defoliated trees. Since 1980, the gypsy moth has defoliated more than one million acres in Maryland. During this period, the Gypsy Moth Cooperative Suppression Program sprayed the trees with carefully selected insecticides on another 1.8 million acres statewide. The suppression spray program has protected the trees from severe leaf loss on an average of over 97 percent of the acreage treated each year.

From the early 1980s to the early 1990's, severe infestations of gypsy moth caterpillars and the resultant defoliation occurred primarily in Allegany, Anne Arundel, Baltimore, Carroll, Cecil, Frederick, Garrett, Harford, Howard, Kent, Montgomery, Prince George's, and Washington counties. Most of the Maryland Department of Agriculture's (MDA) gypsy moth suppression activities were conducted in these counties. By 1994, the northern infestations had collapsed, but on the Eastern Shore and in Southern Maryland, the caterpillars were very active and the suppression spraying was conducted largely in those areas. Although gypsy moth caterpillar populations were low between 1996 and 1999, MDA's annual fall survey program detected several increasing populations throughout the state.

Gypsy moth caterpillar populations rebounded significantly in the spring of 2000 - defoliating 22,824 acres - and again in 2001 - defoliating 46,183 acres. In 2000, the MDA's Gypsy Moth Suppression Program sprayed the trees on 16,971 acres. In 2001, the Suppression Program sprayed the trees on 48,588 acres.

Trees preferred by gypsy moth

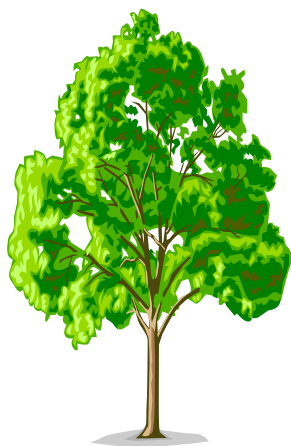
All oaks

Apple

American
Beech

Birch

Sweetgum



Linden

Willow

Hawthorn

Trees not preferred by gypsy moth

American

Catalpa

Red
Spruce

Sycamore



Holly

Tulip Poplar

Locust

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GYPHY MOTH IN MARYLAND



Late instar gypsy moth caterpillar.

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Note: there are many trees, such as maple, elm, cherry, hickory, blue spruce and white pine, as well as several shrubs and ornamental plants that are less desirable to gypsy moth but are still attacked and often defoliated.

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