



Asian Gypsy Moth

Pest Alert

ASIAN GYPSY MOTH

(Lymantria dispar)



FEMALE
ASIAN GYPSY

Asian Gypsy Moth (AGM) egg masses are typically laid on branches and trunks of trees, but egg masses may be found in any sheltered location. Egg masses are buff colored when first laid but may bleach out over the winter months when exposed to direct sunlight and weathering. As the female lays them, she covers them with a hair-like setae from her abdomen. Egg masses contain from a couple of hundred to about 1200 eggs and are the overwintering stage. After an acclimation stage, eggs can withstand freezing temperatures. The longer they are chilled in winter, the less heating is required for their hatch in spring. In wooded suburban areas, during periods of outbreaks, the sound of chewing and frass dropping is a continued annoyance.

LOCAL HISTORY

Asian Gypsy Moth is not known to be established in North America, but early detection and eradication has occurred in California, Oregon, Idaho, Texas and Washington states. The European Gypsy Moth has been a major pest of hardwoods in the Northeastern United States since its introduction in 1869 by a French scientist. With all the major Asian ports reporting large numbers of AGM, North America needs to be trapping and capable of rapid response if any detection is made.

IDENTIFICATION

Asian and European gypsy moths are morphologically identical. Unlike European gypsy moths AGM has a broader host range, and AGM females can fly, hastening expansion of their range and exacerbating economic and ecological consequences. AGM feeds on over 500 trees/shrubs, including larch, oak, poplar, alder, willow, and some evergreens. Because of the threat it poses, survey is needed for early detection.

Comparing Gypsy Moth Larvae



Comparing Gypsy Moth Adults



AGM EGG MASSES

HOST PLANTS

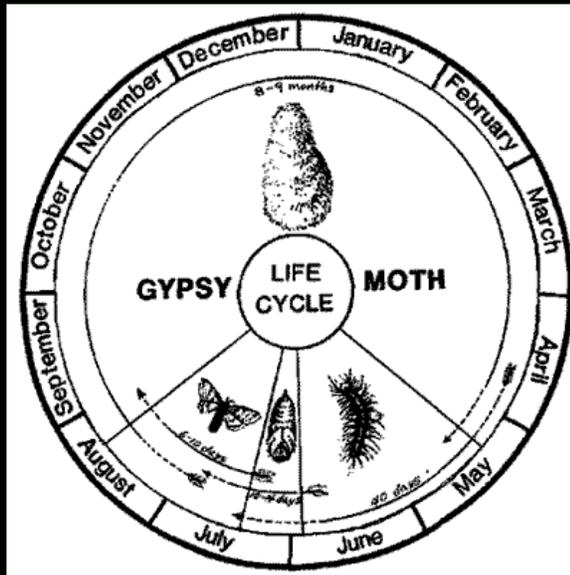
Older larvae will also feed on a number of conifers such as hemlock, pine, spruce and southern white cedar. Younger larvae prefer oak, but may feed on several hundred different species of trees and shrubs, both hardwood and conifer.

LIFE CYCLE

LARVAE: The hatching of moth eggs coincides with budding of most hardwood trees. Larvae emerge from egg masses from early spring through mid-May thru June. EGM is hairy with five pairs of blue spots and six red spots along the back. AGM is similar to EGM but has five pairs of black spots and six pairs of brown spots.

PUPAE: The larvae reach maturity between mid-June and early July. They enter the pupal stage. This is the stage during which larvae change into adults or moths. Pupations last from 7 to 14 days.

ADULTS: The brown male gypsy moth emerges first, flying in rapid zigzag patterns searching for females. The male gypsy moths are diurnal unlike most moths, which are nocturnal. When heavy, black and white egg-laden females emerge, they emit a chemical substance called a pheromone that attracts the males. The female lays her eggs in July and August and then both moths die. Four to six weeks later, embryos develop into larvae. The larvae remain in the eggs during the winter.



AGM CATERPILLAR

During periods of infestation when trees are visibly defoliated, gypsy moth larvae crawl up and down walls, across roads, over outdoor furniture, and even inside homes. Feeding caterpillars leave behind a mixture of small pieces of leaves, frass, or excrement.



LAYING EGGS

EGG				LARVA		PUPA	ADULT	EGG			
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						Adult Surveys					

MANAGEMENT

Establishment of AGM in the northeast could drastically add to the defoliation of trees. Surveying key New York State shipping ports, distribution centers and industrial parks, enhances early detection and rapid response to avoid AGM from becoming established. Damaging populations occur in five-to seven-year cycles. Best control is obtained when directed to young larvae. Pheromone traps are useful for monitoring moths. In winter monitor and remove egg masses. AGM has a wide host range including conifers; avoids ash, tulip tree and poplar. Visit USDA-APHIS/PPQ website for more information, www.aphis.usda.gov/plant_health/plant_pest_info/gypsy_moth/index.shtml



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