

## Gypsy Moth Background

**Gypsy Moths:** Gypsy moths were accidentally released from a Boston suburban laboratory in the 1860s. By the early 1900s, feeding upon many tree species in the Northeast, and with no natural predators, they had spread to eastern New York and New Jersey. By 1981 the species had traveled west through 46 counties in Pennsylvania; that same year they stripped millions of trees and vines in 800,000 acres of New Jersey.

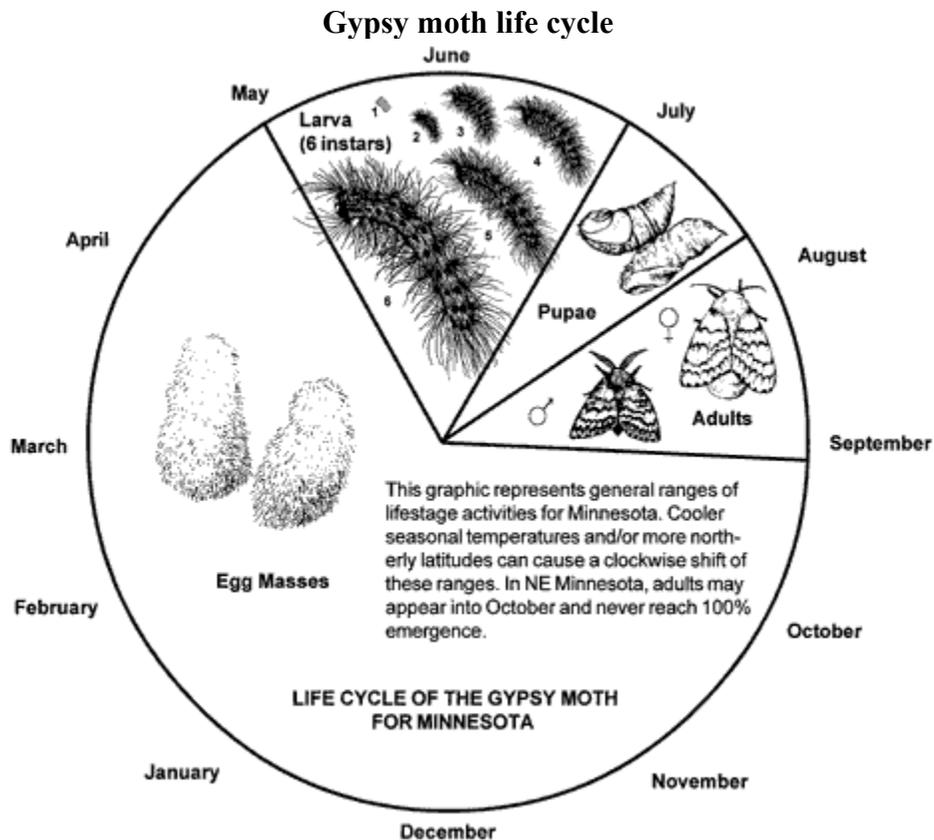


Female



Male

Photo: NBII



### Egg mass

Eggs are laid in a fuzzy, tan-colored mass. The egg mass contains an average of 500 eggs and is about the size of a quarter. Eggs are laid during July and August and hatch the following spring from late April through early May. Egg masses may be laid on living and/or inanimate objects. This includes nursery stock, logs, under eaves on roofs, in wheel wells or outdoor household articles.



### Caterpillar (larva)

The caterpillar ranges from 1/8 to 2 1/2 inch length depending upon its age. It is dark and hairy. Along its back it has five pairs of blue spots near the head, followed by six pairs of red spots. It actively feeds on plant foliage from early May through early July, when it develops into a pupa.

### Pupa (cocoon)

The pupa is an inactive stage during which the caterpillar becomes an adult moth. Found during July, it is dark reddish-brown and leathery in appearance. It can range in size from 3/4 inch to 1 1/2 inches long.



### Adult

The adult male moth has feathery (plumed) antennae and can be light beige to dark brown with black jagged bands on its forewings. Its wingspread ranges from 3/4 to 1 1/2 inches. The adult female moth is white with brown zig-zag markings on her wings and narrow antennae. Its wingspread ranges from 1 to 2 inches. Females cannot fly because their bodies are too large and heavy. They release a strong sex attractant



(pheromone) in order to attract the male moths, which are strong flyers and capable of mating with several females. The female produces one egg mass and dies. Adult moths are typically active from mid-July through early September.

Egg masses are light tan, and the eggs inside are black and pelletlike. Each mass may contain 400-600 eggs. The larval stage (caterpillar) is hairy, and a mature larva (Image 2) is 50-65 mm long with a yellow and black head. Behind the head on the thorax and abdomen are five pairs of blue spots (tubercles) followed by six pairs of brick red spots (Fig. 1a). The pupal stage is dark reddish-brown and is held in place to some object by small strands of silk. Male moths (Image 3) are dark buff (Fig. 1b) and fly readily during the day. Females are white with black, wavy markings (Fig. 1c); they have robust abdomens and do not fly, and their wingspan can reach 5 cm.



Image 4 - Gypsy moth female adult  
*Lymantria dispar* (Linnaeus)  
R. S. Kelley - Vermont Department  
of Parks and Forests

Egg masses (Image 4) deposited by females during July overwinter on trees, stones, and other substrates. Eggs hatch from late April through early May with most eggs hatching by mid-May. Small first instar larvae do not feed right after they hatch and can be dispersed by wind. Young larvae feed on foliage and remain on host plants night and day. In late May when about half-grown, larvae change their behavior and usually feed in the trees at night, and move down to seek shelter in bark crevices or other protected sites during the day.

Larvae reach maturity from mid-June to early July. Migrating caterpillars are often a nuisance during the last two weeks of June. Pupation takes place during late June and early July. The pupal cases may be observed attached to tree bark, stones, buildings, and other similar sites. Adults start emerging in late June with peak emergence in mid-July. This pest produces one generation a year in Pennsylvania.

**Some people are dermally allergic to the caterpillars. The urticating hairs cause skin rashes on some humans. This is most noticeable in May when larvae are small. Children appear to be more prone to this problem than adults.**

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