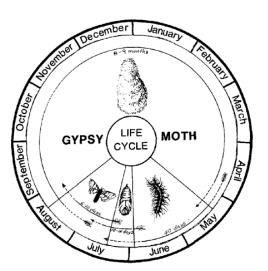
The Gypsy Moth's Life Cycle

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The gypsy moth undergoes a **complete metamorphosis** - changing from egg to larva (caterpillar) to pupa to adult.

Gypsy moth **eggs** hatch generally between late April and mid-May. The larval, or **caterpillar**, stage typically lasts about 7 weeks. The larvae are most active during the months of May and June. The individual larvae become **pupae** in late June on into July and remain in this stage for 1 to 2 weeks. Adults emerge in late June through the middle part of July and can persist into August.

It is the caterpillar stage of the insect that is infamous for its appetite. Oaks are its first choice, but it readily consumes beech, birch, elm, maples, and most other hardwoods. During heavy infestations, it will also consume pine, spruce and hemlock needles. It tends not to feed on ash and tulip poplar.





gypsy moth larva (first instar)



gypsy moth larva (late instar)

As it grows, the caterpillar molts 3 or 4 times. It needs to shed its skin in order to grow. The period between each molt is known as an **instar**. First instar larvae are very small and can be difficult to spot. Fourth and fifth instar larvae are very large, with an appetite to match their size. The majority of the defoliation is caused by these later instars.



mating moths





Several females laying eggs

Dead females around the base of a tree

The **adult** gypsy moths do not feed. The adults live for about 2 weeks, for the sole purpose of reproducing. Though they cannot fly, adult females have wings. They are lighter in color than the males. Males can fly and are relentless in pursuit of females. Males have large, feathery antennae that pick up the scent of the pheromones released by the females.

Following mating, the female gypsy moth lays between 600 to 1,000 eggs in a compact, tear-dropped shaped mass of eggs and silk. Females will place these egg masses in a wide range of places - out in the open, under bark flaps, on the sides of houses, under eaves, etc. Each female produces only one egg mass in her lifetime.

Males may mate multiple times. After the frenzy of mating, both the female and male moths die.

General first aid measures include:

- Remove the caterpillar carefully with forceps or tweezers (bare hands should not be used to remove or squash the insect).
- Sticky tape (especially duct tape) can be used to strip off any remaining hairs from the affected area. Then immediately wash the area with soap and water. Contaminated clothing should be removed and laundered thoroughly.



Skin rash

More resources:

State of Connecticut, Town of Sturbridge, Poison Control

 $\underline{\text{http://www.nbcconnecticut.com/news/local/Health-Department-Releases-Information-on-Gypsy-Moths-421386314.html}$

The Northeast District Department of Health released information on gypsy moth eggs in the area. "There is no public health threat associated with this natural, temporary phenomenon," the Brooklyn, Connecticut-based department said.

Entomologists blame the drought for the surge of gypsy moths and officials from the department said they partnered with the Connecticut Agricultural Experiment Station in New Haven to release information to the public about gypsy moths and their eggs.

Process:

- Gypsy moth eggs started hatching the last week of April. These are small larval "instars" that are "ballooning" off of the trees and the wind is carrying them to multiple locations.
- A couple of weeks after the short ballooning stage, older caterpillars will settle into trees to feed, crawling up and down and eventually deforest the tree.
- There is a natural fungus with long-lasting spores located toward the bottom of the tree and soil. The fungus requires rain to germinate, infect and kill the caterpillars. Due to the drought, the state has not had enough rain the past two years to allow the fungus to germinate.
- This is a temporary phenomenon. It may take a while for nature to catch up, but there are good odds that the issue will take care of itself.

Reaction to Exposure

- Gypsy moth larvae (i.e., caterpillars) do not bite. They do have two types of hair (called setae) that they use to defend themselves which can create a stinging sensation. Reactions to these stinging hairs vary from mild to moderately severe itching with an accompanying rash, similar to contact dermatitis.
- The onset of discomfort is usually noticed within 8 to 12 hours after contact, often becoming more pronounced 1 to 2 days later. Most cases resolve in a few days or up to two weeks.
- Delayed hypersensitivity reactions sometimes result in irritation to the eyes, inflammation of the nasal passages, and shortness of breath. This is especially common in the case of airborne hairs of adult gypsy moths, or contact with clothes hanging on outdoor lines when the moth is locally abundant.
- Exposure to the larvae and hairs is more likely while the young larvae are "ballooning" or contact w/ the adults.

What You Can Do

- There are no state (of Connecticut) programs for spraying, so the department recommends that people with sensitivities limit their exposure.
- Rains are forecast for this next weekend (May 5 to 7). The state should start to see germination of the resting spores of the gypsy moth fungus. While there is usually notice the fungus hitting the older caterpillars as they move up and down the tree, it can affect the younger instars as well, providing optimism that the fungus will provide natural control of the gypsy moth caterpillars this year.
- If anyone has any medical concerns, check with your primary health care provider.

For more information go to CT DEEP's website or the Connecticut Agricultural Experiment Station.

Source: Health Department Releases Information on Gypsy Moths | NBC Connecticut http://www.nbcconnecticut.com/news/local/Health-Department-Releases-Information-on-Gypsy-Moths-421386314.html#ixzz4gVHTITjl

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http://www.town.sturbridge.ma.us/Public_Documents/SturbridgeMA_Adminblog/I_05188B6E

http://www.poison.org/articles/2014-jun/caterpillar-stings