# How does gypsy moth get to Oregon?

European gypsy moths mainly enter Oregon on infested items brought from eastern areas of the country where gypsy moth populations are established. The female lays her eggs on solid surfaces, such as outdoor furniture, recreational and other vehicles, firewood, birdhouses, and doghouses. As people travel from the eastern states, they often bring these contaminated items with them, allowing the moth to hatch and spread.



Invasive insects have many pathways into Oregon. The red area shows the range of gypsy moth in the US.

### How are we managing gypsy moth?

Prevention is the best method to keep gypsy moths out of Oregon. The United States Department of Agriculture (USDA) requires inspections of all recreational vehicles, outdoor household articles, nursery stock, and other items that travel from infested areas of the eastern United States. USDA has established strict inspection and compliance procedures for ships that may be carrying Asian gypsy moths. In addition, state and federal agencies in those infested states conduct intensive treatment programs in an effort to suppress European gypsy moth populations and slow their spread.

# Early detection and rapid response

The Oregon Department of Agriculture (ODA) and affiliated organizations have successfully protected Oregon's natural and agricultural areas from biological invaders, such as gypsy moth, for approximately 40 years. The success of these projects has largely been attributed to applying the Early Detection Rapid Response (EDRR) protocol for invasive species, which places a high priority on preventing introduction and establishment of any gypsy moths.



Oregon uses the delta trap to detect European and Asian gypsy moths.

To facilitate early detection of newly introduced gypsy moths, ODA has a yearly large-scale trapping program throughout the state. In 2015 alone, over 15,000 gypsy moth traps were deployed and monitored. The protocol states that the detection of a single gypsy moth will result in increased trapping and monitoring. If a breeding population of gypsy moth is discovered, or thought likely based on trapping data, eradication is necessary. Eradicating gypsy moth populations when they are small allows an overall decrease in pesticide use. If allowed to establish, controlling gypsy moth requires greater and wide spread use of pesticides.

### For more information

If you have questions, or would like to know more about gypsy moth, contact us:

Oregon Department of Agriculture Insect Pest Prevention & Management Program

635 Capitol St. NE, Ste. 100 Salem, OR 97301 503-986-4636 or 1-800-525-0137

For more information about the Insect Pest Prevention and Mangement program and the services it offers, please visit our website: https://ODA.direct/IPPM

To learn more about the Oregon Invasive Species Council, visit www.oregoninvasivespeciescouncil.org

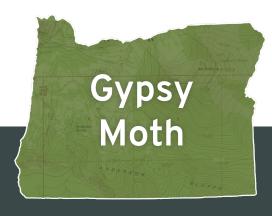




Revised 01/2021

# OREGON DEPARTMENT OF AGRICULTURE PEST ALERT





A Destructive Pest of Natural and Urban Forests



## What makes gypsy moth so destructive?

The gypsy moth is an exotic, highly destructive invasive species that has defoliated millions of acres of trees and shrubs in the northeastern United States. It is established in 19 states in the



Adult gypsy moths (Photo: USDA-APHIS PPQ).

northeast and threatens new states each year. Gypsy moths can spread rapidly if not controlled and will feed on hundreds of tree and shrub species. Preferred hosts include oak, apple, alder, hazelnut, willow, birch, madrone, cottonwood, and plum. When populations are high, they have been shown to also feed on firs and other coniferous species. There are two similar looking strains of gypsy moth that threaten Oregon: the European and the Asian. However, the European female does not fly and the Asian female does. The Asian gypsy moth also has a broader host range and will feed readily on pines and firs, allowing it to potentially spread rapidly in the Pacific Northwest.

# Differences between the two strains

Unlike the European gypsy moth, female Asian gypsy moths can fly. The Asian gypsy moths tend to be attracted to lights, the caterpillars tend to develop more quickly and grow somewhat larger, and they feed on a wider range of host trees. These behaviors suggest that a small population will grow and spread more rapidly.

### What kind of damage does it do?

Gypsy moths pose significant economic, ecological, and recreational costs as populations defoliate natural and urban areas. Tree defoliation along streams can result in higher water temperatures and increased loading of organic material. As areas are defoliated, the entire habitat is affected. Fish and other aquatic organisms, as well as terrestrial plants and animals, can suffer due to the damage that they cause.



Forest defoliation from larval feeding (Photo:Mark Robinson, USDA Forest Service, Bugwood.org)

Gypsy moths may prevent shipments of trees, lumber, and nursery plants by forcing quarantine restrictions, which will affect the economy of an infested area. Increased pesticide use often occurs once populations are established to keep

their numbers from exploding. Caterpillars can induce rashes in those that suffer allergic reactions from contact with caterpillar hairs.



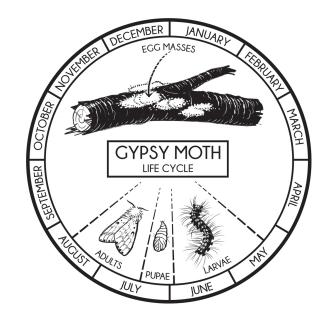
Photo: Didier Descouens, Wikipedia.org

# Biology and life cycle

Gypsy moths produce one generation of offspring per year and lay 50-1000 eggs during the fall, depositing them in small fuzzy masses. Caterpillars hatch during the spring and begin to feed on host plants. In early July, the caterpillars transform into a non-feeding stage called the pupa and begin to develop into a moth. By mid- to late-July adult moths emerge, mate, and the life cycle begins again.



Gypsy moth larva (left) and egg mass. (Photos: Jon Yuschock, bugwood.org and USDA).



#### Get Involved

- Report any suspected gypsy moth life stages to the Oregon Invasives Hotline (oregoninvasiveshotline. org/reports/new).
- 2. Do not move wood products, firewood, plant material, outdoor household articles, or recreational vehicles out of gypsy moth infested areas without proper certification.
- 3. Encourage anyone you know who has recently moved here or visited here from the northeastern US to contact ODA for a free inspection of outdoor household articles and recreational vehicles.
- 4. Volunteer to have a trap placed on your property during the summer.
- 5. Keep up to date with all invasive species issues in Oregon by visiting the Oregon Invasive Species Council website: oregoninvasivespeciescouncil.org



Larval feeding damage on oak leaves (Photo: L. Sachsen, Bugwood.org).