

Gypsy moth

Description

There are two main biotypes of Gypsy moth (*Lymantria dispar*): the Asian gypsy moth (*L. dispar asiatica*) and the European gypsy moth (*L. dispar dispar*). Their appearance is similar, although the female European gypsy moth is usually flightless. This species complex occurs in regions of northern Africa, Asia, Europe, and North America.

The female moth is a large (40–70 mm wingspan), distinctive moth with wavy, dark-coloured bands across the forewings. Males are smaller (30–40 mm wingspan) and brown with darker brown patterns on the wings.

Egg masses contain 100–1000 eggs and are covered with yellowish coloured scales from the female moth. Laying of eggs on vehicles, cargo containers and ships provides a highly effective method of dispersal.

Larvae can grow to 70 mm in length, are dark, hairy and in the later instars have a characteristic double row of dots along the back: five pairs of blue followed by six pairs of red dots.

Primary hosts

The Gypsy moth is an extreme generalist herbivore and is known to complete development on more than 650 species of plants from at least 24 families, including forest, orchard and ornamental trees. This host range includes both Eucalypts (*Eucalyptus*) and Pines (*Pinus*).

Symptoms

Damage from early instar larvae appears as small holes in the leaf. As the larvae grow, the holes become larger and feeding occurs along the leaf margin. In the final instar stage the larvae consume the entire leaf. Large, eruptive populations occur in cycles and appear to be more frequent in the Asian biotype. Generally, larvae feed by day in the early instars and at night from the fourth instar onwards. However, at high population densities, larvae feed continuously, day and night, until the host's foliage is completely removed. Repeated defoliations can cause tree death. Tree mortality also occurs if Gypsy moth defoliation coincides with another stress, like drought. The larval hairs cause allergies in some people.



Male (L) and female (R) adult Gypsy moths



Gypsy moth egg masses on a tree trunk



Larval stage of Gypsy moth



What can it be confused with

The most likely stages to be observed in a plantation are the larvae. There are a number of other hairy lepidopteran caterpillars, native and exotic, that can resemble Gypsy moth larvae, including some native *Lymantria* species. However, the distinctive patterning of the double row of dots along the back of larvae is reasonably diagnostic. Larvae need to be reared through to adult moths to enable specialist diagnosis. Any suspect moths or larvae should be reported.

Plant part affected

Leaves of both broad-leaved and conifer species are affected.

Age of plant

Outbreaks of Gypsy moth are more driven by the prevalence of susceptible species in the landscape than by tree age.

Time of year pest is most likely to be seen

In the northern hemisphere, eggs are laid from late summer to early autumn and hatch in the following spring.

Further information

Threat specific Contingency Plan for the Nursery and Garden Industry. Gypsy Moth – (Asian and European Strains) *Lymantria dispar dispar*. (2009) Plant Health Australia. www.planthealthaustralia.com.au/wp-content/uploads/2013/03/Gypsy-moth-CP-2009.pdf.

US Forest Service. Gypsy moth in North America. www.fs.fed.us (search for gypsy moth).

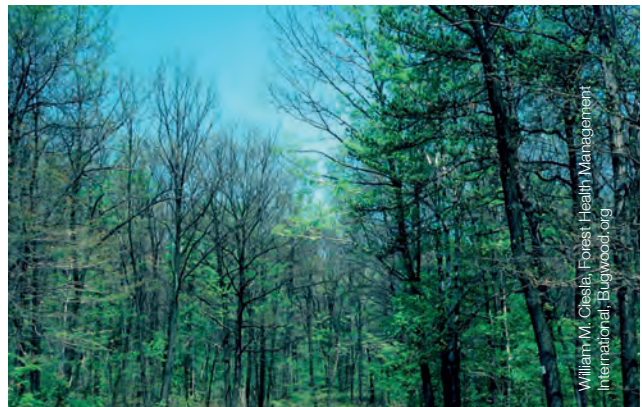
Pests and Diseases Image Library (PaDIL) Asian gypsy moth *Lymantria dispar dispar* race Asian. Available from www.padil.gov.au/pests-and-diseases/pest/main/136285

Pests and Diseases Image Library (PaDIL) European gypsy moth (*Lymantria dispar dispar* race European). Available from www.padil.gov.au/pests-and-diseases/pest/main/136283

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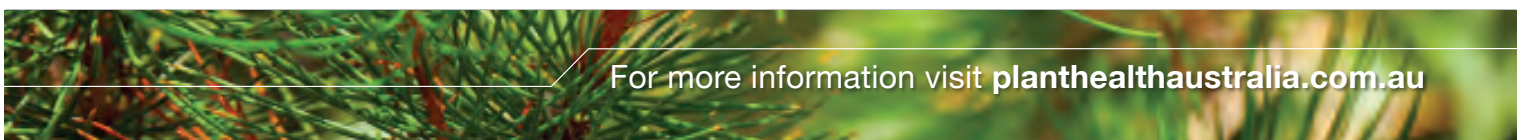
Larval stage. Note colouration



Defoliation of broadleaved forest by Gypsy moth

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**



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