

Leopard moth

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Identification, Biology & Management

The leopard moth (*Zeuzera pyrina*) is an uncommon pest in the UK but can have severe impacts on garden plants or in orchards. It is found in most of England & East Wales but not known to be present in Ireland. Many cultivated species of trees and shrubs are recorded hosts with *Acer* and *Ulmus* spp more susceptible.

Symptoms

Shoot dieback from the tip and hollowing of affected branches. Leopard moth larvae feed inside stems and branches for 2-3 years. An entry hole is found at the shoot tip with accumulation of pellets of sawdust-like frass. Damage extends downwards from this point. Frass may also fall to the ground. Branches may partially snap in the wind and be left hanging in the canopy.

Wounding and sap bleeds may also be apparent on the trunk and branches, as well as holes left by woodpeckers trying to reach the larvae. Old pupae may be found protruding from the bark.

Causal Agent

The larvae will emerge to move between branches a number of times during their lifespan, eventually feeding within the trunk or larger branches. In this final stage, they move upwards rather than down, feeding under the bark and ultimately in the wood. Movement around the tree takes place from August to May. Feeding may kill or severely disfigure younger trees. Woolly aphids can also inhabit old galleries.

The larvae are up to 4cm long, yellow to cream, with a pattern of black spots and hairs on each body segment. The head is dark brown with a large similar looking scale behind it.

The adult moth (Fig. 1) is white with black spots, behind the head (thorax) is white and furry with six distinct black spots. The adults do not feed and only live 8-10 days. They may be found on trees from June to early August, often resting in the day as they only fly at night. Females usually do not fly and will lay eggs on the tree from which they emerged.

Figure 1: Adult leopard moth
(James Solomon, USDA Forest Service, Bugwood.org)



Eggs are laid in bark crevices, generally taking around 10 days to hatch. Hatchling larvae initially cluster in a cocoon before moving to the branches at dusk. They may also disperse to other trees, by using silk threads to ride the wind.

Control

Prune out and destroy any dying branches to kill the larvae; cut below the dieback until completely sound wood or the larvae itself is found. Heavily infested trees may be removed to help protect those around them. Another method involves inserting a thin wire through the entry hole to spear the larva, although the practicality of this is unknown. Attacked trees and those around them will need to be monitored for the next few years at least.

If adults are present, spraying the whole tree with an appropriate insecticide might catch them and their eggs before they hatch. Pheromone traps are available for the adult males and, placed away from trees, may reduce attacks in the following years.

Affected trees should be surveyed for any other sources of stress and supported through plant health care practices e.g. mulching, nutrient analysis, irrigation etc. where appropriate



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