

LDD moth (*Lymantria dispar dispar*) in Ontario

LDD (*Lymantria dispar dispar*) is an invasive species that is native to Europe. It was first detected in Ontario in 1969. This defoliator feeds on a variety of hardwood species, preferring oak, birch, and aspen. During severe outbreaks, softwoods such as eastern white pine, balsam fir, and Colorado blue spruce may be affected. LDD moth outbreaks have become cyclical, typically occurring every seven to 10 years, with outbreaks lasting three to five years.



What does LDD moth do to forests?

- Larvae (caterpillars) feed on new foliage.
- After defoliation, hardwood trees can produce a second crop of leaves during the growing season enabling them to continue to grow.
- Conifers can't produce a second crop of foliage but healthy trees can withstand repeated years of defoliation before branch and twig dieback start to occur.
- Defoliation stresses trees making them more susceptible to damage from secondary pests, drought, and poor growing conditions.

LDD moth life cycle

1. Overwinters in the egg stage — tan-coloured masses — often on the bark of trees.
2. In spring, eggs hatch and larvae ascend the trees to feed on the new foliage. Initially, larvae feed during the day but as they mature feeding occurs mainly at night.
3. Mature larvae, seen in early summer, are about 50 mm long, dark-coloured, hairy, with a double row of five pairs of blue spots down their backs followed by a double row of six pairs of red spots.
4. By July, the larvae are done feeding, pupate for 1 to 2 weeks, then hatch into moths.
5. Male moths are light brown and slender-bodied, while females are white, wingless, and heavy-bodied. They live only long enough to mate and lay eggs.





Control methods

The ministry does not manage LDD moth on private land. Landowners can find licensed insect control service providers with experience in controlling LDD moth populations by checking their local listings.

In spring, placing burlap bands around the tree stem gives the travelling larvae a place to congregate during warm days. The larvae can then be removed and killed.

After larvae have emerged, registered insecticides can also be applied to help protect trees from defoliation. Landowners considering spraying their property should engage a licensed insecticide application business as early as possible, as commercial capacity may be limited.

In fall and winter, removal of egg masses is also effective.

Tip: During a drought year, help your trees by watering them into the fall where appropriate to do so (ornamental or open grown trees). In a woodlot setting, manage trees to allow proper spacing and light to promote a healthy forest. Plant a diversity of species for a forest that is more resilient to insect and disease disturbances!

Ontario's forest health monitoring

The ministry monitors forest health across the province every year. Previous years' LDD moth defoliation information is included in our annual Forest Health Conditions in Ontario reports, available at ontario.ca/page/foresthealth-conditions.

Related information

ontario.ca/page/lymantria-dispar-dispar-ldd-moth

Invasive Species Centre

invasivespeciescentre.ca/invasive-species/meet-the-species/invasive-insects/gypsy-moth/

Invading Species Awareness Program

invadingspecies.com/invaders/forest/ldd-moth/

