



The Elm Leaf Beetle

Xanthogaleruca luteola



Overview

Elm Leaf Beetles are approximately 5 mm long with a yellow/green/brown body bearing two wide dark stripes along their back. They destroy elm trees by eating away at the leaves, defoliating the tree and leaving it vulnerable to further stress and disease.

There are over 45 species of Elms (*Ulmus*) worldwide, originating mainly from Europe and America. Most are large, round-headed deciduous trees with furrowed bark, elliptical leaves with conspicuous veins and serrated edges. All elm leaves have an uneven base and short petioles.

ELB in Australia & Canberra

1989	First detected in Australia — Mornington Peninsula, Victoria
2010	First discovered in Canberra
2012–13	Moderate damage to mature trees in Canberra
2014–15	Severe damage recorded across the ACT
Now	Up to 15,000 Canberra trees affected (~3% of urban forest)

Seasonal Lifecycle

Month	Stage	What to Look For
October	Adults emerge from hibernation	Beetles climbing trunks
November	Eggs laid on leaf undersides	Yellow egg clusters
December	Larvae hatch and feed	Skeletonised leaves
January	Larvae migrate down tree	Brown papery foliage
February	Pupation in soil	—
Mar–Apr	New adults form	Fresh beetles appearing
Apr–Sep	Hibernation	Beetles in leaf litter / soil

Signs of Infestation

Early signs appear as a "shot-hole" pattern in the leaf surface and are typically worse on the **northern side** of the tree. As larvae develop, they skeletonise entire leaves, severely slowing photosynthesis.

Damage thresholds to guide action:

Minor	10–20% defoliation
Moderate	20–50% defoliation
Severe	Over 50% defoliation — act immediately



Adult feeding damage (October)
(November)



Eggs being laid



Larvae skeletonising leaves (December)

Treatment Options

Stem Injections (Recommended)

The most environmentally friendly method for large trees. Best performed in September/October using Imidacloprid insecticide by a qualified horticulturist or arborist. Elms are wind-pollinated so there is no bee impact at injection time, and soil residue is minimal.

Trunk Banding

A low-cost option for home gardeners using horticultural felt, glue or Carbaryl spray. Disrupts the pest's lifecycle but does not eradicate it entirely.

Soil Drenching

High environmental impact on soil microorganisms. Not recommended near waterways. Generally, not the preferred option.

Biological Control

Parasitic wasp *Oomyzus gallerucae*, fly *Erynniopsis antennata*, and a microbial foliar spray of *Bacillus thuringiensis* have been trialled in Europe but are not currently available in Australia.

What Home Gardeners Can Do

- Fertilise trees in September with a general-purpose fertiliser.
- Keep trees well-watered and prevent soil compaction around the base.
- Encourage lacewings, hover flies and other predatory insects.
- Monitor trees regularly and act when defoliation exceeds 20%.
- Report new infestations to your local council or arborist.