

Identifying pests in Tasmania's forests: information sheet 2

Southern *Eucalyptus* leaf beetle

Scientific name: *Chrysophtharta agricola*

Other Common name:

Chrysomelid leaf beetle

Order: **COLEOPTERA** (Beetles)

Characteristic damage

Leaves and buds on the growing shoots of waxy juvenile or intermediate foliage of certain eucalypts are partly or completely eaten (Fig. 1).



Figure 1. *E. nitens* shoot browsed by *C. agricola*

Severe damage: the young tree is completely defoliated.

Less severe damage: the foliage looks sparse and the leaves very ragged (Fig. 2). Damage is most noticeable in trees 1 - 4 years old but the juvenile foliage of older trees is also attacked. These leaf beetles cause some damage every summer to most susceptible trees.



Figure 2 *E. nitens* tree damaged by *C. agricola*
(photo: D. de Little)

Effect on the trees

Severe leaf beetle browsing will slow growth, particularly on small trees, and may reduce wood production for several seasons after the damage. Tree form and wood quality may also be affected.

Trees most at risk

Gums that produce waxy juvenile foliage are the main host species: *E. nitens*, *E. globulus* and *E. dalrympleana*.

Ashes that produce waxy juveniles may also be attacked: *E. delegatensis*.

Time of damage: Summer; mid November - March.



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As soon as the weather starts to warm up the adult beetles emerge from over-wintering and start feeding on the new leaves and laying eggs. Adults and their larvae feed throughout the summer.

The insect

Adult beetles: This native beetle is shiny and dome-shaped about 1 cm long; in the spring it is mahogany-coloured but in summer it changes to dark, speckled grey (Fig. 3).



Figure 3. Adult *C. agricola* laying eggs (about twice life-size)

Eggs: about 30 pale brown eggs are laid in an untidy heap on the tips of young juvenile leaves (Fig. 3). Eggs are laid throughout the summer months.

Larvae: The eggs hatch out into tiny black larvae (grubs) which feed and grow for about four weeks until they are about 1 cm long, black and with an orange stripe on each side (Fig. 4). When they have finished feeding they drop off the leaves and burrow into the soil to pupate. After a few weeks the new adults (brown with red 'skirts') emerge and start feeding on the trees.



Figure 4. *C. agricola* larvae (twice life-size)

Controlling defoliation

Natural control

Leaf beetles have many natural enemies that keep their populations below a damaging level much of the time. Natural enemies may cause up to 90% mortality of leaf beetle eggs and larvae. Predators include ladybirds, soldier beetles, predatory bugs, spiders, wasps and birds. Parasites include wasps and flies.

Chemical control

Populations should be monitored to determine whether they would cause economic damage before deciding to use insecticides.

Dominex®, a synthetic pyrethroid, is registered in Tasmania to control the Tasmanian *Eucalyptus* leaf beetle on eucalypts, but not the Southern *Eucalyptus* leaf beetle. However, it will also kill this beetle as well as most other insects including the natural enemies. Research is currently testing several alternative, more environmentally-friendly insecticides. Refer to entomology staff in Forestry Tasmania for when and how to monitor and control leaf beetle outbreaks.