

Identifying pests in Tasmania's forests

information sheet 8

Eucalyptus weevil

Scientific name: *Gonipterus scutellatus*

Other Common name: Leaf-eating weevil

Order: COLEOPTERA (Beetles)



Figure 1. Damage to tree crown

Characteristic damage

Both juvenile and adult-phase foliage are attacked on *E. globulus* and to a lesser extent, *E. nitens* (Fig 1). Young larvae eat characteristic 'tracks' within the leaf surface while older larvae and adult weevils also feed from the edge of the leaf as well as on the stems and young buds (Fig 2). The 'tracks' in the leaves are the distinctive signature of these weevils. Older larvae cause similar feeding damage as chrysomelid and scarab beetles.

Severe damage: Foliage over the whole tree can be substantially damaged or removed; upper-crown, adult-phase foliage can be reduced to bare leaf midveins and twigs, particularly at the end of summer.

Less severe damage: Only the recently expanded juvenile or adult leaves are damaged and may shrivel or drop off; the damaged shoots may expand into deformed leaves.

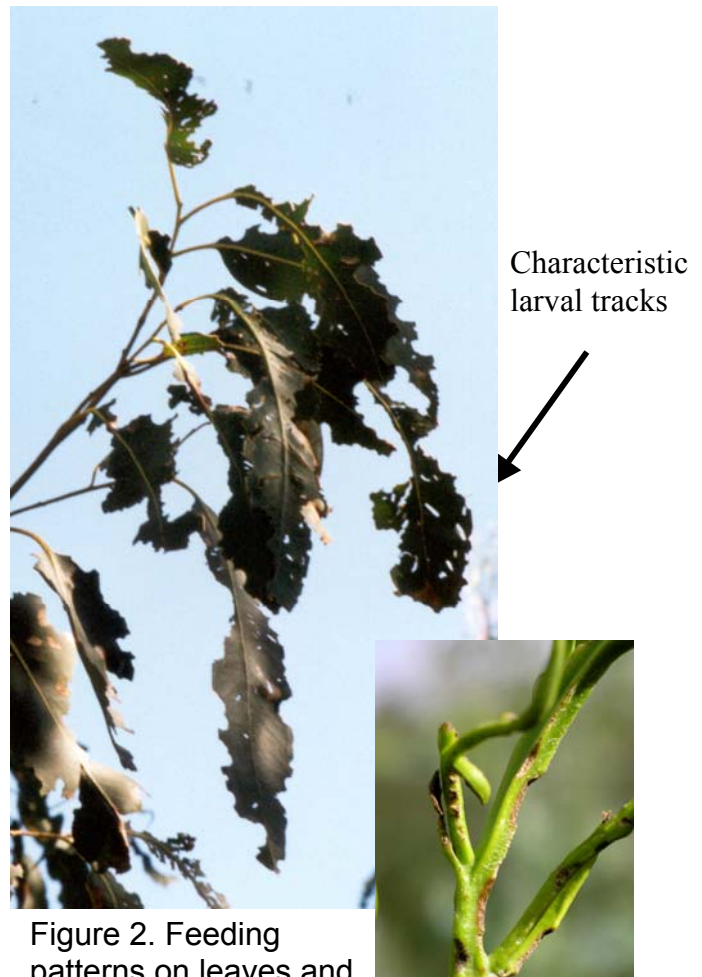


Figure 2. Feeding patterns on leaves and stems



Effect on the trees

Complete defoliation may kill very young trees; lower levels will slow growth and may deform the shoots on older trees, causing a bushy crown.

Trees most at risk

Eucalyptus globulus and *E. nitens* are prime targets, as well as many other eucalypt species including *E. obliqua*, *E. delegatensis*, *E. viminalis* and *E. amygdalina*.

Time of damage:

Early spring through summer; November – March.



Figure 3. Adult weevil (1 cm) and egg pod (3 mm)

The insect

Adult beetles: Solid, light to dark reddish-brown with a characteristic weevil snout, about 1 cm long (Fig 3). They either cling very tightly to twigs or drop off leaves to avoid capture. The adults overwinter clinging to twigs at the base of leaves or in other sheltered places. They move onto the foliage as soon as it starts warming up early in September to start feeding, mating and laying eggs. The next generation of adults that emerge in January will lay more eggs and these will develop into the second generation. These adults will emerge at the end of March and probably not lay more eggs but feed until they commence overwintering.

Eggs: 3 – 8 eggs are laid in a pod about 3 mm long covered with black excreta. They are generally laid on the upper surface of the buds and newly-expanding leaves of both juvenile and adult-phase foliage (Fig 3). Laying commences in September, resulting in two egg-laying peaks: October and January.

Larvae: The legless larvae hatch out of the egg pod after about 3 – 4 weeks (less time in January) so start feeding at the end of October. They can be either black or yellow with tiny black spots and a black stripe when they are bigger (Fig 4). They secrete a slimy substance to help them stick onto the leaf and as they feed, their excreta curls up in a long ‘tail’ behind them. They feed for 5 – 8 weeks and grow through four instars until they are about 1 cm long, when they drop off the leaves to pupate in the soil for about 8

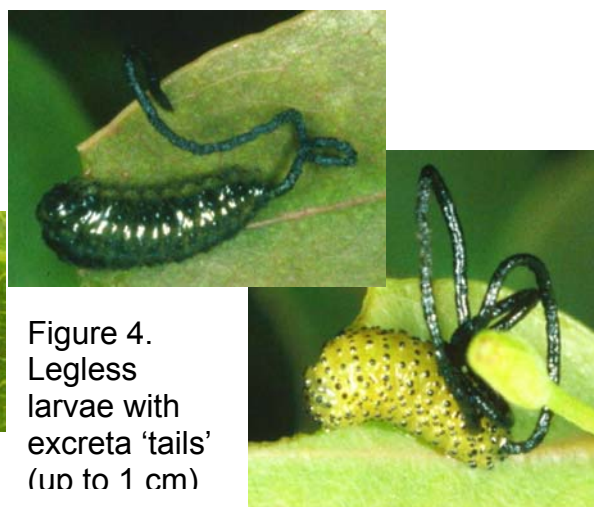


Figure 4. Legless larvae with excreta ‘tails’ (up to 1 cm)

weeks.

Controlling damage

Natural control

Two tiny wasps that parasitise the eggs are important biological control agents. They have prevented eucalypt weevils from causing severe damage to Australian eucalypts. The rate of parasitism should build up over the summer until about 50% of eggs are parasitised. There are also two larval parasitoids, a wasp and a fly, that emerge from up to 50% of the pupae but do not reduce the larval feeding damage.

Chemical control

No insecticides have been tested against or are registered specifically for weevils but Tasmanian legislation allows any insecticides that are registered for use on eucalypt plantations to be used against these weevils. Refer to entomology staff in Forestry Tasmania for when and how to control outbreaks.