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GUMLEAF SKELETONIZER  
(URABA LUGENS)  
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INTRODUCTION  
The lace-like appearance of leaves from many eucalypt trees during spring and summer indicates that they may have been attacked by caterpillars of the gumleaf skeletonizer, Uraba lugens. These caterpillars belong to the moth family Noctuidae, which also contains cutworms and armyworms. The moth occurs in eastern and southern Australia, including Western Australia. In late winter, spring and summer the caterpillars can be seen in parks, gardens and eucalypt forests. A wide variety of eucalypt species and related plants are attacked, including some ornamentals.  

LIFE HISTORY AND GENERAL BIOLOGY  
Adult moths are dull grey with silver-grey forewings, mottled externally with dark wavy lines, and greyish-brown hindwings (Fig. 1). They have a wingspan of 20-30 mm, and the females are generally larger than the males.  
The adults emerge from their cocoons in summer and autumn and live for about ten days. They are poor fliers, and the females generally lay eggs close to their pupation site.  

Skeletonizer eggs are small (approx. 1 mm in diameter), cylindrical in shape and are laid in groups of 100 to 200 or more in parallel rows on the leaf surface (Fig. 2). They are yellow-green when first laid, turning brown as they develop (Fig. 3). They are usually laid on foliage between one and five metres from the ground.  

Moths lay eggs on both upper and lower leaf surfaces and on both mature and juvenile (new flush) leaves, but prefer the lower surfaces of undamaged mature leaves. It is rare to find eggs on damaged leaves.
The young larvae of the gumleaf skeletonizer are small, very hairy caterpillars and are usually found clustered together in a hairy mass on the leaf surface (Fig. 4). Initially they feed in large groups on the leaf surface, close to the egg mass from which they have emerged, and skeletonize the leaf, causing it to brown and wilt.

![Figure 4. Young caterpillars.](image)

Mature caterpillars reach 20-25 mm in length, have distinct yellow and brown markings on the back and carry a 'head dress' of a chain of black head capsules. The head capsules remain on top of the head after each moult instead of being shed with the rest of the larval skin (Fig. 5). Mature caterpillars feed singly and eat almost the whole leaf, leaving only the midrib.

All caterpillars of *U. lugens* have many poisonous hairs and spines on their bodies. Skin contact with the live caterpillars immediately results in a sharp stinging sensation, followed by a persistent itchy skin rash. Contact with the cast larval skins can also result in skin rashes.

When fully grown, the caterpillar forms an elongated, woven cocoon in which to pupate. Pupation usually takes place in litter on the forest floor, on the small twigs of the crown, the upper trunk, or beneath flakes of bark on the rough lower trunk. Stones, pieces of soil, sticks, bark, leaves and hair from the body of the caterpillar may be included, with some of the old head capsules attached to the outside of the cocoon producing a characteristic black spot.

Several generations can occur throughout the year, but more commonly there are two generations; one hatching in January and pupating in late March, with adults emerging in late April and early May. The other generation hatches from June to early August and pupates in early December, with adults emerging in late December and early January.

![Figure 5. Mature caterpillars.](image)
DESCRIPTION OF DAMAGE

The young caterpillars eat only the green flesh of the leaf and avoid the oil cells and veins. This results in a lace-like leaf skeleton. Similar damage is also caused by the young caterpillars of other moths such as cup moth (Limacodidae) and autumn gum moth (Geometridae) [see Leaflet E8]. It is important therefore to identify the insect itself by looking for the distinctive egg rows and caterpillars.

Damage is usually slight and unsightly rather than harmful unless there is a large outbreak. Infested trees have a brown or scorched appearance after severe attack. However, severe attacks on young trees, especially if defoliation is repeated, may result in reduced growth rates and tree death. Most damage is caused by the older caterpillars.

Gumleaf skeletonizer caterpillars attack a wide range of trees, including blackbutt (Eucalyptus pilularis) and Sydney blue gum (Eucalyptus saligna).

CONTROL

The caterpillars are parasitised by small flies and wasps whose larvae develop inside the caterpillar and eventually kill it. However, outbreaks can occur during which parasites and predators appear to contribute little to their control. In humid conditions, populations can also be controlled by certain diseases.

The most effective way to prevent gum leaf skeletonizer damage to small blocks of trees is to regularly monitor the plantation and remove egg batches during winter and early spring. The batches are mostly on the lower leaves, are easily seen, and can usually be reached and removed by hand.

In larger plantations it may be necessary to use chemical controls. The use of a contact insecticide, with the addition of a wetting agent, ensures that the long fine hairs of the caterpillars can be penetrated effectively. Systemic insecticides can also be successful as long as the insects are feeding (larval stage) when the insecticide is applied. Recognition of the early stages of infestation is critical for successful chemical control.

Information on control of this insect including chemical and recommended spray rates is contained in Leaflet Cl. - Control of insects on eucalypts.

FURTHER INFORMATION
