



# GUM LEAF SKELETONISER



Gum leaf skeletoniser caterpillars have hairs that can cause itching or a rash on skin contact. If you find gum leaf caterpillars, avoid touching them.



Leaf skeletonised by young caterpillars.

**The threat:** Gum leaf skeletoniser defoliates eucalypt trees and poses a public health risk. Avoid spreading this pest – do not transport eucalypt bark and leaf material.

## WHAT IS GUM LEAF SKELETONISER?

Gum leaf skeletoniser is an Australian insect (*Uraba lugens*) that causes damage mainly to gum (eucalypt) trees by eating the foliage. The young caterpillars “skeletonise” gum leaves by eating the softer parts of the leaves, avoiding the veins. Older larvae are capable of eating whole leaves thus increasing damage. Repeated defoliation can slow tree growth, or in severe cases, kill individual trees.

Gum leaf skeletoniser was first detected in New Zealand in 1992 in Tauranga, where it was eradicated. The accidentally-introduced pest was later detected in Auckland in 2001. Gum leaf skeletoniser is now widespread in the greater Auckland region and is found in Northland, Coromandel, Waikato, Bay of Plenty, Hawke’s Bay and Nelson. It has the potential to become a serious forest pest as well as a public health nuisance. For this reason it is important to minimise the spread of the insect.

## LIFE CYCLE OF THE GUM LEAF SKELETONISER

This diagram shows the lifecycle of the gum leaf skeletoniser in the warmer regions of New Zealand. The green sections of this diagram indicate the periods when gum leaf skeletoniser can become a problem to forest growers and the general public. In a warm

climate such as Auckland, the insect can complete two life cycles per year. In colder regions, it is likely that only one batch of eggs will be laid per year during the late summer period.

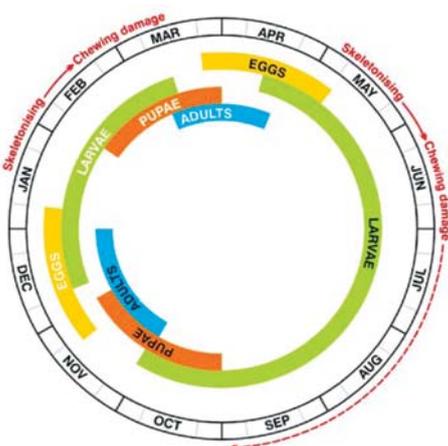
## WHEN TO LOOK FOR GUM LEAF SKELETONISER

Gum leaf skeletoniser causes damage when caterpillars hatch and begin to feed on foliage. Chewing damage will become visible during January-March and May-September.

The larvae from each egg batch feed in close proximity to where the eggs were laid. This leads to distinctive damage patches in the canopy, with several leaves showing the characteristic skeletonised pattern. Caterpillars have long hairs on their body and a distinctive “hat” on their head so they can be easily identified.

The egg masses are laid in neat, parallel rows on the leaves during December and April. This distinguishes them from Spodoptera (tropical army worm) which lay similar eggs in clusters.

It is unlikely that members of the public will notice other life stages of gum leaf skeletoniser, since the adult moth is silvery-grey with no distinguishing features to the untrained eye. Equally, the pupae are very well camouflaged and usually hidden within the crevasses of bark so are rarely seen.



## WHEN IS IT A PUBLIC HEALTH NUISANCE?

Caterpillars are covered with poisonous hairs, which cause painful stings to most people. This may be followed by a persistent itchy rash which can last for a number of days.

Although the caterpillars do not tend to travel far during their lifetime, they frequently drop off the leaves on which they are feeding. Fallen caterpillars can be an issue in playgrounds and sports fields where host trees are present.

It is also important to note that the poison remains in the discarded hairs after the caterpillar sheds its skin. A single caterpillar will repeatedly shed its skin during the larval stage. These dry skins can accumulate in leaf litter at the base of the tree and remain a problem for some time. People most at risk from gum leaf skeletoniser stings are children playing in infested areas and people who work with eucalypts or handle leaf litter.

## HOW TO REDUCE HEALTH RISKS

A high level of control is needed in sports parks and playgrounds where eucalypt trees are present. This requires close monitoring of trees, with the option of using stem-injected organophosphates to kill the larvae at the earliest possible

stage of their development. Where contact with shed skins is unavoidable, such as when clearing away infected leaf litter, wearing long sleeved and long legged fitting clothing and garden gloves should minimise skin reactions.

## REDUCING THE SPREAD OF THIS PEST

The spread of gum leaf skeletoniser can be minimised by avoiding transportation of all bark or leaf material, particularly during October/November or February/March when the pupae are living in the bark.

If trees are suffering visible damage, or if there are more than about five egg batches on recently planted seedlings or saplings, then chemical control methods should be considered. The best time to spray is part way through the larval stage with possible follow-up sprays required as the caterpillars mature.

In January 2011, an introduced parasitic wasp (*Cotesia urabae*) was liberated in Auckland in an attempt to control the skeletoniser. It did establish but it is too early to tell how effective it is. The wasp was imported from Australia into quarantine at Scion several years earlier and after rigorous host testing ERMA approved its release.



Gum leaf skeletoniser egg masses.



Gum leaf skeletoniser moth.



Typical skin reaction following gum leaf skeletoniser sting.

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