

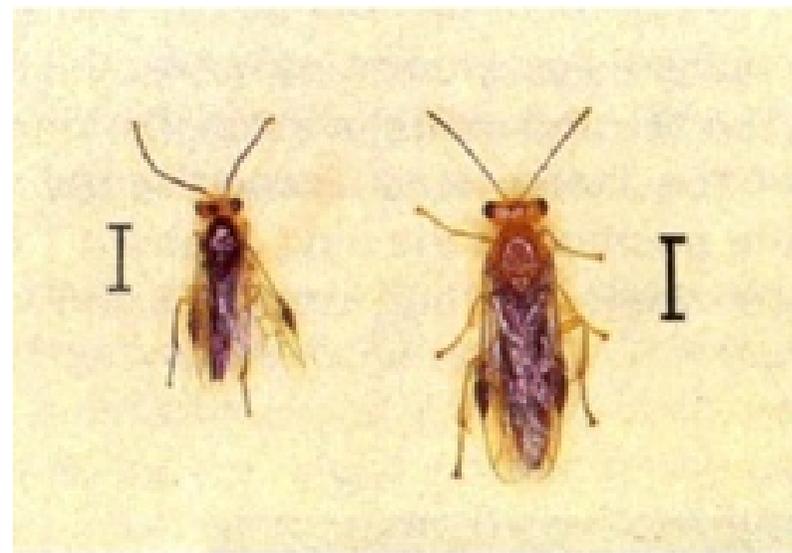
Disease Profile

Common name	Leaf blister saw fly	Family	Pergidae
Genus/species	<i>Phylacteophaga eucalypti</i> , <i>P. froggatti</i>	Order	Hymenoptera
Pest/disease type	Sawflies are wasp like insects, the larvae are leaf chewing.		
Host	Members of the Myrtaceae family are affected particularly <i>Eucalyptus</i> , <i>callistemon</i> and <i>Lophostemon</i> . <i>Eucalyptus nicholii</i> and <i>tereticornis</i> are particularly vulnerable.		
Symptoms	The larvae feed within the leaf creating tunnels causing blisters on the leaf surface. The tunnels are usually irregular. The leaves appear papery and grey-brown in colour, the bottom of the leaf remains in tact. Exit holes can be seen on top of the blisters after larvae have left the protection of the leaf. This damage leads to early abscission. Usually leaves up to 3m in height are affected.		
Identifying features	<p>Eggs: are laid singly within the leaf after the adult female cuts a slit in the bottom surface of the leaf with her ovipositor. A raised black mark appears on the top side of the leaf and marks where the egg was laid.</p> <p>Larvae: Fully grown larvae are about 10mm long. They have an orange head and a soft white translucent body that is flattened to fit within the leaf.</p> <p>Pupae: pupae are small and remain within the leaf to pupate within a silken cocoon. The leaf may remain on the tree, fall to the ground or be removed from site. As long as the leaf is not crushed metamorphosis will occur.</p> <p>Adult: the adult is 4-6mm long and has an orange head and thorax with a black abdomen. The female has orange toward the end of the abdomen the male does not. The antennae are prominent and are brown or black. The wings are clear and the legs are pale yellow. The females saw like ovipositor gives the insect its common name, sawfly.</p>		
Life cycle- Complete metamorphosis	<p>There are many generations per year. The life cycle is continuous. Cold winters do slow the reproduction, as soon as temperatures start to warm the population increases. Growth from egg to adult takes about 6 weeks.</p> <p>Eggs: There may be as many as 70 eggs laid within the leaf normally near the midrib. The eggs hatch within 7 days</p> <p>Larvae: the larvae start small and increase with size as they eat. They feed for 3-4 weeks before beginning the process of pupation. The larvae go through 4-5 instars.</p> <p>Pupae: pupation occurs about 4 weeks after mining begins. The larvae spin a cocoon and than attach to both sides of the leaf, its location is obvious as there is a raised section within the leaf. Pupation takes about 10 days. After which the adult cuts through to emerge.</p> <p>Adult: The adult only lives for 5 days. The adult does not feed.</p>		
Control options			
Environmental controls	Heavy rainfall limits population numbers. The damaged leaf surface will break easily which allows water to penetrate the chambers created and flood the larvae.		
Biological controls	Parasitic wasps lay their eggs within the body of the larvae which are easily located. Small birds such as pardalotes attack both larvae and adults		
Chemical control	Systemic insecticides such as Imidacloprid can be applied. The chemical is ultimately consumed by the larvae once it reaches the leaf.		



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Photo 1. Damage to *Eucalyptus botryoides* leaf. Note exit holes.



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Photo 2. Adult Male on left and larger female on right



www.pbase.com/larena/image

Photo 3. Male adult sawfly



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References:

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