

Leafblister sawfly

Scientific name: *Phylacteophaga froggatti*

Order: Hymenoptera

Family: Pergidae

Phylacteophaga froggatti is distributed in south-eastern Queensland, eastern NSW, Victoria, Tasmania, South Australia and Western Australia. It is not native to Western Australia, with the first record of this species reported in 1978. It can be found in most blue gum plantings but is most prevalent in coastal and subcoastal districts, causing moderate damage. In many areas, leafblister sawfly often occurs in combination with autumn gum moth and *Mycosphaerella* leaf spot. These species combined can cause high levels of defoliation to the lower crown of young trees. Sawfly population levels and the severity and timing of damage can vary greatly between years making management difficult.

The larva is the only damaging stage, and only trees in their first two to three years of growth may be seriously affected. Juvenile foliage is generally damaged although some adult foliage may occasionally be affected. Larval feeding leads to blotching of the leaf surface, which reduces photosynthetic capacity. Damage becomes obvious towards the end of larval development when large leaf blisters are formed, and therefore, without a close examination, larvae in early stages can escape detection. Extreme larval damage can result in premature leaf senescence.

The egg is very small and ovoid (0.5 - 0.75 mm) and is laid under the leaf surface by the female sawfly. Oviposition results in a small, raised, green or brown egg spot. Larvae are non-descript, coloured green-yellow and legless. Adults are small and black and orange coloured, though they are rarely seen. The main identifying feature would be the raised blisters or "mines" seen on the lower crowns of affected juvenile leaves.

Leafblister sawfly undergoes several generations (probably 5-7) per year and can be found at all times of the year. Each generation completes in about 6 weeks during summer and as long as several months during winter. Larvae develop inside the leaf and go through 4 -5 instars. At each moult the larva increases in size as does its leaf-mine. Larval development can occur very quickly, especially at high temperatures, where all larval stages can be completed in approximately 2 weeks. Larvae pupate within the leaf mine they create by spinning a cocoon in the centre of the mine, which results in the formation of a raised blister. The pupal stage is also completed in about 2 weeks. Adults emerge from the leaf by chewing a small hole in the blister mine.

Sawflies



Phylacteophaga frogatti
Exposed larva (left) adult (right)



Clockwise from left: Two year-old tree with over 50% leafblister damage to the lower crown; leaf with early stage blisters forming; late stage blisters, note the holes from which adults have emerged