

NEW EUCALYPT FEEDING INSECT ESTABLISHED IN NEW ZEALAND

The red gum lerp psyllid, *Glycaspis brimblecombei* is now established in New Zealand. The psyllid was originally detected on 5-year-old *Eucalyptus camaldulensis* in northern Canterbury in early winter 2017. A well-established population appeared to be present and MPI has now stood down its response, opting not to eradicate in this instance.

This psyllid is native to Australia and has invaded eucalypt growing regions around the world, including North and South America, Africa, and Europe. Its hosts are in the *Symphyomyrtus* sub-genus (favourite food for most euc pests here). The preferred host species is probably *E. camaldulensis*, while other notable, but less susceptible, hosts are the adult leaf forms of *E. nitens* and *E. globulus*.

Red gum lerp adults are efficient dispersers and known overseas to spread rapidly once established. Numbers can rapidly increase, with females recorded laying up to 700 eggs in total in clusters of 50-75. This pest uses its piercing mouth parts to suck sap from its host tree, thereby damaging the host. The juveniles (nymphs) also secrete a distinctive waxy protective cover over themselves, called a lerp. It is unknown how many generations a year this psyllid will complete, but anywhere from two to four is likely based on overseas data.

The most common damage from this pest is leaf discoloration. However, in heavy infestations, severe leaf drop and twig dieback can occur. In California, the severe infestations of this psyllid facilitate the attack of secondary pests, such as long horn beetles (e.g., *Phoracantha* spp.), and without proper management, severe, repeated attacks can result in tree death. Other nuisance impacts may come from the honeydew the psyllid secretes and the associated sooty mould that grows on it, as well as wasps attracted to the honeydew.

Eucalypts in New Zealand are already hosts to numerous sap sucking psyllids, including the closely related species *Glycaspis granulata*.

Glycaspis granulata is attacked by the self-introduced parasitoid *Psyllaephagus bliteus*. This very same parasitoid has been introduced into multiple countries to control *G. brimblecombei* with variable success. Lab experiments overseas have shown this parasitoid can attack and

complete development on all juvenile life stages. We consider there is a high likelihood that this parasitoid will be effective here against both hosts. Generalist predators such as ladybirds and spiders are also likely to feed on this



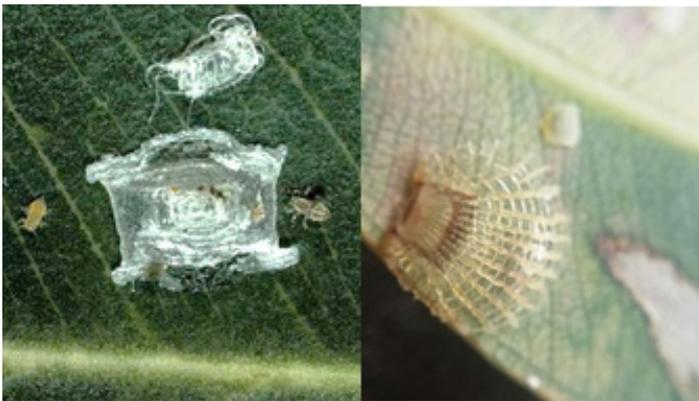
The eggs, adults, lerp and juvenile (nymph) of *Glycaspis brimblecombei*
Credit: INaturalist users' psyllidhipster, quantron, and the EPPO.

psyllid but are unlikely to have a significant impact on pest numbers.

The lerp of *G. brimblecombei* is superficially very similar to *G. granulata* in the field, but can be readily distinguished from that of another psyllid *Cardiaspina fiscella*.

Adult *G. brimblecombei* are described by CABI as “approximately 4-5 mm in length from the head to the wing tips. They are yellow or light green in colour with contrasting dark eyes, and occasional dark-brown markings”.

The size of the juveniles depends on their age, but will be up to 2 mm in length if you remove their protective lerp. “The body colour is yellowish orange, with dark-brown coloration on the wing pads, legs, antennae, last abdominal segments, and in blotches on the dorsal areas of the head and thorax. The wing pads and other parts of the body have bright white spots associated with setal (eds. setal is a hair or bristle) positions”. The eggs “are laid randomly on the leaves or in clusters of 50-75 eggs, usually at an angle or perpendicular to the plant surface. They are spindle-shaped, yellow or cream coloured, and are slightly less than 1 mm in length”.



The lerp of the already established psyllids *G. granulata* (left) and *Cardiaspina fiscella* (right).

Credit: Scion & NatureWatch NZ user jeffryett

Andrew Pugh, Toni Withers, & Stephanie Sopow

FOREST PROTECTION IN THE AWARDS

In September, Ian Hood was confirmed as a fellow of the Australasian Plant Pathology Society, joining other notable NZ members, such as Alison Stewart and Ross Beever. Ian’s long career working on decay fungi, *Armillaria* and Swiss needle cast was fittingly recognised by this award. Near the other end of the career length scale, Nari Williams received an Early Career Researcher Award at the Science New Zealand national awards dinner in early November for bringing together research on *Phytophthora* in New Zealand through the Healthy Trees Healthy Future programme, and her own research efforts and stakeholder engagement, particularly with tangata whenua on kauri dieback. Lastly, the biosecurity team’s science impacts over the last 25 years, including pest eradications, exclusion of pitch canker, and successful pest management of nectria flute canker and market access assurance were recognised by receiving the Science NZ Team Award.



Dr Ian Hood receiving his award at the APPS meeting

Lindsay Bulman