

## Identifying insects from the Superfamily Psylloidea

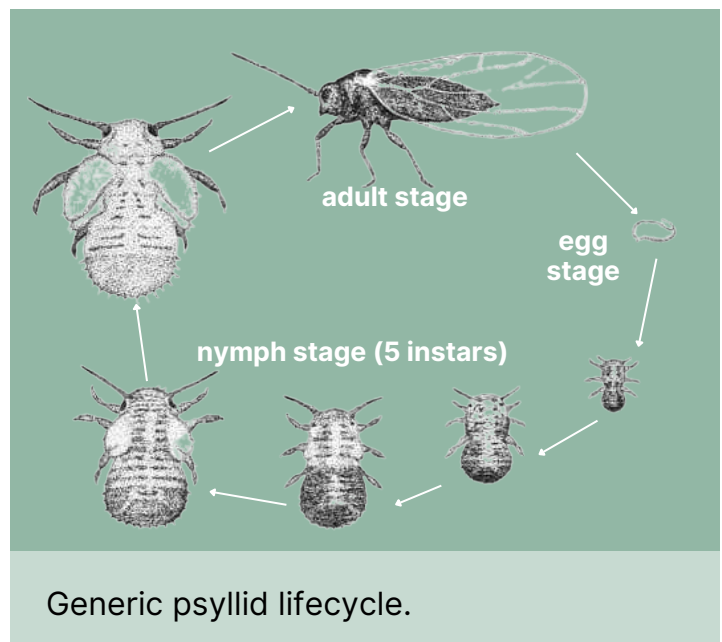
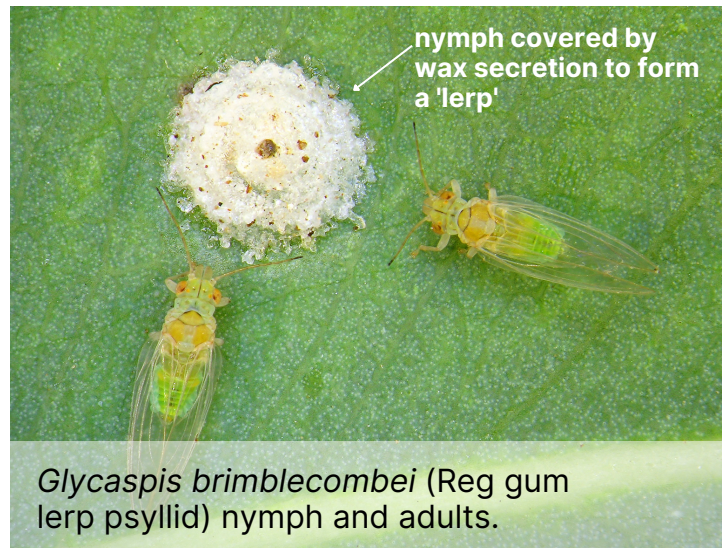
### What is a psyllid?

Psyllids are also known as 'jumping plant lice'. They belong to the Superfamily Psylloidea (Hemiptera: Sternorrhyncha), which is grouped into approximately 4000 species found worldwide. Within the Superfamily there are seven families so far described, of which six are present in Australia: Aphalaridae, Calophyidae, Carsidaridae, Liviidae, Psyllidae and Triozidae. Each family has a number of unique morphological characteristics. With almost 1000 species in nearly 70 genera, Triozidae is one of the largest families of Psylloidea.

Psyllid species have evolved to feed on a specific plant species or adapted to feed on a group of related plants. For instance, the tea tree psyllid (*Trioza melaleucae*) is so named for its preference for feeding on *Melaleuca* species.

### The psyllid lifecycle

Psyllids are 'hemimetabolous' and undergo an egg-nymph-adult life cycle. There are five nymph stages. Nymphs have very different morphological characteristics to adults. Nymphs look like small, flat, clear scale insects. Nymph stages involve sequential moults and subsequent increases in nymph size. With each moult, specific body parts become more developed and easier to distinguish. For instance, nymphs are wingless but have both forewing and hindwing pads that become more easy to distinguish in late stage nymphs. Nymphs of many psyllid species secrete wax filaments or form covers, often called 'lerps', composed of wax and solidified honeydew.



## Identifying adult psyllids

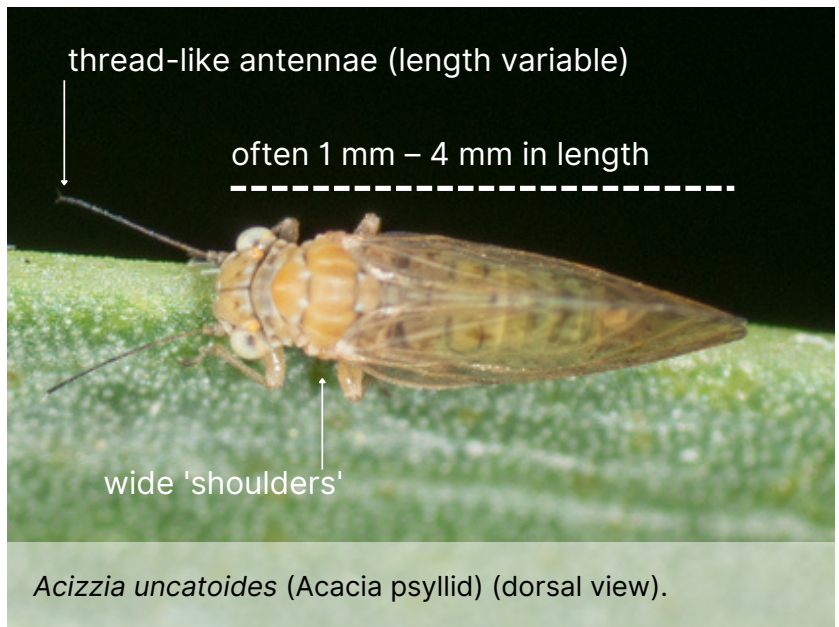
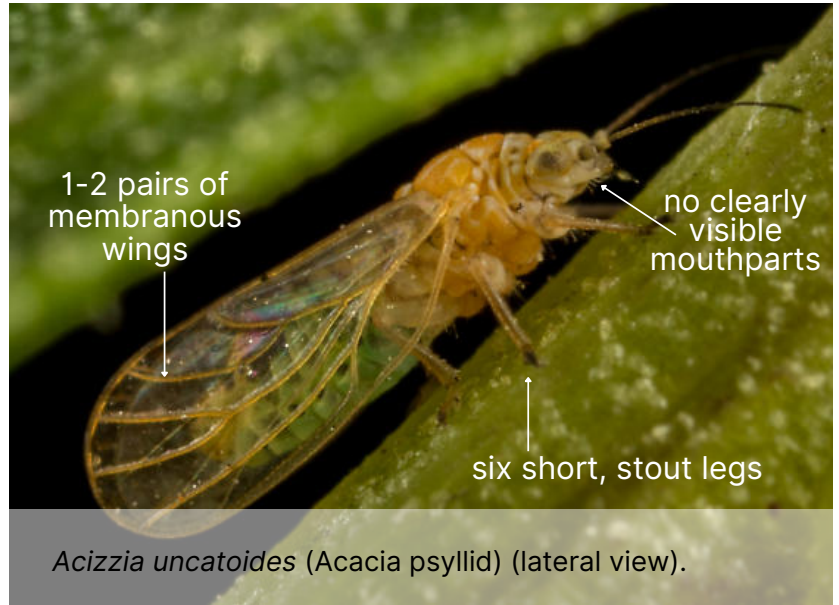
Adult psyllids resemble miniature cicadas. They hold their wings above their bodies and are similar in size to large, winged aphids (3-4mm long). Wings are usually membranous, with visible wing venation, although the extent of wing pigmentation can vary between species.

They have short, stout legs and thread-like antennae that are relatively short (shorter than the length of their bodies).

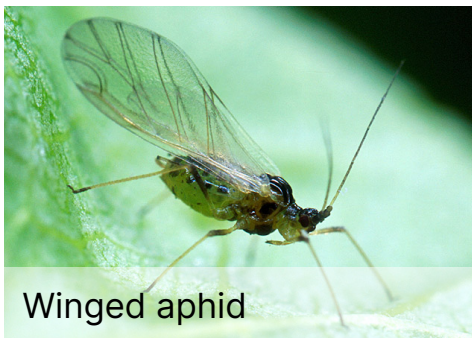
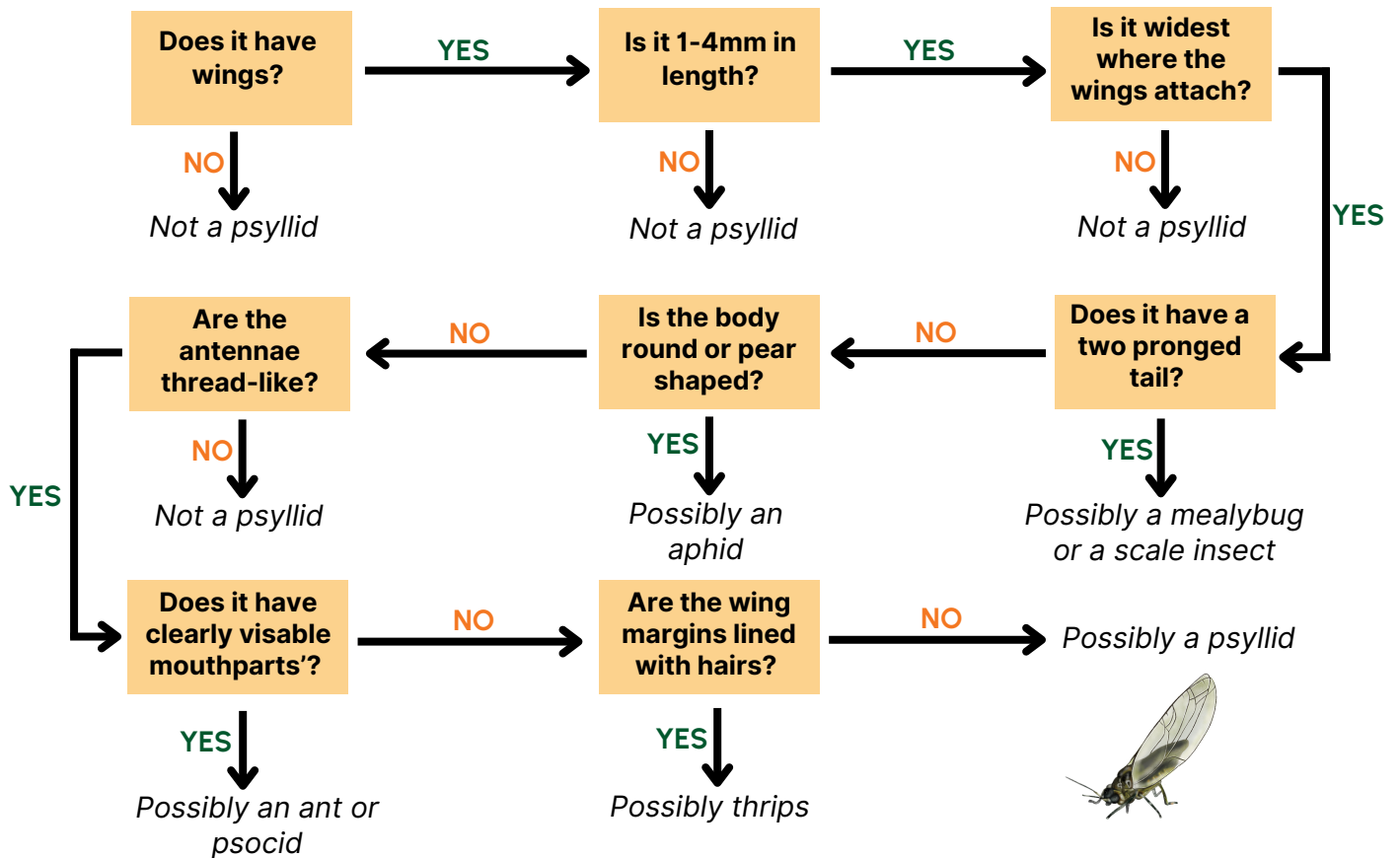
## Similar invertebrates

Psyllids are related to aphids, scale insects, phylloxerans, and whiteflies. Together, these invertebrate superfamilies are categorized under the Suborder Sternorrhyncha (Homoptera), which is one Suborder within the Order Hemiptera (true bugs).

The following page provides guidance on how to differentiate these insect groups from species of the Superfamily Psylloidea.



## Have you found an adult psyllid?



Winged aphid



Winged scale insect



Psocid



Whitefly



Thrips



Winged ant