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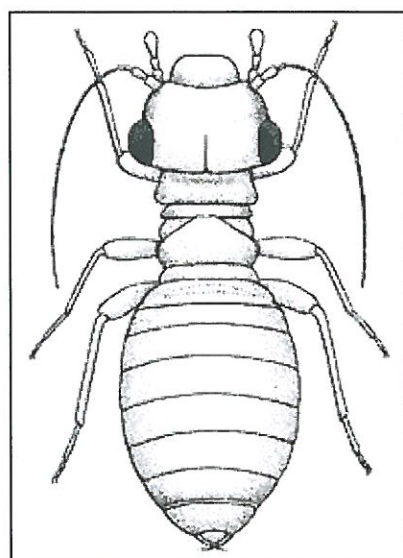
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## Psocoptera: booklice

### Characteristics

Psocids or booklice as they are commonly known are small usually dull coloured insects with a body length of 1-10 millimetres. All psocids possess silk glands and in some species large webs are formed in which the community lives. Psocids are sometimes mistaken for [aphids \(Hemiptera\)](#) but can be distinguished by the following features:



*Lepinotus reticulatus* (TROGIIDAE)

- Soft bodies
- [Mandibulate](#) mouthparts
- Large head with protruding eyes
- Long antennae
- 2 pairs of [membranous](#) wings held rook-like over the abdomen when at rest. Wings have reduced venation and forewings are larger than hind wings. Some species are wingless

The [nymphs](#) of psocids generally resemble adults but lack wings. Many of the common indoor species of worldwide origin belong to the TROGIIDAE family such as *Lepinotus reticulatus*.

### Life Cycle

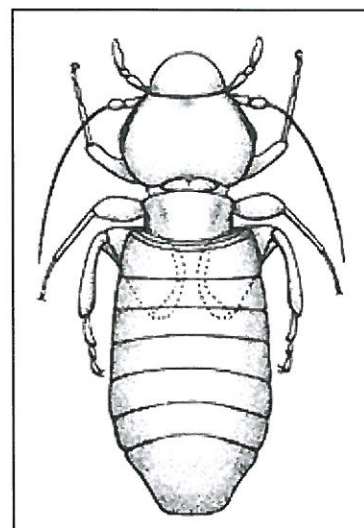
Most male psocids perform a mating dance and after fertilisation the female lays her eggs under bark, leaves or a silk mat. Eggs may be laid one at a time or in clusters. [Nymphs](#) appear similar to the adults and usually develop through an average of 6 [moult](#)s before they reach maturity, although some species begin to develop wing buds by the second [instar](#) stage.

### Feeding

Psocids feed mostly on organic matter such as lichens, algae, plant spores and dead plant and insect material. A few species have become pests and feed on stored products and paper materials, which is where they get the name 'booklice'.

Members of LIPOSCELIDAE are commonly found under bark. *Liposcelis bostrychophilus* are small and flattened with enlarged hind [femora](#). *Liposcelis* species can occur in large numbers in houses and other buildings, merchandise stores and ships where they become pests by damaging stored food products (see below), paper products such as books and insects collections.

Many of these species are found worldwide and the traditional 'booklice' species belongs to this genus.



*Liposcelis decolor* (below left) is a psocopteran species that commonly occurs in grain storage. This species often becomes a serious pest as it can build up huge populations contaminating grain. In the image (below right) the dark brown patches on the top of this mound of grain are thousands and thousands of *Liposcelis decolor*.

*Liposcelis bostrychophilus*  
(LIPOSCELIDAE)



*Liposcelis decolor*

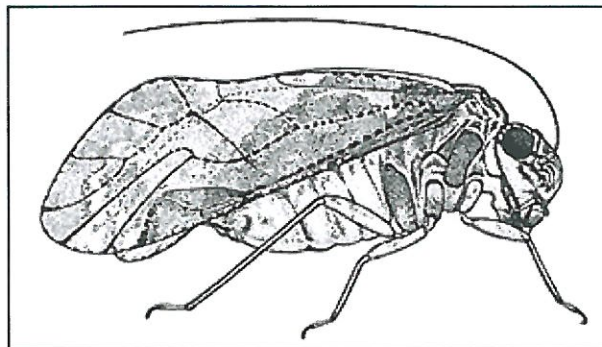


*Liposcelis decolor* infestation

#### Habitat

Psocids live in a wide variety of habitats throughout most of Australia, preferring moist environments. The majority can be found on vegetation, including plant foliage, branches and bark or amongst leaf litter. A few species are found in association with humans and occur in amongst books or in food products.

*Myopsocus australis* is a large common species, recognisable by its mottled wings and can be found on paling fences or the bark of trees where they feed on algae and lichens.



*Myopsocus australis*