

Fauriellidae



Australian fauna

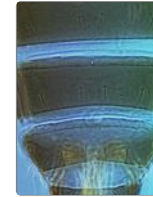
No member of this Family is known from Australia.

Biology

Very little is known about the five species placed in the family Fauriellidae. Two species from South Africa are known only from the original material from which they were described. No host information is available for *Fauriella natalensis*, but *Opisthothrips elytropappi* was described from *Elytropappus rhinocerotis*, a species of Asteraceae. The females of this latter species differ from the other four species placed in Fauriellidae in having a remarkably weak ovipositor (Mound *et al.*, 1980); this suggests that the females cannot insert their eggs into plant tissues but must deposit eggs superficially, possibly within the florets of their host. *Parrellathrips ullmanae* is also known from a single series of females, and these were collected together with larvae from the flowers of *Garrya vealchii* [Garryaceae] in California (Mound & Marullo, 1999). The two European species in this family, *Ropotamothrips buresi* and *R. ressl*, are possibly associated with *Artemisia* (zur Strassen, 2003).

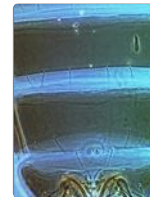


Parrellathrips ullmanae, female *Parrellathrips ullmanae*, antenna



Parrellathrips ullmanae, head & thorax

Parrellathrips ullmanae, female sternites VI-VIII



Parrellathrips ullmanae, female sternites VI-VII

Geographic distribution

Fauriella and *Opisthothrips* were described from South East Africa, *Parrellathrips* from California, and the two species of *Ropotamothrips* have been found across southern Europe between Spain and Georgia.

Recognition

The five known species of Fauriellidae do not share single autapomorphy, but exhibit a confusing pattern of character states each of which is found in other families. The antennae are similar to those of Merothripidae and Melanthripidae, with the distal segments distinct from each other, most segments bearing rows of microtrichia, and the sensoria at the apex of segments III and IV are transverse. However, sternite VII in females is similar to that of Thripidae, and the metanotal median setae arise close to the posterior margin as in Aeolothripidae and Merothripidae.

Genus and species diversity

A total of four genera and five species are known in the Fauriellidae (ThripsWiki, 2020).

Family relationships

The Fauriellidae is not characterised by any single feature, the four included genera showing a confusing pattern of character states that are intermediate between those found in several other families. There is thus no reliable basis for considering that the four genera represent a unique clade (Mound & Marullo, 1999). Fauriellidae is referred to by Bhatti (2006) as the Hemithripidae, although *Hemithrips* Bagnall is based on a poorly preserved amber fossil on which few details can be observed (Mound & Morris, 2007).

Thysanoptera systematics

The classification adopted here is a compromise between practicality and the ideal of a classification based on phylogenetic relationships. The two sub-orders, Terebrantia and Tubulifera, are considered sister-groups (Buckman *et al.*, 2013), but relationships among the eight families of Terebrantia remain far from clear (and there are also five families based on fossils - see ThripsWiki 2020). A radically different classification was proposed by Bhatti (1994, 1998, 2006) that recognised two Orders, 10 superfamilies and 40 families. This classification is based on autapomorphies rather than synapomorphies, and thus is essentially phenetic rather than phylogenetic.

References

- Bhatti JS (1994) Phylogenetic relationships among Thysanoptera (Insecta) with particular reference to the families of the Order Tubulifera. *Zoology (Journal of Pure and Applied Zoology)* **4** (1993): 93–130.
- Bhatti JS (1998) New structural features in the Order Tubulifera (Insecta). 1. Amalgamation of labro-maxillary complex with cranium and other cephalic structures. *Zoology (Journal of Pure and Applied Zoology)* **5**: 147–176.
- Bhatti JS (2006) The classification of Terebrantia (Insecta) into families. *Oriental Insects* **40**: 339–375.
- Buckman RS, Mound LA & Whiting MF (2013) Phylogeny of thrips (Insecta: Thysanoptera) based on five molecular loci. *Systematic Entomology* **38**: 123–133.
- Mound LA, Heming BS & Palmer JM (1980) Phylogenetic relationships between the families of recent Thysanoptera. *Zoological Journal of the Linnean Society of London* **69**: 111–141.
- Mound LA & Marullo R (1999) Two new basal-clade Thysanoptera from California with Old World affinities. *Journal of the New York entomological Society* **106**: 81–94.
- Mound LA & Morris DC (2007) The insect Order Thysanoptera: classification versus systematics. Pp 395-411, in Zhang ZQ & Shear WA [eds], Linnaeus Tercentenary: Progress in Invertebrate Taxonomy. *Zootaxa* **1668**: 1–766.
<http://www.mapress.com/zootaxa/2007f/zt01668p411.pdf>
- ThripsWiki (2020) *ThripsWiki - providing information on the World's thrips*. Available from:
http://thrips.info/wiki/Main_Page [accessed 29.x.2019].
- zur Strassen (2003) Die terebranten Thysanopteren Europas und des Mittelmeer-Gebietes. *Die Tierwelt Deutschlands* **74**: 1–271.