Uzelothripidae

Australian fauna

The only known living species of this Family has been collected rarely in Australia, near Brisbane, and is probably introduced from the Neotropics.

Biology

The only known species in this family breeds on dead twigs, where it presumably feeds on fungal hyphae.

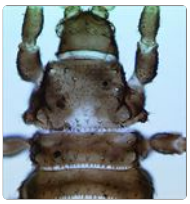
Geographic distribution

Described originally from Belem at the mouth of the Amazon river in northern Brazil, *U. scabrosus* has also been found breeding at several sites in Singapore over a period of more than 25 years. In Australia, near Brisbane, four wingless females were collected from *Eucalyptus* bark in 2009, but despite extensive searching it has not been found elsewhere (Tree, 2009).

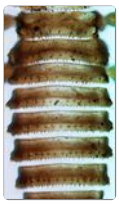
Uzelothrips scabrosus, female

Uzelothrips scabrosus, antenna

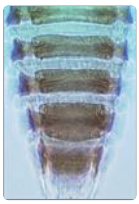
Uzelothrips scabrosus, sensorium on antennal III



Uzelothrips scabrosus, head & thorax



Uzelothrips scabrosus, thorax and abdomen



Uzelothrips scabrosus, sternites V-VII

Recognition

The structure of the antennae of the two known species of Uzelothripidae is unique amongst Thysanoptera. The terminal (seventh) segment is at least 30 times as long as wide, and the third segment bears a circular sensorium ventrally. Adults are very small, usually wingless, and have the body surface strongly sculptured with a prominently lobed craspedum on the posterior margin of each tergite. The pronotum is trapezoidal, with two pairs of broadly capitate posteroangular setae, and females do not have an external serrate ovipositor.

Genus and species diversity

Uzelothrips scabrosus is the only known living member of the family Uzelothripidae, although a very similar species, *eocenicus*, is known only as a fossil.

Family relationships

The systematic relationships of *Uzelothrips* are obscure. The fore wings bear setae with the cilia arising from sockets, and the tentorium is well developed within the head (Mound *et al.*, 1980). These character states all indicate a relationship to the Terebrantian families, rather than to the Phlaeothripidae, despite the absence of an external ovipositor in females. *Uzelothrips* may possibly represent a very early offshoot from the Protothysanoptera, and Bhatti (2006) placed it in its own superfamily, Uzelothripoidea.

Thysanoptera systematics

The classification adopted here is a compromise between practicality and the ideal of reflecting phylogenetic relationships. The two sub-orders, Terebrantia and Tubulifera, are probably 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

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