

Pezothrips kellyanus

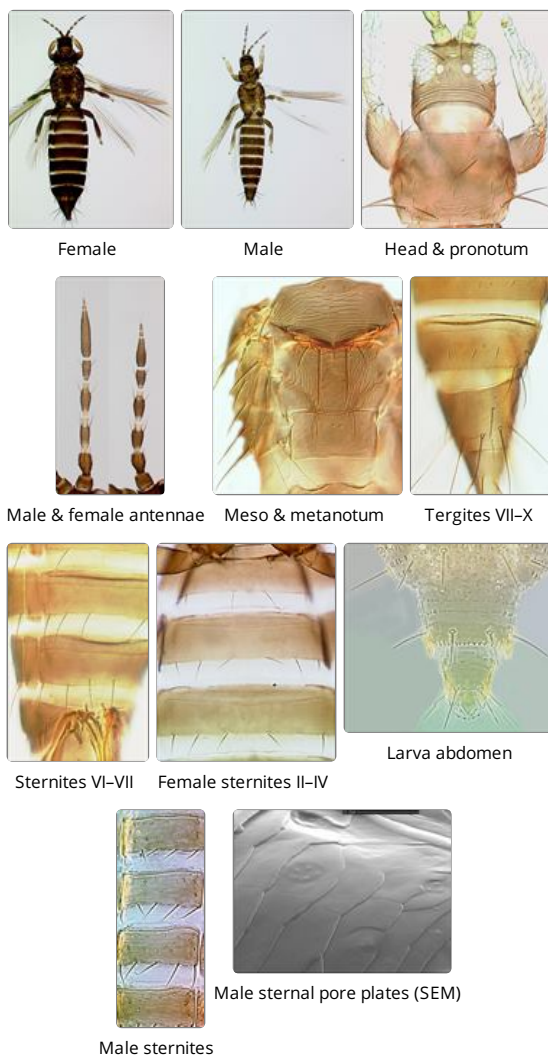
Distinguishing features

Female macropterous; body colour dark brown, tarsi yellow, antennal segments III & IV with apical neck sharply white or yellow; fore wings brown but slightly paler at base. Antennae 8-segmented, VIII longer than VII; III with 2 stout, dark, dorsal setae; III & IV each with constricted apical neck and forked sense cone. Head as wide as long, 3 pairs of ocellar setae present, pair III just inside anterior margins of ocellar triangle and longer than distance between compound eyes; postocular setae IV as long as distance between hind ocelli. Pronotum with 2 pairs of long posteroangular setae, posterior margin with 5 pairs of setae of which the submedian pair is more than twice as long as the discal setae. Metanotum reticulate medially, campaniform sensilla present, median setae arise at anterior margin.

Mesofurca with spinula. Fore wing first vein with 2 setae on distal half, second vein with complete row of setae. Tergites without sculpture between median setae, and without ctenidia; tergite VIII posteromarginal comb represented by a 10–20 fine microtrichia laterally but with a wide gap medially. Sternites without discal setae, median pair of marginal setae on sternite VII arise anterior to margin, setae S2 closer to median setae than to setae S3.

Male similar to female but smaller and more slender, antennal segment VI unusually long; tergite IX with pair of small spine-like processes on posterior margin; sternites III–VII each with more than 25 small circular pore plates.

Second instar larva white with posterior margin of tergites IX & X light grey; tergite IX posterior margin with about 10 tubercles and 3 large tubercles laterally; sternite IX posterior margin with many small teeth.



Related species

The relationships of *P. kellyanus* remain in doubt. One of nine species currently listed in *Pezothrips*, they are all, apart from *P. kellyanus*, restricted to eastern and central Europe. This species was placed in *Taeniothrips* at one time, but has a pair of setae on the head in front of the first ocellus. It shares some character states with the legume-flower thrips in *Megalurothrips* in which genus it was also placed for many years. Nguyen *et al.* (2015) recognised that *kellyanus* originated in Australia, despite the current generic position.

Biological data

In Australia, breeding in a range of highly scented white flowers, including *Citrus*, *Jasminum*, *Hymenosporum* and *Pittosporum* species. The original host plant is probably *Hymenosporum flavum*, a small tree in the forests of northeastern Australia and New Guinea. Larvae and adults feed on flowers, and young leaves and fruit, pupating at ground level. Males form aggregations to which females are attracted for mating (Webster *et al.*, 2006). Feeding by larvae on young citrus fruits leads to unsightly circum-polar scarring as these fruits expand, particularly in temperate areas of Australia, also New Zealand and several Mediterranean countries.

Distribution data

Originally from Australia, now found in New Zealand, New Caledonia, southern France, Italy, Greece, Cyprus, and Turkey. Not recorded from North America although likely to be taken in quarantine because it occurs in Hawaii (Mound *et al.*, 2016).

Family name

THRIPIDAE - THRIPINAE

Species name

Pezothrips kellyanus (Bagnall)

Original name and synonyms

Physothrips kellyanus Bagnall, 1916: 219

Physothrips livii Girault, 1930: 2

Taeniothrips kellyanus (Bagnall); Mound, 1968: 58

Megalurothrips kellyanus (Bagnall); Bhatti, 1969: 241

Pezothrips kellyanus (Bagnall); zur Strassen, 1996: 113.

References

Mound LA, Nakahara S & Tsuda DM (2016) Thysanoptera-Terebrantia of the Hawaiian Islands: an identification manual. *ZooKeys* **549**: 71–126.

Nguyen DT, Spooner-Hart RN & Riegler M (2016) Loss of *Wolbachia* but not *Cardinium* in the invasive range of the Australian thrips species, *Pezothrips kellyanus*. *Biological Invasions* **18**: 197–214.

Webster KW, Cooper P & Mound LA (2006) Studies on Kelly's Citrus Thrips (*Pezothrips kellyanus* Bagnall): sex attractants, host associations and country of origin. *Australian Journal of Entomology* **45**: 67–74.