

Thrips setosus

Distinguishing features

Both sexes fully winged. Body brown, tibiae, tarsi and antennal segment III yellow, IV and V yellow basally, femora variable but usually brown; fore wings usually dark with basal fifth and clavus pale. Antennae 7-segmented; III & IV slender, each with forked sense cone. Head with 2 pairs of ocellar setae; pair III arising outside or on margin of ocellar triangle, almost as long as distance between two ocelli; postocular setae pair I as long as ocellar setae III, postocular setae pairs II and IV minute.

Pronotum transversely striate, with 18–24 discal setae and 2 pairs of posteroangular setae; posterior margin with 3 (rarely 4) pairs of setae, median pair much longer than lateral 2 pairs. Mesonotum without sculpture lines close to anterior campaniform sensilla, median setae distant from posterior margin. Metanotum irregularly striate-reticulate medially; median setae distant from anterior margin; campaniform sensilla present. Fore wing first vein with 3 setae on distal half; second vein with about 10 setae. Abdominal tergites II–VIII

without sculpture lines mesad of setae S1; tergite II with 3 lateral marginal setae; tergites V–VIII with paired ctenidia, on VIII posteromesad to spiracles; tergite VIII posteromarginal comb of evenly spaced microtrichia; tergite IX with two pairs of campaniform sensilla, setae S1 70–90 microns long; X with median split; pleurotergites each with 2–3 discal setae, small irregular microtrichia on posterior margin. Sternites without discal setae; VII with setae S1 in front of margin. Male similar to female but smaller; sternites III–VII each with relatively small transverse to oval pore plate.

Mesonotum without sculpture lines close to anterior

campaniform sensilla, median setae distant from posterior margin. Metanotum irregularly striate-reticulate medially; median setae distant from anterior margin; campaniform sensilla present. Fore wing first vein with 3 setae on distal half; second vein with about 10 setae. Abdominal tergites II–VIII

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Related species

This species is particularly interesting in having the following unusual character-state combination: pleurotergites with discal setae, but sternites without discal setae. The species is very similar to the European species *T. fulvipes*, from which it can be distinguished by the notably shorter S1 setae on tergite IX (Vierbergen & Loomans, 2016), and the presence of only three lateral marginal setae on tergite II. The genus *Thrips* is the second largest genus in the Thysanoptera, and currently includes, worldwide, over 290 species. All members of this genus lack ocellar setae I on the head, and they all have ctenidia on tergite VIII posteromesad to the spiracles. Other characters, such as number of antennal segments, number of setae on the fore wing veins, and number of discal setae on the sternites are variable between species (Palmer, 1992; Nakahara, 1994; Masumoto & Okajima, 2013).

Biological data

Feeding and breeding mainly on the leaves of its various herbaceous host plants. In Europe it has been found primarily on *Hydrangea* production in the Netherlands and elsewhere across the European continent. In Japan, it is reported as a pest of tobacco and tomato production, on the latter acting as a vector of Tomato spotted wilt virus (TSWV) (Palmer, 1992; Murai, 2001).

Distribution data

Widespread throughout Japan in many habitats (Masumoto & Okajima, 2013), and reported from South Korea, this species has been reported in North America from commercial plant nurseries in California, Oregon and Michigan. In Europe, it is recorded from the Netherlands (Vierbergen & Loomans, 2016), France, Germany and Croatia, and in 2016 was found in Britain on a crop of poinsettia, *Euphorbia pulcherrima*, in a commercial glasshouse. The horticultural trade is clearly distributing this species, one female having been taken in quarantine at Melbourne, Australia, on a shipment of *Hydrangea* from Kenya.

Family name

THRIPIDAE - THRIPINAE



Species name

Thrips setosus Moulton

Original name and synonyms

Thrips setosus Moulton, 1928: 304.

References

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Murai T (2001) Life history study of *Thrips setosus*. *Entomologia Experimentalis et Applicata* **100**: 245–251.

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