



Short Communication

A New Species of Genus *Megalurothrips* Bagnall, 1915 (Thysanoptera: Thripidae) from Hainan Island of China

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ABSTRACT

In this paper, a new species *Megalurothrips longus* sp.n. from Hainan Island of China is described and illustrated. This new species is unique in this genus by the combinations of having 5 pairs of long setae on pronotum, the ultrashort chapped craspedum on posterior margin of abdominal tergites, and the shape and relative locations of setae on tergite IX.

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Authors' Contributions

QH conducted the research and wrote the manuscript. JF revised the manuscript and finalized it.

Key words

Thripinae, *Megalurothrips*, New species, Hainan Island, China.

The genus *Megalurothrips* was erected by Bagnall (1915) with *M. typicus* as its type species. It is a member of the *Megalurothrips* genus-group with the following characters in common: Antennae 8-segmented, ocellar setae pair I present, median metanotal setae at anterior margin, metanotal spinula absent, abdominal tergite VIII with posteromarginal comb usually interrupted, sternal discal setae absent (Mound and Palmer, 1981). In light of this, *M. grisbrunneus* was transferred to *Taeniothrips* as *T. grisbrunneus* (Mirab-Balou *et al.*, 2014).

Species in *Megalurothrips* all breed in the flowers of Fabaceae and some are pests of cultivated legumes (Masumoto, 2010). They are a kind of sucking insect pests (Nazir *et al.*, 2017). Up to now, *Megalurothrips* includes 13 species (Thrips Wiki, 2018). Of these, 10 were reported from China, and *M. grisbrunneus* Feng, Chou and Li was transferred to *Taeniothrips* (Mirab-Balou *et al.*, 2011, 2014). Key to species from China is available for identification of male and female (Han, 1997). The objective of this paper is to describe and illustrate another species from Hainan Island. Type specimens of the new species are deposited in the Entomological Museum of Northwest A&F University, Yangling, Shaanxi, China.

Materials and methods

Thrips specimens examined in this study were

mounted onto slides followed Zhang *et al.* (2006). All measurements described in this paper are in micrometers (μm). Specimens were observed with an EVOS digital inverted microscope. Photographs were made using a Nikon Y-IDT microscope with a Q-image CCD. Images were produced using the software Synoptic Automontage.

Megalurothrips longus, new species (Fig. 1)

Male macroptera

Body uniformly brown, length 1.3-1.4 mm (Fig. 1A). Antennal segments III, VII and VIII, base of IV and V, and all tibiae and tarsi pale brown. Fore wing banded, with basal and sub-apical paler (Fig. 1G).

Head

Head wider than long, with transverse striations posteriorly. 3 pairs of ocellar setae present, pair III is the longest, just inside of the ocellar triangle (Fig. 1B). Antennae 8-segmented, segments III and IV with two margins parallel to each other, sense cones forked (Fig. 1F). Maxillary palpi 3-segmented.

Thorax

Pronotum wider than long, nearly smooth, with 5 pairs of long setae other than the anteroangular setae. 4 pairs of posteriomarginal setae present (the median long setae included) (Fig. 1E). Mesonotum sculptured

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with transverse striae, median pair of setae situated on the posterior margin; metanotum sculptured with longitudinal line laterally, median part with inversus U shaped striae. Median pair of metanotal setae nearly on the anterior margin, one pair of campaniform sensilla at the postmedian part (Fig. 1D); mesofurcal spinula present, metafurca without spinula (Fig. 1C). Fore vein with a short subapical gap followed by 2 distal setae, hind vein complete row of setae (Fig. 1G). Ferna undivided in the middle, prospinasternum complete (Fig. 1C).

Abdomen

Abdominal tergites with ultrashort chapped craspedum on the posterior margin. Tergites sculptured with transverse striae except the area between median setae on tergites II (Fig. 1K). Median setae on tergites anteromedial to campaniform sensilla (Fig. 1I). Tergite II with 3 setae arrayed in a longitudinal row laterally (Fig. 1J). Abdominal sternites without discal setae, sternite with

exceptional long posterior marginal setae (Fig. 1H), sternite II with 2 pairs while sternites III-VII with 3 pairs. Median setae of sternite VII on posterior margin (Fig. 1H). Tergite IX with S1 (median setae) and S3 thorn-like (Fig. 1L).

Female

Unknown.

Measurements

Holotype in micros: Total body length 1348.03; head length 100.63, width 123.39. Length (width) of antennal segment: I 127.98 (29.16), II 39.88 (24.90), III 56.44 (14.45), IV 59.96 (14.35), V 36.29 (15.21), VI 66.87 (18.01), VII 8.77 (6.75), VIII 13.92 (5.37). Pronotum length 142.17, median width 186.52; posteromarginals, inner 40.52; posteroangulars, inner 60.32, outer 56.88; Median setae on metanotum length 49.19. Fore wing length 710.97, width 36.62 at middle, hind wing length 612.64, width 24.52 at middle.

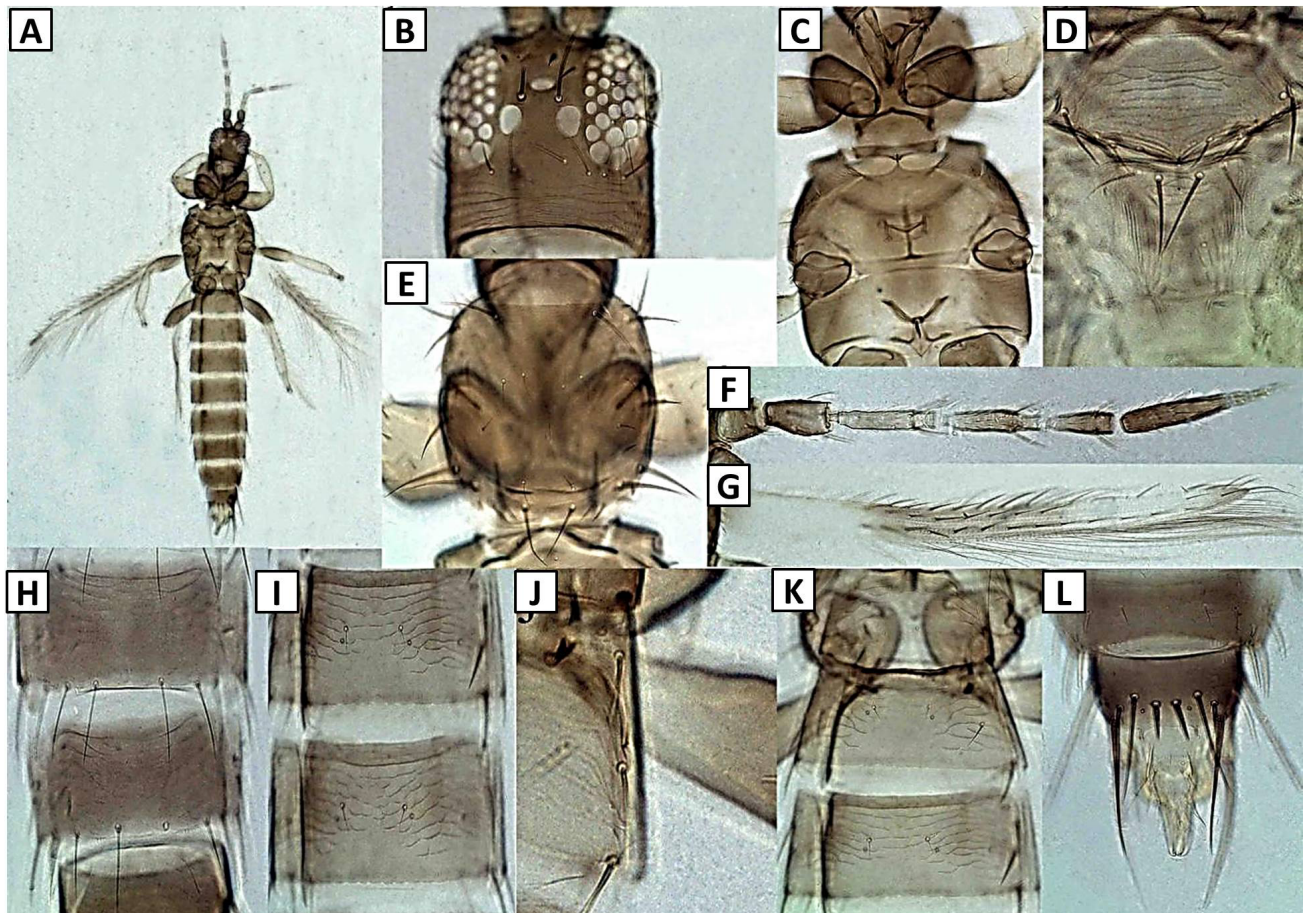


Fig. 1. *Megalurothrips longus* new species (sp. n.). A, male; B, head; C, ventral view of thorax; D, meso- and metanota; E, pronotum; F, antenna; G, fore wing; H, abdominal sternites VI-VII; I, abdominal tergites IV-V; J, lateral longitudinal setae on abdominal tergite II; K, abdominal tergites I-III; L, male abdominal tergites VIII-X.

Etymology

The specific epithet derived from the Latin term ‘*longus*’ which means ‘long’, which refers to the long setae on pronotum other than the posteroangular setae.

Type specimens

Holotype male macroptera, China: Jianfeng Town, Hainan Province, 170m, 18.vii.2009, Qingling Hu sweeping from grass; paratypes: 10 males, same data as holotype.

Remarks

This new species is unique in this genus by having 5 pairs of long setae on pronotum and the ultrashort chapped craspedum on posterior margin of abdominal tergites. It can be easily distinguished from other male known species (*M. usitatus*, *M. mucunae*, *M. distalis*, and *M. peculiaris*) by the presence of 2 pairs of thorn-like setae (S1 and S3) on tergite IX (Fig. 1L) (vs. only 2 pairs of long setae and 1 pair of thorn-like setae (S3) on tergite IX). This species can be distinguished from male known species *M. typicus* by the combinations of the unique long setae on pronotum, ultrashort chapped craspedum on posterior margin of abdominal tergites and the relative locations of the setae on tergite IX.

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Statement of conflict of interest

The authors declare no conflict of interest.

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