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Redescription and lectotype designation of *Gynaikothrips microchaetus* Ananthakrishnan & Jagadish (Thysanoptera: Phlaeothripidae)

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Gynaikothrips microchaetus Ananthakrishnan and Jagadish (1969) was described from Dharwar in Karnataka, and until now has been known only from southern India (Ananthakrishnan & Sen 1980). The original description was based on an unspecified number of syntypes, with no depositary indicated. However, one of the authors (R. Varatharajan) acquired four slides that are labelled by Ananthakrishnan as this species and bear the same collection details as given in the original description. These are assumed to be syntypes, and one female is here designated as lectotype. The other three slides are of males and are considered as paralectotypes. Further, during extensive surveys for thrips at Dampa Tiger Reserve, Mizoram (23.32^0 N 92.13^0 E) and Manipur University campus (24.82^0 N 93.90^0 E) during 2014–18, we have collected both sexes of this species from the leaves of *Ficus curtipes*. The freshly collected specimens were mounted onto microscope slides in Canada balsam, and identified using the keys provided by Ananthakrishnan and Sen (1980). Hence, the species is illustrated and re-described with additional features, based on the type material together with freshly collected specimens from north eastern India, Manipur and Mizoram. The following abbreviations are used for pronotal setae: am—anteromarginals; aa—anteroangulars; pa—posteroangulars; ml—midlaterals; po—postocular; epim—epimerals; abdominal tergite IX setae S1, S2 & S3—setal pairs I, II and III respectively (S1 nearest the mid-line).

***Gynaikothrips microchaetus* Ananthakrishnan and Jagadish** (Figs 1–9)

*Female macroptera. B*ody colour mainly brown; femora brown, tarsi yellow; fore tibiae yellow with small brown area at base, mid and hind tibiae brown with distal one-third yellow; tarsi yellow; antennal segments I–II brown, III–VIII uniformly yellow (Fig. 3); pronotal epimeral setae pale to very weakly shaded. Head longer than wide; with two pairs of slender, pointed, po setae not reaching to compound eyes (Fig. 1); po setae vary in length 16–43 microns, and also vary in position such that they are not always in a simple transverse row; maxillary stylets about one-third of head width apart, retracted to base of postocular setae (Fig. 1). Antennal segmentation and sense cones typical of genus. Pronotum epimeral setae well developed, apex weakly expanded (Fig. 2), am setae minute (6–15 microns), aa, ml and pa variable in length (10–30 microns); notopleural sutures complete. Fore tarsal tooth small, directed forwards (Fig. 3). Fore wings parallel-sided, with 14–20 duplicated cilia. Prosternal basantra absent; mesopresternum boat shaped; metathoracic sternopleural sutures absent. Pelta triangular (Fig. 4); tergites II–VII with 2 pairs of sigmoid wing-retaining setae (Fig. 7); tube length variable, anal setae shorter than tube (Fig. 6).

Measurements (lectotype female in microns). Body length 2545. Head, length 275; width 222; po, inner pair 30; outer pair 20. Pronotum, length 158; width 282; major setae—am 15, aa 20, pa 24, ml 25, epim 96. Mesonotum lateral setae 30. Fore wing, length 930; sub-basal wing setae 16, 18, 30. Tergite IX setae, S1 225; S2 244; S3 198. Tube, length 289; width—base 71; apex 41; anal setae 244.

Male macroptera. Similar to female in colour and structure but smaller, fore tarsal tooth very small. Sternite VIII fully occupied by pore plate (Fig. 9), also tergite VIII similarly occupied by this extensive pore plate except for a small triangle at median anterior margin (Fig. 8).

Measurements (paralectotype male in microns). Body length 2442. Head, length 258; width 208; po, inner pair 19; outer pair 19. Pronotum, length 146; width 273; major setae—am 16, aa 27, pa 22, ml 20, epim 84. Mesonotum lateral setae 34. Fore wing, length 860; sub-basal wing setae 10, 16, 26. Tergite IX setae, S1 181; S2 26; S3 225. Tube, length 235; width—base 70; apex 36; anal setae 213.

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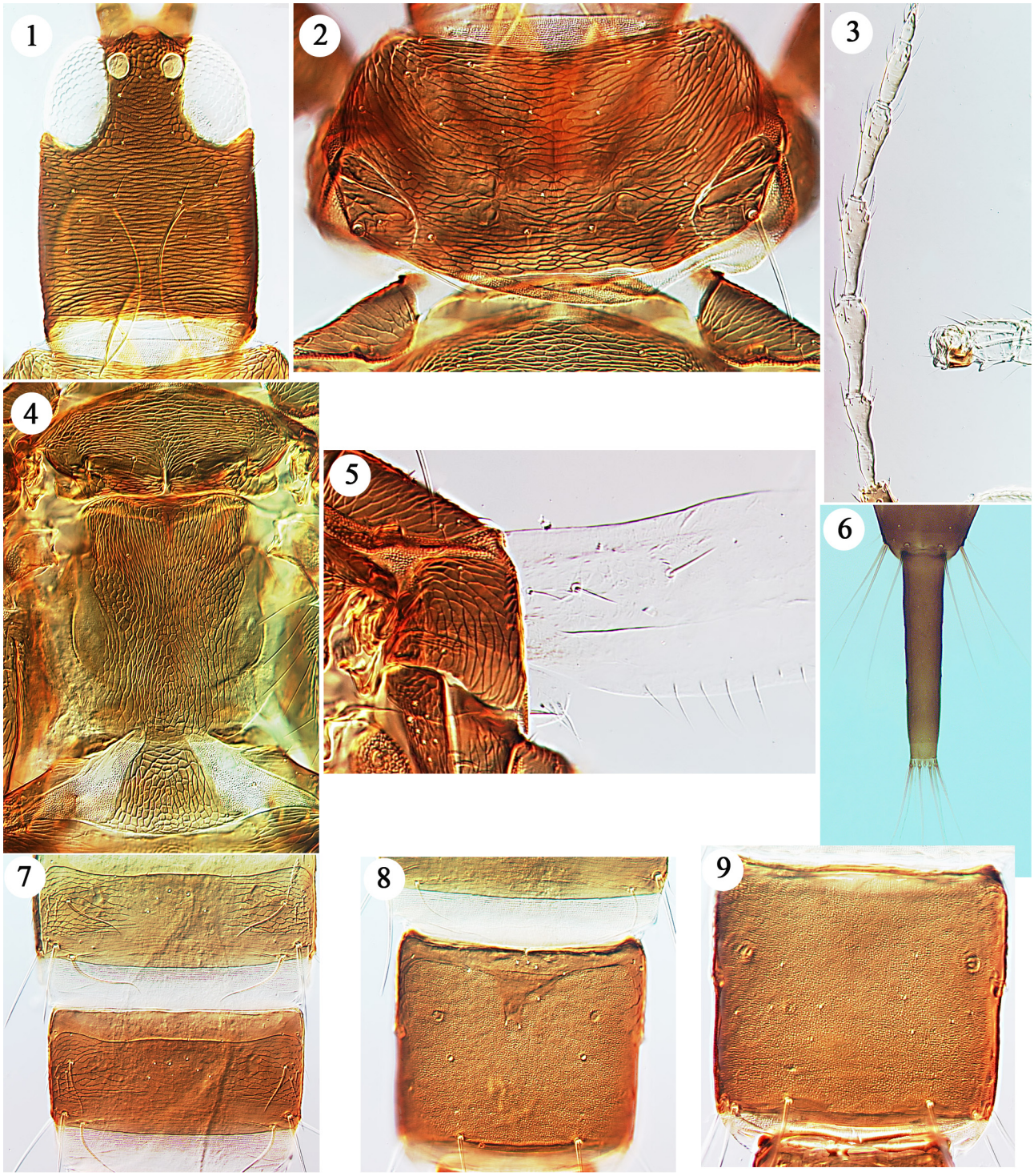

FIGURES 1–9. Gynaikothrips microchaetus. **(1)** Head. **(2)** Pronotum. **(3)** Antenna & female fore tarsus. **(4)** Meso & metanota and pelta. **(5)** Fore wing sub-basal setae. **(6)** Segments IX–X. **(7)** Tergites V–VI. **(8)** Male tergite VIII. **(9)** Male sternite VIII.

Material studied: Lectotype female, **INDIA,** Karnataka, Dharwar from leaves of *Ficus* sp., 10.x.1968 (T.N. Ananthakrishnan); three paralectotype males with same data as lectotype; deposited in National Bureau of Agricultural Insect Resources (ICAR-NBAIR), Bengaluru, India, also Insect Museum, Manipur University, Imphal, India.

Further specimens: **INDIA**, Manipur, Manipur University campus 14 females, 7 males from leaves of *Ficus curtipes*, 12.xi.2014 (Shyam Maisnam); Mizoram, Dampa Tiger Reserve 7 females, 3 males from leaves of *Ficus curtipes*, 27.iv.2015 (Th. Johnson) in Insect Museum, Manipur University, Imphal, India.

Distinguishing *microchaetus* from *ficorum* and *uzeli*

Ananthakrishnan and Sen (1980) differentiated *microchaetus* from *uzeli* based on lengths of post ocular, prothoracic and epimeral setae in their key to nine species of *Gynaikothrips* from India. However, our observations indicated that *ficorum*, *microchaetus* and *uzeli* are very similar in structure. Moreover, *ficorum* and *uzeli* are both highly variable, both within and particularly among populations around the world (based on series in the Australian National Insect Collection). These three species may be distinguished as follows:

1. Pronotum with pa setae small and acute, only epim setae elongate (Fig 2); four postocular setae all finely pointed and shorter than width of fore tibiae (Fig. 1); fore wing sub-basal setae acute, shorter than half of wing width (Fig. 5); male sternite VIII with large pore plate (Fig. 9) that occupies entire sternite and extends fully across tergite VIII except for a triangular area anteromedially (Fig. 8). . . . . *microchaetus*
-. Pronotum with pa setae variable in length, commonly prominent and half as long as epim setae; postocular setae variable but commonly weakly capitate and as long as width of fore tibiae; fore wing sub-basal setae longer than half of wing width and usually capitate or bluntly pointed; male sternite VIII pore plate variable, usually sub-circular medially but sometimes extending onto lateral margins of tergite. 2
2. Pronotum with two pairs of prominent setae on posterior angles of pronotum, pa setae at least 70% as long as epim setae *uzeli*
-. Pronotum with pa setae variable, usually short and acute but never more than 50% as long as epim setae . . . . . .*ficorum*

Comments. The lack of strong character states in the original description, together with the unknown type depository, have necessitated for this species a redescription and Lectotype designation. *Gynaikothrips microchaetus* is unique among its congeners in having the male pore plate fully occupying both the sternal and tergal surfaces of abdominal segment VIII. *Gynaikothrips uzeli* seems to be associated with *Ficus benjamina*, and *G. ficorum* with both *F. microcarpa* and *F. benjamina* (Tree *et al.* 2015). But *G. microchaetus* was collected and described by Ananthakrishnan and Jagdish (1969) from galls on an unknown *Ficus* plant. In the present study, this thrips species has been observed thriving beneath spider webbing on the leaf surface of *F. curtipes.* The leaves of this plant are rather thick and possibly not suitable for gall formation. Thus *G. microchaetus*, although probably confined to species of the genus *Ficus*, is apparently not specific to any particular species within that large genus. Based on our observations over the past two years, *G. microchaetus* has maintained a continuous aggregation on *F. curtipes* under the abandoned silken webs produced by spiders.

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