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***Thrips arorai* Bhatti (Thysanoptera, Thripidae): first description of the male**

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Thrips arorai was described from two females collected on fern at Mussoorie, Uttar Pradesh, India (Bhatti 1980). Recently, a series of both sexes of this distinctive brown species with banded fore wings was collected on fern in Himachal Pradesh. Females were identified using published literature (Bhatti 1980, Palmer 1992), and the male is here described for the first time. In the key to males by Palmer, *arorai* will track to couplet fifty-seven.

***Thrips arorai* Bhatti, 1980: 124**

(Figs 1–13)

Male macroptera. Body bicoloured; head, thorax and abdominal segments I–III and VII–X dark brown including legs, abdominal segments IV–VI yellow. Antennal segments I–II and VI–VII dark brown, III yellow, IV yellow with brown shading distally, V yellow on proximal 1/3 and brown on distal 2/3. Fore wing with 2 dark cross bands and 3 clear areas (Figs 2, 13).



FIGURES 1–2. *Thrips arorai*. (1) Female; (2) Male.

Head longer than broad, cheeks rounded, ocellar seta pair I absent, III longer than II and arising on tangent between outer margins of fore and hind ocelli; postocular setae III smallest. Antenna 7-segmented, III and IV each with forked sense cones. Pronotum with transverse lines of sculpture; two pairs of well-developed posteroangular setae; three pairs of posteromarginal setae, median pair longer than submedian (Fig. 4). Mesonotum with anteromedian campaniform sensilla and transverse anastomosing sculpture lines. Metanotum with longitudinally reticulate sculpture in middle, median pair of setae far behind anterior margin; distance between median pair of metanotal setae less than distance between median and submedian; campaniform sensilla present (Fig. 11). Fore wing costa with 21–26 setae, first vein with 7 basal and 2 to 4 distal setae, second vein with 8–12 setae; clavus with 5+1 setae (Fig. 13). Abdominal tergites IV to VIII with paired ctenidia, posteromesad of spiracles on VIII; tergite II with 4 lateral marginal setae (Fig. 10); posterior margin of

abdominal tergite VIII without comb; S1 setae on tergite IX almost as long as S2 and equidistant from each other (Fig. 12). Abdominal sternites II–VIII with discal setae; pleurotergite II with one discal seta, absent on other pleurotergites (Fig. 10); sternites III–VII each with oval pore plate (Fig. 5). Phallus not elongate, shape similar to that of *T. palmi* (Figs 8–9).

Measurements in microns. Distended body length 1150. Head, length 109; width behind eyes 106; width across cheeks 116; compound eye dorsal length 54, width 40. Pronotal median length 104, width 140; posteroangular setae I (inner pair) 27–28, setae II (outer pair) length 29–33; posteromarginal setae I length 25. Fore wing length 690, width at middle 70. Abdominal tergite IX S1 setae length 42–43, S2 setae length 40–42. Antennal segments I–VII length (width) as follows: 22 (24), 34 (23), 55 (20), 49 (18), 37 (17), 44 (18), 16 (7). L(W) of pore plates on abdominal sternites III–VII 25(15), 24(14), 18(12), 17(12), 16(14).

Female macroptera. Body dark brown including legs. Antenna, fore wing colour and head chaetotaxy similar to male (Figs. 1, 3). Distance between median pair of metanotal setae more than the distance between median and submedian (Fig. 6). Fore wing costa with 24–30 setae, first vein with 7 basal and 2 to 3 distal setae, second vein with 10–15 setae; clavus with 5+1 setae. Abdominal sternites II–VII with discal setae; all pleurotergites without discal setae (Fig. 9); posterior margin of abdominal tergite VIII with complete comb.

Material studied. INDIA, Himachal Pradesh, Shimla (Munderhat), on fern, 20 females, 25 males (31°05'83.0"N 077°27'18.7"E, 2207 m), 12.vi.2014, Kumar, Tyagi and Ghosh. All specimens are deposited in the National Zoological Collections (NZC), Zoological Survey of India, Kolkata, India.

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