

ON THE DISCOVERY OF A NEW THRIPS RELATED TO THE GENUS *HAPLOTHRIPS* AMYOT & SERVILE FROM DELHI¹

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A new genus and species of thrips, *Ahamothrips maxima*, collected from the monocot *Urochloa maxima* (Jack) R.D. Webster (Poaceae) have been described. The new genus is related to the genus *Haplothrips* except for the absence of ectoentarcine pseudunguis on the mid and hind tarsi.

Key words: *Ahamothrips maxima*, new genus and species, Phlaeothripidae, *Urochloa maxima*

The genus *Haplothrips* Amyot and Serville 1843 is a large cosmopolitan genus of the Family Phlaeothripidae in the Order Tubulifera. The species of this genus possess an ectoentarcine pseudunguis on all tarsi in both sexes (Bhatti 1994, 1998a). This structure is present in the type species *H. aculeatus* (Fabricius) and in other species of the genus that have been examined and in species of most genera of Phlaeothripidae, and is therefore a tubuliferan plesiotypy. The new species described here has the habitus of *Haplothrips* but lacks a hamus on mid and hind tarsi. In common with *Haplothrips* s. str., this species has asymmetrical antennal segment III, 4 sense cones on segment IV, segment VIII not constricted at base, 2 pairs of sigmoid setae on abdominal terga II to VII, and transverse prosternal basantral plates. The fore tarsus is armed in both sexes (Ananthakrishnan and Sen 1980).

ABBREVIATIONS USED

aa - anteroangular, *am* - anteromarginal, *ml* - midlateral, *pa* - posteroangular, *ep* - epimeral, *cx* - coxal, *l* - length, *w* - width

Ahamothrips gen. nov.

Head slightly longer than broad. Postocular seta well-developed and pointed. Eyes not bulging, ventrally not longer than dorsally. Proboscis short and broadly rounded. Maxillary stylets retracted far into the head. Maxillary bridge present (Fig. 1). Antennae 8-segmented; segment III asymmetrical. Segment VIII not constricted at base, but its base is slightly narrower than the apex of segment VII. Antennal segment III with 1 to 2 sense cones, IV with 4 sense cones. Campaniform sensillum on segment II situated in distal half of segment (Figs 4, 5).

Prothorax. Notopleural sutures complete. All dorsal prothoracic setae (*aa*, *am*, *ml*, *pa*, *ep*) well developed, pointed, blunt or expanded at apex, posteroangular (*pa*) and epimeral setae (*ep*) are the longest. Coxal seta (*cx*) well-developed and pointed or expanded at apex. Basantral plates present, transverse (Fig. 1).

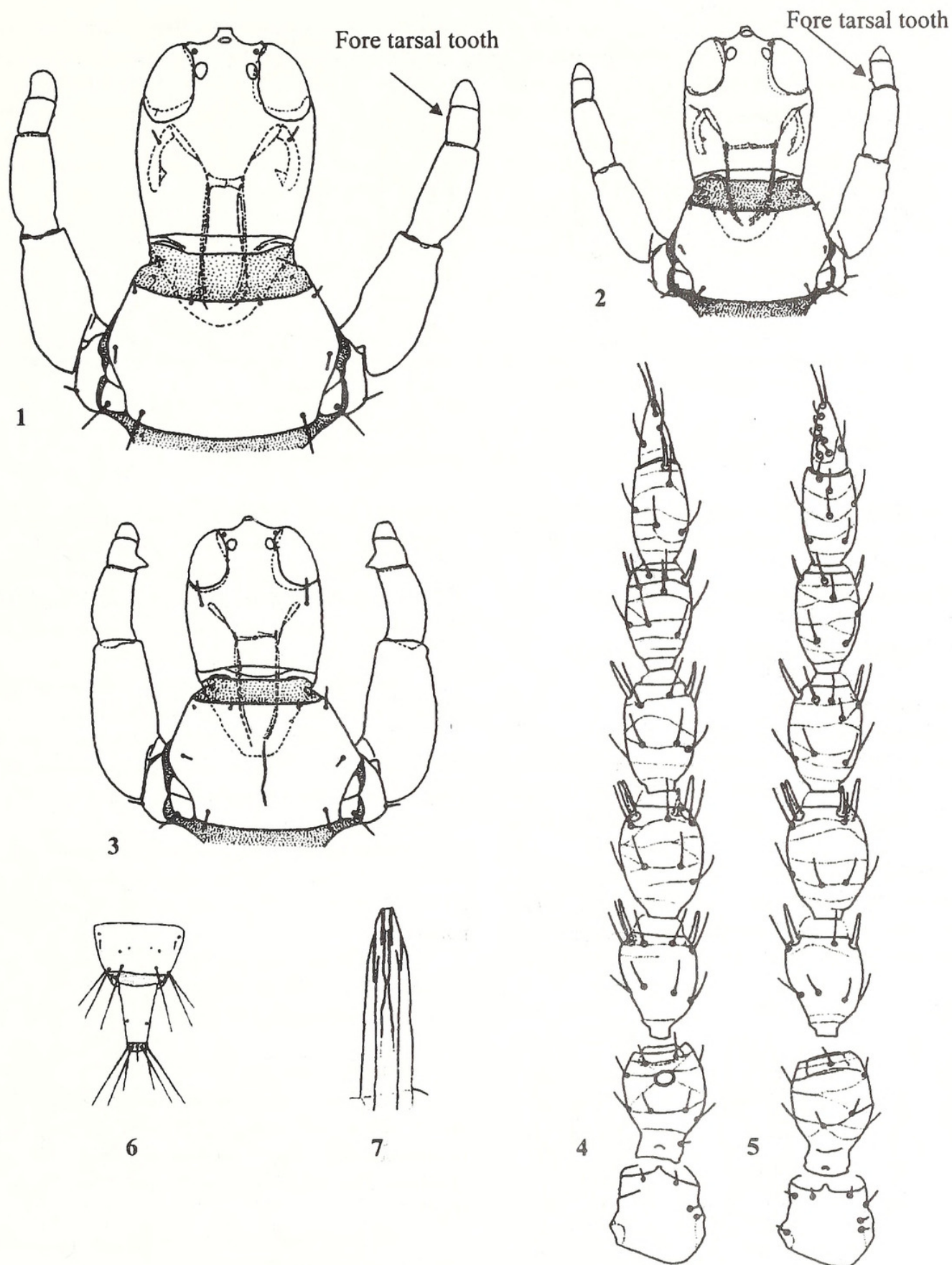
Mesoacrotergite deeply constricted at middle. Median metanotal setae of group 'a' well-developed and pointed, 3 minute setae of group 'b' sublaterally on either side are present, and setae of group 'c' are absent. Mesopresternum degenerate at middle.

Mesothoracic spiracle ventrally extends down to most of the posterior margin of infrapreepisternum. Metathorax without sternopleural sutures. Anapleural sutures complete.

Fore femur with apical margin somewhat raised exteriorly. Fore tarsus 1-segmented, mid and hind tarsi 2-segmented. Fore tarsus with ectoentarcine pseudunguis (H-1 hamus), mid and hind tarsi without hamus (H-3 hamus) (Figs 8-10). Fore tarsus armed with a tooth in female (Fig. 1) and a strongly developed triangular tooth in oedymorous male (Fig. 3).

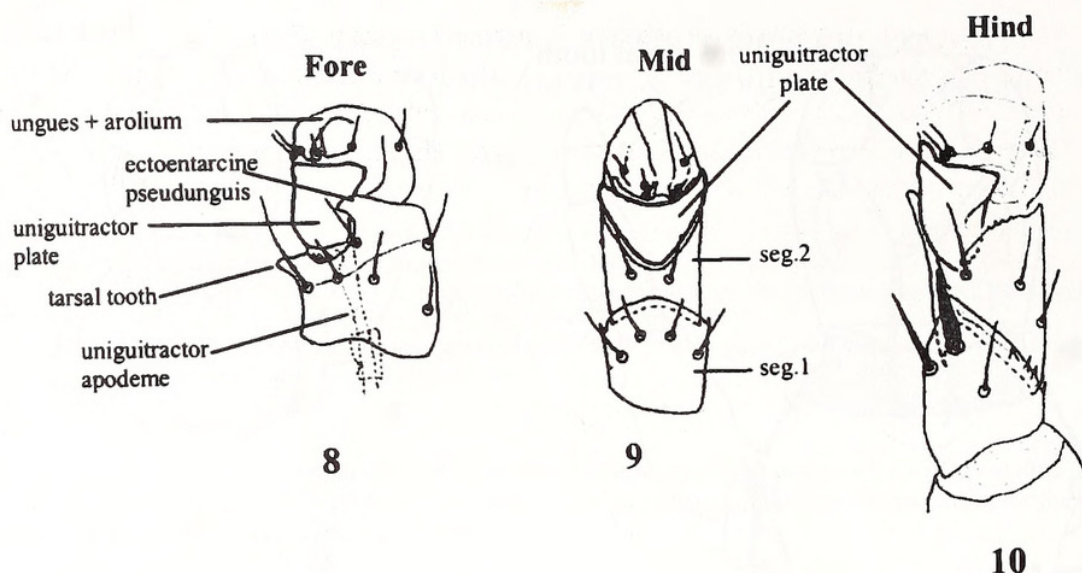
Fore wing constricted at middle, just next to median bulge (MB) (Bhatti 1991: 46). Duplicated cilia present. Wing basal setae expanded apically and arranged in a triangle. Abdominal tergum I divided into 7 tergites: median tergite (pelta) triangular; antepelta divided (Bhatti 1998b: 289, and Fig. 10 on p. 299) into 2 discrete sclerites, the two halves very wide apart; the spiracles are located on a lateral tergite. Abdominal terga II to VII each with 2 pairs of sigmoid setae.

Tergum IX with S1 and S2 setae pointed, about as long as tube. In male the S2 setae are spine-like and much shorter than S1. Tube short and conical, much shorter than head. Anal setae as long as tube (Fig. 6). Male without gland area on sternum VIII.



Figs 1-7: *Ahamothrips maxima* n. gen. et. sp. n.:

1. Head and prothorax, dorsal, ♀; 2. Head and prothorax, dorsal, ♂ (Maximum gynaeoid);
3. Head and prothorax, dorsal, ♂ (Maximum oedymorous); 4. Antenna, dorsal, ♀; 5. Antenna, ventral, ♀;
6. Abdominal segments 9-10, dorsal, ♀; 7. Pseudovirga, ♂



Figs 8-10: Fore, mid and hind tarsi of *Ahamothrips maxima* n. gen. et. sp. n. ♀

Etymology: The name of the genus is based on the absence of hamus (ectoentarcine pseudunguis) on the mid and hind tarsi.

Type species: *Ahamothrips maxima* sp. nov.

Ahamothrips maxima sp. nov. (Figs 1-10)

Female: Macropterous.

Structure: Head 249 µm long, up to anterior margin of eye 232 µm, widest across middle 194 µm. Postocular seta 24 µm long, blunt at apex. Maxillary bridge W 38 µm (1/5 times width of head at that level). Width of head at maxillary bridge 191 µm.

Antennae 8-segmented; segment III asymmetrical. Segment VIII not constricted at base, but base is slightly narrower than apex of VII. Antenna 317 µm long; L (W) of antennal segments: III 37.5(31); IV 41 (32.4); V 39 (30); VI 41

(24); VII 44.3 (20.5); VIII 25.5 (13) µm. Antennal segment III with 2 sense cones, IV with 4 sense cones (Figs 4, 5).

Prothoracic notopleural sutures complete. Pronotum 157 µm long. Pronotal seta *am* slender and pointed, 14 µm long; other major setae stout and blunt at apex, *aa* 17, *ml* 17, *pa* 39; epimeral seta (*ep*) 41-50; *cx* 17 µm long.

Fore femur with apical margin somewhat raised exteriorly. Fore tarsus armed, with a small tooth (Figs 1, 2).

Fore wing 837 µm long, with 5-8 duplicated cilia. Wing basal setae S1 27; S2 27; S3 41 µm long, expanded apically and fringed, arranged in a triangle; fringe cilia at apex of wings smooth, not plumose.

Median tergite (pelta) triangular. Abdominal terga II to VII each with 2 pairs of sigmoid setae. Tergum IX 89 µm long. S1 97; S2 94-99; S3 70 µm long; S1 and S2 on tergum IX pointed.

Tube 123 µm long, *w* at base 65 µm, *w* at apex 34 µm. Anal setae S1 119-124; S2 143; S3 92 µm long.

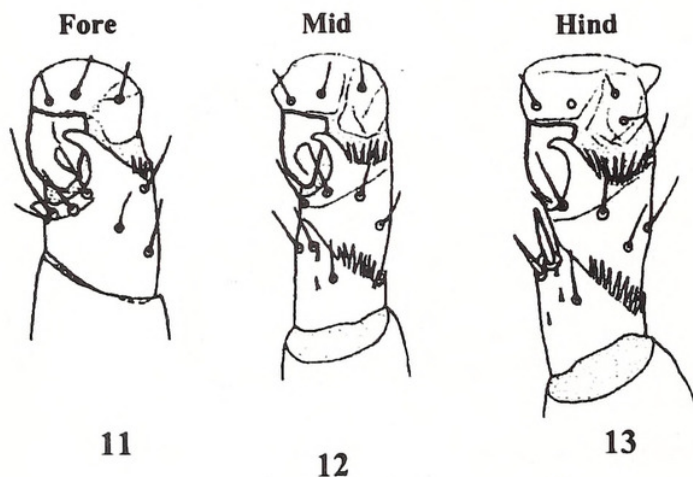
Total body length: 2.1-2.3 mm.

Male: Macropterous.

General structure similar to that of female. Fore tarsus armed, with a small tooth (Fig. 2) (very well-developed in oedymorous males, Fig. 3). Abdominal sternum VIII without gland area. Tergum IX with S1 pointed and S2 setae spine-like (Fig. 6).

Total body length: 1.65 mm (maximum gynaeoid) to 1.95 mm (maximum oedymorous).

Colour: Body dark brown, including legs, except the pale yellow tarsi and distal end of fore tibia. Antennal segments I and II dark brown, VII and VIII brown, III to VI yellow tinged



Figs 11-13: Fore mid and hind tarsi of *Haplothrips aculeatus* (Fabricius) ♀

with faint brown. Wings clear, unshaded, but with light brown clavus and adjoining area of wing blade.

Material Studied. Holotype ♀, Delhi, 29.vii.2002, from *Urochloa maxima* (Jack) R.D. Webster (Poaceae), leg. Kaomud Tyagi & Vikas Kumar. Paratypes 8 ♀, 7 ♂, with the same data.

Etymology. The species name is the same as that of the specific epithet of its host species *Urochloa maxima*.

Remarks: The new genus *Ahamothrips* is closely related to *Haplothrips*, in the presence of asymmetrical

antennal segment III, 4 sense cones on segment IV, segment VIII not constricted at base, 2 pairs of sigmoid setae on abdominal terga II to VII, and transverse prosternal basantral plates. The fore tarsus is armed in both sexes, except for the absence of ectoentarcine pseudounguis on mid and hind tarsi (Figs 11-13).

Ahamothrips maxima also shows striking sexual dimorphism in the width of maxillary bridge, a feature also shared by some species in *Haplothrips*.

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