

Two new genera and species of Tubuliferan thrips
(Thysanoptera: Insecta) from India

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ABSTRACT

The new genera and species *Araeothrips longisetis* and *Salothrips indicus* are discussed in this paper.

GENUS *Araeothrips* NOVO

HEAD a little wider than long, widest across cheeks below eyes and narrowing towards base. Eyes large, a little shorter than half the head length; ocelli in a broad triangle, median ocellus on a slight elevation, placed on a level with the anterior margin of eyes, almost forwardly directed large; post-oculars long and thin, almost as long as eyes, blunt. Mouthcone short, broadly rounded, maxillary stylets almost at the level of the postoculars, broadly separate. Antennae 8-segmented, segments comparatively narrowed, 7 and 8 much narrower than the rest; segment 8 longest and narrowest, more narrowed at base than at apex; sense cones moderately long, transparent; segments 3 and 4 with only one sense cone, 5 with two sense cones. Prothorax shorter than head, almost closely transversely striate; prothoracic anteroangulars and anteromarginals poorly developed; midlaterals, postangulars and epimerals long and well developed, blunt. Praepectus absent; mesopraesternum thin, band-like, weak. Forefemora not enlarged, foretibiae and tarsi unarmed. Forewings mesothrips-like, with double fringes; basal wing setae long and well developed. Pelta hat-like, lateral abdominal setae very long and blunt. B1 and B3 of abdominal segment IX a little longer than tube, thin; B2 very short and thin in females. Tube shorter than head, much narrowed apically; tube setae longer than tube.

Type of the genus; *Araeothrips longisetis* gen.et. sp.n.

In the possession of more narrowed and long terminal antennal segments, in particular segment 8, in having only one sense cone on both antennal segments 3 and 4, in the poorly developed anteroangulars and anteromarginals and very long and well developed postoculars, other prothoracic setae and

lateral abdominal setae, in the B2 of IX very short and thin in both the sexes, this genus appears to be unique among other members of the Mesothripina.

Araeothrips longisetis sp.nov. (Figure 1)

MACROPTEROUS FEMALE

General colour brown with little hypodermal pigmentation; apical third of forefemora, entire mid and hind femora, segments 1, 2 of antennae brown; antennal segments 3-8 (except the tip of 8 which is slightly darker), all tibiae and tarsi pale. Wings infumate, base and scale more yellowish. All setae greyish, blunt.

Head a little wider than long, 133-148* long, 143-153 across eyes, 160-163 across cheeks and 153-158 at base. Eyes 58-60 long, 40-42 wide; median ocellus 16-18 wide, placed 23 from a lateral ocelli, 20-23 wide; postoculars almost as long as an eyes, thin, blunt, 51-58 long, placed 30-32 within cheeks and 23-25 below eyes. Antennal segments, length (width); 23-25 (32), 41-46 (24-26), 35-42 (23), 32-37 (23), 32-36 (21-23), 35-37 (21), 37 (16),

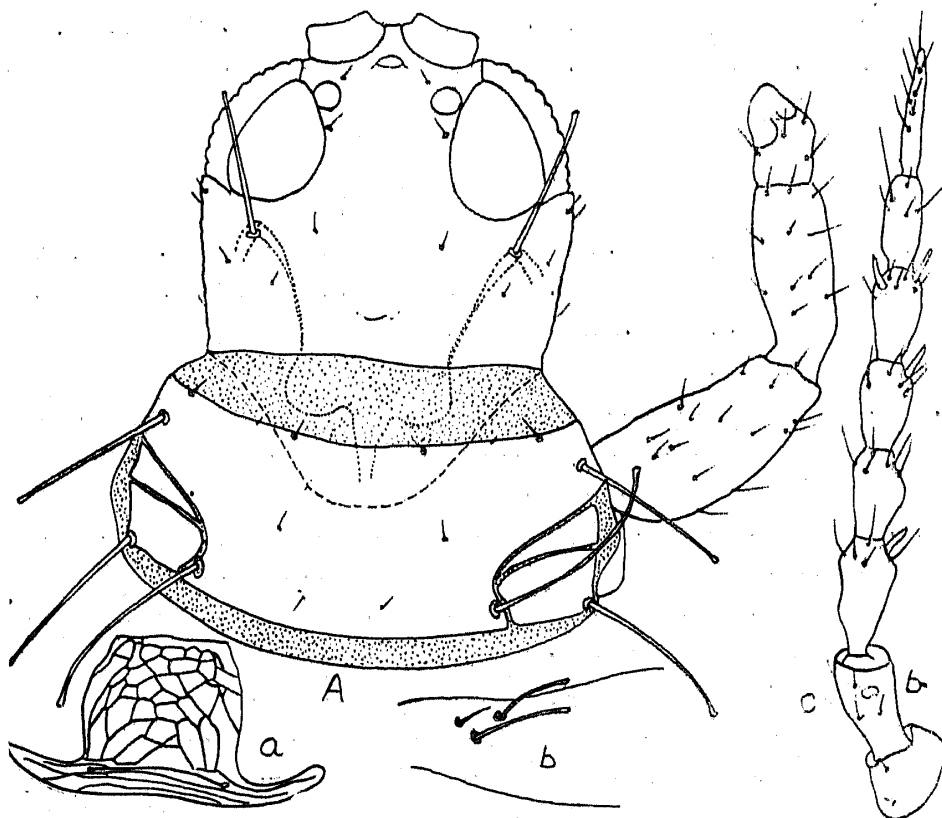


Figure 1. *Araeothrips longisetis*. A, head and prothorax of female; a, petta; b, basal wing setae; c, antenna.

* All measurements in μ .

48-50 (10); sense cones on 3 and 4 10-14 long, transparent; sense cone formula 3^{1+0} , 4^{1+0} , 5^{1+1} , 6^{1+1} . Mouthcone short, 66-71 long, broadly rounded, 134-153 wide at base and 51-56 at apex; maxillary stylets retracted about the level of the postoculars, widely separate.

Pronotum shorter than head, 112-122 long, 153-173 wide across anterior margin and 193-235 across posterior. Anteroangulars 12, anteromarginals weak, 3-7 long, midlaterals 58-61, postangulars 81-83 and epimerals 74-81 long, blunt, thin and hyaline. Pterothorax 204-235 long, 224-255 across mesothorax, 224-258 across metathorax. Forefemora simple, 92-102 long, 41-46 wide, foretibiae and foretarsi unarmed. Forewings 561-612 long, 66-71, 48-51 respectively wide at base, middle and apex with 2-5 double fringes; basal wing setae 46-58, 46-58, 58-70 long, thin, almost blunt.

Abdomen 184-204 wide across VIII, 112-133 across IX; B1-B3 of IX 102-107, 41-46, 122-132. Tube 104-108 long, 53-60, 39-42, 23-28 wide respectively at base, middle and apex; anal setae 110-115 long.

Total body length: 1.224-1.448 mm.

Material: Holotype female, Paratypes 14 females, Kanha Reserve Forest, Madhya Pradesh, India, 20-1-1970, on the leaves of an unidentified tree (TNA collections, Loyola College, Madras).

GENUS *Salothrips* NOVO

Head a little longer than wide, cheeks weakly crenulate, imperceptibly concave below cheeks. Eyes large, more than a third as long as head; median ocellus on an elevated cone on interantennal projection. Mouthcone rounded, labrum pointed; maxillary stylets occluded, broadly separate, with a weak, but distinct maxillary bridge. Postoculars much shorter than eyes, placed well within cheek margins. Antennae 8-segmented, segment 2 narrow and elongate, 3 and 4 almost subequal, 7 distinct, almost tending to form a unit with 8; sense cones short, thick and very stout at base in the oedymorous male. Pronotum a little shorter than head; epimeral region fused with pronotal plate; all pronotal setae except anteromarginals well developed, pointed. Forefemora strong, unarmed, as also foretibia; foretarsus apically with a forwardly directed, small, blunt tooth. Praepectus absent. Mesopraesternum well developed, broad, band-like, crested at middle. Forewings not constricted at middle, with double fringes; basal wing setae well developed, long, pointed. Pelta elongate and typically bell-like. Lateral abdominal setae long and fine; those on VII and VIII much longer and setaceous; B1 and B2 thin, setaceous and as long as tube; B2 short in males. Tube shorter than head, trumpet shaped, weakly ridged, with scale-like sculpture; anal setae shorter than tube.

Type of the genus *Salothrips indicus* gen. et sp. nov.

The imperceptibly concave cheeks, the presence of a weak maxillary bridge, very short and thick sense cones, the fusion of the epimeron with the pronotal plate, the long and setaceous posterior abdominal setae and peculiar nature of the tube appear outstanding features of this new genus which may be assigned to the Hoplothripina.

This genus is being described in view of its outstanding peculiarities based on a normal male and an oedymorous male.

Salothrips indicus sp.nov. (Figure 2)

MACROPTEROUS MALE:

General colour brown; forefemora brown with apical third yellow, foretibia more yellowish, all tarsi yellow. Antennal segments 2-8 brown, 3 and 4 yellowish at extreme base. Tube golden yellow, darker brown at extreme base and apex. Forewings infumate, weakly punctate at apex; all setae brown, pointed. While this is the colouration of the oedymorous male, the normal male has more golden yellow in the head region, with forefemora except at extreme base yellow, as also the foretibiae and foretarsi; mid and hind femora and tibiae also more yellowish brown; antennal segments 1, 2 more yellowish than brown, 3 yellow in basal half and gradually

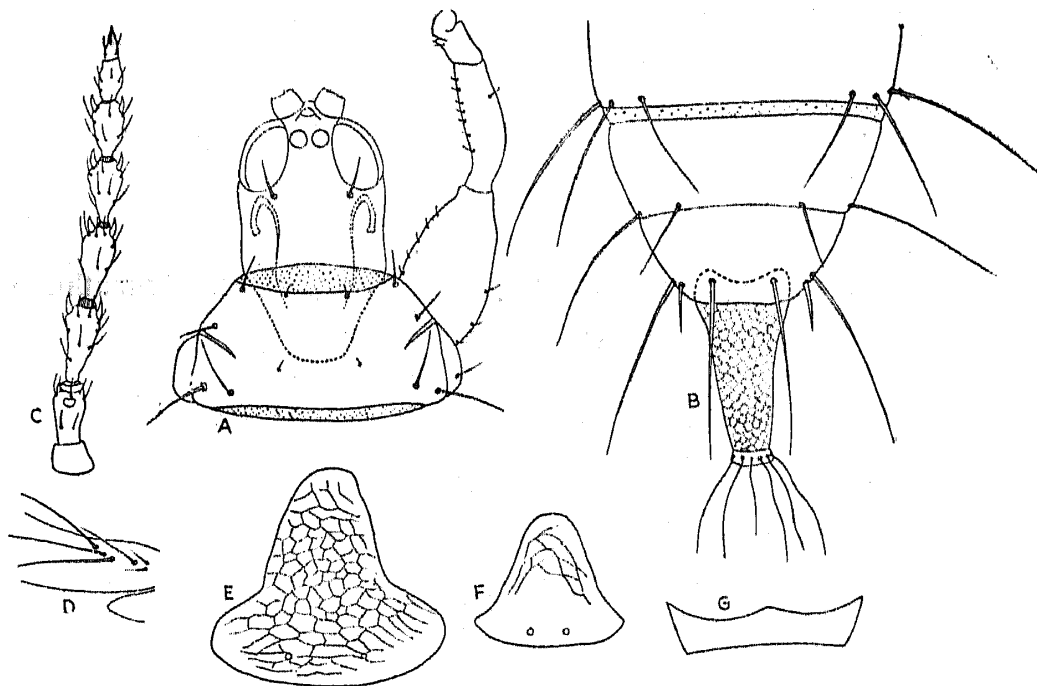


Figure 2. *Salothrips indicus*. A, head and prothorax of male; B, abdominal segments VII to IX; C, antenna; D, basal wing setae, with an odd seta; E, pelta of oedymere; F, pelta of gynaecoid; G, mesopraesternum.

shading to brown; 4, 5, 6 also pale yellow at basal third. Plenty of reddish brown pigment present in the normal male.

Head 153-194 long, 133-194 wide across eyes, 143-193 across cheeks and 143-184 at base. Eyes large, 56-87 long, 37-61 wide; median ocellus on an elevated cone. Postoculars shorter than eyes, 40-46 long, placed 23-25 below eyes and 32 from cheeks, pointed. Antennal segments, length (width): 23-41 (32-44), 37-58 (28-30), 51-87 (30-37), 55-80 (32-37), 52-78 (32-37), 44-62 (25-30), 39-51 (24-30), 57-63 (17-23). Sense cones on 3, 4 and 5 short and stout; sense cone formula 3^{1+1} , 4^{1+1} , 5^{1+1} , 6^{1+1} . Mouthcone 82-103 long, 143-184 wide at base and 46-56 at apex; maxillary stylets occluded, widely separate.

Prothorax 133-173 long, 173-224 wide across anterior margin, 275-283 across posterior; anteroangulars 35-41, anteromarginals vestigial, midlaterals 41-51, postangulars 60-74 and epimerals 60-106 long. Pterothorax 204-306 long, 255-398 wide across mesothorax and 245-388 across metathorax. Forefemora 122-194 long, 71-112 wide; foretarsi with a weak, forwardly directed tooth; forefemora and foretibia unarmed. Forewings with 14-17 double fringes. Basal wing setae 53-92, 74-115, 76-135 long, rarely with one or more extra setae in between the normal setae on one side as depicted in the figure.

Abdomen heavy, 224-337 wide across segment VIII and 143-214 across IX; B1-B2 of IX 120-161, 35-46 and 127-153 long respectively. Tube 97-153 long, 53-61, 41-56, 32-51 respectively wide at base, middle and apex; anal setae 81-115 long.

Total body length: 1.428-2.215 mm.

MATERIAL: Holotype male, Paratype male, dry twigs, Tirupathi, Andhra Pradesh, India, 26-3-1970 (TNA collections).