

## NEW APHIDS (HOMOPTERA : APHIDIDAE) FROM NORTH WEST INDIA

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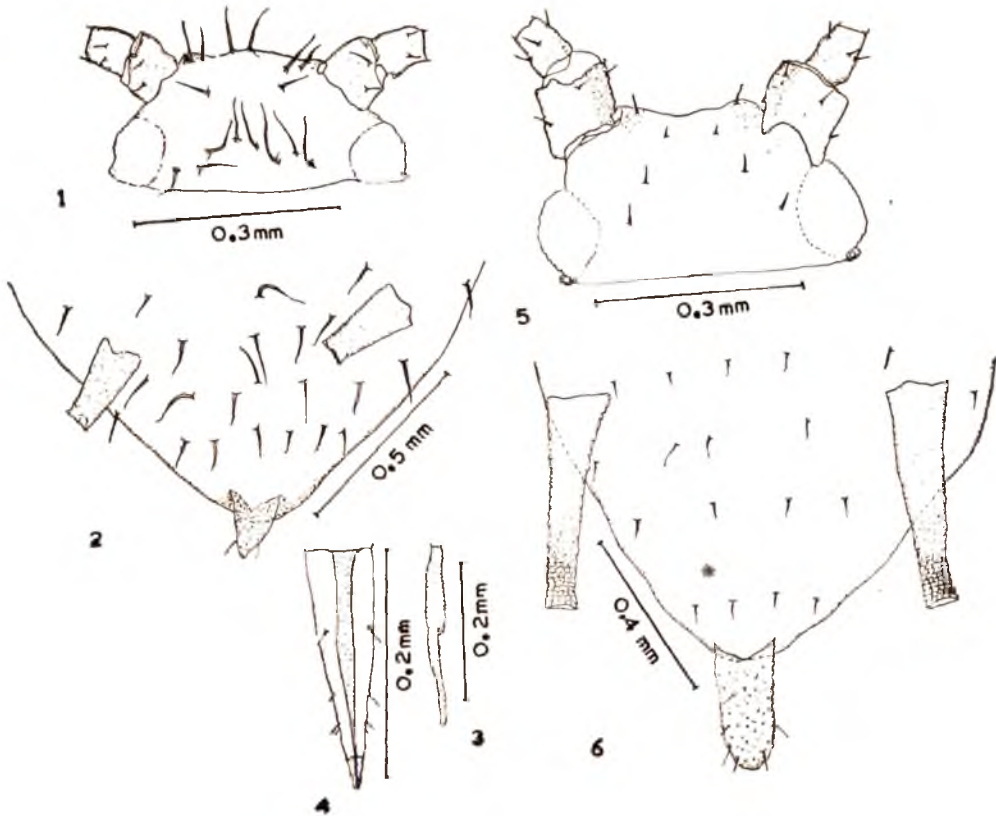
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Two new species of aphids viz. *Aphis paraverbasci* and *Macrosiphum (Stobion) pseudoalupecuri* collected from Simla Himalayas, North west India are described.

### *Aphis paraverbasci* sp. nov.

Apterous viviparous female: Body 1.90–1.57 mm long with 1.05–1.20 mm as maximum width. Head (Fig 1) pale brown, without distinct lateral frontal tubercles but the middle of head slightly convex; dorsum smooth, with about 14–16 long flagellate hairs, longest hair on frons about 41–80  $\mu$  long and 1.77–2.75 times the basal diameter of antennal segment III. Antennae about 0.46–0.52 times the length of body: segments I and II smooth, concolourous with the head, segment I with 2 hairs and II with 3 hairs which are about 33–41  $\mu$  long; flagellum gradually imbricated from base to apex, segment VI pale brown to brown, rest of the flagellum pale; processus terminalis (Fig. 3) about 0.46–0.72 times the length of antennal segment III and 1.08–1.45 times the length of the base of segment VI; secondary rhinaria absent, but one specimen (? allatoid apterae. with 2–3 secondary rhinaria on apical 0.4 portion of the segment III; hairs on the flagellum long with flagellate apices, longest hair on segment III about 30–41  $\mu$  long and about 1.0–1.37 times the basal diameter of the segment (in the specimen having secondary rhinaria about 0.9 times). Rostrum long, reaches hind coxae; ultimate rostral segment (Fig. 4) gradually becoming narrow, about 1.93–2.2

times the length of second joint of hind tarsi, with 2 accessory hairs near the base. Thorax pale; mid-thoracic furca sessile. Abdomen (Fig. 2) pale excepting the spinal area of tergite 8 and tip of the abdomen which are brown; hairs on the dorsum stout, long with acuminate to flagellate apices anterior tergites with 8–10 hairs per segment, 7th and 8th tergites, each with 6–8 hairs, longest hair on anterior tergites about 52–90  $\mu$  long and about 1.55–3.0 times the basal diameter of antennal segment III, on 7th and 8th tergites about 67–82  $\mu$  long and about 2.0–2.62 times the mentioned diameter; tubercles on 1st abdominal segment small, on 7th segment absent or very small. Siphunculi brown, rarely dark brown, subcylindrical, slightly imbricated, with distinct flange, about 0.10–0.12 times the body and 1.5–1.69 times the cauda. Cauda dark brown, nearly triangular with about 8 hairs. Subgenital plate with 12 hairs in 2 groups on the posterior margin. Legs pale except coxae, trochanter and tarsi which are pale brown; femora and tibiae smooth, hairs on legs long and fine, longest hair on femora about 37–56  $\mu$  long, tibiae much hairy, tibial hairs are of two types; longer hairs with flagellate apices and similar in length to those on femora, shorter hairs with acute to acuminate apices, about 26–37  $\mu$  long; first tarsal segment with 3 hairs.



Figs. 1-4. *Aphis paraverbasci* new species: apterous viviparous female: 1. Head, 2. Posterior portion of abdomen, 3. antennal segment VI, 4. Ultimate rostral segment. Figs. 5-6. *Macrosiphum (Sitobion) pseudoalapecuri* new species: apterous viviparous females: 5. Head, 6. Posterior portion of abdomen.

Measurements of the holotype in mm : Length of body 1.77, width 1.15; antenna 0.99; antennal segments III : IV : V : VI 0.25 : 0.17 : 0.15 : 0.12 + 0.13; ultimate rostral segment 0.22; second joint of hind tarsus 0.11; siphunculus 0.22; cauda 0.13.

#### Holotype

Apterous viviparous female, India : Himachal Pradesh : Simla, Kufri, 27. xii. 1972 from a plant of family Labiatae (coll. S. CHAKRABARTI). Paratypes: 4 apterous viviparous females and nymphs, collection data as in the holotype.

#### Remarks

The present new species by nature of ultimate rostral segment, siphunculi, cauda and long hairs on body comes close to *Aphis verbasci* SCHRANK (1801), but can be distinguished from the latter in having short processus terminalis in relation to antennal segment III and base of segment VI, small or absence of lateral tubercles on 7th tergite, longer hairs on the body and in having shorter siphunculus in relation to body. Having very long ultimate rostral segment, *paraverbasci*, new species also comes close to *Aphis kurosawai* TAKAHASHI (1921) and *Aphis leptorhyncha* DAVID *et al.*

(1970). But from the both species *paraverbasci* remains distinct by its short processus terminalis.

**Macrosiphum (Sitobion) pseudoalupecuri**  
sp. nov.

*Apterous viviparous female.* Body 2.31–2.70 mm long with 1.77–1.29 mm as maximum width. Head (Fig. 5) pale brown to brown, lateral frontal tubercles moderately developed with 1 dorsal and 1 ventral hairs on each, median frontal prominence indistinctly developed or even absent; dorsum smooth, with 4 pairs of hairs including those on lateral frontal tubercles; hairs on the dorsum of head with acuminate apices, longest hair on lateral frontal tubercles and those on the vertex about 22–38 $\mu$  long and 0.65–0.8 times the basal diameter of antennal segment III. Antennae about 0.81–0.88 times the body, segments I and II concolourous with the head, nearly smooth, with 4 hairs on each, about 22–30 $\mu$  long; flagellum gradually becoming brown to blackish brown from apical 0.5 portion of segment III; segment III smooth, gradually and more distinctly imbricated from base to apex; processus terminalis about equal to segment III and 2.33–4.0 times the length of base of segment VI; hairs on the flagellum with acute to acuminate apices, longest hair on segment III about 18–24 $\mu$  long and 0.44–0.65 times the basal diameter of the segment; segment III with 2–5 secondary rhinaria on basal 0.4 portion. Rostrum reaches slightly beyond mid-coxae; ultimate rostral segment short, about 0.65–0.74 times the second joint of hind tarsi, with 2 accessory hairs. Thorax pale. Abdomen (Fig. 6) pale, dorsum smooth; hairs stout, with acute to acuminate apices; anterior tergites with 6 hairs per segment, 7th and 8th tergites, each with 4 hairs, longest hair on anterior tergites 0.8–1.0

times the basal diameter of segment III. Siphunculi pale on basal 0.35 portion, rest gradually becoming darker apicad, subcylindrical, imbricated, reticulated on apical 0.25 portion, about 0.18–0.20 times the length of body and 1.75–2.0 times the length of cauda. Cauda pale to pale brown may be with an indistinct median constriction and with bluntish apex, with 8 hairs. Subgenital plate with 10 hairs on the posterior margin and 2 short hairs on the anterior margin. Legs pale brown to brown, femora smooth, tibiae slightly imbricated; first tarsal segments with 3 hairs.

Measurements of the holotype in mm : Length of body 2.61, width 1.21; antenna 2.26; antennal segments III : IV : V : VI 0.53 : 0.46 : 0.36 : 0.15 + 0.52; ultimate rostral segment 0.098; second joint of hind tarsus 0.131; siphunculus 0.49; cauda 0.28.

**Holotype**

*Apterous viviparous female*, India : Himachal Pradesh: Simla, 29. xii. 1972 from an unidentified grass (Graminae) (coll. S. CHAKRABARTI). **Paratypes** : 3 apterous viviparous females and nymphs, collection data as in the holotype.

**Remarks**

This *Macrosiphum* species is a member of the subgenus *Sitobion* in having shorter hairs on antennal segment III. A comprehensive account of Indian *Macrosiphum* spp. has been provided by DAVID (1975). The present new species comes close to *Macrosiphum (Sitobion) alupecuri* (TAKAHASHI, 1921), but can be distinguished from the latter in having 8 caudal hairs, in the proportion of siphunculi and cauda, siphunculi darker apicad and by the shape of cauda.

The type material are with the author at the present except 1 paratype of each of the above two new species, which are with Dr. D. HILLE RIS LAMBERS, The Netherlands.

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