

ADDITIONS TO THE APHID FAUNA OF NORTH EAST INDIA

by

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Since 1896, about seventy-two species of aphids have been described from this part of India by different workers. The species so far described are distributed over about forty-two genera. The present paper brings the number of species to seventy-four and that of the genera to forty-three.

Lachnus titabarensis nov. spec.

Apterous viviparous female. — Body pyriform, about 2.4 to 2.6 mm long, with about 1.3 to 1.5 mm as maximum width. Abdominal tergites brownish, wrinkled, with a row of small pleural patches on either side; base of siphunculus surrounded by a large brownish patch. Hairs on the dorsum of the abdomen on small circular sclerites (mostly broken), stout; most of the hairs with long acute apices, a few with acuminate apices; the shorter ones caudad, a very few of such hairs with deeply furcated apices (fig. 1); the longest of the entire hairs may be up to $2\frac{2}{3}$ times as long as the basal diameter of segment III, the shortest furcated hair is up to about $1\frac{1}{4}$ times as long as the diameter mentioned. Dorsal hairs on the head rather fine, and with acute apices. The antennae are slightly lighter in colour than the head, which is dark brown, excepting the basal $\frac{2}{3}$ of segment III, which is still lighter; segment III smooth basad, the rest of the flagellum gradually more distinctly imbricated from base to apex; segment III up to about $\frac{7}{12}$ the length of segments IV, V, and VI taken together; segments IV and V subequal; processus terminalis slightly less than half the length of the base of the segment ($\frac{5}{11}$); hairs on segment III with finely drawn apices, up to about 2 to $2\frac{2}{3}$ times as long as the basal diameter of the segment. The apex of the rostrum bluntish, reaching a little beyond the second coxae; segments 4 + 5 up to about $\frac{7}{8}$ the length of the second segment of the hind tarsi; segment 4 with four long hairs, besides the four short hairs at the junction of segments 4 and 5. Siphunculi pore-like, with 3 whorls of hairs. Cauda helmet-shaped. Legs blackish brown; tibiae and tarsi darker; femora stouter, smooth. First segment of hind tarsi $\frac{1}{3}$ to $\frac{3}{8}$ the length of the second segment.

Measurements of one specimen (in mm):

Length of the body	2.6
Breadth of the body	1.5
Antenna	1.2
Antennal segments III : IV : V : VI	0.36 : 0.19 : 0.19 : (0.16 + 0.06)

Material. — The brown insects were collected from the under surface of the leaves of the host plant, *Heteropanax fragrans* Seem. at Titabar, Assam, in January 1960. The total number of specimens amounts to 30 apterae and 20 nymphs. The syntypes are in the authors' collection.

Discussion. — Dr. V. F. Eastop (British Museum, London) in a personal communication suggested this species to be closest to *Lachnus himalayensis* Van der Goot, 1917. Van der Goot deposited his material, bearing no. 5601/H.I, in the Indian Museum. On enquiry, we were given to understand by the authorities of the Zoological Survey of India that this material had been lost due to flood damage.

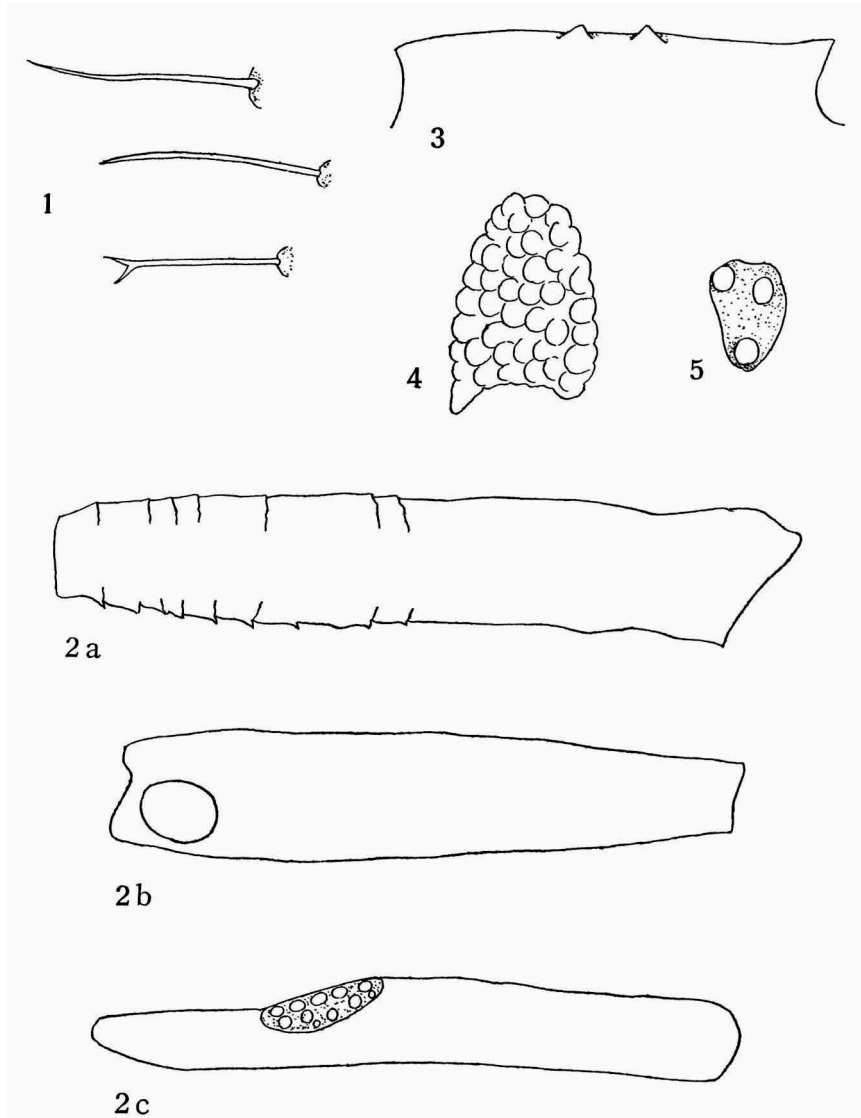
In the circumstances, only the rather scanty description of this species had to be relied upon. Comparing Van der Goot's description with the present material, it is noted that the present species differs from *Lachnus himalayensis* in (1) the shorter body, (2) the proportionate length of the fourth, fifth, and sixth antennal segments (fig. 2a, b, c), (3) the absence of secondary rhinaria on the fourth and fifth antennal segments, (4) the longer ultimate rostral segment.

Paracallipterus nov. gen.

The type species of the present new genus, *Paracallipterus kalipadi* nov. spec., by the possession of post-siphuncular processis shows to be related to a number of genera of the tribe Setaphidini of the subfamily Greenideinae (Thelaxinae Börner partim), but the presence of compound eyes and triommatidia, the knobbed cauda and bilobed anal plate justifies its separation from the Greenideinae and its inclusion in the subfamily Callipterinae. The tribal classification of the subfamily Callipterinae has been treated very differently by different authors, but all have placed the tribe Callipterini under this subfamily. In spite of this agreement, the characterization of the Callipterini has been very different. Reviewing the various works it seems to us that the tribe can be characterized by the following characters: (1) antennae 5- or 6-segmented, (2) processus terminalis shorter than the ultimate rostral segment, (3) eyes with or without ocular tubercles, with triommatidia, (4) siphunculi short or ring-like, (5) presence of lateral or dorsal

types of processi, or both, on the body, (6) cauda knobbed; knobbed part sometimes rounded or elongate, with bilobed or slightly indented anal plate.

If the tribe Callipterini is not characterized as above, a new tribe has



Figs. 1, 2. *Lachnus titabarensis* nov. spec. 1, three types of hairs of the abdominal tergites; 2a, fourth antennal segment; 2b, fifth antennal segment (without imbrications); 2c, sixth antennal segment (without imbrications).

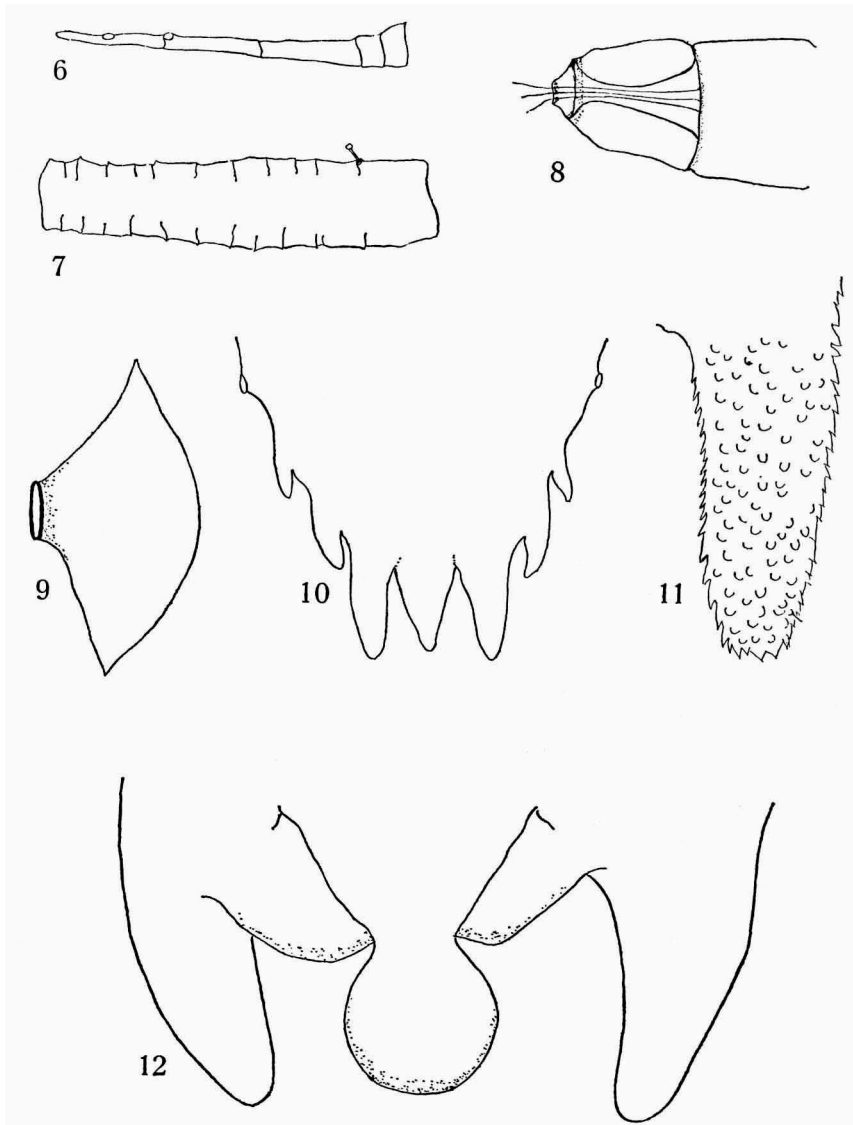
Figs. 3-5. *Paracallipterus kalipadi* nov. spec. 3, median prominences on the head; 4, eye with ocular tubercle; 5, triommata. All figures $\times 385$.

to be created to accommodate the present species. But we do not think this necessary, as such a step would further complicate the tribal classification. The present species cannot be put under any of the known genera of this tribe, in view of the restriction of the dorsal and lateral tubercles to the post-siphuncular segments. Hence a new genus *Paracallipterus* is created with *Paracallipterus kalipadi* nov. spec. as *typus generis*. This genus can be characterized as follows: (1) antennae 5-segmented with short capitate hairs, (2) segment IV without secondary rhinaria (at least in apterae), (3) eyes with tubercles and distinct triommatidia, (4) ultimate rostral segment blunt, reaching the base of the second coxae (at least in apterae), (5) siphunculi short, truncate, up to about $\frac{1}{3}$ to $\frac{1}{4}$ the maximum width, (6) post-siphuncular segments with both dorsal and lateral processi.

***Paracallipterus kalipadi* nov. spec.**

Apterous viviparous female. — Body pale, elongated oval, 1.2 to 1.4 mm long with 0.54 to 0.75 mm as maximum width, which is in its middle. Head with a pair of poorly developed median prominences (fig. 3). Eyes with ocular tubercles (fig. 4), distinct triommatidia present (fig. 5). Antennae 5-segmented (fig. 6), imbricated from base to apex. Antennal hairs very short (fig. 7), sparse and with capitate apices; hairs on segment III at most up to $\frac{1}{4}$ the basal diameter of the segment. Processus terminalis up to about $\frac{5}{7}$ to $\frac{1}{3}$ the base of segment VI; primary rhinarium with hairy fringes. Rostrum very short, stout, with a blunt apex (fig. 8); apical segment hardly reaching the base of the second coxae; ultimate rostral segment with 4 fine, acute hairs, which may be up to three times as long as the hairs on the dorsum of the abdomen. Hairs on the dorsum of the abdomen very sparse, and up to about $\frac{1}{4}$ the basal diameter of the third antennal segment, with the apices similar to those of the hairs on the antennae. Siphunculi short, truncate, with rather broad base, about $\frac{1}{3}$ as long as the maximum width (fig. 9) which is at its very base; coloured like the body. Each of the post-siphuncular segments with a pair of lateral processi, which gradually become longer and stouter caudad (fig. 10); a median processus is present dorsally on the eighth segment; all the processi are scabrous (fig. 11) and sometimes with very few short hairs. Cauda knobbed, with about 5 or 6 hairs, with acute apices; anal plate bilobed (fig. 12). Legs pale, mid and hind coxae closely approximated; femora stout, with smooth inner margins, and faintly imbricated outer margins; such imbrications more distinct apicad; femoral hairs short, stout; tibiae smooth, long and short hairs occur intermingled, they have acute apices; besides these normal hairs, there are minute spinules, sparsely distributed towards the apices; first

tarsal chaetotaxy 5.5.5; longest hair on the first segment of the hind tarsi $1\frac{2}{5}$ times as long as the empodial hairs, which are stout and with acute apices.



Figs. 6-12. *Paracallipterus kalipadi* nov. spec. 6, antenna (without imbrications); 7, third antennal segment with hair; 8, ultimate rostral segment; 9, siphunculus; 10, median and lateral processi; 11, single processus; 12, cauda and anal plate. 6, 10, $\times 85$; 7-9, 11, 12, $\times 385$.

Measurements of one specimen (in mm):

Length of the body	1.4
Breadth of the body	0.73
Antenna	0.56
Length of the siphunculus	0.33
Diameter of the siphunculus	0.10
Antennal segments III : IV : V	0.14 : 0.16 (0.7 + 0.5)

Material. — The specimens were collected only from young shoots of *Anona squamosa* L. at Alipurduars, North Bengal, in June 1962. The total number of specimens amounts to 15 apterae. The syntypes are in the authors' collection.

The species is named after the collector.

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