

A REVISION OF THE CULICINE MOSQUITOES OF INDIA

Part XXI.

DESCRIPTIONS OF NEW SPECIES OF *AEDIMORPHUS* AND *FINLAYA*, AND NOTES ON *STEGOMYIA* *ALBOLINEATA* (THEO.).

BY

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***Aëdimorphus nigrostriatus* sp. n.**

A VERY distinct golden yellow mosquito, marked with a pair of conspicuous black stripes on the mesonotum, and a round black spot in front of each wing base; proboscis, abdomen, and legs almost entirely yellow.

Description of male and female.

Head: completely covered with narrow scales of a bright yellow colour, numerous rather narrow upright scales on the vertex and nape, orbital bristles yellow. Tori and clypeus yellowish. Antennal plumes of the male yellow, the hairs arranged chiefly on the dorsal and ventral aspects, the last few flagellar segments distal to the plumes darker. Shaft and hairs of the antenna of the female brownish. Palpi of the male mainly yellow, longer than the proboscis by about the length of the apical segment, the last two segments about equal in length, turned downwards, and bearing tufts of yellow hairs; a more or less distinct black ring on the long segment, nearer to the base than the apex, some dark scales at the base and apex of the penultimate segment, and along the length of the terminal segment. Palpi of the female yellow scaled, nearly one-third the length of the proboscis. Proboscis in both sexes yellow, some dark scales on the underside near the base in the male, labella dark.

Thorax: mesonotum covered with narrow yellow scales, a pair of conspicuous submedian black stripes from the front continued back to the lateral lobes of the scutellum, a round black spot in front of each wing root, which, in some specimens, is continuous with a dark marking running downwards across the pleuræ towards

the coxa of the fore leg; bristles yellow, those arising along the black stripes darker. Scutellar scales narrow and bright yellow, bristles yellow, integument of the scutellum pale. Postnotum pale yellowish or brownish, with a dark stripe on each side, corresponding with the black stripes on the mesonotum. Pleurae pale yellow or brownish, with a dark marking commencing at the post-spiracular area and continued downwards towards the fore coxa, some small lanceolate yellow scales on the sternopleural and mesepimeral sclerites, a few similar scales on the post-spiracular area, narrow yellow scales on the proepimeron; usually four or five proepimeral bristles curving over the anterior spiracle, and two other bristles above, five to eight post-spiracular bristles, numerous upper mesepimeral and sternopleural, but no lower mesepimeral.

Wings: costa and subcosta yellow scaled, vein 1 dark scaled on rather more than the basal half, veins 2 and 4, including branches mainly dark scaled from the cross-veins to the apex of the wing, the parts of these veins basal to the cross-veins yellow, as are also veins 3, 5.1, and 6, the stem of 5 and 5.2 dark scaled; membrane of the wing in the region of the cross-veins slightly darkened. Wing length, male about 3.3 mm., female from 4 to 4.5 mm.

Legs: almost entirely bright yellow. in some specimens the mid femur is brownish on the anterior surface, and there are black knee spots on all the femora, but both these characters are variable and the knee spots are not at all pronounced in some specimens. Claws of the fore and mid legs of the male unequal in size and all furnished with one tooth, those of the female about equal in size and also toothed; in both sexes the claws on the hind feet are small, equal in size and simple.

Abdomen: uniformly clothed with bright yellow scales. The body of the female, in the case of gravid or freshly-fed specimens, tapers almost to a point at the tip, and the cerci are prominent, as in other species in this group.

Male hypopygium: a small hairy basal lobe on the anal surface of the side-piece, clasper similar in shape to that of *A. pallidostriatus*, but more hairy (Fig. 1), phallosome divided into heavily chitinated lateral plates bearing teeth.

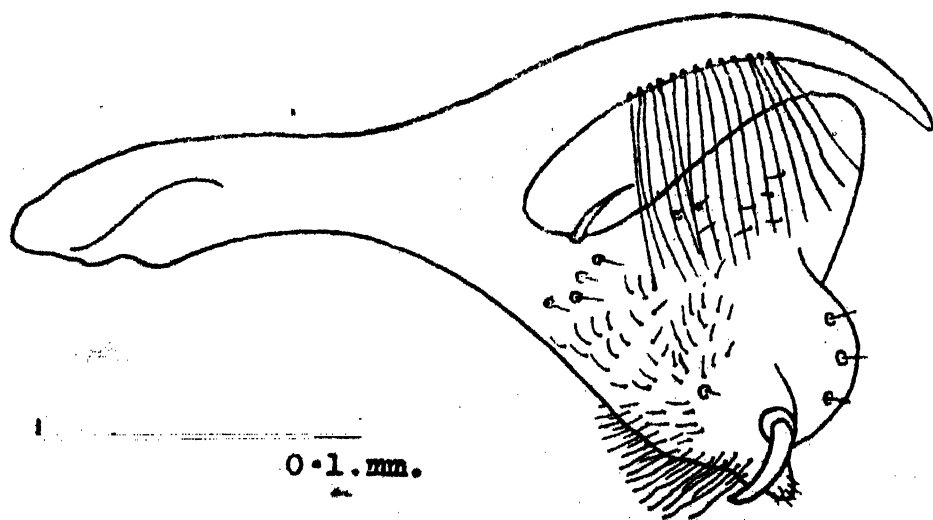


Fig. 1.—Camera lucida drawing of the clasper of the male genitalia of *Aedimorphus nigrostriatus* sp. n. (drawn from stained preparation).

The type male and female are in the Central Malaria Bureau collection, Kasauli, from Golaghat, Assam, 17th November 1925, caught in jungle (Barraud). There are also seven other females, and four males, caught in the same place in December 1924, and November and December 1925. Some of the females were caught in cow sheds in a freshly-fed condition. One other female has been received from Rangoon, January 1926 (Capt. R. W. Hamilton Müller).

***Aëdimorphus littoralis* sp. n.**

A yellowish species without conspicuous ornamentation, legs brown and unbanded, dorsum of abdomen of the male with violet-black apical bands, which are broad on segments 2, 3, and 4, abdomen of the female almost entirely covered with violet-black scales dorsally.

Description of male and female.

Head: some narrow golden scales along the eye margins, vertex and sides clothed with broad pale scales, fairly numerous black upright scales on the vertex and nape, median orbital bristles yellow. Antennal plumes of the male yellowish, the hairs browner towards the tips, shaft and hairs of the antenna of the female brown. Palpi of the male only slightly longer than the proboscis, the last two segments about equal in length, turned slightly downwards, and furnished with tufts of brownish-yellow hairs, a tuft of hairs also at the extremity of the long segment, a more or less complete black ring on the long segment, nearer to the base than the apex, dark brownish scales at the tip of this segment, and along the length of the two terminal segments. Palpi of the female only about one-fifth the length of the proboscis, yellowish-brown in colour. Proboscis in both sexes yellow on about the basal two-thirds, dark brown on the apical third.

Thorax: integument of the mesonotum pale at the sides towards the front, a median brown area, broad in front, gradually narrowing posteriorly, and continued to the mid lobe of the scutellum, an oval dark area in front of each wing root; disc scantily covered with hair-like golden and brown scales, bristles yellow and brownish. Scutellar bristles yellow, scales hair-like, golden on the lateral lobes, dark brown at the base of the mid lobe. Postnotum brown, darker in the middle than at the sides in the male.

Wings: clothed with dark scales, length, male 3.4 mm., female 4 mm.

Legs: brown, yellowish when seen from behind, especially the femora, the hind femur almost entirely yellow except dorsally on the anterior surface. Tarsal claws of the fore and mid legs of the male unequal in size and all with a tooth, those of the female equal in size and also toothed, hind claws of both sexes small, equal and simple.

Abdomen: that of the male yellow scaled, with wide triangular violet-black apical bands on segments 2, 3, and 4, the apex of the triangle pointing towards the base of each segment, narrower dark apical bands on segments 1, 5, 6, and 7, venter pale yellow, indications of darker apical bands on some of the terminal segments. Abdomen of the female almost entirely clothed dorsally with violet-black scales, the sides of each tergite yellow from the base to the hind border. No patches of white scales on the abdomen.

Male hypopygium: a small hairy basal lobe on the inner surface of the side-piece, a moderately dense patch of long hairs on the inner surface of the side-piece midway between the basal lobe and the apex of the side-piece. Clasper comparatively small and of simpler form than that of most other Indian species (Fig. 2). Phallosome divided into heavily chitinised lateral plates, bearing teeth.

The female has some resemblance to that sex of *Tæniorhynchus* (*Conquilletidia*) *crasipes* (van der Wulp) (*T. brevicellulus* Theo.) but differs in the colouration of the proboscis in the presence of post-spiracular bristles, and in the form of the tarsal claws of the fore and mid legs.

The type male, and allotype female, are in the Central Malaria Bureau collection, Kasauli, from Trombay, Bombay Harbour, mid July 1921 (Barraud).

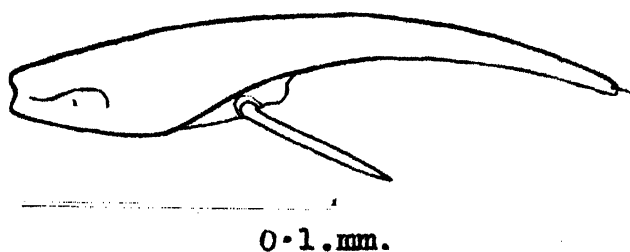


Fig. 2.—Camera lucida drawing of the male genital clasper of *Aëdimorphus littoralis* sp. n.

***Finlaya subsimilis* sp. n.**

This species appears to be related to *Finlaya dissimilis* (Leic.), described in Part XVIII of this Revision, but differs in the presence of white rings on the hind tarsi, white markings on the palpi (male), and in other details.

Description of male.

Head: vertex covered with flat black scales, a patch of silvery white scales on each side, a very few dark upright scales on the nape, orbital bristles black. Tori dark brown, some silvery white scales on the space between them. Antennal shaft and hairs brown. Clypeus dark. Palpi about the length of the proboscis, slender and without hair tufts, mainly black scaled, but with a white ring, nearer to the base than the apex, and some white scaling on the upper and inner sides near the base. Proboscis dark and about the length of the front femur.

Thorax: mesonotum covered with dark brown narrow scales, bristles brown. Scutellar scales flat, brownish-black in colour. Postnotum dark brown. Silvery white flat scales on the prothoracic lobe, and on the upper and lower parts of the sternopleura, and upper part of the mesepimeron, proepimeron without scales. four or five proepimeral bristles.

Wings: dark scaled, length 2.8 mm.

Legs: brownish-black, femora yellowish ventrally, small white knee spots dorsally on all the femora, tibiae dark with a very few pale scales at the tips, tarsi of the fore leg with small basal dorsal white markings, not forming complete rings, on the first two segments, similar markings on the first three segments of

the mid tarsi, hind tarsi with narrow basal white rings to the first three segments, the fourth segment entirely white except at the extreme tip, the fifth dark.

Abdomen: tergites dark brown, faintly paler at the base on the first four or five segments, lateral silvery patches commencing near the base of each segment and not continued to the hind borders.

Male hypopygium: side-piece about three and a half times the length of the greatest width in a dorsal or ventral view. Clasper moderately long, widened towards the tip, with a short terminal appendage (Fig. 3). Blade of harpago represented by a single spine, somewhat similar to that of *F. dissimilis*.

The female is at present unknown.

The type male (unique) No. 1298, is in the Central Malaria Bureau collection, Kasauli, from Sukna, North Bengal (base of Eastern Himalayas), bred September 1922, from larva taken from a bamboo stump (Barraud).

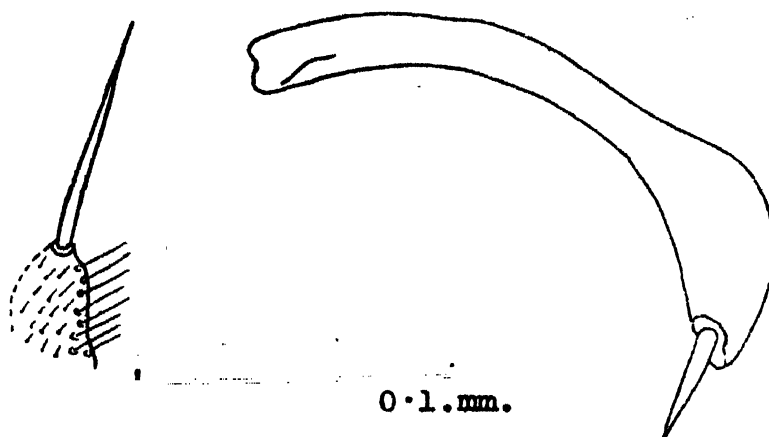


Fig. 3.—Camera lucida drawings showing the form of the clasper, and of the spine representing the harpago, of the male genitalia of *Finlaya subsimilis* sp. n.

***Stegomyia albolineata* (Theo.).**

Scutomyia albolineata, Theobald, 1904, *The Entomologist*, Vol. XXXVII, p. 77.

This species, as far as I am aware, has not been recorded for India previously. It resembles *S. albopicta* (Skuse), described in Part I of this Revision, but may be distinguished by the following differences in markings:—palpi in both sexes entirely dark; a broader median silvery stripe on the mesonotum terminating well in front of the level of the wing roots, no lines of white scales in front of the scutellum; scales on the lateral lobes of the scutellum black, only those on the mid lobe being silvery; tarsi of the fore and mid legs entirely dark, those of the hind legs with narrow basal white markings to the first three segments, not always forming complete rings, the fourth and fifth segments entirely dark.

Male hypopygium there are four strong spines, and some weaker bristles, on the basal lobe of the side piece; the clasper is of an unusual form, and differs from that of all other Indian species of *Stegomyia* (Fig. 4).

A few specimens were bred from larvæ taken from tree-holes at Haflong, Cachar Hills, Assam, in August 1922 (Barraud).

It may be mentioned that *Culex albolineatus* Giles, which in Brunetti's Catalogue* is placed in *Stegomyia*, is a form of *Culex fatigans*.

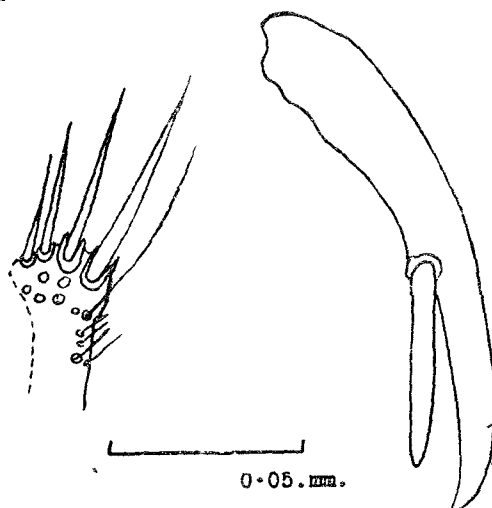


Fig. 4.—Camera lucida drawings showing the form of the clasper, and the appearance of the spines on the basal lobe of the side-piece, of the male genitalia of *Stegomyia albolineata* (Theo.).

* Catalogue of Oriental and South Asiatic Nemocera, p. 127. (*Rec. Ind. Mus.*, Vol. XVII, 1920.)