

XXX. FIRST REPORT ON THE COLLECTION
OF CULICIDÆ AND CORETHRIDÆ IN
THE INDIAN MUSEUM, CALCUTTA, WITH
DESCRIPTIONS OF NEW GENERA AND
SPECIES.

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Amongst the first consignment of the large collection of mosquitoes sent me to examine by the Indian Museum, Calcutta, only thirty-seven species were found. Amongst these are three new species of *Stegomyia*; a new variety of *Neomacleaya indica*, Theobald; a new *Leicesteria*; a new *Culex*; a new *Chrysoconops* and two new genera I have called *Brevirhynchus* and *Radioculex*, each of which contains but a single species. Both of these genera are very marked.

An examination of a long series of a *Culex* with banded proboscis has not been critically made, but I am inclined to believe that they all belong to one species, owing to the various gradations seen in it, and that in consequence several of the species coming under the *Culex microannulatus* group, such as *C. vishnui*, etc., will have to be sunk under one of the old names such as *C. sitiens*. The same applies to the genus *Desvoidea*, as the series shows such great variation in colour.

The numbers in brackets refer to the number of specimens in the collection.

SPECIES IN THE COLLECTION.

Family CULICIDÆ.¹

1. *Anopheles aitkenii*, Theobald-James.

A single ♀ and badly damaged ♂ Meenglas, Dooars, Jalpaiguri [*C. Wallich*], 9-viii-07. These are the only other specimens of this *Anopheles* I have seen since those sent me by Capt. James, I.M.S. (*vide Mon. Culicid.*, vol. iii, p. 22, 1903).

2. *Myzomyia rossii*, Giles.

Five specimens taken at light at Calcutta in November; eighteen taken in December at Port Canning, Lower Bengal, and one taken in January at Sylhet, Assam.

¹ The majority of the Anophelinæ in the collection, were not sent to Mr. Theobald.—ED., *Rec. Ind. Mus.*

3. *Nyssorhynchus fuliginosus*, Giles.

Calcutta, two taken in November and one at light in December.

4. *Myzorhynchus barbirostris*, Van der Wulp.

Calcutta, one female in December.

5. *Myzorhynchus vanus*, Walker.

Calcutta, one in October, twenty-one in November and ten in December; Port Canning, Lower Bengal.

6. *Toxorhynchites immisericors*, Walker.

Aijal (3,600 ft.), Lushai Hills, Assam, ♀, 24-iv-04.

7. *Mucidus scataphagoides*, Theobald.

Bauria, Bengal [*D. A. Tyrie*], 17-viii-07 (one ♀); Damukdia Ghat, E. Bengal, 22-viii-07 (one ♀).

*8. *Stegomyia tripunctata*, sp. nov.

Head black with three silvery white spots, one median in front and one on each side, proboscis and palpi black.

Thorax black with dull bronzy scales; prothoracic lobes white scaled.

Abdomen black with basal lateral white spots which meet on the dorsum on the 5th and 6th segments to form basal bands.

Legs black, unbanded.

♀ Head black, clothed with flat black scales except for a snowy white area in front between the eyes, and a patch on each side of somewhat less shiny hue, chætæ black, two projecting forwards between the eyes, two curving downwards over the basal segments of the antennæ; eyes coppery and golden; clypeus brown, shiny; proboscis thin and black; palpi short, black scaled and with black chætæ; antennæ dark brown, verticillate areas pale, base of second segment testaceous, basal segment black, shiny, with some small curved black chætæ.

Thorax shiny black, with rather large narrow-curved bronzy scales and some paler areas here and there, prothoracic lobes covered with flat silvery white scales, scutellum testaceous with flat black scales, metanotum black, pleuræ black with silvery white flat scales forming a long patch and two spots.

Abdomen narrow, black scaled, with basal white lateral patches, which meet on the fifth and sixth segments to form basal white bands, border-bristles small and pale.

Legs deep brown with bronzy reflections, venter of femora and coxæ pale; ungues small, equal and simple.

Wings with dense brown scales, almost *Tæniorhynchus*-like in form, first submarginal cell much longer, but scarcely narrower

than the second posterior cell, its base much nearer the base of the wing than that of the second posterior, its stem not quite a fourth of the length of the cell, stem of the second posterior about two-thirds the length of the cell, posterior cross-vein slightly more than its own length distant from the mid.

Length, 3 mm.

Habitat, Lushai Hills, Assam [E. C. Macleod].

Observations.—Described from two females. It comes very near *Stegomyia amesii*, Ludlow, but can at once be told by having a large white spot in the middle of the front of the head. One specimen shows some pallid scales on the mid lobe of the scutellum and the white lateral spots do not form bands at all.

*9. *Stegomyia albolateralis*, sp. nov.

Thorax blackish brown with a broad silvery white patch on each side in front.

Abdomen black with basal white lateral spots and traces of basal bandings on the apical segments.

Legs and proboscis deep blackish brown, unbanded.

♀ Head clothed with flat dark brown scales, a few grey ones around the eyes and creamy ones at the sides, clypeus black, nude, with a distinct short pointed process on each side, palpi and proboscis deep brown to black, antennæ deep brown.

Thorax black with narrow-curved bronzy scales except at the sides in front where they are silvery white forming two rectangular shoulder-patches, and a few of the same coloured scales pass around the front of the thorax next the head, and there are a few dull creamy ones scattered about before the scutellum and traces of a short pale-scaled line on each side; the scales behind are larger than those in front, chætæ black in front, dull golden over the roots of the wings, scutellum black with flat black scales and golden brown border-bristles, metanotum shiny and black; prothoracic lobes with flat shiny white scales, pléuræ with spots of flat silvery white scales.

Abdomen black with basal lateral silvery white spots which may spread upwards so as to form indistinct basal white bands on the last one or two apical segments, venter with broad basal white bands.

Legs blackish brown, unbanded, coxæ and venter of fore and mid femora pale, the former with silvery white scales, hind femora pale creamy white for about two-thirds of their length, fore and mid ungues equal and uniserrate.

Wings with fork-cells of moderate length, the first submarginal a little longer, but scarcely narrower than the second posterior cell, its base about level with that of the latter, its stem a little more than half the length of the cell, stem of the second posterior cell more than two-thirds the length of the cell, posterior cross-vein sloping towards the apex of the wing, about twice its own

length distant from the mid. Lateral vein-scales long and thin, especially on the third vein.

Habitat Sylhet, Assam [*Major Hall*], and Lungleh, Lushai Hills, Assam.

Time of capture July at Lungleh, September at Sylhet.

Observations.—Described from five ♀ ♀ It is a very marked *Stegomyia*, easily told by the thoracic adornment. One of the specimens shows some additional prominent adornment on the back of the thorax before the scutellum and a dull creamy patch of scales just behind the root of the wings.

The specimen from Lungleh was taken in a bungalow.

*10. *Stegomyia assamensis*, sp. nov.

Thorax deep brown, a white-scaled area in front less than one-fourth the area of the mesothorax, and a small scaled patch in front of the root of each wing.

Abdomen deep brown, unbanded, with basal lateral white spots, the scales raggedly arranged below. Legs brown, a pale spot near apex of fore and mid tibiæ, a basal pale band to mid metatarsi, hind femora pale, except for a brown band in the middle, base and apex of metatarsi white, base of first hind tarsal white. Proboscis deep brown.

♀ Head black, clothed with flat black scales and some white ones in the middle, a narrow line around the eyes and at the sides, and short thick black chætæ in front projecting forwards and inwards over the eyes, which are large and silvery; palpi black scaled, traces of some paler scales apically; proboscis black; antennæ dark brown, basal segment with grey tomentum.

Thorax shiny black, clothed with bronzy brown narrow-curved scales, except for a small area in front which has pale creamy white scales and a small white-scaled area on each side in front of the roots of the wings passing up on to the mesonotum some short distance, and a small patch of pale scales in front of the bare space before the scutellum; chætæ black to dark brown; scutellum testaceous with flat dusky scales and rich brown border-bristles; pleuræ rich brown with silvery white puncta.

Abdomen deep brown, unbanded, with basal lateral white spots and rather long dusky border-bristles; venter black with basal white bands, the scales long and out-standing, giving a ragged appearance.

Legs brown and banded; fore and mid legs with the femora pale at the base and below, the tibiæ with a creamy area before the apex which is black,—this is most marked in the fore pair; the rest of fore legs unbanded, but in the mid the metatarsus has a pale basal band; femora of the hind legs pale creamy with a broad dark band on the apical half, base and apex of the metatarsus with a pale band, also the base of the first tarsal, remainder dark; fore and mid ungues equal and uniserrate, the hind equal and simple.

Wings with brown scales, the lateral ones dense and rather flattened; fork-cells short, the first a little longer and narrower than the second, its base very slightly nearer the base of the wing than that of the second posterior; its stem not quite as long as the cell, stem of the posterior as long as the cell; supernumerary and mid cross-veins in a straight line, posterior cross-vein about two-and-a-half times its own length distant from the mid.

Length 4.5 mm.

Habitat Sylhet, Assam [*Major Hall*].

Time of capture April (13-iv-05).

Observations.—Described from a single ♀ The adornment of the thorax and legs will at once separate it from others of this genus. It presents certain aberrations which, however, are not sufficient to separate it on one-sex characters alone from *Stegomyia*. These characters are the long raggedly arranged ventral scales, the somewhat longer palpi and the somewhat broader wing-scales; these differences are, however, more of size than of structure.

11. *Stegomyia scutellaris*, Walker.

Calcutta, July (3), August (33), September (11), October (5), common during the hot weather and the rains, disappearing in winter, active by day [*N. Annandale*]; Sylhet, Assam [*Major Hall*], April (17); Lushai Hills, Assam [*E. C. Macleod*], May (2), June (11), July (26); Manipur [*C. A. Gourlay*], July (1); Katihar, Purneah District, N. Bengal [*C. A. Paiva*], October.

12. *Stegomyia fasciata*, Fabricius.

Calcutta, May (2), July (3), August (1), September (4), October (4); Lucknow, November (1); Purneah, N. Bengal [*C. A. Paiva*], August (1); Lushai Hills, Assam [*E. C. Macleod*] (? damaged); Bhim Tal, Kumaon, 4,500 ft., September [*N. Annandale*].

13. *Hulecæteomyia pseudotæniata*, Giles.

Lungleh (?), hatched 29-vii-04 (two ♀♀ and three ♂♂). Very large specimens 5 to 5.5 mm.

*14. *Neomacleaya indica*, Theobald, var. *simplex*, var. nov.

Very similar to the type, but the abdomen has only the median lateral white spots, no trace of banding, and the first submarginal cell is longer than the second posterior cell. The other characters all very similar.

Habitat Sylhet, Assam [*Major Hall*].

Time of capture June (a single ♀).

*15. *Leicesteria apicalis*, sp. nov.

Thorax rich brown with a creamy yellow line around the front and sides; pleuræ rich brown with pale spots. Palpi and

proboscis blackish, the former about half the length of the latter.

Abdomen deep blackish brown with apical yellow semicircular dorsal patches and white lateral spots which swell out apically.

Legs brown, with traces of narrow pale basal banding.

♀ Head clothed with brownish flat scales and paler upright forked scales behind and with creamy spindle-shaped scales placed at right angles to the others around the eyes, palpi and proboscis blackish brown, the former very nearly half the length of the proboscis, this with dense scales at the base; antennæ brown, the basal segment large with bright ochraceous scales.

Thorax shiny black with narrow-curved bronzy and dull ochreous scales with a well-defined area of creamy yellow scales around the front and sides; chætæ pale golden brown, especially over the roots of the wings where they are somewhat darker; scutellum testaceous with flat dusky brown and a few dull ochreous scales; metanotum nude, chestnut-brown with a grey sheen in places; pleuræ brown to yellowish brown with numerous patches of small flat ochreous scales.

Abdomen dusky black, each segment with a median apical semicircular yellow patch, and with a lateral snowy white mark which expands apically; hairs and border-bristles golden; venter pale ochreous.

Legs deep brown, banded, femora pale at the base and beneath; traces of pale knee-spots; fore legs with small yellowish bands at the tibio-metatarsal joint, and at the junction of the first tarsal and metatarsal and apex of the first tarsal; in the mid legs the bands are more confined to the base of the segments and occur on the second tarsal also, in the hind legs extending to the other two segments; pale hairs on the tibiæ.

Wings with rather short fork-cells; the first a little longer and narrower than the second, its base a little nearer the apex of the wing, its stem about two-thirds the length of the cell; stem of the second posterior cell nearly as long as the cell; posterior cross-vein about one-and-a-half times its own length from the mid; scales dense on the apical areas of the veins.

Length 5 mm.

♂ Palpi long and thin, acuminate, no hair-tufts; longer than proboscis by about the last segment, brown with three pale yellow bands, the last two involving both sides of the segments; antennæ loosely plumose, plume-hairs brown, segments mostly pallid except where the verticillate hairs unite and on the long apical segments; fore and mid ungues unequal, uniserrate.

Length 5 mm.

Habitat Lushai Hills, Assam [E. C. Macleod], 1,500 ft.

Time of capture May.

Observations.—Described from two ♀♀ and one ♂. Two hatched from larvæ and one caught 1,500 ft.

Closely allied to *Leicesteria longipalpis*, but easily distinguished by the apical abdominal yellow marks.

16. *Desvoidea obturbans*, Walker.

Sylhet [*Major Hall*] and Lushai Hills [*E. C. Macleod*], Assam.
Four specimens of typical form.

16a. *Desvoidea obturbans*, Walker, var. *fusca*, Theob.

Sylhet, Assam [*Major Hall*], March (2), April (5), May (3), June (2); Lushai Hills, Assam [*E. C. Macleod*], August (11); Calcutta, May (2), August (34), at light, September, October, November and December.

16b. *Desvoidea obturbans*, Walker, variegated-scutellum variety.

Sylhet, Assam, January (2), May (12), June (3); Calcutta, May (1), August (4), September (1), October (1); Lushai Hills, Assam, July (2); Manipur, August (1), in bungalow.

NOTE.—All variations in colour between the true *obturbans* of Walker and the *fusca* of Theobald seen in these specimens, and hence the latter species is sunk as a variety.

*Genus *BREVIRHYNCHUS*, gen. nov.

Head clothed with flat scales, also the scutellum, the latter large.

Thorax with narrow-curved scales at the edges of the mesonotum; prothoracic lobes and pleuræ with flat scales. Proboscis of ♀ short, thick, about one-third of the length of the whole insect, curved twice; of the male thinner and slightly longer in proportion, palpi of the ♀ two-thirds the length of the proboscis, apparently of two segments, the apical one long; palpi of the ♂ longer than the proboscis, acuminate, no hair-tufts, of four segments, the two last nearly equal.

Wings with dense scales, some *Tæniorhynchus*-like. Fore ungues of male unequal, the larger uniserrate; mid equal and uniserrate.

A very distinct genus easily told by the short, thick sinuous proboscis of the ♀, and the relatively long palpi as well as the squamose structure of the thorax with its flat lateral scales. The mid ungues of the ♂ being equal is also characteristic.

*17. *Brevirhynchus magnus*, sp. nov.

Thorax rich brown in the middle with white border all around the front and sides, pleuræ densely white scaled; head black, white around the edge and in the middle, the short thick proboscis black; the palpi black, nearly as long as the proboscis.

Abdomen black with basal median yellow patches, snowy white triangular lateral spots. The base of the triangles towards the posterior borders of the segments, but a black line of scales between the fifth, sixth, and seventh spots yellow at the base, venter with broad yellow basal bands, narrow black apical ones.

Legs blackish with faint traces of banding. Male palpi long and thin, acuminate.

♀ Head clothed with rather large flat dusky black scales, creamy white ones at the sides, and some black ones below them and then white again, a narrow band passing around the eyes and some pale ones in the middle; some long golden brown chætæ projecting forwards; proboscis short, thick, swelling apically (but actual apex acuminate), twice curved, jet black, hairy; palpi long and thin, about two-thirds the length of the proboscis, the apical segment very long, black, some pale scales below at the apex and traces of others below at the base of the long segment; antennæ brown, basal segment with some flat pale scales.

Thorax shiny black clothed with long thin narrow-curved bronzy brown scales, becoming broader behind, and with large narrow-curved white scales in front and the sides, forming a white border around the brown central area; toward the roots of the wings the white area is composed of large white flat scales, and some occur elsewhere passing on to the densely flat white-scaled pleuræ, which also bear a median patch of flat black scales; prothoracic lobes covered with flat white scales; chætæ scanty, a patch of golden brown much curved ones, in front of the roots of the wings, rather short; scutellum with flat dusky scales and some paler ones, scales large; metanotum nude, deep brown except at the apex where it is reddish testaceous.

Abdomen blackish, here and there the testaceous integument shines through the scales, first two segments plain, third to eighth with basal yellow scales, the third to fifth with median semi-circular patches, the others with yellow basal bands, very broad on the last two segments, laterally are large snowy white triangular patches, the bases of the triangles towards the apices of the segments, but cut off from them by narrow apical black-scaled lines, the corners of the triangles show on the dorsum as white spots, from the third to the seventh segments as almost apical spots; border-bristles dusky, on the last five segments the white lateral spots are yellow at the base.

Legs thick, black, paler below, white knee-spots and traces of minute pale basal banding; chætæ on the femora and tibiæ golden; fore and mid ungues simple, minutely uniserrate.

Wing-scales dense, brown, a few pale ones near the base broad and almost *Tæniorhynchus*-like in places, first submarginal cell longer and narrower than the second posterior cell, its base nearly level with that of the latter, its stem just a little longer than half the length of the cell, stem of the second posterior cell not quite two-thirds the length of the cell; posterior cross-vein sloping towards the base of the wing, twice its own length distant from the mid; the third long vein carried on as a very distinct pseudo-vein to the base of the wing.

Length 6 mm.

♂. Head, thorax and abdomen much like the ♀, but the flat white scales at the sides of the thorax more numerous and the

scutellum has many pale scales, the lateral lobes having them very dense, black at the base, yellow at the apex. Antennæ plumose, with flaxen brown plume-hairs, palest at their base, proboscis rather short, but not so thick as in the female; palpi thin, acuminate, of four segments, the last two nearly equal, dark brown with a basal pale band to the segments; on hair-tufts, one or two large chætæ.

Legs as in the female, the narrow basal banding rather more distinct, fore ungues very unequal, the larger with a large tooth, the smaller thin and apparently simple, mid ungues equal and uniserrate, hind absent.

Length 6 mm.

Habitat Sylhet, Assam [*Major Hall*].

Time of capture May.

Observations.—Described from a ♂ and ♀. A most marked and beautiful species easily told by the quaint proboscis and abdominal markings. The hind ungues of the male absent.

*Genus *RADIOCULEX*, gen. nov.

Head clothed with small flat scales and a group of upright forked ones behind. Palpi of female thin, longer than in *Culex*, of the male long, longer than the proboscis, composed of two segments, the apical one short and clavate, with thorn-like chætæ; proboscis curved and swollen apically, shorter than the body; antennæ of female pilose, of male densely plumose.

Thorax and scutellum with narrow-curved scales, metanotum nude; blunt curved chætæ project over the head.

Male genitalia with normal narrow claspers. Fork-cells small; the marginal cell of peculiar form in both sexes, swollen out in the middle, contracted near apex of wing and widening again at the apex; scales large, median vein-scales single, small and spatulate.

A very distinct genus with shiny integument, especially on the thorax, and easily told by the curious marginal cell and male palpi.

*18. *Radioculex clavipalpus*, sp. nov.

Head brown and grey, proboscis deep brown, curved, un-banded.

Thorax deep shiny brown, yellow at the sides, pleuræ pallid.

Abdomen deep violet brown, the segments paler at their bases, but not banded, pale lateral basal spots.

Legs deep brown with narrow pale bands involving both sides of the joints, last hind tarsal pale.

Male antennæ with flaxen plume-hairs, palpi a little longer than proboscis, the apical segment large and swollen but short.

♀ Head clothed with small flat scales all over of a pale ochreous grey, with brown and violet patches seen in certain lights, a large area of black upright forked scales in the middle behind,

with a distinct median division; palpi rather long and thin, clothed with brown scales and some violet ones and a few white ones at the apex; the pale testaceous ground-colour shows through here and there; clypeus shiny, deep brown, traces of a lateral process on each side, antennæ brown, testaceous at the base, hairs dark, proboscis deep brown, curved, not as long as the body.

Thorax black and shiny in the middle, yellow at the sides, the junction of the two colours being abrupt, the median dark area has narrow-curved bronzy scales, the yellow areas have shiny narrow-curved golden scales, in front projecting over the head are tufts of black, blunt, thick, curved bristles of various lengths, over the roots of the wings and in front of them long golden chætæ darkening at their apices; there are also a few pale creamy scales forming a more or less pronounced spot in front of the bare space in front of the scutellum, and an obscure line of the same on each side of it; scutellum blackish with narrow-curved bronzy scales and deep brown border-bristles; metanotum blackish brown, nude; pleuræ pale ochreous.

Abdomen unbanded, clothed with small flat scales showing brown and violet colours, with pale golden border-bristles giving a general false appearance of basal pale bands when examined with a lens; laterally the abdomen shows testaceous hues, and there are pale-scaled lateral marks running right down the segments.

Legs with pallid coxæ, also base and venter of femora; rest dark brown; hind femora yellow at the apex, with five prominent chætæ along one side and smaller ones on the apex, etc.; a narrow pale band at the junction of the metatarsal and first tarsal segments, also first and second tarsals on the fore and mid legs, other segments dark brown; on the hind legs the banding is more pronounced and extends to all the joints, the last segment being almost white below; ungues all equal and simple.

Wings with short fork-cells, about the same length, but the submarginal narrower than the second posterior cell, its base a little nearer the apex of the wing, its stem about one-and-a-third times its length, stem of the second posterior cell a little longer than the cell; marginal cell swollen on the middle, narrowed apically and again expanded at the wing-apex; posterior cross-vein slightly longer than the mid, not quite its own length distant from it; outer costal border spinose; median vein-scales single, small and spatulate; scales dense on subcostal and first long vein; lateral vein-scales on the apical areas of the second, third and fourth veins broad and flat.

Length 3.5 to 4 mm.

♂. Head, thorax, abdomen and legs as in the female. Antennæ with dense flaxen plume-hairs, almost golden at their base, flagellum banded; apical segments long, deep brown; proboscis bright ochreous, purple-brown at the apex, which is hairy; palpi longer than the proboscis, straight, of two segments, the apical one short and swollen, ochreous with ochreous scales and some violet ones, especially above and at the apices of the two

segments, the last segment with dark stiff thorn-like chætæ, becoming small towards the apex. Ungues of the fore and mid legs unequal, the fore with a small tooth at the base of the smaller one, a large tooth in the middle of the larger claw and a small spine-like tooth at its base, mid claws with two teeth on the larger claw; none on the smaller; hind claws equal and simple.

Wings with small fork-cells like the female; the submarginal only about half the width of the second posterior-cell, its stem about one-and-a-third times its length; stem of the second posterior also about one-and-a-third times the length of the cell; the first long vein markedly bent in the middle and approaching the upper branch of the second, thus forming a very curious marginal cell; the posterior cross-vein is only half its own length distant from the mid.

Length 3.5 to 4 mm.

Habitat Calcutta; Berhampur, Murshidabad District, Bengal, 1-1-08 [R. E. Lloyd].

Time of capture November and December in Calcutta, and one in July, common in brushwood during the cold weather [N. Annandale]; January at Berhampur.

Observations.—Described from a long series, some taken at light. The specimens show some variation in size and colour, but the marked black shiny thorax with the clear-cut yellow area on each side and the quaint marginal cell will at once identify it.

19. *Pseudotheobaldia niveitæniata*, Theobald.

Theog, 8,000 ft., Simla Hills, 2-v-07 [N. Annandale].

20. *Banksiella luteolateralis*, Theobald.

Sylhet, Assam [Major Hall], 23-xi-04 and x-04.

21. *Culex mimeticus*, Noë.

Lushai Hills, Assam [E. C. Macleod], 1-vi-04, one ♀.

22. *Culex microannulatus*, Theobald.

Calcutta, July (7), August (71), September (11), October (4), November (21); Purneah, N. Bengal, August (8); Gopkuda Island, Lake Chilka, Ganjam, August (3); Sylhet, Assam, January (10), February (5), April (1), May (1), November and December; between Bolpore and Rampore Haut, E. I. Railway, Bengal, in railway carriage, August (1).

23. *Culex vishnui*, Theobald.

Sylhet, Assam [Major Hall], January and February; Port Canning, Lower Bengal, July (1); Gopkuda Island, Lake Chilka, Ganjam, August (1).

24. *Culex sitiens*, Wiedemann.

Calcutta, August, September.

25. *Culex gelidus*, Theobald.

Calcutta, August (27), September (7), October (8), November (13), December (4), not uncommon in houses and at light, and in the open on shrubs [*N. Annandale*]; Purneah, N. Bengal, August (3); Katihar, Purneah, N. Bengal, October (1); Sylhet, Assam [*Major Hall*], May (1); between Bolpore and Rampore Haut, E. I. Railway, Bengal, in railway carriage, August [*C. A. Paiva*].

26. *Culex tigripes*, Grandpré.

Calcutta, July (5), August (8), September (2), October (6), November (2); Damukdia Ghat, E. Bengal, July (3); Manipur [*C. A. Gourlay*], in bungalow, August; Sylhet, Assam [*Major Hall*], February 1904 (1), April 1904 (1), May 1904 (1), December 1904 (2); Port Canning, Lower Bengal, December 1907 (2).

27. *Culex fatigans*, Wiedemann.

Calcutta, August (3), October (13), November (2), December (5), common in houses, only bites in the evening and at night [*N. Annandale*]; Lucknow, November (38); Gopkuda Island, Lake Chilka, Ganjam, August (2); Berhampur, Murshidabad District, Bengal [*Major R. Milne*], December (9); Anaithpur, Bijnor District, United Provinces, November; Siliguri, N. Bengal, July (1); Purneah, N. Bengal, August (2); Meenglas Dooars, Jalpaiguri, June [*C. Wallich*]; Sylhet, Assam [*Major Hall*], January (4), February (8), April (9), May (14), June (22), August (1), November (3), December (2); Manipur [*C. A. Gourlay*], grass compound, August (19); Lushai Hills, Assam, June, July and August (3); Bhogaon, Purneah, N. Bengal, October (1).

*28. *Culex minor*, sp. nov.

Head brown, slightly darker at the sides and paler around the eyes; proboscis and palpi brown.

Thorax bright brown; pleuræ ochreous with two brown patches.

Legs deep brown, unbanded, bases pallid.

Abdomen deep brown, with pale lateral basal spots and pale venter.

♀ Head deep brown, with pale narrow-curved scales, pale lateral flat scales and blackish upright forked scales, except in front between the eyes where they are golden brown, chætæ black, except between the eyes where they are golden; proboscis, palpi, antennæ and clypeus brown.

Thorax dark brown, clothed with very slender narrow-curved bright brown scales, paler just in front of the head and at the sides,

larger chætæ deep brown, but the smaller ones in front of the wings, and some over the head pale golden; scutellum pale brown with small narrow-curved pale golden scales similar in colour to those at the mesonotum near it; pleuræ pale ochreous with some pale flat scales and two dark patches; metanotum bright chestnut-brown.

Abdomen deep brown, clothed with deep brown scales and with dull white lateral basal patches, but extending partly along the whole length of the segments; border-bristles pale, venter mostly grey scaled.

Legs brown, unbanded, coxæ pallid, base and venter of femora pale; ungues small, equal and simple.

Wings with rather long fork-cells, the first submarginal much longer and a little narrower than the second posterior cell, its base nearer the base of the wing, its stem less than one-third the length of the cell; stem of the second posterior about two-thirds the length of the cell; mid cross-vein nearer the apex of the wing than the supernumerary, the posterior cross-vein nearly twice its own length distant from the mid.

Length 3 to 3.5 mm.

♂ Palpi thin, brown, the last two segments about equal, with short black bristles, scarcely to be called a hair-tuft. Fore ungues unequal, uniserrate; mid nearly equal, uniserrate; hind small, equal and simple.

Wings with the first submarginal cell a little longer and narrower than the second posterior cell, its base a little nearer the base of the wing. Claspers of male genitalia rather broad, lateral process of basal lobe with three large broad spines and three smaller ones.

Length 3 to 3.5 mm.

Habitat Sylhet, Assam [*Major Hall*]; Lushai Hills, Assam [*E. C. Macleod*]; Calcutta [*N. Annandale*]; Lungleh, Lushai Hills, Assam.

Time of capture Calcutta in December; Lushai Hills, June, July.

Observations.—Described from two ♀♀ and three ♂♂. A small obscure species easily told by its unbanded abdomen. It can only be confused with *Culex fuscocephala*, Theob., described from Ceylon, but the latter has a dark fuscous head, and there are no basal lateral pale spots.

29. *Tæniorhynchus ager*, Giles.

Sylhet, Assam [*Major Hall*], January (5), February (2), April (1), May (1); some specimens large, up to 6 mm.

30. *Tæniorhynchus tenax*, Theobald.

Sylhet, Assam [*Major Hall*], March (1), April (1), May (2), June (1); Manipur [*C. A. Gourlay*], August.

*31. *Chrysoconops pygmæus*, sp. nov.

Head and thorax golden yellow, proboscis and palpi ochreous, with dusky scales especially at the tip of the proboscis.

Abdomen violet-brown with some basal creamy bands and yellow-scaled apex.

Legs unbanded. ochreous brown.

Wing-scales brownish, fork-cells rather small.

♀ Head yellowish brown clothed with creamy yellow narrow-curved scales, dense golden yellow upright forked scales and golden chætæ. Eyes black and silvery. Palpi rather long, ochreous with rather transparent dusky scales and black chætæ; proboscis ochreous, clothed with metallic violet-brown scales; antennæ brown with pale bands at the verticels and testaceous basal segments.

Thorax bright reddish brown, shiny, clothed with golden yellow curved scales and golden yellow chætæ; scutellum similarly adorned, with two large golden posterior border-bristles on each side of the mid lobe and two very small ones between; metanotum golden yellow; pleuræ yellow and brown with two patches of silvery white flat scales.

Abdomen clothed with brown and metallic violet scales, the fourth segment with a basal yellow-scaled band, the next with a more prominent one and the apical segments with many yellow scales, hairs golden.

Legs ochreous, clothed with brown scales which darken towards the end, base and venter of femora with ochreous scales, in some lights the leg-scales show violet reflections; chætæ brown; ungues dark, equal and simple.

Wings with brownish scales; fork-cells rather short, the first submarginal a little longer and narrower than the second posterior, its base a little nearer the apex of the wing than that of the latter, its stem nearly two-thirds the length of the cell, stem of the second posterior a little more than half the length of the cell; posterior cross-vein not quite its own length distant from the mid. Halteres pale yellow.

Length 4 mm.

Habitat Sylhet, Assam [Major Hall].

Observations.—Described from a single perfect ♀ It comes very near *Chrysoconops brevicellulus*, but can be told by the completely golden thorax, smaller size and different venation.

32. *Chrysoconops brevicellulus*, Theobald.

Calcutta, August (1); Sylhet, Assam; Sangar, Manipur Hut, February (1), May (1), June (1), at night; Manipur [C. A. Gourlay], August, on wall of bungalow.

33. *Mansonia uniformis*, Theobald.

Sylhet, Assam [Major Hall], January (2), February (3), March (1), May (8), June (3), July (1), December (4); Manipur [C. A.

Gourlay], June and September, in a stable and bungalow ; Gopkuda Island, Lake Chilka, Ganjam, August, 7-15 P.M. (2) ; Bhogaon, Purneah District, N. Bengal [*C. A. Paiva*], October (24) ; Calcutta, November (17), some at light ; Katihar, Purneah District, N. Bengal [*C. A. Paiva*], October (17).

34. *Mansonioides annulifera*, Theobald.

Calcutta, August and December (2) ; Port Canning, L. Bengal, December [*N. Annandale*] ; Manipur [*C. A. Gourlay*] ; Katihar, Purneah District, N. Bengal [*C. A. Paiva*], October ; Sylhet, Assam [*Major Hall*], May (4), June (3).

N.B.—This species comes in the genus *Mansonioides*, Theob., not *Mansonia*.

*35. *Mimomyia minuta*, sp. nov.

Head dull ochreous brown, proboscis long and thin, unbanded.

Thorax dark shiny brown, pale ochreous at the sides.

Abdomen deep brown with basal creamy yellow bands and pale basal lateral spots.

Legs brown with narrow pale bands involving both sides of the joints.

♂ Head small, triangular in outline, clothed with small flat dull ochreous scales behind and dull brown darker ones in front, some large black upright forked scales behind ; antennæ long, brown, basal segment shiny reddish brown with a long bristle, second segment long, longer than the next three, pale at its base, hairs moderate, (not plumose) ; proboscis deep brown, long and thin, swollen apically, nearly as long as the whole body ; clypeus small, triangular, dark brown ; palpi very short, thick and conical.

Thorax deep shiny brown, with brown chætæ (denuded), some narrow-curved bronzy brown scales showing ; scutellum black with narrow-curved bronzy brown scales with deep brown border-bridles, four to the mid lobe ; metanotum deep brown, paler in the middle ; pleuræ pale ochreous with an irregular dark central patch.

Abdomen deep brown, the segments with basal creamy bands which are contracted in the middle and which spread out laterally to form basal lateral spots, posterior border-bridles pale golden ; venter banded with dull white, black and ochreous scales, the latter apical, the black colour median.

Legs brown, base and venter of femora yellowish, knee-spots dull white, the joints of the tibiæ and tarsi with narrow yellow bands involving both sides of the joints.

Wings with a single row of small spatulate median vein-scales, and some large narrowly pyriform lateral vein-scales ; costa spinose, fork-cells of nearly equal length, the first submarginal a little narrower than the second posterior, its stem nearly as long as the cell, stem of the second posterior cell about two-thirds the length of the cell, the base of the second fork-cell nearer the base of the

wing than that of the first fork-cell; posterior cross-vein longer than the mid, rather more than its own length distant from it.

Length 2.8 mm.

Habitat Sylhet, Assam [*Major Hall*].

Time of capture November (27-xi-04).

Observations.—Described from a single ♂. It may be pointed out that the unguis of the fore legs seem to be simple and are unequal and curved; the mid appear to be equal and simple and the hind ones very small; without dissection the structure of the unguis cannot be made out accurately.

36. *Ædeomyia squamipenna*, Arribalzaga.

Calcutta, at light, November (1).

Family CORETHRIDÆ.

37. *Corethra asiatica*, Giles.

Calcutta (Zoological Gardens, Alipore), May (1), July (1), August (36), common resting on damp walls during the daytime and flying to light at night (Museum compound) [*N. Annandale*], September (16), November (6), December (2); Sibpur, near Calcutta, August (2); Katihar, Purneah District, N. Bengal, at light (1).

