

This very beautiful insect was collected by Mr. F. P. Dodd at Townsville in Queensland. It is a remarkable form, combining the characters of two genera as given by Mons. Ernest André in Wytsman's 'Genera Insectorum,' 11 Fasc. Mutillidæ. With the eyes of the genus *Ephutomorpha*, André, round, entire, and prominently convex, it has the dentate median segment proper only to *Odontomutilla*, Ashmead. The ♀ is unknown. Type in British Museum.

Ephutomorpha aurigera, sp. n.

♀. Antennæ pale reddish yellow, infusate towards apex, the terminal three or four joints black; head dark red; thorax and legs reddish yellow; abdomen metallic purple, with a coppery sheen in certain lights; thorax above sparsely, abdomen more densely clothed with bright metallic golden pile; on the abdomen this is restricted to a broad longitudinal band down the middle, narrowing posteriorly and changing abruptly on the apical three segments to silvery. Head, thorax, legs, and abdomen very sparsely covered also with long erect black hairs. Head transverse, slightly broader than the thorax; eyes very convex, round and prominent; thorax elongate, subrectangular, narrowed somewhat posteriorly; abdomen sessile; head and thorax somewhat coarsely, abdomen more finely punctured.

Length $5\frac{1}{2}$ mm.

Hab. Queensland, N.E. Australia.

Taken by Mr. F. P. Dodd. Type in British Museum.

LXIV.—Four new *Tabanus* Species from India and Assam.

By GERTRUDE RICARDO.

THE descriptions of these four *Tabanus* species are now published at the request of Mr. F. M. Howlett, of the Agricultural Research Institute, Pusa, Bengal, as he needs the names for use in a report being prepared in India. They will be incorporated shortly in a paper on all the *Tabanus* species of the Oriental Region. The types are all preserved in the British Museum Collection.

Tabanus khasiensis, ♀, sp. n.

Type (♀) and two other females from Khasi Hills, Assam, 1000–3000 ft., in Brit. Mus. Coll. One female from Meerut in Calcutta Coll.

A black medium-sized species, with white bands on the abdomen. Antennæ, palpi, and legs blackish. Wings hyaline, tinged with brown.

Length 15-16 mm.

Nearly allied to *Tabanus justorius*, Rondani, from Borneo, but distinguished by the more hyaline wings, the forehead parallel, and the palpi darker.

Face covered with greyish tomentum in the middle, on the cheeks and subcallus with yellowish-brown tomentum, the pubescence black. Beard black. *Palpi* on outside appearing blackish, covered with grey tomentum and with black pubescence, on the inside obscure reddish yellow, long and pointed, stouter at the base. *Antennæ* dull reddish black or black, the first two joints with grey tomentum and black pubescence, the tooth of the third joint small. *Forehead* same colour as subcallus, the same width throughout, with a few black hairs, nearly seven times as long as it is broad; the frontal callus oblong, narrow, brown, not reaching the eyes, furrowed in the middle, with a long, narrow, linear extension. *Thorax*, scutellum, and abdomen brownish black, the former with grey tomentum and traces of two stripes, a tuft of white hairs behind the base of wings; breast black, with grey tomentum and black and white hairs. *Scutellum* on outer border covered with grey tomentum, pubescence black, white on the outer grey border. *Abdomen* with distinct white-haired bands on every segment except the seventh, enlarging slightly in the middle to half-moon spots and wider at the sides; underside similar. *Legs* black or brownish black, with black pubescence; coxæ with white pubescence and a few white hairs on hind femora below; the tibiæ are sometimes obscurely reddish brown at base. *Wings* clear, tinged faintly with brown; in one specimen it is more distinct and borders the longitudinal veins.

Tabanus leucohirtus, ♀, sp. n.

Type (♀) and two others from Kanara, Bombay, sent for identification by Mr. F. M. Howlett.

A medium-sized dull reddish-brown species, not unlike *Tabanus fumifer*, Walker, in appearance, but distinguished from it by the absence of spots on the abdomen and by the dark beard and hairs on face. Wings tinged with brown. Legs blackish brown; tibiæ obscurely red.

Length 20-22 mm.

Face covered with grey tomentum, pubescence brown, but some white hairs are visible on the sides of face; beard is

similar, but very scanty. *Palpi* dull reddish, thickly covered with black hairs, large, stout, ending in an obtuse point. Subcallus, forehead, and sides of cheeks covered with yellowish-brown tomentum. *Antennæ* bright reddish, the apex black; the first two joints with black pubescence; the third joint long and slender, the tooth near the base distinct, crowned with a few black hairs. *Forehead* narrow, about seven times as long as it is narrow, very slightly narrower anteriorly; the frontal callus dark reddish brown, narrow, oblong, not reaching the eyes, prolonged as a narrow raised line towards the vertex; hairs on forehead black. *Thorax* brown, with yellowish-brown tomentum and scattered black pubescence; a few appressed pale yellow hairs are visible chiefly on the anterior half of dorsum and at sides. *Scutellum* similar. *Abdomen* dull reddish, appearing darker owing to the dense short pubescence; segmentations obscurely yellowish or lighter, a few white hairs at the sides of abdomen; underside brown, but with grey tomentum on the sides and the segmentations, which latter are wider and more distinct; the pubescence black. *Legs* with black pubescence, but the fore coxæ with long white pubescence; the fore tibiæ reddish at base, the others reddish brown. *Wings* with brown veins and stigma, tinged with brown on the fore border, becoming paler on the posterior border.

Tabanus bicallosus, ♂ ♀, sp. n.

Type (♂) from Pusa, Bengal.

Type (♀) and three other females from the same place.

These specimens were sent to me for identification by Mr. F. M. Howlett from India.

This small species might at first sight be taken for a small specimen of *Tabanus striatus*, Fabr., but is at once distinguished from it by the two separate calli of the forehead. It is very nearly allied to *Tabanus gratus*, Loew, which is distributed over South, Central, and West Africa, reaching up to Egypt, as I had a specimen sent me from the Suez Canal. The wholly yellow legs, narrower median stripe of abdomen the same width throughout (in the African species it is wider on the third and fourth segments), and the prolongation of the thoracic stripes on to the scutellum seem the only differences between the Indian and the African specimens.

Black, with five grey stripes on the thorax and three on the abdomen. Legs and antennæ yellowish. Wings clear.

Length 10 mm.

♀.—*Face* covered with grey tomentum and with white pubescence. Beard white. *Palpi* greyish, with some white hairs at base, and black hairs elsewhere, but these last are not very numerous.

Antennæ: the first joint yellow, the second and third red, tooth at base small. *Forehead* broad, quite a third narrower anteriorly, and four times as long as it is wide, covered with yellowish-brown tomentum and with some black pubescence; the frontal callus yellowish brown, nearly square, and almost reaching the eyes; beyond it and sometimes connected by a very fine line is an irregular-shaped black or brownish callus isolated in the middle of the forehead. Eyes with three cross-bands. *Thorax*: the median stripe is linear, the other ones broad, sides of thorax greyish, with black pubescence. *Scutellum*: the lateral stripes are continued here, leaving the centre blackish. *Abdomen* narrow, all three stripes reaching from the first to the sixth segment; sides grey, with white pubescence; underside covered with grey tomentum. *Legs* uniformly reddish yellow, only the tarsi a little darker; the femora with grey tomentum and white pubescence. *Wings* clear, the stigma and veins yellow.

♂.—The male is identical. Eyes with large facets above; the small ones on the lower third of eyes are continued round the head as a very narrow border.

Tabanus nemocallosus, ♀, sp. n.

Type (♀) and another female from Pusa, Bengal, sent to me for identification by Mr. F. M. Howlett.

A medium-sized species, distinguished by the rather broad forehead, not narrower anteriorly, with no callus or spots. Abdomen blackish brown, marked with greyish-yellow median and lateral spots.

Length 13 mm.

Face and forehead covered with greyish tomentum, the former with white pubescence. Beard scanty, white. *Palpi* yellowish white, with white pubescence, stout, ending in a short point. *Antennæ* reddish yellow, the first two joints pale yellow, the third with hardly any tooth. *Thorax*, scutellum, and abdomen blackish brown, the former with five distinct greyish-yellow stripes; the dorsum with some grey tomentum and with appressed pale fulvous pubescence; scutellum with the same and with grey tomentum. *Abdomen* with an almost continuous median stripe formed of grey, tomentose, narrow, triangular spots, and with irregular-shaped, roundish, grey, tomentose spots on the sides, the

pubescence on these short, pale fulvous; some black pubescence on the dark parts of the dorsum, the sides of the first two or three segments pale reddish; underside lighter, covered with grey tomentum. *Legs* pale yellowish red, the tarsi brown; the pubescence white on femora and tibiæ, black on the tarsi. *Wings* hyaline, with brown veins and yellow stigma; a long appendix on branch of the third vein.

LXV.—*Oriental Rhynchota Heteroptera.*

By W. L. DISTANT.

FIGURES of the genera here proposed and of most of the new species will appear in the Appendix to the Rhynchotal portion of the 'Fauna of British India,' now in preparation.

Fam. Lygæidæ.

Dinomachus indicus, sp. n.

Head greyish brown, pilose, with some darker spots near base; pronotum brownish ochraceous, darkly punctate, transversely impressed before middle, the anterior area or lobe discally dark castaneous, the margins narrowly ochraceous; scutellum brownish ochraceous, darkly punctate, with a central longitudinal line (not reaching base) and the apex pale ochraceous; corium pale dull ochraceous, longitudinally punctate, the apical angles castaneous; membrane subhyaline, the veins a little darker; body beneath thickly greyishly pilose (imperfectly seen in carded typical specimen); legs brownish ochraceous, posterior tibiæ with three broad dark annulations; antennæ greyish brown, first joint slightly passing apex of head, second joint a little longer than third (fourth mutilated in typical specimen); pronotum with the lateral margins strongly sinuate, the posterior margin concavely sinuate before scutellum, the posterior area or lobe much more strongly punctate than the anterior area, the pale narrow margins impunctate; legs somewhat longly pilose; rostrum imperfectly seen in carded typical specimen.

Length $6\frac{1}{2}$ mm.

Hab. "India" (Vienna Museum).

Pamera emersoni, sp. n.

Head and anterior lobe of pronotum black, posterior



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