

NOTE XIV.

ON EXOTIC DIPTERA.

BY

F. M. van der WULP.

Part 2.

Fam. *Stratiomyidae*.1. *Evasa impendens*, Walk.

Nerua impendens, Walk. Proc. Linn. Soc. IV. 97. 24.

A few specimens from Pagowat: Celebes sept. (Forsten) and from the Aru Islands (v. Rosenberg).

The genus *Nerua* Walk. (Proc. Linn. Soc. III. 80) cannot be distinguished from *Evasa* (Proc. Linn. Soc. II. 109). Consequently, the first of these names, being of later date than the second, must be suppressed as a synonym.

2. *Evasa scenopinoides*, Walk.

Nerua scenopinoides, Walk. Proc. Linn. Soc. III. 81. 17; Ost. Sack. Ann. Mus. Gen. XVI. 415; — *Evasa pallipes*, Bigot, Ann. soc. ent. de France. 1879. 220. 4.

A ♀ from Gilolo (Forsten).

3. *Tinda indica*, Walk.

Biastes indicus, Walk. Ins. Saund. II. 81. pl. III, f. 3; — *Tinda modifera*, Walk. Proc. Linn. Soc. IV. 101.

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30; Ost. Sack. Ann. Mus. Gen. XVI. 413 and XVIII. 17; — *Phyllophora bispinosa*, Thoms. Dipt. Eug. Resa. 454. 16.

A male from Java (Sammelink).

No doubt the species quoted above are synonyms. The genus *Tinda* of Walker is quite the same as his genus *Biastes*. *Biastes indicus* is the oldest name of the species, but the generic name *Biastes* having been preoccupied by Panzer (Hymenoptera), the name *Tinda* must prevail.

Caenacantha, n. g.

From *καινος* (strange, unusual) and *ἀκνῶσα* (spine).

Frons angusta (in ♀). *Antennae subulatae, subtus capitis medium insertae; stylus terminalis brevis, acuminatus. Oculi subpilosuli. Thorax elongatus; scutellum magnum, elevatum, supra spinis duabus erectis et in margine posteriori spinulis duabus minoribus munitum. Abdomen breve, thoracis latius. Pedorum anticorum insertio ab insertione pedorum posteriorum longe remota. Alae abdominis multo longiores; cellula discoidalis superne cum cellulam mediastinalem (stigmatem) cohaerens, venas tres longitudinales versus alarum marginem emittens.*

Head hemispherical, at the most as broad as the front-side of the thorax; front narrow (♀). Antennae (Pl. 5, fig. 1b) subulate, as long as the head, inserted below the middle of the profile of the head; the two basal joints short; the third at least three times as long as the foregoing joints together, indistinctly annulated, with a pointed style at the tip. Rostrum short. Eyes (seen with the aid of a lens) with a short and dense pilosity. Thorax oblong, a little enlarged towards the abdomen; scutellum (fig. 1a) strongly developed, pyramidally raised, with four spines, two of which are directed upwards like horns, whereas two smaller ones are placed on the broad and flattened hind portion of the scutellum. Abdomen shorter and notably broader than the thorax, composed by five visible segments. Legs rather short; the insertion of the front

pair far removed from that of the two posterior pairs. Wings much longer than the abdomen; discal cell trapezoidal, on the upperside contiguous with the mediastinal cell (stigma) and emitting three longitudinal veins towards the margin.

4. *Caenacantha bipartita*, n. sp.

(Plate 5, fig. 1, 1a and 1b).

Ferruginea; antennarum stylo, puncto ocellari, rostro, palpi, scutelli parte posteriori et abdomine nigris; alis flavescentibus, macula subapicali nigro-fusca. — ♀. Long. 9,5. mm.

Ferruginous; style of the antennae, ocellar point, rostrum and palpi black. Thorax covered with a sericeous fulvous toment, provided with a narrow black stripe along the middle of the back, and laterally with a similar stripe extending from the shoulders to the base of the wings; when held in a certain direction three longitudinal sericeous bauds are visible, of which the central one is divided by the black mesial stripe; the breast is blackish. The hind part of the scutellum and the spines are shining black; the smaller posterior spines have yellow tips. Abdomen dull black, the sides of the basal segments rufous. Legs and halteres reddish-yellow. Wings hyaline, with a yellow tinge; veins and stigma reddish-yellow; before the tip a large, not distinctly limited, darkbrown spot is present.

A ♀ from Bogotà (v. Lansberge).

5. *Negratomyia bilineata*, Fabr.

Stratiomys bilineatum, Fabr. Syst. Antl. 79. 5; — *Clitellaria bivittata*, Wied. Auss. Zweifl. II. 46. 1; — *Ephippium anustum*. Macq. Suit. à Buff. Dipt. I. 252. 2; — *Rhaphiocera sminithorax*, Macq. Dipt. ex. supp. 3. 17. 3; — *Clitellaria tenebrica*, Walk. List Dipt. Brit. Mus. III. 522; — *Ephippium spinigerum*, Dol. Nat. Tijdschr. Ned. Indie. X. 407. 13. pl. 9 f. 2.

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This species seems to be very common in Java, as it is represented in almost every collection from that island.

6. *Stratiomyia japonica*, n. sp.

Nigra; scutello, praeter spinas flavas, concolore; facie pilis lutescentibus vestita; fronte (in ♀) maculis duabus luteis nitidis; maculis lateralibus segmenti abdominalis secundi, strigis transversis lateralibus segmentorum sequentium duorum et macula subtrigona segmenti quinti flavis; ventre nigro, segmentis singulis postice flavo-marginatis; tibiaram dimidio basali tarsisque flavis; alis infuscatis. — ♂, ♀. Long. 16—17 mm.

Black. Face densely covered with yellowish hairs; eyes of the ♂ connected at the top; front of the ♀ above the antennae with two shining yellow, round spots. Antennae black; first joint elongate; second very short, hardly one sixth of the length of the first; third joint longer and broader than the two former. Thorax with a dense but not very long, greyish-yellow pilosity; spines of the scutellum yellow. Abdomen a little broader and longer than the thorax, with the usual yellow markings, consisting of two rather large, trigonal lateral spots on the second segment, a pair of lateral stripes on the hind margin of the third and fourth, and an elongate longitudinal spot on the fifth segment; venter black with the hind border of the segments yellow, that of the second segment the broadest. Legs black; the basal half of the tibiae and the whole tarsi yellow. Halteres yellow. Wings brownish, darker towards the anterior margin.

Both sexes from Japan (von Siebold).

I should be inclined to regard this species as *Str. apicalis* Walk. (List Dipt. Brit. Mus. V. 53. 105), if Walker, who describes only the ♀, had mentioned the two yellow spots on the front, and if his description of the legs did not disagree with the specimens before me.

7. *Stratiomyia flavoscutellata*, n. sp.

Nigra; scutello, maculis lateralibus sublunulatis in abdo-

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minis segmentis 2, 3 et 4, maculaque trigona in segmento 5 flavis; ventre luteo, strigulis nigris in segmentorum singulorum medio; facie et thorace pilis lutescentibus vestitis; pedibus flavis, femoribus tiliarumque annulo medio nigris; alis dilute brunnescentibus. — ♂. Long. 15 mm.

Black. Face covered with yellowish hairs; the vertex and the trigonal front with black hairs. Antennae black; second joint hardly one fourth of the length of the first; third joint as long as the foregoing together and a little broader. Thorax densely clothed with rather long, greyish-yellow hairs; scutellum broad, its spines shining yellow. Abdomen notably broader but not longer than the thorax; the segments 2, 3 and 4 with yellow lateral spots on the hind border; those of the second segment the largest and subtrigonal, those of the third segment rounded on the inner side; those of the fourth segment narrow on the outside, enlarged and rounded on the innerside; fifth segment with a trigonal yellow spot on the hind margin; the last segment yellow; venter pale yellow, each segment with a small black transverse band, which is narrowed or even interrupted in the middle. Legs reddish-yellow; femora black except the tip; tibiae with a more or less distinct black ring at the middle. Wings light brownish; the veins towards the anterior margin bordered with a fulvous tinge.

A ♂ from Java (Müller).

8. *Odontomyia viridana*, Wied.

Stratiomys viridana, Wied. Anal. entom. 29. 34; id. Auss. Zweifl. II. 66. 8; — *Odontomyia ruficornis*, Macq. Dipt. ex. supp. 4. 54. 3.

A ♂ from Tibet (Felder).

Although Wiedemann does not indicate the sex, his description evidently refers to the ♀ only Macquart on the contrary describes exclusively the male sex. Comparing the two descriptions there seems to be no doubt, that they have had in view the same species. Wiedemann received his

specimen from Bengal; Macquart mentions Asia as origin.

9. *Odontomyia mutica*, n. sp.

Nigra; thorace pilis flavis vestito; scutello mutico; abdomine lateribus et subtus flavo; antennis rufis; pedibus flavis, femoribus nigris; alarum basi nigra. — ♂. Long. 11 mm.

Face shining black (I find traces of white hairs); antennae dark rufous. Thorax black, densely covered with yellowish hairs; scutellum black, destitute of the usual spines. Abdomen yellow, on the upper surface with a broad black band, which at each segmentation is drawn out on both sides in a point; or in other words: abdomen black, with large, yellow, lateral spots, which occupy the whole length of the segments and slightly narrow towards the middle; these spots are broader on the three basal segments; the last segment and the whole undersurface yellow. Legs yellow with black femora. Halteres yellow, the stem dark brown. Wings with a brownish-yellow tinge, dark brown at the base.

A ♂ from Ternate (Bernstein).

Except the absence of the spines on the scutellum, the species shows all the characteristics of the genus *Odontomyia*, in the same manner as the North American *O. nigrirostris* Löw.

10. *Ptecticus apicalis*, n. sp.

Fulvo-rufescens; antennis, pedibus halteribusque concoloribus; abdominis segmentis ultimis ex purpureo fuscis; tiliarum posticarum apice, tarsorumque posticorum articulis duobus basalibus fuscescentibus; alis flavescentibus, dimidio apicali infuscato. — ♂. Long. 15–16 mm.

Closely related to *Pt. rufescens* v. d. Wulp (Tijdschr. v. Ent. XI. 104. 7. pl. 3 f. 7–9), but differing from that species by its rufous (not black) vertex, reddish-yellow (not black) hind femora and the brown apex of its wings.

Obscenely fulvous. Hind part of the vertex rather broad, narrowed in a point towards the front, which is almost

trigonal and of a pale yellow color above the antennae. The latter are reddish-yellow, the arista fuscous. Thorax brownish, with a slight indication of three longitudinal dark bands, and with a dense and short, yellowish pilosity. Abdomen convex; the two or three last segments dark purplish brown; genitals fulvous, very prominent and complicated. Legs reddish-yellow; the apical half of the hind tibiae and the two basal joints of the hind tarsi brownish; the basal half of the posterior femora thicker than the distal half; hind tibiae slender at the base. Halteres reddish-yellow. Wings with a fulvous tinge on the basal half, brownish on the distal half, darker towards the anterior margin; hind margin, below the anal vein, greyish.

A few male specimens from Sumatra (van Lansberge) and a single one from Borneo (Müller).

I should be inclined to regard this species as *Pt. leoninus* Rond. (Ann. Mus. Gen. VII. 454), but Rondani describes the last abdominal segment with the genitals as being black.

11. *Ptecticus illucens*, Schin.

Schiner, Dipt. Novara-Reise, 65. 40.

Both sexes from Japan (von Siebold).

This species differs from the greater part of the other species of the genus *Ptecticus* by its dark coloration; the shape of the antennae however, — the second joint being prolonged at the inner side and projects over the third, — leaves no doubt, that it must be placed in that genus.

Sargus tenebrifer Walk. (List Dipt. Brit. Mus. III. 517) from China seems to be closely related; it has however only a yellow base at the front femora, while the anterior knees and tarsi have not that color. As this species for the rest agrees in all respects, it certainly ought to be placed in the genus *Ptecticus*.

12. *Ptecticus brevipennis*, Rond.

Sargus brevipennis, Rond. Ann. Mus. Gen. VII. 454.

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Three male specimens from Java (Blume).

Rondani's description, taken from a damaged specimen, agrees in the most essential points. The antennae in his specimen being absent, he remained in doubts whether the species must be placed in the genus *Sargus* (sensu restricto). It belongs to the genus *Ptecticus*, as the second joint of the antennae projects at the inner side over the third joint.

My specimens have a length of 11—12 mm. The vertex is black and, like in other species of this genus, it is gradually narrowing towards the lower part and ends in a point at a little distance above the antennae, in which point the eyes are connected; front trigonal, greyish yellow and somewhat swollen; face short and of the same color; antennae, rostrum and palpi bright reddish-yellow; arista black. Thorax reddish-yellow; its upper surface rather brownish, with three black longitudinal stripes in front, of which the median one ends at the suture, whereas the outward ones surpass it (Rondani mentions but a single black stripe); pleurae with a large metallic black spot in front, which extends downwards over the breast, and with a similar spot above the hind coxae; the metathorax also is black or has a large black spot in the middle. The upper surface of the abdomen with five transverse black bands, which are enlarged in front and narrowed on both sides. Legs reddish-yellow, the hind ones having the basal half of the coxae and femora, the whole tibiae and the first joint of the tarsi black; the latter clothed with short black hairs. Wings with a brownish-grey tinge and with hardly any indication of the stigma.

13. *Ptecticus latifascia*, Walk.

Sargus latifascia, Walk. Proc. Linn. Soc. I. 110. 28.

A ♂ from Soekadana: Lampongs, in Sumatra (van Hasselt); a ♀ from Java (Blume).

Walker's description agrees in all respects, especially in the colour and markings of the legs. I must however remark, that the thoracic dorsum is a little infuscated in the

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male specimen and in the Javanese female even shows three blackish longitudinal stripes. On account of the shape of the second joint of the antennae, the species belongs to the genus *Ptecticus*.

In the male specimen the genitals are very prominent; they consist of a two-jointed, slightly curved, blackish-brown upperpiece, the terminal joint of which is short and beset with bristles; and of a pair of lamellar inferior appendices, each of which bears a subapical, small, short-stemmed; shining-black scale, which is hairy on the underside; in the middle the long, pale-yellow penis is visible.

14. *Sargus metallinus*, Fabr.

Sargus metallinus, Fabr. Syst. Antl. 258. 11; Wied. Auss. Zweifl. II. 36. 16; — *S. formicaeformis*, Dol. Nat. Tijdschr. Ned. Ind. XIV. 403. pl. 3, f. 5.

A single specimen from Rambodde, Ceylon (Felder) in the Leyden Museum; another from Java (Piepers) in my collection.

According to Doleschall's figure and description, *S. formicaeformis* cannot be distinguished from *S. metallinus*, and is not identical with *S. mactans* Walk., as is supposed by Osten Sacken (Ann. Mus. Gen. XVI. 417), the most striking character of the latter species, — the black base of the hind tibiae, — being absent in that of Doleschall.

15. *Sargus mactans*, Walk.

Walk. Proc. Linn. Soc. IV. 97. 22; Ost. Sack. Ann. Mus. Gen. XVI. 417.

Two female specimens from Rambodde in Ceylon, presented to the Museum by Dr. Felder.

Walker's description is taken from a much damaged specimen (without head), likewise a female, from Borneo.

The specimens in the Leyden Museum have a length of 10 mm. and are chalybeous, with purple gloss and short grey pi-

losity. Front metallic violet, pale yellow above the antennae; face reddish-yellow, infuscated and a little metallic below; oral parts pale yellow. Antennae reddish-yellow, the arista black. From the shoulders to the root of the wings goes a yellow stripe; scutellum with a narrow yellowish hind margin. Legs reddish-yellow; hind coxae metallic black; base of the hind tibiae, for about a third, black; the last joints of the hind tarsi also are blackish. Halteres fulvous. Wings greyish, almost hyaline at the basal half; veins black; stigma fuscous.

16. *Sargus laetus*, n. sp.

Thoracis dorso, scutello et metanoto aeneo-viridis; capite, abdomine pedibusque testaceis; abdominis segmentis 2 et 3 supra fusco-subfasciatis, 4 et 5 nigro-viridis nitidis; tibiarum posticarum basi nigro; oculis subcohaerentibus. —
♂. Long. 12 mm.

Front above the antennae reddish-yellow, tapering upwards to a metallic green stripe, which hardly separates the eyes; face and oral parts pale yellow. Antennae testaceous, arista black. Thoracic dorsum, scutellum and metanotum bright metallic green, with yellow pilosity, which on the front part and in the sides is longest; scutellum with a narrow yellowish hind margin; pleurae testaceous with some metallic reflection. Abdomen shining reddish-yellow, with a metallic or copper-colored gloss; second and third segments each with a brown transverse band; two posterior segments metallic dark green; genitals black. Legs reddish-yellow, base of the hind tibiae slender and black. Halteres yellow with a brown knob. Wings with a greyish-brown tinge; stigma a little darker.

A male specimen from Sumatra (v. Lansberge).

On account of the black base of the hind tibiae closely related to *S. mactans*. I should consider it as the ♂ of that species, if not the coloration and pattern of the abdomen were quite different.

17. *Sargus pubescens*, n. sp.

Violaceus nitidus, *pallide hirtus*; *thorace linea laterali*, *antennis pedibusque flavis*; *alis cinereis*, *stigmate testaceo*. — ♀. Long. 15 mm.

Front narrow, chalybeous; the swollen broader part above the antennae pale green. Antennae and oral parts reddish-yellow. Thorax, scutellum and abdomen metallic violet, with a dense, pale-yellow, erect pilosity; from the shoulders to the root of the wings a yellow stripe; scutellum with a narrow yellow hind margin. Legs reddish-yellow; posterior coxae blackish; hind tibiae slightly curved. Halteres yellow, their steal infuscated below the knob. Wings brownish-cinereous; stigma testaceous.

A female specimen from Gorontalo (Forsten).

18. *Hermetia batjanensis*, v. d. Wulp.

H. batjanensis, v. d. Wulp, Tijdschr. v. Ent. XXIII. 161. 8; — *H. cerioides*, Ost. Sack. Ann. Mus. Gen. XVI. 411.

Three female specimens, one from South-Halmaheira (Bernstein), another from Morotai (Bernstein) and the third from Andai (von Rosenberg).

Two of these specimens differ from those which I described in the »Tijdschrift», in having the four yellow spots on the second abdominal segment confluent, so as to form a pair of large lateral spots, which are a little contracted in the middle. The underside of the antennae is partly brownish-red and the tibiae are for the greater part of the same color.

It strikes me that Walker's description of *Massicyta cerioides* (Proc. Linn. Soc. III. 78. 8) quite agrees with my *Hermetia batjanensis*, if I do not mind to the generic character: »abdomen obclavatum, subpetiolatum» (Proc. Linn. Soc. I. 8), which very obviously is indicated in Prof.

Westwood's figure of *Massicyta bicolor* (l. c. pl. 1, f. 1). My specimens are by no means similarly shaped, though the first abdominal segment may be somewhat narrower than the following ones, as is mentioned in my description. Perhaps Walker would in later times not have stuck closely to this character of his genus *Massicyta*, the only one by which it is distinguishable from *Hermetia*. Surely the specimens mentioned by Osten Sacken are identical with mine.

Closely allied to *H. batjanensis*, if not identical with it, may be *H. Melanesiae* Bigot (Ann. soc. ent. de France, 5th ser. IX. 1879. 262. 4); however I do not see the yellow hairstripes on the thorax, mentioned by him, and which may have been rubbed off in my less sound specimens. Moreover they have the scutellum wholly yellow, whilst in the description of *H. Melanesiae* it is called yellow with a black base (the rather ample diagnose does not mention this).

If afterwards by a comparison of the typical specimens, *Massicyta cerioides* Walk., *Hermetia Melanesiae* Big. and my *H. batjanensis* might prove to belong to one and the same species, the name *cerioides* Walk. must be accepted, as being the oldest.

19. *Hermetia armata*, n. sp.

Nigra; scutello bispinoso; abdominis incisuris 2 et 3 aureo-tomentosis; ventre rufescente; pedibus piceis, tibiis tarsisque flavescentibus; alis flavidis. — ♀. Long. 17—19 mm.

This species has all the characters of the genus *Hermetia*, excepting that the scutellum is armed with two spines, a character upon which later most likely a new genus will be founded; for the present however, such a separation does not seem to be urgent.

Black; head and thorax a little shining. Head broader than the thorax; front about one fourth as broad as the head, flat, with a longitudinal groove; face convex

with a testaceous pilosity; eyes with small facets and densely covered with hairs. Antennae black, inserted in the middle of the profile of the head, almost as long as the thorax; first joint elongate, slender at the base, a little thickened towards the end; second joint one fourth as long as the first; third joint twice as long as the two previous joints together, forming a narrow, indistinctly annulated lamella. Rostrum pediform; palpi small. Thorax covered with dark-brown or black hairs; scutellum with two subperpendicular, piceous spines, the tip of which is reddish-brown. Legs piceous; tibiae and tarsi covered with a very dense sericeous reddish-yellow pilosity; tibiae without spurs; the hind tibiae curved. Halteres reddish-yellow. Wings longer than the abdomen, with a reddish-yellow tinge and veins of the same color; discal cell bluntly trigonal, emitting four longitudinal veins, which, though thin, are distinctly visible as far as the hind margin.

Two female specimens from Morotai (Bernstein).

20. *Eudmeta marginata*, Fabr.

Hermetia marginata, Fabr. Syst. Antl. 63. 3; — *Eudmeta marginata*. Wied. Auss. Zweifl. II. 43. 1; Macq. Suit. à Buff. Dipt. I. 259. 1; id. Dipt. ex. supp. 3. 16. pl. 1, f. 9; Walk. Proc. Linn. Soc. I. 8. 16; — *Toxocera limbiventris*. Macq. Dipt. ex. supp. 4. 45. 1. pl. 5, f. 3.

About the synonymy of *Toxocera limbiventris*, see Ost. Sack. Berl. Ent. Zeitschr. 1882. p. 367. Indeed, when comparing Macquart's two figures (though they are far from satisfying), this synonymy is so evident, that it is almost incomprehensible, that Prof. Brauer, when writing his »Revision der Notacanthen», did not observe it. A long time before, Snellen van Vollenhoven was aware of this synonymy and mentioned it in a meeting of the Dutch Entomological Society in 1856 (See »Handelingen der Nederl. Entom. Vereeniging» p. 107).

Fam. *Xylophagidae*.21. *Subula inamoena*, Walk.

Solva inamoena, Walk. Proc. Linn. Soc. IV. 98. 25; —
Subula inamoena, Ost. Sack. Ann. Mus. Gen. XVI. 407.

A ♀ from Java (Macklot).

Baron Osten Sacken was quite right, when declaring (l. c.) the genus *Solva* Walk. synonymous with *Subula* Megerle, Meig. In fact *Solva inamoena* Walk. resembles so much the European *Subula varia* and *marginata* Meig., that nobody, acquainted with these species, will separate them generically. *S. inamoena* is nearest to *S. varia*, both having yellow coxae and rather long antennae. In the specimen of the Leyden Museum the third joint of the antennae is dark-brown on the outside and yellow with a brown tip on the inner side; the yellow humeral calli are larger than in *S. varia*, and the yellow stripe extending from the shoulders to the root of the wings, as well as the yellow segmentations of the abdomen are broader.

According to Osten Sacken (l. c.) *Subula flavipes* Dol. (Nat. Tijdschr. Ned. Ind. XVII. 85. 18) may be the same species as *S. inamoena* Walk. A drawing from the hand of Doleschall¹⁾ however allows many doubts as to their identity, for Doleschall has figured the abdomen of his species reddish-brown with black dorsal spots, a pattern which by no means is to be seen in *S. inamoena*.

1) Original colored drawings from Doleschall, representing the greatest part of the Diptera described by him in Vol. XVII Nat. Tijdschr. Ned. Ind., were in the possession of the late Mr. Snellen van Vollenhoven some years ago. After his death they came into the hands of Mr. J. Puls at Gend (Belgium), who kindly allowed to make two copies of them. Of these copies, made with great accuracy by the well-known engraver A. J. Wendel at Leyden, one belongs to the Dutch Entomological Society at Leyden, the other to Baron Osten Sacken at Heidelberg.

Fam. *Tabanidae*.22. *Tabanus immanis*, Wied.

Wied. Auss. Zweifl. I. 123. 17; v. d. Wulp, Dipt. Sumatra-Exped. 16. 1.

Several female specimens, all from Sumatra.

The eyes are bare, bronze-colored, and, after being moistened, without crossbands.

23. *Tabanus rubidus*, Wied.

Wied. Dipt. ex. I. 69. 14; id. Auss. Zweifl. I. 127. 25; Walk. Proc. Linn. Soc. I. 9.

Several female specimens from Java (Blume and Ludeking) and from Sumatra (v. Lansberge).

The eyes as in the preceeding species.

24. *Tabanus striatus*, Fabr.

T. striatus, Fabr. Ent. Syst. IV. 371. 39; id. Syst. Antl. 103. 47; Wied. Auss. Zweifl. I. 155. 69; v. d. Wulp, Dipt. Sumatra-Exped. 16. 3; — *T. dorsilinea*, Wied. Anal. ent. 22. 10; id. Auss. Zweifl. I. 124. 110.

Several specimens of both sexes from Java (Hekmeyer) and from Sumatra (v. Lansberge).

Eyes bare, in the ♂ reddish-bronze above, with large facets, the lower third and the borders blackish with small facets; the two parts distinctly separated; in the ♀ the eyes are uniform dark-bronze, with small facets.

25. *Tabanus minimus*, v. d. Wulp.

v. d. Wulp, Dipt. Sumatra-Exped. 18. 7.

Two females from Ambarawa in Java (Ludeking).

I need to add to my description l. c., that the eyes are

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bare and of a bronze color, with small facets; even after having been moistened they show no trace of crossbands. In these Javanese specimens the yellow color of the legs is so pale, that it may be called whitish.

26. *Tabanus basalis*, Macq.

Macq. Dipt. ex. I. 1. 126. 10.

Two female specimens from Sumatra (v. Lansberge).

In the most essential points they agree with the description. There are however some disagreements to be mentioned. 1°. According to the description the third and following segments of the abdomen ought to be shining black; in my specimens the color of these segments is fuscous and rather dull; moreover the hind margin of the segments shows remains of a white hairfringe; the under-surface is wholly fuscous and there the white fringe is complete, even on the second segment. — 2°. According to Macquart the legs are blackish, the tibiae yellow with black tips; this may be the truth in regard to the front legs, in the posterior ones however I find the tibiae brown and not darker at the end.

This species may be easily recognized by the light brownish-yellow color of the two first abdominal segments, on account of which it resembles more or less the N. American *T. cinctus* Fabr.

The eyes are bare, reddish-bronze, without crossbands even after having been moistened, and with very small facets all over.

27. *Tabanus multipunctatus*, n. sp. ¹⁾

(Plate 5, fig. 2).

Griseus; thorace striis quatuor fuscis; abdomine maculis

1) Besides this new species of *Tabanus* and the following ones, described here, there are still several others in the Leyden Museum, which I must leave undetermined, because I cannot recognize them among the existing des

nigricantibus quatuor in singulis segmentis; ventre castaneo; oculis nudis; antennarum articulis basalibus rufescentibus, articulo tertio nigro; palpis pallidis; pedibus rufis, albido-puberulis; halteribus nigris; alis subhyalinis. — ♀. Long. 21 mm.

Face with whitish dust, on the lower part with a dense white pilosity; palpi pale yellow; front moderately broad, light grey, between the corners of the eye with a rounded, shining, reddish-brown knob, which in the middle is grooved and extends upwards in a narrow line, ending in a blackish spot on the vertex. Eyes bare, dark coppery, and without crossbands even after having been moistened. The two basal joints of the antennae reddish; the second very short and embraced above by the first joint; the third one black, rather slender, its upper angle with a slightly projecting tooth. — Thorax, scutellum and abdomen with compact light-grey dust, on the thorax four ill-defined brown longitudinal bands, the two central ones of which are confluent posteriorly, whilst the two outermost are beginning but behind the suture. Abdomen conical, but little convex; on the front margin of the second and following segments a pair of blackish spots, placed close together, and a pair of lateral ones, being a little larger; undersurface of the abdomen of a chestnut color. — Legs uniform brownish-red, in some directions grey, owing to the whitish dust by which they are covered; the tarsi a little darker; hind tibiae with a delicate, short, dense, erect pile. Halteres fuscous. Wings with a greyish tinge; veins dark-brown, bordered with pale brown, especially

criptions. On account of the exceedingly great number of species belonging to this genus (I think there are about 900), it is very difficult to decide with certainty whether a species is already described or not. It therefore would be of no use to science, to add new species to them; I think however that an exception can be made with regard to the species which I have described in this paper, because they are more recognizable than most of the others. A general revision of the exotic species of *Tabanus*, in the same way as Prof. Brauer has done it with the European ones, is very urgent.

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the crossveins and the base of the upperbranch of the furcated cell; first and fourth posterior cells not narrowed at the end.

A ♀ from Chimfimo (S. W. Africa), presented to the Leyden Museum by the late Mr. A. B. van Medenbach de Rooy.

28. *Tabanus leucaspis*, n. sp.

(Plate 5, fig. 3).

Ater opacus; oculis nudis; palpis pallidis; abdominis segmentis tribus primis albido-pollinosis, segmentis 3 et 4 macula alba signatis; alis nigro-fuscis. — ♀. Long. 22 mm.

Related to *T. biguttatus* Wied., but differing from that species by its pale yellow (not black) palpi.

Face grey, on the lower part with a whitish pile; front dark grey; vertex black; between the corners of the eyes a shining black, round knob, extending upwards in a narrow black line. Eyes bare, black, without any trace of crossbands even after having been moistened. Antennae black, rather slender, the upper angle of the third joint with a small tooth. Palpi pale reddish-yellow. — Thorax and scutellum dull black; the thorax anteriorly with traces of grey longitudinal bands; pleurae grey. — Abdomen convex, dull black; the three basal segments very densely covered with a yellowish white dust, and provided with an ill-defined black dorsal band, in which a trigonal white dot is seen at the front margin of the third segment; a similar dot is present on the fourth segment. — Legs black; anterior femora beneath and hind tibiae on the outside with a delicate whitish pile. Halteres black; the tip of the knob yellow. Wings fuscous; the disks of all the cells a little lighter, especially that of the discal cell; first posterior cell slightly narrowed at the end.

A female specimen from the Gold Coast (W. Africa).

29. *Tabanus atripes*, n. sp.

(Plate 5, fig. 4).

Fulvus; abdomine testaceo; oculis nudis; antennis palpisque ochraceis; rostro, pedibus alarumque basi atris; tibiis anticis subdilatatis; alis cinereis, costa fasciaque media fuscis. — ♀. Long. 16 mm.

This species is related to *T. fasciatus* Fabr. and *latipes* Macq. Like those, it has a brown band on the wings and dilated anterior tibiae; from the former it differs by the entirely black legs, from the second by the yellow palpi.

Face, beard and palpi ochraceous, the latter not very large and pointed at the tip; front rather broad, a little darker and inclining to reddish-yellow, with a small, shining testaceous knob, ending upwards in a narrow line. Eyes bare; after having been moistened they become dark green with a slight violet reflection but show no crossbands; the facets are small over the whole surface. The two basal joints of the antennae are reddish-yellow (the third joint is broken off). Rostrum black. — Thorax and scutellum reddish-yellow; the pleurae ochraceous; towards the root of the wings a short but dense pale-yellow pilosity is present. Abdomen uniform testaceous; the under-surface lighter, in some directions cinereous with pale-yellow segmentations. — Legs black; anterior tibiae slightly dilated, convex on the outside; hind tibiae fringed on both sides with short black hairs. Halteres pale-green. Wings greyish; their extreme base black; their anterior margin brown as far as the subcostal vein, joined at its end to a broad crossband, which passes over the discal cell and slowly disappears towards the hind margin.

A ♀ from Ogowé (W. Africa), presented to the Museum by Mr. A. Fauvel.

30. *Tabanus bipunctatus*, n. sp.

(Plate 5, fig. 5).

Cinereus; oculis nudis; fronte lata, punctis duobus nigro-

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nitidis signata; abdomine utrinque fulvescente, dorso maculis fuscis in seriebus dispositis; palpis albescentibus; antennis pedibusque rufis; pedorum anticorum tibiis (praeter basin) tarsisque nigris; posteriorum tibiarum apice tarsisque fuscis; alis hyalinis. — ♀. Long. 11,5 mm.

This species differs from all others known to me, by its very broad front, with two shining black dots.

Head light-grey; face and palpi whitish, the latter with some short black hairs; front occupying about one fifth of the breadth of the head, with two shining black dots above each other, which are more or less cordiform and longitudinally grooved. Eyes bare, reddish-bronze and without stripes after having been moistened. Antennae reddish-yellow; the two basal joints clearer; third joint on the upper part enlarged into a tooth at the base and further on slightly incised. Upper surface of the thorax cinereous, with hardly any indication of darker stripes; pleurae whitish. Abdomen dark cinereous, with pale-yellow segmentations, the four or five first segments reddish-yellow laterally; undersurface reddish-grey. — Legs reddish-yellow; the coxae whitish; front legs with the tip of the femora at the inner side dark brown, the tibiae, except their base, for more than two thirds fuscous, the tarsi black; on the posterior legs the tip of the tibiae and the four last joints of the tarsi dark brown; all the femora with a short, decumbent, white pile; the hind tibiae relatively long and fringed on the outside with short blackish hairs. Halteres whitish. Wings hyaline, on the anterior margin with a yellow tinge; the veins along the costa reddish-yellow, the other ones pale brown; the upperbranch of the furcated cell angular at its base.

Two female specimens from St. George d'Elmina, W. Africa (Nagtglas) in the Leyden Museum; two others from South Africa (de Sélys Fanson) in that of Brussels.

One of the specimens in the Leyden Museum has a small recurrent vein at the upperbranch of the furcated cell.

31. *Tabanus equestris*, n. sp.

(Plate 5, fig. 6).

Rufescens; facie palpisque pallide flavis; oculis nudis; antennarum articulo tertio infuscato; abdomine maculis dorsalibus trigonis albidis; pedibus anticis femoribus omnibus fuscescentibus; alarum basi fasciaque media fuscescentibus. — ♂, ♀. Long. 15,5—17 mm.

Face yellowish-white; beard of the same color; palpi pale ochraceous; front rufous, in the ♀ moderately broad, with a brown cordiform spot extending upwards in a line. Eyes bare, in the ♂ reddish-bronze above, with large facets; below for a third part and on the outward borders blackish, with much smaller facets; in the ♀ entirely bronze colored with small facets; even after having been moistened no trace of crossbands is to be seen. Antennae ochraceous; third joint infuscated, rather slender and on its upperside with a trigonal tooth. — Thorax, scutellum and abdomen rufous; thoracic dorsum a little infuscated, with indistinct stripes; hind margin of the scutellum greyish; last segments of the abdomen darker; their hind margin yellowish with small, trigonal, white, dorsal spots; on the undersurface the pale margins of the segments are broader. Legs and halteres fulvous; the femora and the whole front legs fuscous. Wings at the base brownish-yellow, in the middle with a rather broad brownish cross-band, which issues on the stigma and embraces the discal cell, but does not quite reach the hind margin; the costal cell is yellow.

This species seems to be not uncommon in the Sundalands; it is represented in the Leyden Museum by a ♂ from Sumatra (v. Lansberge), two females from Java (Blume and Ludeking) and four females from Borneo (Müller); it was since long time designed in the collection by the late Mr. Snellen van Vollenhoven under the name *equestris* n. sp. without having been described.

The species is related to my *T. pictipennis* (Tijdschr. v.

Ent. XI. 100. 3), the name of which, having been used before, is changed by Osten Sacken in *T. van der Wulpi* (Berl. Ent. Zeitschr. XXVI. 97); it differs, however, by its fulvous posterior legs, its more slender antennae, the third joint of which is darker, and by the pattern of the wings, showing, in stead of two crossbands, but a single one which passes over the discal cell.

32. *Tabanus Felderi*, n. sp.

(Plate 5, fig. 7).

Nigricans; *antennis, palpis, abdominis segmentis tribus primis (praeter maculas dorsales in segmentis 2 et 3), segmentorum sequentium limbo postico, pedibusque rufis; oculis nudis; alis rufo-cinereis, ramo superiori nervi cubitalis angulato et nervulum recurrentem emittente.* — ♂, ♀. Long. 22—23 mm.

Head greyish-white; face of the ♂ ochraceous; on the front of the ♀ a brown raised line, which is broader below. Antennae and palpi reddish-yellow; third joint of the antennae on the upper part with a rather sharp tooth, slender towards the end, the tip brown. Palpi in the ♀ as long as the rostrum, in the ♂ much shorter. Eyes bare, bronze colored, even after having been moistened without crossbands; in the ♂ the facets of the upper portion are larger. — Thorax and scutellum greyish-black, with hardly any indication of longitudinal bands; pleurae cinereous with a yellow pile. Abdomen in the ♂ pointed, in the ♀ a little narrower towards the end, in both sexes reddish-yellow; first segment blackish below the margin of the scutellum; on the second and third segments a dark grey dorsal spot; the following segments fuscous, with pale reddish-yellow hind margin; undersurface of the abdomen testaceous, with yellow hind margin of the segments. — Legs reddish-yellow; the tarsi a little darker; front coxae with a long pale yellow pile; hind tibiae in the male fringed with short hairs, the hairs of the outside black.

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Wings with a reddish-grey tinge; the upperbranch of the furcated cell angular at its base and with a recurrent vein.

A single pair from Ningpo (China), presented to the Leyden Museum by Dr. Felder.

33. *Chrysops striatus*, n. sp.

Thorace cinereo, striis tribus fuscis; abdomine ochraceo, striis quatuor nigris; capite flavescente, callo frontali nigro-nitido, callis facialibus testaceis nitidis; antennis, palpis pedibusque rufis; antennarum apice nigro; alis hyalinis; basi, costa usque ad apicem, fasciaque media, marginem inferiorem non attingente, fuscis. — ♀. Long. 6 mm.

Antennae one and a half as long as the head, almost bare, reddish-yellow, black towards the end; second joint shorter than the first; the third one about as long as the two others together. Front with yellowish-grey dust; the ocellar triangle darker; above the antennae a large, shining black knob; face rather prominent on account of the two large knobs, which are testaceous, very shining and coherent; cheeks with yellowish-grey dust. Rostrum fuscous; palpi reddish-yellow. — Thorax yellowish cinereous, with three very distinct fuscous stripes; scutellum colored like the thorax. Abdomen ochraceous, with two black longitudinal bands, which are interrupted at the segmentations, and moreover with a less distinct lateral row of blackish spots; under surface of the abdomen uniform ochraceous, darker towards the end. — Legs reddish-yellow; posterior coxae cinereous; tarsi brown; the tibiae not dilated. Halteres yellowish-brown. Wings hyaline; the base, the costal border and the usual crossband brown; the latter extends till half the breadth of the wing, surrounds the discal cell, the centre of which remains hyaline, and goes along the posterior crossvein and the apical portion of the postical vein.

A female specimen from Amoy: China (Buddingh).

34. *Chrysops dimidiatus*, n. sp.

Thorace piceo vitta laterali flava; abdomine fulvo-ochraceo, fasciis duabus nigris; antennis rufo-fuscis, capite duplo longioribus; palpis pedibusque fulvis, alarum dimidio basali subhyalino, apice fusco, basi costaque testaceis. — ♀. Long. 8,5 mm.

Antennae twice as long as the head, slender, dark reddish-brown, black towards the end. Front with a greyish-brown dust; above the antennae a semicircular, shining testaceous knob; face with a brownish-yellow dust, in the middle with a shining coffee-brown, oblong knob. Rostrum brown, slender, longer than the head; palpi rufous. — Thorax piceous, with a short fulvous pilosity; on the upper part this pilosity does not cover the derm; by its greater density it forms yellowish spots on the pleurae and coxae and a yellow lateral band from the shoulders to the root of the wings; the hind margin of the thorax and the whole scutellum covered with a testaceous dust. Abdomen reddish-ochraceous, with two rather broad black longitudinal bands, which begin at a little distance from the base and, at their end, flow together with the darkbrown color of the last segments; at the underside this marking is more or less visible; the abdomen has a fulvous pilosity, especially on the sides of the first segments. Legs yellowish-red; the last joints of the tarsi dark brown; hind tibiae straight, a little enlarged and with a not very obvious dark pile. Halteres dark brown. Wings testaceous at the base and along the anterior margin, then hyaline with some greyish tinge as far as the end of the basal cells; the remaining portion till the apex entirely dark brown, the usual dark crossband being confounded here with the border of the apex and hind margin; the separation is hardly indicated by some clearer spots; on the contrary the color is much darker at the beginning of the subcostal and auxiliar veins and along the central cross veins; the postical vein has a small brown border along its whole

length, even where this vein traverses the hyaline portion of the wing.

A ♀ from Chimfimo (S. W. Africa), presented by the late A. B. van Medenbach de Rooy.

Among the described African species of *Chrysops*, there is but one which may be taken into consideration here on account of the pattern of the wings, viz. *Chr. confluens* Löw (Dipt. S. Afrika's p. 102 n^o. 4 pl. 1 fig. 19); this species however has distinct light points in the dark portion of the wings and moreover a uniform black abdomen.

35. *Diachlorus diversipes*, Macq.

Diabasis ¹⁾ *diversipes*, Macq. Dipt. ex. Supp. 3. 13. 2.

A ♂ and ♀ from Surinam.

This species may be easily recognized from Macquart's description, notwithstanding only the ♀ was known to him. In the centre of the face a large shining black callosity is present, extending down to the oral margin but not entirely up to the root of the antennae. Perhaps in other specimens this callosity is divided into two parts, for Macquart mentions »deux taches noires rondes". This being the only difference, I consider the specimens of the Museum identical with that of Macquart.

In the ♂ the eyes are nearly coherent in their upper portion, and the thorax has a rather dense, erect pilosity.

Fam. *Bombyliidae*.

36. *Exoprosopa doryca*, Boisd.

Anthrax dorycus, Boisd. Voyage de l'Astrolabe (Faune de l'Océanie) II. 665. pl. 12 f. 12.

Besides *Anthrax ventrimacula* Dol., *A. Pelops* Walk. and

1) The generic name *Diabasis*, being already used among the Coleoptera, has been changed into *Diachlorus* by Osten Sacken.

Exoprosopa Leuconoe Jaenn., which are indicated already as synonyms of this species by Osten Sacken (Ann. Mus. Gen. XVI. p. 433), *Exoprosopa Audouini* Macq. (Dipt. ex. II. 1. 36. 1. pl. 16 f. 1) also belongs to it.

Two specimens from Amboina (Forsten), one from Timor (Macklot) and one from Atapoepoe in the same island (Wienecke).

37. *Exoprosopa cingulata*, n. sp.

Testacea; thoracis disco abdominisque vitta media fuscis; abdominis segmentis 2, 5, 6 et 7 albis; tibiis tarsisque fuscis; alis hyalinis, basi, costa (praeter partem apicalem) et semifascia in parte radicali cellulae discoidalis fusco-testaceis; cellulis submarginalibus quatuor. — ♀. Long. 15 mm.

Face conically prolonged, testaceous; front of the same color, rather broad, narrowed behind and with a reddish-ochraceous pilosity; occiput greyish-black. Antennae black, the third joint subulate. Thorax blackish; collar and pleurae with ochraceous pile; before the root of the wings and on the posterior angles some black bristles. Scutellum and abdomen testaceous, the latter with a dorsal blackish band; the second and the three last segments with a white toment, covering the derm. Legs testaceous; tibiae and tarsi piceous; posterior legs with small bristles. Halteres pale yellow, their stem black. Wings hyaline, at the base and along the costa with a dark brownish-yellow marking, which reaches as far as the outlet of the subcostal vein, emitting a halfband over the end of the middle basal cell and occupying, at the base of the wing, about the half of the inferior basal cell (anal cell); the longitudinal vein, which separates the two upper basal cells, is narrowly bordered with brown; there are four submarginal cells, the third of which is trapezoidal.

A ♀ from Adelaide, presented by Dr. C. Felder.

This species has the habitus and coloring of the South-American *E. Sancti Pauli* Macq.; it differs however by

the more defined marking of the wings, the band over the base of the discal cell, and especially by having four, instead of three submarginal cells.

38. *Anthrax Troglodyta*, Fabr.

Bibio troglodyta, Fabr. Syst. Ent. 759. 4; id. Mantiss. II. 329. 22; — *Anthrax troglodyta*, Fabr. Ent. Syst. IV. 262. 22; id. Syst. Antl. 127. 43; Wied. Dipt. ex. I. 147. 43; id. Auss. Zweifl. I. 306. 70; — *Anthrax hyalina*, Wied. Dipt. ex. I. 141. 34; id. Auss. Zweifl. I. 297. 57; v. d. Wulp, Tijdschr. v. Ent. XXIII. 165. 16; — *Anthrax lucens*, Walk. Dipt. Saund. III. 180.

A single specimen from Ambarawa in Java (Ludeking) and two from Sumatra (van Lansberge).

There seem to be no doubts, that *A. hyalina* Wied. is merely a synonym of *A. troglodyta* F.; therefore the species must bear the latter name. According to the description, *A. lucens* Walk. likewise belongs to the same species.

39. *Argyramoeba, distigma*, Wied.

Anthrax distigma, Wied. Auss. Zweifl. I. 309. 74; Macq. Dipt. ex. II. 1. 58. 9; Schin. Dipt. Novara-Reise, 122. 14; v. d. Wulp, Tijdschr. v. Ent. XXIII. 166. 19; — *Anthrax argyropyga*, Dol. Nat. Tijdschr. Ned. Ind. XIV. 401; — *Anthrax tripunctata*, v. d. Wulp, Tijdschr. v. Ent. XI. 109. 11. pl. 4 f. 1.

A specimen from Gorontalo and another from Guajaman in Celebes (v. Rosenberg), and two from Sumatra (v. Lansberge). The specimens from Sumatra are much smaller.

Besides the two black dots at the base of the furcated cell and the third posterior cell, there is sometimes a third dot on the small vein which form the base of the second posterior cell. It is this variety, which I described as a distinct species under the name of *A. tripunctata*.

40. *Argyramoeba melania*, n. sp.

(Plate 5, fig. 8).

Atra opaca; facie, collare, pleuris et utrinque abdominis segmentis 1, 4 et 5 niveo-pilosis; alarum dimidio basali nigro, colore nigra linea valde obliqua et in medio gradata terminata. — ♂ (?). Long. 13 mm.

Dull black. Front narrowed behind, longitudinally grooved, with a black pile; face scarcely prominent, with a white pile. Antennae black, short, pyriform, with a short style, the end of which (when seen through a lens) shows some minute hairs. Eyes angularly incised behind; the broad and convex occiput black, with a whitish reflex. Thorax with a black pile; the collar, the posterior border and the pleurae with a white pile; on both sides before the root of the wings some black bristles; hind margin of the scutellum and the first abdominal segment with a white pile; in the middle of the hind margin of the second segment a short white hair-stripe; the lateral pilosity of the first, the fourth and the fifth segments a little longer, accumulated and snow-white. — Legs black, the posterior ones with small bristles. Halteres black, the tip of the knob whitish. Wings hyaline with the basal half black or brownish-black; this dark color does not quite reach the hind margin, it covers the basal half of the discal cell and extends from there obliquely to the costa, about as far as the end of the costal cell; the extremity of the third basal cell (anal-cell) remains hyaline; the discal cell, the two inferior basal cells and the fourth posterior cell have a clearer disk; the upper branch of the cubital vein is angular at its base, with a recurrent vein.

I received two specimens (which I believe to be males), captured in Java by Mr. Piepers.

41. *Neuria indecora*, n. sp.

Nigra, flavo-pilosa; alis immaculatis, basi et cellula costali testaceis; cellulis submarginalibus tribus. — ♂. Long. 10,5 mm.

Shape oblong. Front trigonal, black; eyes coherent in the upper part; face almost entirely occupied by the strongly raised oral margin, which reaches near to the antennae. The antennae are black; in the unique specimen however they are in too bad a condition to be described; their base is surrounded by a dense black pile. Thorax and abdomen black, the sides of the latter parallel; the pilosity on the front portion of the thorax, on the pleurae and on the sides of the abdomen brownish-yellow; that on the thoracic dorsum, the scutellum and the last abdominal segments darker. Legs black. Halteres reddish-yellow. Wings brownish-grey; the extreme base and the costal cell testaceous; three submarginal cells; middle crossvein a little beyond the middle of the discal cell, which is oblong; first posterior cell narrowed at its end.

A ♂ from Poeloe Gamoe (Macklot).

42. *Bombylius pulchellus*, v. d. Wulp.

Tijdschr. v. Ent. XXIII. 164. 15. pl. 10 f. 8.

This Javanese species belongs to the genus *Comastes* O. Sack. (Western Dipt. p. 256), which as yet contained only a single species inhabiting North-America.

43. *Anastoechus longirostris*, n. sp.

Parvus, niger; pilositate capitis corporisque albo, in fronte fusco; abdomine setulis nonnullis nigris; rostro capite thoraceque longiori; pedibus luteis; alis cinereis, basi et costa flavescentibus. — ♀. Long. 5,5 mm.

Agrees in all generic characters with the American *A. barbatus* O. Sack. (West. Dipt. p. 252). The thorax and

abdomen however are more slender; the head is broader than the thorax and densely covered with long hairs; it is white on the face and darkbrown or blackish on the front, and between which the black antennae appear; terminal style of the latter as long as the pyriform third joint; the end of the style a little thickened. Rostrum black, as long as two thirds of the body. Thorax and abdomen thickly clothed with a long pilosity of a yellowish color and with a white reflection; on the sides of the abdomen, amongst this pilosity, some long, black bristles are present. Legs and halteres pale rufous. Wings with a grey tinge, yellowish at the base and along the costa; at the beginning of the costa a comb of black tipped yellowish hairs occurs; neuration exactly agreeing with that of *A. barbatus*.

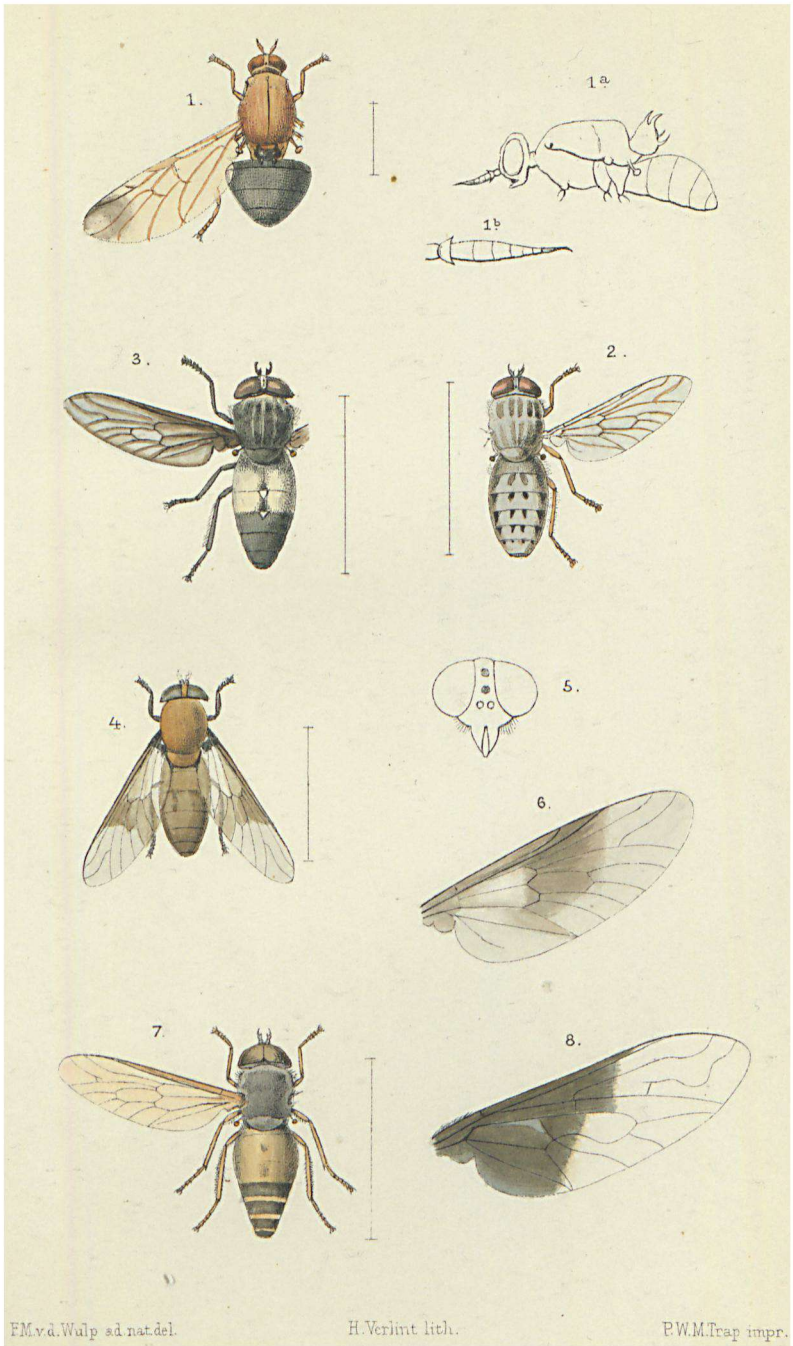
A ♀ from the Himalaya (Felder).

44. *Systoechus leucopygus*, n. sp.

Nigricans, *flavo-hirtus*, *mento*, *pectore anoque albo-hirtis*; *antennis rostroque nigris*; *pedibus luteis*; *alis cinereis*, *basi et costa testaceis*. — ♂. Long. 10,5 mm.

General appearance like in our European species of *Bombylius*. Blackish, covered with a very dense yellow pilosity, which becomes fulvous on the collar and has a silvery white reflection on the last abdominal segment; front small, trigonal; face short; both with a sericeous pale-yellow pile; beard and the hairs on the pleurae and the breast white. Antennae black; the first joint cylindrical, the second short, the third a little longer than the two previous joints together, subulate. Rostrum black, as long as the thorax. Legs yellow, with small bristles, those of the front legs very short. Halteres reddish-yellow. Wings greyish, at the base and along the costa, as far as two thirds of its length, with a brownish yellow tinge.

A ♂ from Adelaide (Felder).



FM.v.d. Wulp ad nat.del.

H. Verijnt lith.

P.W.M. Trap impr.

1, 1a, 1b. CAENACANTHA BIPARTITA v.d.W.
 3. TABANUS LEUCASPIS v.d.W.
 5. TABANUS BIPUNCTATUS v.d.W.
 7. TABANUS FELDERI v.d.W.

2. TABANUS MULTIPUNCTATUS v.d.W.
 4. TABANUS ATRIPES v.d.W.
 6. TABANUS EQUESTRIS v.d.W.
 8. ARGYRAMOEBA MELANIA v.d.W.