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Property of Systematic Entomology
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AFRICAN BOMBYLIIDAE.

by

Bezzi, Mario.
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1875
1876

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(Aus der Zeitschrift für Hymenopterologie und Dipterologie
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Eine neue *Aphoebantus*-Art aus dem palaearktischen Faunengebiete.

(Dipt.)

Von Prof. Mario Bezzi, Torino, Italien.

Herr *J. Escher-Kündig* aus Zürich hat im Frühlinge vorigen Jahres unter anderen interessanten Sachen auch eine schöne *Bombyliiden*-Art gesammelt, welche in keine der europäischen Gattungen passt, und am besten in der nordamerikanischen Gattung *Aphoebantus Loew* steht. Ich sage dem genannten Herrn, welcher als tüchtiger Dipterologe sowie als fleissiger Sammler bekannt ist, meinen besten Dank für Ueberlassung der Tiere zur Beschreibung.

Die Gattung *Aphoebantus* wurde zuerst von *H. Loew* in seiner *Centuria X* (Berlin. entom. Zeitschr. XVI. 1872. p. 76 n. 39) für eine aus Texas stammende neue Art (*A. cervinus*) begründet und ziemlich ungenügend charakterisiert. Aus seiner Beschreibung geht hervor, dass er die Art mit unseren europäischen *Argyromoeba Hesperus Rossi* und *Letho Wied.* vergleicht. Mit dieser einzigen Art ist auch die Gattung in der zweiten Auflage des *Cat. N. Am. Dipt.* von *Osten-Sacken*, 1878, auf Seite 91 zu finden. — Im April 1877 hat *Osten-Sacken* in seinen *Western Diptera*, p. 245, für eine neue californische Art (*mus*) die neue Gattung *Triodites* errichtet, von welcher er sagte: „Belongs in the number of genera which forms the passage between the *Anthraxina* and *Bombylina*. It has the appearance of an elongated *Anthrax*.“ Im Mai 1886 veröffentlichte *Coquillett* ein „*Monograph of the Lomatina of N. America*“ (*Canad. Entom.*, XVIII. 81—87) in welcher er die Gattung *Triodites O.-S.* als mit *Aphoebantus Lw.* zusammenfallend erklärt, drei neue Arten

beschreibt und eine Tabelle zur Bestimmung aller fünf bekannten Arten (*cervinus*, *mus*, *hirsutus*, *litus* und *vitatus*) gibt. In demselben Jahre hat V. v. Roeder, Wien. entom. Zeit., V. 263—265, diese Arbeit erwähnt und z. T. reproduziert. Im Januar des folgenden Jahres 1887 ist *Osten-Sacken* in seiner musterhaften Bearbeitung der *Bombyliiden* in der „Biologia centrali-americana“, p. 143 bis 150, auf die Gattung zurückgekommen; er nimmt, wenigstens pro tempore, die von *Coquillett* gegebene Synonymie an, und beschreibt, immer ohne von *Coquillett* Erwähnung zu tun, sechs neue Arten: *cyclops*, *rattus*, *conurus*, *bisulcus*, *carbonarius* und *peodes*. Von der Gattung gibt er eine ausführliche Charakteristik und unterscheidet dieselbe von *Epacmus* (*Leptochilus*) besonders durch die vorhandenen Pulvillen (p. 76). 1891 kehrt *Coquillett* zu der Gattung zurück (A Revision of the Bombylid genus *Aphoebantus*, West Amer. Scientist, VII. 254—264), und gibt eine Tabelle von allen bekannten Arten, von denen er folgende als neu beschreibt: *abnormis*, *brevistylus*, *desertus*, *fumidus*, *interruptus*, *marcidus*, *mixtus*, *paavidus*, *scriptus*, *squamosus*, *tardus* und *varius*, alle aus Californien stammend. Und dann noch 1894 hat derselbe unermüdliche Verfasser in seinen verdienstvollen „Notes and Descriptions of N. A. *Bombylidae*“ (Trans. am. ent. Soc., XXI. 105—107), eine Tabelle von den 30 bekannten Arten gegeben, von welchen *catulus*, *fucatus*, *leviculus* und *vulpeculus* als neu beschrieben sind. Ausserdem ist *rattus* O. S. zur Gattung *Eucecchia* gestellt, *squamosus* *Coquillett* als synonym von *marcidus* *Coquillett* erklärt, und die früher unter *Epacmus* beschriebenen *concinus*, *fumosus*, *pellucidus* und *transitus* sind mit in die Gattung *Aphoebantus* gebracht. Die Unterscheidung zwischen *Epacmus* und *Aphoebantus* ist nicht mehr auf die Pulvillen, sondern auf die Form des Gesichts (p. 92) begründet. In der 1896 erschienenen zweiten Auflage seines „Manual“ hat Prof. *Williston*, p. 67, diese Unterscheidung angenommen; aber im Juni 1901, in der „Biologia“ p. 285, hat er sich gegen dieselbe erklärt. Ich kenne die Gattung *Epacmus* nicht, glaube aber, dass sie mit *Aphoebantus* gänzlich zusammenfallen müsse. — Schliesslich hat *Aldrich* in seinen 1905 erschienenen Catalog, p. 242—243, die Gattungen *Epacmus* und *Aphoebantus* mit 33 Arten aufgenommen.

Die Metamorphose einer Art ist auch bekannt geworden: nach *Riley*, *Packard* und *Thomas*, 2 Rep. U.

S. entom. Commiss., 1880, 267, t. XVI, leben die Larven von *A. mus* O. S. in den Eikapseln von Acrididen (*Caloptenus spretus*); wahrscheinlich haben auch andere Arten ähnliche Lebensweise.

Dies ist die vollständige Geschichte der Gattung *Aphoebantus* in Nordamerika; es sind nach ihrer Errichtung 35 Jahre verflossen, und sie hat 33 Arten und vier verschiedene Namen erhalten.

Wenn wir nun von der neuen auf die alte Welt sehen, so finden wir von dieser Gattung keine Erwähnung, was um so auffälliger ist, als das reiche Auftreten der Gattung in den westlichen Teilen Nordamerikas eine weitere Verbreitung derselben im paläarktischen Gebiete recht wahrscheinlich macht. Nur *Loew* hat im zweiten Bande der Beschr. europ. Dipt., 1871, p. 201 Note 2 bei der Beschreibung seines *Anthrax stenurus* bemerkt, dass derselbe mit den Nordamerikanischen *Aphoebantus* und *Leptochilus* formenverwandt sei. Und *Osten-Sacken* in der Biologia, 1887, p. 143, bei der Gattung *Epacmus* schreibt: „Forms related to *Epacmus*, and also to *Aphoebantus*, occur in Central-Asia (Berlin. Museum, from *Loews* Collection).“ Ganz kürzlich hat Prof. Dr. *F. Hermann* in Heft 3 dieser Zeitung, 1907, p. 197, auf *A. stenurus* *Loew* mit vollem Recht die neue Gattung *Cononedys* errichtet.

Die von Herrn *Escher-Kündig* entdeckte Art ist aber ein echter *Aphoebantus*, da bei derselben die erste Hinterzelle und die Analzelle breit geöffnet sind. Zur Vergleichung besitze ich von dieser Gattung vier nordamerikanische Arten, welche alle Cotypen der von *Coquillett* selbst beschriebenen Arten sind. Drei von denselben, *catulus*, *leviculus* und *vulpeculus*, sind verlängerte, ziemlich zarte, graue weissbehaarte Tiere, welche an unsere *Argyr. nivea* *Rossi* erinnern, und sind ohne Zweifel wie diese sandbewohnende Insekten. Die vierte Art, *A. transitus*, ist etwas stärker gebaut und dunkler gefärbt, und zeigt, wie die meinige, ein hinten glänzend schwarzes Schildchen. In der *Coquillett*schen Bestimmungstabelle von 1894 kommt man mit meiner Art auf *A. desertus*, welche aber verschieden ist.

***Aphoebantus Escheri* n. sp. ♂♀.**

Oblongo-ovatus, totus niger; antennis pedibusque concoloribus; tomento superne cervino infra cinereo dense indutus; scutelli margine postico tamen late

*nigro-nitido; facie nigro-pilosa; setis in thoracis lateribus luteis, in margine scutelli et in abdomine nigris; pleuris et abdomine albido-pilosis; metapleuris nudis; proboscide brevissima, ex ore non prominente; labellis terminalibus latis; antennis basi remotis, articulo tertio basi lato inde valde attenuato, stylo biarticulato; facie non producta; apertura orali parva, ovata, retro abbreviata; pedibus aequalibus, tibiis anticis quoque spinigeris, femoribus posterioribus subtus ad apicem nigro-setosis; pulvillis perparvis sed distinctis; alis hyalinis, ad nervos transversos fusco-punctatis, nervo secundo prope radicem tertii oriente, cellula submarginali summa basi acuminata, cellula prima posteriori et anali late apertis, nervi tertii ramo supero basi plerumque appendiculato. **

♂. *Oculi ad verticem breviter connexi; frons luteo-pilosa; genitalia magna.* — ♀. *Frons modice lata, nigro-pilosa; terebra spinulis luteis armata.* — Long. corp. 7–8 mm, alar. 7–8 mm.

Circa Algerum, Afr. sept., ineunte Junio, a c. J. Escher-Kündig uterque sexus collectus.

Von etwas verlängertem, starkem Körperbaue; der Hinterleib ist bei dem Männchen etwas kegelförmig, am Ende stumpf. Die Augen zeigen bei beiden Geschlechtern ziemlich gleiche Facetten, und haben am hinteren Rande die eigentümliche Einbuchtung; auch beim Weibchen ist die Stirn oben etwas verengt; die Fühler sind etwa wie in Fig. 2, p. 198 d. Jahrg.; die Mundöffnung ist ziemlich breit aber kurz, und ihr unterer Rand steht höher als die untere Augenecke. Der Thorax ist breit, viereckig, nur wenig convex, mit gelblichem Tomente bedeckt; die aufgerichteten schwarzen Haare werden nach hinten zu immer länger. Die Pleuren sind nackt, mit einem Haarschopfe über den vorderen Hüften, und eine senkrechte Haarbinde durch die Meso- und Sternopleuren bis über die mittleren Hüften. Schildchen ziemlich gross, mit fast wulstigem glänzenden Hinterrande, über welchem viele ziemlich lange schwarze Borsten stehen. Die bleichen Haare des Hinterleibes sind am ersten Ringe viel dichter; die schwarzen dünnen Borsten am Hinterrande der Ringe sind zahlreich und lang. Männliche Genitalien etwa wie Fig. 3, pag. 198 d. Jahrg. Schwinger mit bleichem Stiele

* In diese Diagnose sind auch die Gattungsmerkmale mit aufgenommen worden.

und verdunkelter Keule. Beine kräftig, mit etwas verdickten Schenkeln, schwarz aber dicht grau bestäubt, mit gelben Stacheln, welche an den 4 hinteren Schienen sehr zahlreich sind; hintere Schenkel unten behaart. Flügel mit wenig entwickeltem Basalanhange und Borstenkamme; die dunklen Flecke stehen an der Wurzel der zweiten Längsader, an den kleinen Queradern, an der Wurzel des Vorderastes der dritten Längsader, und an den die Discoidal- und die zweite Basalzelle vorn abschliessenden Queradern.

* * *

Die systematische Stellung der Gattung *Aphoebantus* und ihrer nächsten Verwandten ist etwas schwierig zu deuten. Nach der Körper- und Stirn-Form und nach der Ursprungsstelle der zweiten Längsader stehen sie bei *Lomatia*, nach den breit getrennten Fühlern dagegen bei *Anthrax*. Es gibt aber eine Menge von verschiedenen Kennzeichen, wie aus folgender Tabelle zu ersehen ist, welche unsere Gattung von den echten *Anthracinen* entfernen und mehr den *Lomatiinen* nähern. Da ich viele der *Lomatiinen*-Gattungen mit genäherten Fühlern nicht kenne, so werde ich mich auf diejenigen mit entfernten Fühlern beschränken.

Tabelle zum Bestimmen der
paläarktischen *Bombyliiden*-Gattungen
mit an der Basis breit getrennten Fühlern.

1. Augen am hinteren Rande mit einer deutlichen, oft tiefen, Einbuchtung; die Augen selbst an dieser Stelle mit dem Anfange einer vertieften Querlinie, welche eine Bisektion der Augen beginnt *); Flügel an der Wurzel der Costa mit einem eigentümlichen Anhange (prae-alar hook *Osten-Sacken*), welcher öfters ganz besonders entwickelt ist **); Kopf nicht besonders gross 2.

*) Dies bis jetzt noch nicht gebrauchte Merkmal scheint mir für die Systematik der *Bombyliiden* von grosser Wichtigkeit. Ich habe die *Bombyliiden*-Gattungen meiner Sammlung daraufhin untersucht und gefunden, dass ein eingebuchteter Augenhinterrand nur bei folgenden Gattungen vorhanden ist: *Exoprosopa*, *Dipalta*, *Hyperalonia*, *Stonyx*, *Lepidanthrax*, *Argyromoeba*, *Aphoebantus*, *Eucessia*, *Lomatia*, *Anthrax*. Dasselbe fehlt dagegen bei: *Pantarbes*, *Mulio*, *Tomomyza*, *Amictus*, *Cylenia*, *Toxophora*, *Lepidophora*, *Eclimus*, *Usia*, *Systropus*, *Bombylius*, *Anastoechus*, *Systoechus*, *Dischistus*, *Sparnopolius*, *Lordotus*, *Scinax*, *Ploas*, *Aldrichia*, *Crocidium*, *Phthiria* und *Geron*.

***) Dieses findet sich auch bei *Lomatia* und verwandten Formen, welche genäherte Fühler besitzen.

- Hinterrand der Augen ohne Einbuchtung; Flügelwurzelanhang fehlend oder kaum angedeutet; Kopf besonders gross, mit in beiden Geschlechtern breit getrennten Augen; Ursprungsstelle der zweiten Längsader immer vor der kleinen Querader 9.
2. Squama alaris (*Girschner*) am Rande mit schuppenartig breit gedrückten Wimpern dicht besetzt; Metapleuren in der Regel dicht behaart; Ursprungsstelle der zweiten Längsader immer über oder sehr nahe der kleinen Querader; die zweite Längsader selbst an ihrer Wurzel rechtwinklig gebeugt und die erste Unterrandzelle daher am Grunde breit*); männliche Genitalien klein, asymmetrisch und meistens verborgen; Körper in der Regel breit 3.
- Squama alaris mit einfachen kurzen Wimpern besetzt; Metapleuren in der Regel nackt; männliche Genitalien mehr oder weniger hervorragend, aber immer grösser und symmetrisch gestellt; Rüssel kurz mit breiten Labellen; Körperform mehr verlängert, zuweilen cylindrisch 5.
3. Drittes Fühlerglied kegelförmig, mehr weniger verlängert, der Endgriffel an der Wurzel deutlich ringförmig abgeschnitten; Untergesicht schnauzenförmig vorgezogen, die Mundöffnung daher schmal und lang; Rüssel mehr weniger verlängert, am Ende zugespitzt; vorderes Beinpaar schwächer und kürzer als die übrigen; Vorderschienen ungedornt, Vordertarsen dünn, mit wenig deutlichen Gliedern, an den Seiten zart behaart; Klauen ziemlich klein, Pulvillen fehlend; Flügel mit drei oder vier Unterrandzellen . . . 4.
- Drittes Fühlerglied kurz, mit nicht abgeschnittenem Endgriffel; Untergesicht in der Regel nicht vorgezogen, mit breiterer Mundöffnung; Rüssel kurz oder verlängert; vordere Beine nicht besonders kurz; Vorderschienen gedornt oder nicht; Pulvillen vorhanden oder fehlend; Flügel mit zwei Unterrandzellen; Larven in Schmetterlingsraupen parasitisch lebend.

3. **Hemipenthes Loew** (sp. typ.: *Musca morio* L. 1758.)

*) Dieses Merkmal ist nicht den *Anthracinen* allein eigentümlich; abgesehen von den *Argyromoeben*, welche mit den echten *Anthracinen* gar nichts zu tun haben; wir finden dasselbe noch in der mir bekannten Gattung *Aldrichia*, welche nicht eingekerbte Augen besitzt, und in der Nähe von *Ploas* am besten steht.

4. Hintertarsen mit ungezähnten Klauen; Flügel mit vier Unterrandzellen.
 1. **Hyperalonia Rond.** (sp. typ.: *Anthrax Cerberus* F. 1796.)
- Hintertarsen mit am Grunde deutlich gezähnten Klauen; Flügel mit nur drei Unterrandzellen; erste Hinterrandzelle geschlossen oder offen.
 2. **Exoprosopa Macq.** (sp. typ.: *Bibio capucina* F. 1781.)
5. Ursprungsstelle der zweiten Längsader genau über der kleinen Querader oder ganz nahe derselben; Fühlerendgriffel durch einen mittleren Abschnitt in zwei gleiche oder ungleiche Hälften geteilt, von denen die letzte an der Spitze pinselförmig behaart ist; Untergesicht nicht vorgezogen, Mundöffnung breit und kurz, Rüssel ganz kurz, mit fleischigen Labellen; Vordertibien gedorn; Klauen ungezähnt, Pulvillen gross; Flügel gewöhnlich mit rücklaufenden Anhängen an der Beugungsstelle der zweiten Längsader und des Vorderastes der dritten Längsader; weibliche Legeröhre ohne Dornen 6.
- Ursprungsstelle der zweiten Längsader immer vor der kleinen Querader und ziemlich entfernt von dieser; Fühlerendgriffel am Ende nicht pinselförmig behaart, oder selten mit nur wenigen Haaren 7.
6. Flügel mit drei Unterrandzellen.
 4. **Spongostylum Macq.** (sp. typ.: *Sp. mystaceum* Macq. 1840.)
- Flügel mit zwei Unterrandzellen; Larven in Hymenopterenestern parasitisch lebend.
 5. **Anthrax Scop.** (sp. typ.: *A. morio* Scop. 1763 = *Musca anthrax* Schrank 1781 = *Anthrax sinuata* Meig. 1804.)
7. Ursprungsstelle der zweiten Längsader in der Mitte zwischen der kleinen Querader und der Wurzel der dritten Längsader, die erste Unterrandzelle am Grunde ziemlich stumpf; Augen des Männchens nicht zusammenstossend; Fühlergriffel mit einigen Haaren an der Spitze.
 6. **Petrorossia** nov. gen. (sp. typ.: *Bibio Hesperus* P. Rossi 1790.)
- Ursprungsstelle der zweiten Längsader der Wurzel der dritten Längsader viel näher gerückt als der kleinen Querader; die erste Unterrandzelle am Grunde sehr

- spitzig; Augen bei den Männchen kurz zusammenstossend; Fühlergriffel ohne Haare 8.
8. Erste Hinterrandzelle geschlossen und gestielt; Analzelle am Rande selbst geschlossen.
8. **Cononedys Herm.** (sp. typ.: *Anthrax stenurus* Loew 1870.)
-- Erste Hinterrandzelle und Analzelle breit offen; Larven in den Eierkapseln der Acrididen lebend.
7. **Aphoebantus Loew** (sp. typ.: *A. cervinus* Loew 1872.)
9. Flügel mit drei Unterrandzellen; Rüssel lang; Metapleuren dicht behaart 10.
-- Flügel mit nur zwei Unterrandzellen 11.
10. Erste Hinterrandzelle geschlossen und gestielt.
9. **Pantarbes Ost.-Sack.** (sp. typ.: *P. capito* O.-S. 1877.)
-- Erste Hinterrandzelle breit offen.
10. **Cytherea Fabr.** (sp. typ.: *C. obscura* F. 1794.)
11. Erste Hinterrandzelle geschlossen und gestielt; Larven in Eiersäcken von Acrididen lebend.
11. **Callostoma Macq.** (sp. typ.: *C. fuscipennis* Macq. 1840.)
-- Erste Hinterrandzelle breit offen 12.
12. Ursprungsstelle der zweiten Längsader in der Mitte zwischen der kleinen Querader und der Wurzel der dritten Längsader; Rüssel ziemlich lang; Pulvillen fehlend; Metapleuren behaart.
12. **Glossista Rond.** (sp. typ.: *Mulio aureus* F. 1794.)
-- Ursprungsstelle der zweiten Längsader der Wurzel der dritten Längsader viel näher gerückt als der kleinen Querader; Rüssel kurz; Pulvillen vorhanden; Metapleuren kahl.
13. **Chalcochiton Loew** (sp. typ.: *Anthrax holosericeus* F. 1794.)

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1. *Hyperalonia Rond.* — Diese Gattung, wie dieselbe *Osten-Sacken* in der *Biologia*, p. 79, 1886, wieder beschrieben hat, ist ganz natürlich; ich weiss nicht, ob es paläarktische Arten derselben giebt oder nicht, ich besitze nur eine äthiopische Art (*Alula Bezzi*).
2. *Exoprosopa Macq.* — Diese reiche und schöne Gattung ist auch ganz natürlich; *Osten-Sacken* hat

in der Biologia schon nachgewiesen, dass die *Ron-danischen* Gattungen *Argyrospila* und *Heteralonia* gar nicht haltbar sind.

3. *Hemipenthes* Loew. — Ich wähle diesen Namen für die Gattung *Anthrax* Fabr. et auct., nec Scop. aus, da eine Abteilung nach den Pulvillen nicht möglich ist. Diese Gattung ist ein Gemisch von verschiedenen Formen, welche in natürliche Gruppen später zu verteilen sind. *Osten-Sacken* hat für die Arten mit Fensterflecken in den Flügeln (*fenestrata* etc.) den Namen *Thyridanthrax* vorgeschlagen und für die natürliche Gruppe der Arten neben *hottentottus* L., den Namen *Hyalanthrax*; dieser letzte müsste aber dem älteren *Villa Lioy* 1863, weichen.
4. *Spongostylum* Macq. = *Coquillettia* Will. 1896. — Ich kenne diese Gattung nicht; nach Loew ist auch *A. Ocyale* Wied. derselben zuzuschreiben.
5. *Anthrax* Scop. = *Argyromoeba* Schin. 1860 = *Spongostylum* Will. 1896. — Prof. Aldrich schreibt S. 222 seines Cat. N. A. Dipt., 1905: „*Bezzi*, Zeitschr. f. Hymenopt. u. Dipterolog., 1902, 192, proposes a revolution in the nomenclature of this and other genera of the family, with which I do not agree, as it seems based too much on guess-work as to the types.“ Da ich kein Revolutionär bin, so will ich nur bemerken, dass *Scopoli* 77 Jahre vor *Macquart* und 97 Jahre vor *Schiner*, der typischen Art seiner Gattung *Anthrax* einen am Ende pinselförmig behaarten Fühlergriffel zugeschrieben hat. Und weil der grosse *Scopoli* vor 119 Jahren gestorben ist und seine getrockneten Fliegen zu Grunde gegangen sind, wollen wir nun seine Ideen, welche er mit unsterblichen Worten in seinen Werken begründete, nicht mehr schätzen? Zum Glücke sind die Typen der Entomologia carniolica in Kärnthen und Krain noch lebend und fliegend zu finden; und dort giebt es gewiss keine grosse, schwarzflügelige *Anthracine* mit pinselförmig behaartem Fühlergriffel, welche nicht seine *morio* = *anthrax* = *sinuata* wäre! Er hat auf diese einzige leicht kenntliche Fliege 1765 seine Gattung *Anthrax* begründet; und wenn wir heutzutage diese Art als Typus einer Dipterengattung anerkennen

wollen, so müssen wir für dieselbe den Namen *Anthrax* brauchen. *)

6. **Petrorossia** n. gen. — Diese Gattung ist zu Ehren von *Petrus Rossius* so genannt, und ich habe dieselbe mehr nach den von *Loew*, *Becker* und *Hermann* vielmal vorgelegten Erklärungen als nach eigener Ueberzeugung errichtet, da ich glaube, dass *Hesperus* noch in der Gattung *Aphoebantus* stehen kann. Ich kenne keine anderen Arten. *Loew* in Dipterenf. Südafrikas, 210, sagt, dass sein *Anthrax fulvipes* in denselben Kreis gehört; und nach der Berlin. entom. Zeitschr., XVI. 77 scheint auch *Anthrax Letho Wied.* hierher zu gehören. Ganz wahrscheinlich ist auch *Anthrax longitarsis Beck.*, Mitteil. zoolog. Mus. Berlin, II. 23, in die Gattung *Petrorossia* einzureihen; vielleicht auch *angustocolata*, ebendaher, p. 25. — *Bibio nivea Rossi* ist auch gewiss eine verwandte Form, und ich habe oben erinnert, dass es ähnlich gefärbte *Aphoebantus*-Arten in Nordamerika giebt. Ich habe Exemplare dieser Art in dem Turiner Museum gesehen, aber nicht näher untersucht, und ich selbst besitze die Art nicht. Nach der von *Griffini*, Boll. Mus. zool. Univ. Torino, XI. 1896 No. 225, p. 2, gegebenen Figur steht die Ursprungsstelle der zweiten Längsader der kleinen Querader ziemlich nahe.
7. *Aphoebantus Loew.* — Wie ich glaube, ist die verwandte Gattung *Epacmus O. S.* (= *Leptochilus Loew*, praeocc.), nur durch das schnauzenförmig verlängerte Untergesicht verschieden, und daher wenig haltbar. Vielleicht ist der *Anthrax inaequalis Becker*, Jahrg. 1906 d. Z. p. 148 eine zu diesem Kreise gehörende Form.
8. *Cononedys Herm.* — Ich habe der guten Charakterisierung dieser Gattung nichts beizufügen. Die Pulvillen sind bei ihr, sowie bei *Aphoebantus*, bald

*) *Schiner*, Verh. zool. bot. Ver., VI. 1856, 418, will, dass die von *Scopoli* beschriebene Art mit *A. semiatra Meig.* identisch sei; dies ist aber nicht möglich, da *Scopoli* ausser „setula apice pilosa“, auch sagt: „alarum color niger versus apicem et marginem tenuiorem crenulatum evanescentem“, und „abdomen punctis binis albis posticis“. Dagegen hat *Schiner* Recht, wenn er p. 402 sagt, dass *Linné* in der Fauna suecica beide Arten vermischt hat.

vorhanden bald nicht, sodass die Untergattung *Conogaster* *) gar nicht nötig scheint.

9. *Pantarbes Ost.-Sack.* — Diese Gattung ist bis jetzt nur aus Nordamerika bekannt; ich besitze zwei Arten und muss anerkennen, dass die Gattung viel bombyliinenartiges hat; auch die *Anastoechus*-Arten, welche sehr verwandt sind, haben die Fühler an der Basis nicht so genähert wie die anderen *Bombyliinen*. Es ist möglich, dass diese und die jetzt folgenden Gattungen mehr *Bombyliinen* als *Anthracinen* sind, wie die Augenform schon vermuten lässt; jedoch habe ich *Cytherea obscura Fabr.* in Calabrien lebend beobachtet und kann von derselben sagen, dass sie in ihrem Betragen ganz wie ein *Anthrax* ist.
10. *Cytherea Fabr.* — In seiner vortrefflichen Monographie der Gattung *Mulio* hat Meister *Becker* diesen Namen nicht angenommen; er kann aber bleiben, da von *Cythere Müll.* 1785, verschieden. Es sind drei Arten bekannt: *obscura Fabr.*, *taurica Beck.* und *trifaria Beck.*
11. *Callostoma Macq.* — Diese Gattung kenne ich nicht; sie scheint mit *Pantarbes* nahe verwandt zu sein.
12. *Glossista Rond.* — *Rondani* hat für seine Gattung den *Mulio infuscatus Meig.* als typische Art bezeichnet. Die Behaarung der Metapleuren ist bei diesen Arten immer weniger dicht als bei den *Cytherea*-Arten.
13. *Chalcochiton Loew.* — Ich kenne die *Loewsche* typische Art nicht; glaube aber, dass die Gattung mit *Loncocerius Rond.* 1863, von welcher *holosericeus Fabr.* als Type gegeben ist, ganz zusammenfalle. Bei der Art *lugubris Loew.* welche hier zu stehen scheint, ist aber die Ursprungsstelle der zweiten Längsader in der Mitte zwischen der kleinen Querader und der Wurzel der dritten. Der *Mulio frontalis Wied.* und *Becker* scheint eine in diese Gruppe nicht gehörende Art zu sein; die Sache wird nach der Augenform leicht zu entziffern sein.

*) Dieser Name ist auch schon von *Brauer* und *Bergensstamm* 1891 bei den *Tachiniden* verwendet.

XXVII. *Report on a collection of Bombyliidae (Diptera) from Central Africa, with description of new species, by Prof. MARIO BEZZI, Turin, Italy.*

[Read October 4th, 1911.]

PLATE L.

THROUGH the kindness of Mr. Guy A. K. Marshall, the Scientific Secretary of the African Entomological Research Committee, I have received for study a very interesting collection of Bombyliids from Tropical Africa. Some of these beautiful flies, which may be called the butterflies of the Diptera, are of economic importance on account of their parasitic habits, for the larvae of several species are known to prey on the egg-cases of locusts.

The genera in the collection may be tabulated as follows:—

- 1 (10). Hind margin of the eyes absolutely entire, not indented and without a deep sinuosity; proboscis always long.
- 2 (9). First posterior cell of the wings closed.
- 3 (6). Upper basal cell longer than the second one.
- 4 (5). First posterior cell closed long before the hind margin of the wings; basal comb of the wings distinct
Bombylius, p. 606.
- 5 (4). First posterior cell closed very near the hind margin and strongly pointed at the end; no basal comb at the root of the costal vein *Sisyrophanus*, p. 611.
- 6 (3). The two basal cells of equal length.
- 7 (8). Face prominent, moderately pilose; discal cell as in *Bombylius* *Systoechus*, p. 607.
- 8 (7). Face not prominent, densely pilose; discal cell very obtuse at the end; its apical cross-vein as long as the width of the first posterior cell at the same point *Anastoechus*, p. 609.
- 9 (2). First posterior cell open; basal comb of the wings not developed *Dischistus*, p. 610.
- 10 (1). Hind margin of the eyes indented or deeply sinuose.
- 11 (12). Hind margin of the eyes deeply sinuose; third antennal joint hairy above; proboscis long; first posterior cell as in *Sisyrophanus* *Eurycarenum*, p. 613.

- 12 (11). Hind margin of the eyes indented ; proboscis usually short.
- 13 (14). Second longitudinal vein issuing from the third at an acute angle far before the first cross-vein ; first cross-vein far behind the middle of the discal cell . *Lomatia*, p. 613.
- 14 (13). Second longitudinal vein issuing at a right angle opposite or nearly opposite the first cross-vein ; if far before, the angle is never acute.
- 15 (18). Second longitudinal vein issuing from the third some distance before the first cross-vein, at least at a distance which is greater than the distance of the cross-vein itself.
- 16 (17). Two submarginal cells *Petrorossia*, p. 615.
- 17 (16). Three submarginal cells ; anal cells broadly open ; wings petiolate ; proboscis long . . . *Isotamia*, gen. n., p. 627.
- 18 (15). Second vein issuing opposite or nearly opposite the first cross-vein, the distance at any rate being smaller than the length of the cross-vein itself.
- 19 (22). Antennal style with a pencil of hairs at the tip ; genitalia of the male of somewhat larger size, symmetrical.
- 20 (21). Third antennal joint lenticular, with a projecting margin ; abdomen with silvery spots ; wings obliquely bordered with black on the anterior half . . . *Anthrax*, p. 620.
- 21 (20). Third antennal joint not so shaped ; abdomen with scales ; wings clear with some brown spots
Molybdamoeba, p. 617.
- 22 (19). Antennal style without pencil of hairs ; genitalia of the male smaller, unsymmetrical.
- 23 (26). Two submarginal cells only.
- 24 (25). Face rounded ; wings clear, at most only blackened on the fore margin *Villa*, p. 623.
- 25 (24). Face prominent ; wings with extensive dark or black markings *Thyridanthrax*, p. 625.
- 26 (23). Three or four submarginal cells.
- 27 (30). Three submarginal cells.
- 28 (29). Face conically produced ; proboscis short
Exoprosopa, p. 635.
- 29 (28). Face rounded ; proboscis long . . . *Litorrhynchus*, p. 629.
- 30 (27). Four submarginal cells *Hyperalonia*, p. 651.

1. *Bombylius*, Linnè (1758).

Two species only, belonging to two distinct groups.

1. *Bombylius micans*, Fabricius (1798).

A male specimen of this well-known South African species from Nyika Plateau, Urongo stream, North Nyasa, July 14th, 1909 (*Dr. J. B. Davey*).

2. *Bombylius ornatus*, Wiedemann (1828).

Fifteen specimens of both sexes of this common African species, Songwe River, North Nyasa, June 21, 1909; near mouth of River Rumpi, May 12, 1909; Mwenetete village, Songwe River, June 21, 1909, round cattle (2 ♂, 2 ♀); Florence Bay, November 1, 1909; Deep Bay, October 31, 1909; Marimba, Ukasi village, January 15, 1910 (all from *Dr. J. B. Davey*). Mzimba West Nyasa, May and June 1909 (*Dr. H. S. Stannus*).

2. *Systoechus*, Loew (1855).

This genus, which is of economic importance, is well represented in the collection by numerous specimens belonging to five different species. The larvae live in the egg-cases of locusts, as observed in N. America by Riley (*S. oreas* preying on *Oedipoda atrox*) and in Europe by Stepanoff, Schimkewitch and Portschesky (*S. autumnalis* and *leucophaeus* on *Stauronotus maroccanus*).

The species before me can be distinguished as follows:—

- 1 (2). Femora wholly black; abdomen with very few black bristles; wings tinged at the base with dark brown or blackish.
albidus, Loew.
- 2 (1). Femora wholly yellow or black at the base only; abdomen with or without bristles; wings wholly clear or with a brownish or yellowish tinge at the base.
- 3 (6). Abdomen without black bristles at the hind margin of the segments; femora wholly yellow.
- 4 (5). Eyes of the male separated; face with yellow hairs; hind femora with black spines; wings broadly infuscated at the base *robustus*, sp. n.
- 5 (4). Eyes of the male touching; face with black hairs; hind femora with yellow spines; wings clear at the base.
simplex, Loew.
- 6 (3). Abdomen with black bristles at the hind margin of the segments.
- 7 (8). Face with black hairs; hind femora with yellow bristles
melampogon, sp. nov.
- 8 (7). Face with yellow hairs; hind femora with black bristles
ctenopterus, Mikau.

3. *Systoechus albidus*, Loew (1860).

The abdomen of this species bears very few black bristles, the most of these being whitish. I think that

S. nigripes, Loew (1863), from the Cape is the same species, and both are very closely allied to the European *S. leucophaeus*, Meigen. The species is known from South and West Africa; in the collection are seven specimens of both sexes from West Nyasa, Mzimba, May and June 1909 (*Dr. H. S. Stannus*).

4. *Systoechus robustus*, sp. nov. (Plate L, fig. 1.)

♂ ♀. Length (3 specimens) 13 to 14 mm.; proboscis 8 to 8½ mm. A very robust species, easily distinguished by the short and dense yellowish pubescence of the body, there being no black hairs or bristles whatever on the thorax and abdomen.

Eyes of the male somewhat widely separated, the front of the female being twice as wide as that of the male; the median frontal furrow very little developed; all the hairs of head yellowish; antennae black, the third joint very thin in the apical third, where it is yellow; terminal style very minute; proboscis black, 10 mm. long; ground colour of the head black, the sides of the mouth yellow. Thorax densely clothed with short greyish hairs, those on the sides being a little paler; prealar bristles whitish; scutellum dark red. Squamae brownish, with a dense fringe of white hairs; halteres white. Abdomen black, but in the male the sides and the hind margins of the segments are reddish; the pubescence as on the thorax; bristles wanting. Legs wholly reddish-yellow, only the trochanters and the last tarsal joints being black; with scanty whitish tomentum; all the bristles black, those of the hind femora very strong. Wings somewhat greyish, with a reddish-brown tinge on the basal portion, which extends from the end of the first vein obliquely to the basal cross-veins and to the middle of the anal cell. Basal comb strong, black; veins mostly rufous, the first bright red; second and third longitudinal veins closely approximated till the middle of the first posterior cell.

This species seems to be allied to *S. ferrugineus*, Macq. (1834), from Senegal.

TYPE ♂, North Nyasa, on the road from Karonga to Fort Hill, near Chikwete's village, May 21, 1909 (*Dr. J. B. Davey*). TYPE ♀, W. Nyasa, Mzimba, May 1909 (*Dr. H. S. Stannus*). Another male specimen, in poor preservation and denuded, from the same locality as the female type.

5. *Systoechus simplex*, Loew (1860).

The species is known from South and East Africa.

In the collection are two specimens which I refer with

great doubt to this species. A male from North Nyasa, Wovwi River, December 24, 1909 (*Dr. J. B. Davey*); the eyes touching. A female, wholly denuded, from North Nyasa, October 1909 (*Dr. H. S. Stannus*).

6. *Systoechus melampogon*, sp. nov.

♂ ♀. Length (6 specimens) 7 to 9 mm.; length of proboscis 4 to 4½ mm.

Near *S. mixtus*, Wied., but smaller and with black hairs on the face and hyaline wings. Head black, produced; eyes of the ♂ very closely approximated, but not touching; frons and face in the ♂ with the hairs entirely black, in the ♀ with some yellow hairs intermingled on the frons and upper portion of the face. Antennae black, the third joint not attenuated; terminal bristle small, the basal joint not distinct as in *S. mixtus*. Proboscis black, short. Ground colour of thorax velvety black in the male, less velvety in the female; it is densely clothed with erect, dark yellowish hairs of equal length, without black bristles; sterna and pleura with similar hairs; the hairs in the female are of a paler tint. Halteres whitish; squamae brown with yellow hairs. Scutellum dark red, black at the base and in the middle. Abdomen black, sometimes reddish at the sides; the hairs are of the same colour as on the thorax; black bristles well developed. Legs yellow, the basal part of the femora a little blackened in the male; coxae and trochanters black; tarsi black at tip; the pubescence and hairs are white, the bristles yellow, also those on the hind femora. Wings wholly hyaline, with a small yellowish patch at the base; veins brown, the first black; basal comb small, mostly yellow, with a few black bristles.

TYPE ♂ and two other specimens from Southern Nigeria, Oshogbo, February 27 and 28 (*J. J. Simpson*). TYPE ♀ and another specimen from the same locality and taken by the same collector, February 28, 1910, and March 1, 1910; another ♂ from North Nyasa, Fort Hill, October 26, 1909 (*Dr. J. B. Davey*).

7. *Systoechus ctenopterus*, Mikau (1796).

A single ♀ specimen from North Nyasa, on the road from Karonga to Fort Hill, near Lufira River, May 30, 1909 (*Dr. J. B. Davey*), which agrees very well with our South European specimens.

3. *Anastoechus*, Osten-Sacken (1877).

This genus has not been previously recorded from Tropical Africa; the species have the same habits and importance as those of the preceding genus.

8. *Anastoechus meridionalis*, sp. nov.

♀. Length 10 mm.

Very near *A. nitidulus* and *hyrcanus*, but with very different antennae. Hairs on the upper side of the body greyish yellow, on the ventral side white. Head with white hairs, except those on the frons, which are black on the upper and yellowish on the lower portion. Antennae with the two basal joints red; the third black, not constricted at the base and tapering into a long point. Scutellum dark red. Squamae whitish and white-fringed; halteres yellowish. The bristles on thorax and abdomen are yellowish. Legs yellow, with white pubescence and white hairs; femora broadly black at the base, the hind femora almost entirely black; bristles whitish yellow; tarsi darkened at tip. Wings as in *A. nitidulus*, but the first posterior cell a little larger.

TYPE ♀, from West Nyasa, Mzimba, August 1909 (*Dr. H. S. Stannus*); the only specimen.

This is the first *Anastoechus* recorded from the southern hemisphere; the first posterior cell is larger than in typical forms. The North African *A. retrogradus*, Becker, also has the basal joints of the antennae red.

4. *Dischistus*, Loew (1855).

Of this genus, which is represented by very numerous species in Africa, there are in the collection only two specimens, which belong in my opinion to two new species.

9. *Dischistus diadematus*, sp. nov.

♀. Length 6 mm.

A small species, readily distinguished by the two silvery spots on the sides of fore margin of the frons at the base of the antennae.

The body is clothed with golden hairs; only on the frons are there some black hairs; the bristles of thorax and abdomen are black. Head black; frons shining in the middle, with black short hairs, covered on the sides by dense golden pubescence; face clothed with wholly yellowish hairs; the silvery hairs form a transverse band (interrupted in the middle) at the insertion of the antennae; occiput with short and dense hairs. Antennae black; the basal joints very short and black-haired; third joint long, not pointed, obtuse. Proboscis black, $2\frac{1}{2}$ mm. long. Thorax and scutellum velvety black, densely clothed with golden hairs; scutellum bearing eight strong black bristles on the hind margin, those of the middle decussate. On the pleura the hairs are of a paler tinge. Halteres

yellowish. Abdomen black, clothed like the thorax; hind margins of the segments with a row of strong bristles. Legs yellow, with whitish pubescence; femora with the basal two-thirds black; tarsi darkened; bristles strong, black. Wings somewhat greyish, with a small yellowish area towards the base; basal comb not developed; the first, third and sixth veins are red; small cross-vein before the middle of discal cell; apical branch of the third vein oblique, gently curved; marginal cell dilated at the tip.

TYPE ♀, from Southern Nigeria, Benin City, March 20, 1910 (*J. J. Simpson*); a single damaged specimen.

10. *Dischistus hirtus*, sp. nov.

♀. Length 10 mm.

Very near *D. capito*, Loew, but with black legs; distinguished from *D. seriatus*, Wied., by the hyaline wings.

Hairs of the body very long, yellowish, but with some black hairs intermingled. Frons clothed with short yellow hairs and very long black ones; occiput with very long yellow hairs, a few black near the vertex; face with long hairs which are yellow, with some black towards the sides. Antennae black, the basal joints with very long black hairs; third joint a little attenuated in the apical half. Proboscis black, $4\frac{1}{2}$ mm. long. Thorax and scutellum greyish black, with long hairs which are yellow and black intermingled; scutellum with marginal hairs only, without bristles; pleurae without black hairs. Halteres orange-yellow, abdomen clothed like the thorax, the hind margin of segments with numerous erect, but not strong, black bristles. Wings pure hyaline, with black veins, and no basal comb; small cross-vein placed on the last third of the discal cell; marginal cell not dilated; anterior branch of the third vein very long, bent in the middle. Legs wholly black, with whitish pubescence and hairs and with black bristles.

TYPE ♀, from North Nyasa, Misuko Plateau, feeding on flowers, June 2, 1909 (*Dr. J. B. Davcy*); a single specimen.

5. *Sisyrophanus*, Karsch (1886).

A very distinct genus, of which only a single species, *S. homeyeri*, Karsch, from Pungo Andongo, is known at present; a figure of this species is to be seen on page 54 of the "Entom. Nachricht.," vol. xii. The author places his genus near *Eurycarenum*, which it certainly resembles in the form of the first posterior cell. But as the eyes are absolutely entire on the hind margin, I think that

Sisyrophanus has more affinity with *Dischistus*, notwithstanding the closed first posterior cell. The South African fauna is rich in species of *Dischistus*, which have an elongated cylindrical body, and this is to be seen also in the species of *Sisyrophanus*.

In the collection are represented two species, which are both different from *S. homeyeri* and very distinct.

11. *Sisyrophanus leptocerus*, sp. nov.

♂. Length 11 mm.

A species near *S. homeyeri*, but with black femora, wholly black abdomen and wholly hyaline wings.

Head black; face shining black, strongly and conically produced, bare in the middle, with long pale hairs on the sides; eyes touching for a considerable distance; ocellar tubercle with some black hairs; on the occiput and below the hairs are greyish. Antennae black; the first joint shining, swollen; the second opaque; these two joints bear below some strong and long black and white hairs; third joint opaque, as long as the first two together, much narrower than the first, attenuated at the tip, without distinct terminal style. Proboscis black, 5 mm. long. Upper facets of the eyes distinctly enlarged. Beard dense, white. Hairs of the thorax dense, short, greyish on the upper side, white below; thorax and scutellum black, without black hairs or bristles. Halteres yellowish; squamae with white fringe. Abdomen black, clothed with hairs like those on the thorax; hind margin of the segments with a row of long black hairs. Legs black, the tibiae dark reddish; bristles of the tibiae black; hind femora without bristles, with a few white hairs only. Wings pure hyaline, with a small yellowish area towards the extreme base; veins yellowish; costal cell dilated at the tip; anterior branch of third vein very sinuose; small cross-vein beyond the middle of the discal cell; anal cell widely open; first posterior cell very pointed at the end.

TYPE ♂, from Mbwabwa, Momberas, May 1909 (*Dr. H. S. Stannus*); a single specimen, not in very good condition.

12. *Sisyrophanus pyrrhocerus*, sp. nov.

♀. Length 9 mm.

A smaller and more cylindrical species, very distinct on account of the bright red third antennal joint and the yellow legs.

Frons wide, shining black, with a grey band at the base of the antennae and some erect black hairs; face very prominent, black; very shiny, with a small yellowish spot at the posterior, lateral

margin of the mouth, bare, with very scanty greyish hairs on the sides. Antennae with the first two joints black, the first swollen but short, bearing short black hairs; the third joint longer than the first two together, and not narrower, of a bright red colour and showing a very minute terminal style. Proboscis black, thin, 5 mm. long. Occiput with long and dense lemon-yellow hairs. Thorax and scutellum black, clothed with long lemon-yellow hairs, without black hairs. Halteres whitish. Abdomen black, with the same hairs as on the thorax, with only a few black hairs on hind margin of segments. Genitalia yellow-red, with long red spines. Legs yellow, with only the coxae and tarsi black; tibiae with yellow bristles; femora with pale hairs, those of the hind pair without bristles. Wings pure hyaline, with black veins, which are reddish at the base, costa and first veins wholly reddish; direction of the veins the same as in the preceding.

TYPE ♀, and another specimen, from West Nyasa, Mzimba, June 6, 1909 (*Dr. H. S. Stannus*).

6. *Eurycarenus*, Loew (1860).

A very distinct African genus, which seems to be allied to the South American *Heterostylum*, Macq.; at least both genera show the same sinuosity at the hind margin of the eyes. Only a single species is known, which has however, a wide distribution in the Ethiopian region. *E. pachyceratus*, Bigot (1892); from the Cape, is very doubtful, and belongs perhaps to the preceding genus.

13. *Eurycarenus laticeps*, Loew (1852).

Several specimens of this easily recognised species from West Nyasa, Chintechi (*Dr. H. S. Stannus*); another male specimen from Northern Nigeria, Lokoja, January 10, 1911 (*J. J. Simpson*); a very small female (7 mm.) is from Abu Jill, Kordofan (*H. H. King*).

7. *Lomatia*, Meigen (1822).

Of this distinct genus, which is abundantly represented in the Ethiopian fauna, there are in the collection only two specimens, belonging to two very different species.

14. *Lomatia inornata*, Loew (1854—not of 1860!).

Loew has described two different species of *Lomatia* with this same name: one in 1854 from Nubia, and another in 1860 from South Africa. Since the two

species are certainly different, that of 1860 must be re-named *Lomatia loewi*, nom. nov.

The single specimen in the collection, taken at Vitiya, West Nyasa, October 1910 (*Dr. H. S. Stannus*), seems to belong to the species of 1854; but the determination is very doubtful. The indentation of the hind margin of the eyes is very obsolete.

15. *Lomatia gigantea*, sp. nov. (Plate L, fig. 2.)

♂. Length of the body 15 mm., of the wing 17 mm.; wing-expanse 37 mm. General appearance as in our species of the group of *L. belzebul*. Belongs to Division I B of Loew, near *L. pictipennis*, Wied., but of much larger size and with very different wing-markings. The size is about the same as that of *L. longitudinalis*, Loew, which has, however, yellow legs.

Ground colour of head, body, antennae and legs black. Occiput clothed with grey tomentum and yellow pubescence; face and frons with long golden yellow hairs; ocellar tubercle and vertex with black hairs. Eyes subcontiguous, with the indentation of hind margin broad and distinct. Two first joints of the antennae with short black and yellow hairs; third joint elongate conical, a little excavated below, gradually tapering into a long style. Proboscis black, as long as the head. Thorax on dorsum clothed with olive-brown tomentum, which is grey on the pleurae and below; the hairs are dense and golden yellow, greyish on the pleurae, with whitish tufts on meso- and sterno-pleura; the bristles are yellow. Squamae pale yellowish with white fringe; halteres yellowish. Abdomen with entire transverse bands of golden tomentum at the hind margin of each segment; first segment clothed with long hairs, which are yellow dorsally and white ventrally; the hairs on the sides of the other segments are also long and paler; underside with short grey pubescence. Genitalia not prominent, dark reddish, black above, shining. Legs with golden yellow pubescence and black bristles; on the four anterior tibiae the pubescence is whitish. Wings very long; the markings about as in *L. pictipennis*, but the colour yellowish and not brown; there is a dark marking along the first basal cell and around the small cross-vein and its vicinity; on the marginal, submarginal and discoidal (including the second basal) cells are longitudinal stripes of a pale yellowish tinge. No distinct pre-apical brown band; the hind margin of the wing is hyaline throughout its whole length, as is also the apex. Direction of wing veins as in Loew's pl. II, fig. 12, but the first posterior cell is not so narrowed at its end.

TYPE ♂, from Nyasaland, Blantyre, May 3, 1910 (*Dr. J. E. S. Old*); a single specimen.

8. *Petrorossia*, Bezzi (1908).

This genus was erected by me for the well-known Mediterranean *Argyramoeba hesperus*, and is included in the monograph of Dr. Sack (1909), with this species alone. I am now very glad to find that it is well represented in Africa, as the collection comprises no fewer than four distinct species.

The genus is easily distinguishable from any of its allies; it most closely resembles *Chionamoeba*, Sack, from which it differs chiefly in the form of the discal cell and in the origin of the second longitudinal vein.

The species before me can be distinguished as follows:—

- 1 (4). Species more robust and of greater size, without golden tomentum on thorax, scutellum and abdomen; frons opaque; abdomen wholly brown, or with a small yellowish marking on the sides only.
- 2 (3). Frons with black hairs; abdomen wholly brown, or with only a small yellowish patch at the extreme base, with black bristles on the sides; upper branch of third vein normally with a recurrent veinlet . . . *hesperus*, Rossi.
- 3 (2). Frons with white hairs; abdomen with a narrow yellowish lateral stripe along its whole length and without black bristles on the sides; upper branch without appendix
letho, Wied.
- 4 (1). Smaller and delicate species, clothed with golden tomentum; abdomen orange-red, with or without a median longitudinal dark stripe; frons shining black.
- 5 (6). Face with white hairs; abdomen with a broad median black stripe; second longitudinal vein strongly bent near the apex; upper branch of the third vein bent at an angle and here with an appendix; anal cell narrowly open
fulvipes, Loew.
- 6 (5). Face with black hairs; abdomen without median stripe; second vein slightly curved, as also the upper branch of the third, which is without appendix; anal cell widely open *gratiosa*, sp. n.

16. *Petrorossia hesperus*, Rossi (1790).

A single female of great size (length 10 mm.), from N. Nyasa, on the road from Karonga to Fort Hill, near Kaseye, June 1, 1909 (*Dr. J. B. Davey*), which agrees very well with our Italian specimens. The femora are wholly yellow, and there is no appendix to the upper branch of the third vein; the wings are hyaline, and only slightly infuscated toward the fore margin.

This species seems, however, to be decidedly variable. I have in my collection 9 ♂ and 7 ♀ from Upper, Middle and South Italy, Sardinia and Corsica, Portugal, Greece and Syria. Of these specimens, ten have the appendix on the upper branch of third vein; one has an appendix also on the inner side of the discal cell; twelve have the wings hyaline, the others infuscated; two have the femora wholly or in greater part yellow. The female has normally the wings hyaline and the upper branch without appendix (five specimens out of seven), and the femora are more yellow.

17. *Petrorossia letho*, Wiedemann (1828).

Anthrax longitarsis, Becker (1902), from Egypt, is without doubt a synonym of this species, which seems to be widely spread in Africa. The female has no appendix at the fork of the third vein, hyaline wings and yellow femora; the male has also no appendix (but one has an appendix on the anterior angle of the discal cell), but the femora are wholly or partly black; the wings are darkened in the basal half in two specimens and hyaline in one.

Four specimens of both sexes from North Nyasa, Akamanga, South Rukuru River, October 10, 1909, and Songwe River, September 17, 1909 (*Dr. J. B. Davey*). The species is already known from Nubia, Sahara and Alexandria.

Wiedemann records also the variable colour of the legs; Loew in 1860 has it under *Exoprosopa*, but in the "Berlin Entom. Zeitsch.," xvi. p. 77, he says that it is a species of *Argyramoeba*, near *hesperus*.

18. *Petrorossia fulvipes*, Loew (1860).

A single male from North Nyasa, Florence Bay, February 1, 1909 (*Dr. J. B. Davey*), of this elegant species, agrees very well with Loew's description. The wings are strongly darkened on the basal half, the limit of the dark patch running obliquely from the end of the first vein to the apex of the anal cell. The appendix of the fork of the third vein is present upon one wing only.

19. *Petrorossia gratiosa*, sp. nov. (Plate L, fig. 14.)

♂. Length, 5 mm.

A very small, pretty species, allied to the preceding one, but abundantly distinct by the wholly orange-red abdomen and different venation.

Head velvety black, the frons shining in the middle, clothed with

black hairs ; face with black hairs, with only a few pale hairs intermingled. Antennae black, of the same form as in the preceding. Thorax and scutellum velvety black, covered with golden tomentum, as in the preceding ; the hairs on the pleurae, however, are of a golden colour, not white. The abdomen has only the first segment black, and is, moreover, a little darkened at the tip. Halteres yellowish. Legs wholly orange-red, the tarsi darkened, with thin black bristles. Wings evenly and slightly darkened over their entire surface. The second vein is only gently curved at the apex, without the usual strong arcuate fold ; upper branch of the third vein long, gently curved, without appendix ; discal cell long and narrow ; small cross-vein placed on the first fourth of discal cell, anal cell but little narrowed at the end.

TYPE ♂, from Southern Nigeria, Benin City, March 20, 1910 (*J. J. Simpson*) ; a single specimen.

9. *Molybdamoeba*, Sack (1909).

This genus is only slightly differentiated from the following one ; but the species has a particular facies, which seems to be sufficient for its distinction. In this genus is also notable the development and length of the recurrent veinlets of the wings. The wings are hyaline, with a few dark spots on the cross-veins and forks ; the tibiae are yellow. The species in the collection can be distinguished as follows :—

1 (2). Face with white hairs only ; anal cell closed

leucopogon, sp. n.

2 (1). Face mostly or predominantly black-haired ; anal cell open.

3 (4). Abdomen with very large scales towards the sides, compressed at the tip ; pubescence of the body yellowish ; genital plate of male with black fringe ; all the cross-veins on the wings infuscated . *punctipennis*, Wied.

4 (3). Abdomen without lateral patches of large scales, not compressed at the tip ; genital plate without a black fringe.

5 (6). Ground colour of body grey ; abdomen with yellow pubescence ; the yellow hairs in front of the thorax very long ; hairs on the face mostly yellowish

incisuralis, Macq.

6 (5). Ground colour black ; abdomen with the yellow pubescence very scanty ; yellow hairs in front of the thorax sparse ; black hairs predominating on the face

decipiens, sp. n.

20. *Molybdamoeba punctipennis*, Wied. (1821).

Some specimens which agree well with Loew's description; but Loew says nothing about the patches of large scales on the sides of the abdomen. The usual length is 14 mm.; but one male measures only 10 mm. The male genitalia are of large size, and wholly shining red. Black tufts of hairs on the sides of abdomen are to be found only on the second and fourth segments. The single female has the hairs on the face whitish. The wings show always the dark spot at base of the fork of the third vein.

Two males from North Nyasa, Karonga to Fort Hill, near Lufira River, May 30, 1909, and Akamanga, South Rukuru River, October 10, 1909 (*Dr. J. B. Davey*); three males and a female from Nyasaland, Fort Johnston, 2,000 ft., June 1910 (*Dr. A. H. Barclay*).

21. *Molybdamoeba incisuralis*, Macquart (1840).

Agrees very well with Loew's description of *Anthrax mixtus* (1860), which is without any doubt the same species.

Closely allied with the preceding species, but distinguished by the want of large scales on the sides of the abdomen; by the male genitalia being black at the base and without a black fringe; by the presence of black tufts of hairs also on the sides of the fifth abdominal segment; by the want of the dark spot at the base of the fork of the third vein.

Three males from North Nyasa, Mulanasasa, Nchipomi stream, September 16, 1909, and Mudumuka village, North Rukuru River, August 25, 1909 (*Dr. J. B. Davey*); a couple from Nyasaland, Fort Johnston, 2,000 ft., June 1910 (*Dr. A. H. Barclay*). Two male specimens from North Nyasa, Karonga to Fort Hill, near Lufira River, May 30, 1909 (*Dr. J. B. Davey*), belong to the variety mentioned by Loew (1860, p. 213, note 2), with the dark spot at the base of the fork of the third vein. As the male genitalia are, moreover, wholly red, as in *M. punctipennis*, I will give a name to this variety, calling it *var. inquirenda*, var. nov.; perhaps a distinct species.

22. *Molybdamoeba leucopogon*, sp. nov.

♂. Length (two specimens), 9-10 mm.

A grey species, with an oval elongate body; very distinct on account of the wholly whitish hairs of the face and the closed anal cell.

The frons bears erect black hairs and dense whitish pubescence; face whitish grey, bare below the antennae, the whitish hairs being confined to the inferior portion. Antennae very short, grey. Occiput with whitish scale-like hairs and a short fringe of white hairs. Thorax clothed with erect black hairs and short grey pubescence. The bristles are black; the hairs on the pleurae are white. Scutellum with the same clothing as the thorax and with strong black bristles on the margin. Halteres white, with yellowish stalk. Abdomen black, with yellow borders on the hind margin of the segments, clothed with grey pubescence and erect black hairs; the hairs on the sides are longer, but scales are wanting, the second and fourth segments only bearing a tuft of black hairs; marginal bristles of the last segments long and strong. Underside grey, yellowish at the tip, with white hairs; genitalia shining red, black at the base, the plate with a short black fringe. Legs black, with white scales and black bristles; tibiae reddish. Wings wholly hyaline, narrowly luteous at the extreme base. A small brown spot after the origin of the third vein; the small cross-vein and the base of the second vein placed just opposite to it are margined with fuscous, forming one dark spot; the cross-vein at the end of the second basal cell is also slightly infuscated. The recurrent stumps are very long; the second vein is sinuous at the tip; the first posterior cell is narrowed at the end; the small cross-vein is placed before the middle of the discal cell; the lower vein of the discal cell is very sinuous; anal cell closed at the margin. The veins are black, the first, however, being luteous.

TYPE ♂ and another specimen from North Nyasa, Akamanga, South Rukuru River, October 10, 1909 (*Dr. J. B. Davey*).

23. *Molybdamoeba decipiens*, sp. nov.

♂ ♀. Length (of 10 specimens), 7-12 mm.

This species differs from all the preceding ones by its prevalent black colour. It is very closely allied to the Mediterranean *M. tripunctata*, Wied., but differs in the colour of the legs, which are in great part yellow; indeed, the front and middle femora near the end, the tibiae, and some basal joints of the front and middle tarsi, are yellow. The white scales on the abdomen are more developed. The male genitalia are red with black base, and not prominent. The underside of the abdomen bears long white hairs, which are wanting in *M. tripunctata*. Pattern of the wings and direction of the veins the same as in *M. tripunctata*.

The female is very similar to the male; the tuft of hairs on the genitalia is light yellow.

TYPE ♂ from North Nyasa, Deep Bay to Vua, May 14, 1909 (*Dr. J. B. Davey*); additional specimens, all males, from Deep Bay, November 3, 1909; near Virauli Mt., July 23, 1909; from Karonga to Fort Hill, near Lufira River, May 30, 1909; from Akamanga, South Rukuru River, October 10, 1909 (all by *Dr. J. B. Davey*).

TYPE ♀ and a male from Nyasaland, Fort Johnston, 2000 ft., June 1910 (*Dr. A. H. Barclay*).

10. *Anthrax*, Scopoli (1763).

This is not the *Anthrax* of authors, but as I showed in my paper of 1908 (*Zeitschr. f. Hymenopterol. u. Dipterolog.*, p. 34) is the same as *Argyramoeba*, Schiner, as restricted by Dr. Sack in his monograph of 1909.

The genus seems to be very well represented in the Ethiopian fauna, as the collection contains many species; those before me can be distinguished as follows:—

- 1 (8). Upper branch of the fork of the third vein bent at a right angle in the middle, and with an appendix at the angle.
- 2 (3). Apical half of the wings with many confluent black spots; basal appendix very long; discal cell darkened in the greater part; squamulae dark. . . . *pithecius*, Fabr.
- 3 (2). Apical portion of the wings wholly hyaline, or with 2-3 separated black spots only; discal cell in the greater part clear; basal appendix short; squamulae white.
- 4 (5). The basal dark marking of the wings extends broadly beyond the small cross-vein, and is in contact with the spots at the base of the cubital fork and at the end of the discal cell; no hyaline spot before the small cross-vein; plumula with a black fringe . . . *diffusus*, Wied.
- 5 (4). Dark marking ending a little beyond the small cross-vein, and not coalescing with the cubital spot; end of the discal cell not spotted; hyaline spot at the end of the first basal cell just before the small cross-vein; plumula with a white fringe.
- 6 (7). Species of greater size, with larger rounded brown spots at the bases of cubital fork and third posterior cell; anal cell closed at the wing margin . . . *aygulus*, Fabr.
- 7 (6). Species of smaller size; a small cloud only at the base of cubital fork, that at the base of third cell not separated; anal cell open *homogeneous*, sp. n.
- 8 (1). Upper branch of the cubital fork gently curved or bent at an obtuse angle, without appendix.

- 9 (10). Base of the second vein without recurrent veinlet. *spec. indet.*
 10 (9). Second vein with the usual recurrent veinlet at the base.
 11 (12). Upper branch of the cubital fork with the portion after the bend very sinuous; no hyaline spot before the small cross-vein *camptocladius*, sp. n.
 12 (11). The upper branch after the bend is straight; a hyaline spot in the first basal cell just before the small cross-vein *pasillus*, Wied.

24. *Anthrax pithecius*, Fabricius (1805).

This is a common and widespread African species, with which *conspurcatus*, Wied. (1828), *confusemaculatus*, Macq. (1855), and *spectabilis*, Loew (1860), are without any doubt synonymous. The single discrepancy in Wiedemann's description of *conspurcatus* is the yellowish legs: but this is a very variable character, which is affected by the relative maturity and state of preservation of the specimens. Plumula with black and white fringe. This species can perhaps be better placed in the genus *Molybdamoeba*, with the somewhat similar American *tigrina*, de G. (*simson*, Fabr.).

Several specimens from North Nyasa, Akamanga, October 8, 1909; Karonga, September 14, 1909; Remero stream, November 24, 1909, and Bundi village, Fuliwa, May 13, 1909 (all from Dr. J. B. Davey). Also a specimen from Southern Nigeria, Oni, seventy miles east of Lagos, May 14, 1910 (*W. A. Lamborn*).

The size varies from 8 to 14 mm.

25. *Anthrax diffusus*, Wiedemann (1824).

A. maculipennis, Macq. (1840), is without doubt the same species. *A. hessii*, Wied. (1818), has the dark marking at the base of the wings less widened. Plumula with a black fringe; anal cell open; there is often a rounded brown isolated spot on the lower vein of the discal cell.

A single specimen from West Nyasa, Limpachi River, November 1909 (*Dr. H. S. Stannus*). But I have the species in my collection, through the kindness of Dr. Brauns, from Willowmore, Cape Colony.

26. *Anthrax aygulus*, Fabricius (1805).

An interesting species of large size, which had not hitherto been recognised as an *Argyramoeba* in the published catalogues.

The clear portion of the wings is truly hyaline, while in the preceding species it is smoky; the two black spots are

very conspicuous. The plumula has a white fringe, as in the following species.

A single specimen from North Nyasa, Kaporo, October 22, 1909 (*Dr. J. B. Davey*).

27. *Anthrax homogeneous*, sp. nov. (Plate L, fig. 3.)

♀. Length 7 mm.

A black species with a wing pattern very like that of *Hemipenthes morio*, with the addition of a small dark cloud at the base of the cubital fork. Head black and clothed with black hairs, only on the anterior portion of the frons are some white scaly hairs. Thorax with black hairs and sparse whitish pubescence, towards the sides the hairs are whitish grey; pleurae grey, with short dark hairs. Halteres white, with a dark stalk. Squamulae of a quite white colour and fringed with white hairs. Scutellum shining black, with four pairs of black bristles, those of the middle crossed. Abdomen black and with black hairs, the first segment with white hairs on the sides; hind margins of the segments with a thin border of silvery scales, the apical segments being almost wholly silvery. Legs black, the anterior tibiae dark yellowish. Wings black and hyaline; the black begins at the end of the first vein, and runs obliquely to the apex of the anal cell, which is hyaline, going over the small cross-vein and the base of the third posterior cell. The cloud at the base of the cubital fork is very small. The prediscal spot is dark, not hyaline. There are two recurrent stumps; the upper branch of the cubital fork is gently curved at the base; anal cell open.

TYPE ♀, from North Nyasa, Remero stream, November 24, 1909 (*Dr. J. B. Davey*); a single specimen.

28. *Anthrax* spec. indet.

A single damaged specimen of this interesting species, from West Nyasa, Momberas District, November 1909 (*Dr. H. S. Stannus*).

In size and appearance very like *A. diffusus*, and with a similar wing-pattern, but the lower veins of the discal cell are all infuscated. The stumps of the recurrent veinlets are wholly wanting; the upper branch of the cubital fork is simply S-shaped; the anal cell is closed.

29. *Anthrax camptocladius*, sp. nov. (Plate L, fig. 4.)

♂. Length (of 5 specimens), 7-9 mm.

Closely allied to *A. homogeneous*, but easily distinguished by the very different shape of the upper branch of the cubital fork.

Head with black hairs, and very sparse pale pubescence on the fore portion of the frons. Thorax and abdomen as *A. homogeneous*.

The dark portion of the wings is not so sharply limited, and is variegated with clearer streaks; the dark spot at the base of the third posterior cell is isolated; upper branch of the cubital fork very strongly bent; anal cell broadly open, and with the apical half hyaline (not the apex alone as in *A. homogeneus*). Prediscoidal spot clear.

TYPE ♂ and another specimen from North Nyasa, Akamanga, South Rukuru River, October 8, 1909 (*Dr. J. B. Davey*). Three other specimens taken in the same locality by the same collector, October 10, 1909, are less typical.

30. *Anthrax pusillus*, Wiedemann (1821).

This species also has not previously been recognised as an *Argyramoeba* in the catalogues. It is near *A. leucogaster* and *volitans*, but this last shows white hairs on the side of the abdomen. The two brown clouds of the wings are often indistinct. After the small cross-vein, the border of the dark portion of the wings shows a deep hyaline indentation.

Three specimens from North Nyasa, Nyungwi stream, November 26, 1909, and Karonga to Fort Hill, near Lufira River, May 30, 1909 (*Dr. J. B. Davey*).

11. *Villa*, Lioy (1864).

The old genus *Anthrax* of authors, which, however, cannot retain this name, must be divided into several smaller genera.

The species of the Old World can be divided into the three following groups:—

- 1 (4). Face rounded; third joint of the antennae short.
- 2 (3). Very like *Anthrax* (*Argyramoeba*) in appearance, colouring and wing-pattern; pulvilli often present; larvae living on parasitic Diptera or Hymenoptera. *Hemipenthes*, Loew.
- 3 (2). Species not closely resembling *Anthrax*; pulvilli always wanting; wings without dark pattern, mostly wholly hyaline; larvae parasitic on Lepidoptera. *Villa*, Lioy
- 4 (1). Face conically prominent; third joint of the antennae elongate; pulvilli wanting; wing-pattern normally present; larvae preying on the egg-cases of locusts

Thyridanthrax, Ost.-Sack.

Of the first group there are no species in the collection before me.

The second group, *Villa*, is the one which was called

Hyalanthrax by Osten-Sacken in 1887, and *Aspiloptera* by Künckel d'Herculais in 1905.

The collection has the three following species:—

- 1 (2). Face with black and yellow hairs intermingled; abdomen with scaly hairs on the sides, and a black tuft towards the middle; end of the abdomen with white tufts; tibiae black *paniscoides*, sp. n.
- 2 (1). Face without black hairs; abdomen without black tuft on the middle of the sides and without white tufts at the end; tibiae yellowish.
- 3 (4). Abdomen with black tufts on the sides before the end
flavescens, Loew.
- 4 (3). Abdomen without black tufts before the end. *albescens*, Loew.

31. *Villa paniscoides*, sp. nov.

♂ ♀. Length (of 3 specimens), 11–13 mm.

Near *paniscus*, Rossi, but very distinct on account of the black hairs on the face, and the lateral tufts of black scaly hairs on the third abdominal segment. *A. dizona*, Loew (1860), seems to be an allied species.

Frons black, that of the male very narrowed, clothed with black hairs, yellow hairs being present only upon the antennae, more abundant in the female; face with yellow hairs, but with many black hairs intermingled, chiefly towards the middle. Antennae black, very short, the terminal style longer than the whole antenna; the two basal joints bear black hairs, which in the male form a very dense fringe. Thorax clothed with yellow-grey hairs, which in front are very long and dense, and in the middle and hind portion are shorter and darker; pleurae with dense whitish hairs and a very thick tuft of white hypopleural hairs. Squamulae fuscous, with silvery white fringe. Halteres yellowish-white. Abdomen black, clothed with long grey hairs, which towards the middle are very dark; in the male there are indistinct transverse bands; the sides of the first segment with dense white hairs; on each side of the third segment is a large tuft of black scaly hairs; fourth with whitish tuft, fifth and sixth with scaly black hairs; at the end a white tuft on each side, as in *paniscus*. Underside black, with greyish hairs. Legs wholly black, with black bristles and scattered yellowish scales. Wings hyaline, narrowly yellowish at the base, with black veins; basal comb well developed, in the male black with silvery scales at the base, in the female yellowish with yellow scales; second vein not strongly bent at the end; discal cell very long; rather narrow, the small cross-vein placed before its middle.

TYPE ♂ from North Nyasa, Mpanda Mountain, November 20, 1909 (*Dr. J. B. Davey*). TYPE ♀ and another specimen from West Nyasa, Limpachi River, October 1909 (*Dr. H. S. Stannus*).

32. *Villa flavescens*, Loew (1860).

A single couple, agreeing well with the description. Face without black hairs. The male (hitherto unknown) shows a silvery scale at the base of the wing.

The ♂ from North Nyasa, from Deep Bay to Vua, May 14, 1909 (*Dr. J. B. Davey*); the ♀ from West Nyasa (*Dr. H. S. Stannus*).

33. *Villa albescens*, Loew (1860).

Closely allied to the preceding, but quite distinct; face also without black hairs.

A couple from Southern Nigeria, Oshogbo, February 1-27, 1910 (*J. J. Simpson*).

These two species are not unlike our European species of the group *ixion-humilis*, but have the tibiae yellowish and covered with yellow scales; *V. lasia* and *sexfasciata*, Wied., belongs also to the same group.

12. *Thyridanthrax*, Osten-Sacken (1886).

This name was originally proposed for the species related to *fenestratus* and *elegans*, which show the characteristic wing-pattern with the dark marking interrupted by pellucid spots on the cross-veins and bifurcations. But I find that it is impossible to separate from this group the species of the group *afes*, notwithstanding the different pattern of the wings; the third joint of the antennae also shows gradations from the short to the elongate form.

Some species of this group have hyaline wings without, or almost without, any pattern; these species cannot be confused with those of *Villa*, on account of the form of the face, which is projecting, not rounded.

The species of this genus are of economic importance, as they prey upon the egg-cases of locusts.

The species before me can be distinguished as follows:—

- 1 (2). Third joint of the antennae in the shape of an elongate cone, gradually tapering to a style which is shorter than the cone; dark marking of the wings with pellucid spots; head, scutellum and abdomen in great part red *macquarti*, sp. n.

- 2 (1). Third joint less elongate and with longer style; dark marking without pellucid spots; head, scutellum and abdomen black.
- 3 (6). Wings with black veins and darkened or black costal cell; colour of the body black; notopleural hairs mostly black.
- 4 (5). Wings hyaline, with the extreme base black and the costal cell darkened; pleurae with black hairs. *melanopleurus*, sp. n.
- 5 (4). Wings with the basal third dark brown, the basal cells being also included in the dark portion. . . *abruptus*, Loew.
- 6 (3). Costal cell hyaline; wing veins partly yellow; colour more greyish; notopleural hairs pale. . . . spp. ind.

34. *Thyridanthrax macquarti*, sp. nov. (Plate L, fig. 5.)

♂ ♀. Length (of 7 specimens), 7 to 9 mm.

An elegant species with conspicuously bright red abdomen and pellucid spots in the dark area of the wings. It agrees tolerably with the description of *A. fenestralis*, Macquart (1840), from the Cape, and is perhaps the same; but in the specimens before me the two basal joints of the antennae are red, a thing of which Macquart says nothing; in any case his name must be changed, because there is already another *A. fenestralis*, Więd. (1830), from Brazil.

Face wholly yellow, with white hairs; frons also yellow, but black near the vertex and clothed with black erect hairs. Thorax black; the hairs of the dorsum are denuded, but the sides show whitish hairs. Scutellum red, black at the base. Metapleural hairs and halteres white. Abdomen wholly red, with a basal triangular black spot, which usually reaches only the hind margin of the third segment, but sometimes extends as a black median stripe to the last segment; the hairs are denuded. Legs black, with the tips of the femora and tibiae red. Wings hyaline, yellowish towards the base; in the middle there is a brown cross-band, in which are to be seen 3-4 subpellucid spots at the cross-veins; this band does not reach the hind margin of the wings; the tip of the discal cell is hyaline.

TYPES ♂ ♀ and five other specimens from North Nyasa, Fort Hill, September 26, 1909 (*Dr. J. B. Davey*).

35. *Thyridanthrax melanopleurus*, sp. nov. (Plate L, fig. 6.)

♀. Length (of 5 specimens), 5-10 mm.

A black species near *linea*, Loew, but distinguished by the black-haired pleurae.

Head wholly black; face and frons clothed with black hairs, the last almost without pale pubescence; antennae black, the third

joint with a short point and a rather long style. Thorax with black hairs, in front also; the side shows an entire white longitudinal stripe, which is continuous with the white spots on the indentation of the hind margin of the eyes; pleurae wholly black-haired, sometimes a few pale hairs in the posterior part of the metapleural tuft. Scutellum black. Halteres brownish. Abdomen black; on the sides at the base are white hairs; the third segment bears at base an entire but narrow transverse band of white hairs; the sides of the abdomen bear dense tufts of black scaly hairs. Legs wholly black, with black bristles and black pubescence. Wings hyaline, with black veins; the base is black as far as the basal cross-veins; costal cell darkened; the small cross-vein is broad and with a narrow dark margin. Squamulae with a white fringe.

TYPE ♀ and four additional specimens from North Nyasa, Nyika Plateau, Rongorwi stream, August 29, 1909 (*Dr. J. B. Davey*).

36. *Thyridanthrax abruptus*, Loew (1860).

Allied to the preceding, but showing a more extended dark pattern on the wings. The hairs on the front of the thorax are yellow. Squamulae with a yellowish fringe. Metapleural hairs partly black. Wing veins black.

A specimen from North Nyasa, Kabwiiia stream, August 31, 1909 (*Dr. J. B. Davey*); another from West Nyasa, Momberas District, October 1909 (*Dr. H. S. Stannus*); and one from Northern Nigeria, Minna, October 10, 1910 (*J. J. Simpson*).

37. *Thyridanthrax* sp. indet.

A single badly-preserved specimen of a grey species, the wings of which are hyaline, with the extreme base only black. I think that is only a form of the Mediterranean *T. vagans*, Loew.

North Nyasa, Vvia, October 28, 1909 (*Dr. J. B. Davey*).

38. *Thyridanthrax* sp. indet.

A single specimen of another smaller species, allied to the preceding one and to *T. leucoproctus*, Loew (1860), from the Cape.

North Nyasa, Bundi Village, Fuliwa, May 13, 1909 (*Dr. J. B. Davey*).

13. *Isotamia*, gen. nov.

TYPE: *Isotamia daveyi*, sp. nov.

This genus can be regarded as an *Exoprosopa* with very long proboscis and very narrowed wings, which are almost

petiolate at the base; the origin of the second vein takes place much before the small cross-vein, and the anal cell is of equal size throughout its length (whence the name, *isos* and *tameion*).

Face but little projecting; antennae short, widely separated from each other; the third joint short, the styliform portion terminating in a short style, $1\frac{1}{2}$ times the length of the whole antenna. Proboscis $2\frac{1}{2}$ times as long as the head. Eyes with a deep indentation. Mouth opening very broad. Legs of the *Exoprosopa* type; claws very small; hind claws with a basal tooth.

Wings very long and narrow, at the base elongately cuneate, anal lobe and alula absent; prealar hook small; no basal comb. First vein distant from the costa, the costal and subcostal cells therefore broad; second vein strongly bent at the tip; marginal cell broad; three very large submarginal cells; four posterior cells all open; anal cell in its middle as broad as at the end, or only a little broader at end; discal cell on the middle of the wing, short, not broader than the second basal cell; small cross-vein placed a little after the middle of the discal cell; the vein dividing the third from the fourth posterior cell placed towards the middle of the discal cell, which there makes a protuding angle; the third longitudinal vein begins in a right angle before the small cross-vein, at a distance from this which is two or more times the length of the veinlet. The width of the cells on the anterior portion of the wings and the narrowness of those on the hind portion are so striking that the third longitudinal vein becomes therefore placed a little behind the median axis of the wing.

39. *Isotamia daveyi*, sp. nov. (Plate L, fig. 7.)

♀. Length of the body 7 mm., of the proboscis 4 mm., of the wings 7 mm.

A black and black-haired species, with pale pubescence on the thorax and abdomen, and with the anterior half of the wing blackened.

Frons with sparse, pale tomentum; hind margin of the eyes with a narrow white border; antennae and proboscis black. Thorax and scutellum with yellow pubescence; hind margin of the scutellum with whitish tomentum; the hairs black, but in the middle of the front part there are a few yellow hairs; pleurae covered with strong and rough black bristly hairs; metapleural hairs also black. Squamulae less distinct; halteres black. Abdomen black, with yellow and white pubescence; the second segment bears a broad band of white tomentum; the hairs on the sides of the first segment are

strong and rough, like those on the pleura. Legs black and with black bristles; the tibiae are yellow, the two anterior pairs paler. Wings greyish hyaline, with black veins. The narrowed petiolated base is black to the basal cross-veins; the limit of the black begins at the fore border a little after the end of the second vein, and runs obliquely to the third vein, to the small cross-vein, to the base of the discal cell, and to the middle of the anal cell; there are three projecting black teeth, one at the base of the first submarginal cell, one on the middle cross-vein and one at the apex of the second basal cell. The very broad second basal cell bears at its end a pellucid spot.

TYPE ♀ from North Nyasa, Kaulunga Village, near Lufira River, July 18, 1909, collected by *Dr. J. B. Davey*, in whose honour the species is named; a single specimen.

14. *Litorrhynchus*, Macquart (1840).

I here regard this genus as distinct from *Exoprosopa*. The species have a restricted geographical distribution, being exclusively found in Central and South Africa; they may be distinguished by the characters of the proboscis and by the wing-pattern. Mr. Verrall also, in his masterly and splendid work on British Flies, V, p. 479, mentions this genus as a distinct one.

I will give here the essential characters of the genus:—

Face rounded, not conically projecting; mouth opening more elevated; proboscis at least twice as long as the head; frons of the male broad; style of the antennae longer than the third joint. The abdomen bears spots of silvery scales on the third segment; the antennae and legs are partly red. Hind claws with a tooth. The origin of the second longitudinal vein takes place always opposite to the small cross-vein; the basal vein of the second posterior cell is of equal length to that on the base of the third, and is placed in the same line with the axis of the wing. Pattern of the wings very uniform, consisting of two broad cross-bands of yellowish-brown or blackish colour.

The species of this genus are fairly numerous and can be divided into two very distinct groups:—

A. *First group.* Pattern of the wings brown or yellowish-brown, not black; the vein dividing the second from the third posterior cell is extraordinarily bent against the fore margin of the wing, and therefore the third posterior cell is two or three times as broad as the second. Palpi of a

yellowish colour. Colouring of the body in great part reddish.

The species of this group before me can be distinguished as follows:—

- 1 (2). The brown pattern of the marginal cell ends a little after the veinlet dividing the first from the second submarginal cell and leaves therefore a fairly broad apical hyaline space *basalis*, Ric.
- 2 (1). The marginal cell is filled up by the brown pattern to the end, or almost to the end.
- 3 (6). The marginal cell is filled up by the brown pattern to its end and even a little beyond; thorax black.
- 4 (5). The bristles of the hypopleural tuft are all of a golden colour, or only a few are black; squamulae with the fringe golden
nyasae, Ric.
- 5 (4). Hypopleural tuft with black bristles; squamulae fringed with argenteous *argyrolepis*, sp. n.
- 6 (3). The brown tint of the marginal cell leaves at the end a small hyaline space. Thorax red, with black stripes.
- 7 (8). The first posterior cell is broadly hyaline at the end; thorax with three black stripes *ricardo*i, sp. n.
- 8 (7). The first posterior cell is filled with brown almost to the end; thorax with two black stripes *dentiferus*, sp. n.

40. *Litorrhynchus basalis*, Ricardo (1901). (Plate L, fig. 8.)

Four gigantic specimens, 20 mm. in length, and with a wing-expanse of 46 mm., all from North Nyasa, Karonga to Fort Hill, near Lufira River, May 30, 1909 (*Dr. J. B. Davey*).

These specimens agree very well with the description; but I think that this species is perhaps the same as *macropterus*, Loew (1860); the difference in the shape of the pattern at the base of the wings is very small. Loew records also a specimen of his species of eight lines in length.

41. *Litorrhynchus nyasae*, Ricardo (1901). (Plate L, fig. 9.)

A specimen from North Nyasa, in bush near Vua, May 15, 1909 (*Dr. J. B. Davey*); compared with co-type by Mr. E. E. Austen. Another smaller specimen from West Nyasa (*Dr. H. S. Stannus*).

42. *Litorrhynchus argyrolepis*, sp. nov.

♂ ♀. Length (of 3 specimens), 12–13 mm. Closely allied to the preceding species, but easily distinguished from this and from all the others by the squamulae being fringed with silvery hairs. Head reddish-brown; frons and face with yellow pubescence and black hairs; antennae red, with the third joint and the style black; proboscis black, 5–6 mm. long. Thorax wholly black, with yellowish pubescence and black bristles; pleurae with black and reddish hairs intermingled; hypopleural tuft black, scutellum red, narrowly black at base, clothed like the thorax, with 8–10 marginal bristles. Halteres blackish. Abdomen black, more or less red on the sides and at the hind margin of the segments; first segment with white hairs on the sides; the other segments with dense black hairs on the sides; sixth and seventh with white scales; the usual white spots on the third are very well developed. Legs red, with black bristles; tarsi darkened. Pattern of the wings as in *L. nyasae*; the middle cross-band is often narrowed towards the hind margin of the wings, not filling up the whole width of the end of the third posterior cell.

TYPES ♂ and ♀ and another specimen from West Nyasa, Nora, Choma and Mzimba, May–August, 1909 (*Dr. H. S. Stannus*).

43. *Litorrhynchus ricardoi*, sp. nov. (Plate L, fig 10.)

♀. Length of the body (of 2 specimens) 14–15 mm., of the wing 17–18 mm., of the wing-expanse 38–41 mm.

Very near the preceding, but larger, with clearer wing-pattern, and with the marginal cell narrowly hyaline at the end.

The hairs on the frons are black, those on the face wholly whitish; antennae red, the third joint blackish; hind margin of the eyes whitish. Thorax red, with three longitudinal black stripes, which unite at a single spot in front of the scutellum; the hairs of the collar and of the pleurae are all of a golden colour; the bristles are black. Scutellum red, with a marginal row of black bristles. Squamulae with a thick golden fringe; halteres blackish. Abdomen red, with a narrow median black stripe, which does not extend beyond the fourth segment; the hairs on the sides of the first segment are white, the others black; the usual white spots are well developed; underside, red. Legs wholly red. Markings of the wings yellowish-brown, darkened towards the margins of the bands; their general shape as in *L. nyasae*, with the above-noted differences; the hyaline spot in the second basal cell is very greatly developed.

Named in honour of Miss G. Ricardo, who has done good work in studying the South African Bombyliids.

TYPE ♀ and an additional specimen from West Nyasa, Mzimba and Mbwabwa, in Momberas District, May-June 1909 (*Dr. H. S. Stannus*).

44. *Litorrhynchus dentiferus*, sp. nov. (Plate L, fig. 11.)

♂. Length of the body 17 mm., of the wing 20 mm., of the wing-expanse, 45 mm.

A beautiful species very near the preceding, but readily distinguished by the different colouring of the thorax and wings.

Antennae wholly red. Thorax with the two longitudinal stripes very narrow and wide apart, and without a black spot in front of the scutellum; a whitish stripe on the sides of the back; the thoracic bristles are yellow, but those on the margins of the scutellum are black. Abdomen red; the first three segments with a median triangular black spot only; genitalia red, with a yellow fringe. Legs wholly red. Pattern of the wings as in *L. ricardoi*, but of a more yellow tint; the tooth-shaped projection on the first posterior cell is very characteristic; the base of wing is yellow; the spot in the second basal cell is smaller and less hyaline.

TYPE ♂, from West Nyasa (*Dr. H. S. Stannus*); a single specimen.

B. *Second group*. Colour of the body and of the wing-pattern black. Palpi darkened. Genitalia of the male black. The vein dividing the second from the third posterior cell much less curved forward, and therefore the third posterior cell only $1\frac{1}{2}$ times broader than the second.

While the species of the first group seem to be principally confined to South and East Central Africa, those of this second group are more prevalent to the North of the Equator. The species before me are to be distinguished as follows:—

- 1 (2). The marginal cell is filled with black in its whole length, the black pattern extending even a little beyond its end
repletus, sp. n.
- 2 (1). The marginal cell is broadly hyaline at apex.
- 3 (6). Propleural and metapleural hairs black; small cross-vein without pellucid spot.
- 4 (5). Middle band of the wing narrowed towards its lower end, filling only a part of the third posterior cell
rostratus, Loew.
- 5 (4). Middle band dilated towards its lower end, filling almost the whole of the second and third posterior cells
dilatatus, sp. n.

- 6 (3). Propleurae and metapleurae with golden-reddish hairs; a pellucid spot on the small cross-vein.
7 (8). Third joint of the antennae elongated, as long as or longer than the style *tollini*, Loew.
8 (7). Third joint short, much shorter than the style

perplexus, sp. n.

45. *Litorrhynchus repletus*, sp. nov. (Plate L, fig. 12.)

♀. Length of the body 6 mm., of the wing 8 mm. A small species, very distinct from all the others of this second group, owing to the black end of the marginal cell.

Head, dark yellowish, blackened on the frons and on the occiput, clothed with black hairs and with sparse pale pubescence, antennae short, the two basal joints reddish, the third blackened, of a short conical shape, much shorter than the style. Proboscis 4 mm. long; palpi darkened. Thorax black, with pale pubescence; the hairs are long, those on the collar yellow, on the pleurae partly black and partly golden; the bristles are black and very long. Halteres black, with greyish knob. Scutellum dark red, with very long marginal black bristles. Squamulae blackish. Abdomen black, red on the sides of second, third and fourth segments; first segment with white hairs on the sides; the silvery spots on the third segment are well developed; the hairs are black, those on the sides are disposed in the shape of a fringe, and are all black. Spines of the female genitalia yellow; underside of the abdomen dark blackish, yellowish towards the middle. Legs dark reddish, the tibiae paler; bristles black; tooth of the hind claws very small, indistinct. Pattern of the wing black, as in the following species; but the black colour fills the marginal cell and extends over half of the apical submarginal cell; small cross-vein without pellucid spot; hyaline spot of the second basal cell large; the upper internal angle of the first submarginal cell is also blackened, while in the other species it is always hyaline. Middle cross-band broad at the end, filling the half of the second, and the whole of the third posterior cells; basal cross-band distant from the apex of the discal cell.

The left wing of the single specimen examined shows only two submarginal cells, the dividing veinlet being reduced to a stump.

TYPE ♀ from West Nyasa, Choma, 4000 ft., May 1909 (*Dr. H. S. Stannus*).

46. *Litorrhynchus rostratus*, Loew (1860).

Distinguished by the conspicuous tufts of black hairs on the sides of the thorax. The black basal band extends to the apex of the anal cell, or ends only a little before it.

The stumps of veins described by Loew are often wanting. Two specimens from West Nyasa, Mulowe (*Dr. H. S. Stannus*).

47. *Litorrhynchus dilatatus*, sp. nov.

♀. Length of the body (of 2 specimens) 10-11 mm., of the wings 11-12 mm.

Very closely allied to the preceding species, but distinguished by the middle cross-band of the wing being dilated at the lower end.

Head as in *L. rostratus*; the antennae also, but the third joint reddish. Thorax in front with a collar of reddish hairs; pleurae with the black tuft of the preceding, and a white tuft beneath the posterior calli. Halteres and squamulae blackish, scutellum reddish, with black marginal bristles. Abdomen black, narrowly reddish on the sides of the second and third segments; its hairs are black, those on the sides also, with the exception of the first segment, which is clothed with the usual white hairs. The silvery spots on the third, fifth and sixth segments are normally developed. Under-side black, reddish at the base; terminal spines of the female genitalia red. Legs reddish, including the coxae; femora and tarsi more darkened; bristles black. Wings as in *L. rostratus*, but the basal band reaching always the end of the anal cell; small cross-vein without pellucid spot.

TYPE ♀ from North Nyasa, Karonga, May 26, 1909 (*Dr. J. B. Davey*); an additional specimen from West Nyasa, Mulowe (*Dr. H. S. Stannus*).

48. *Litorrhynchus tollini*, Loew (1863). (Plate L, fig. 13.)

Distinguished by the very elongate third antennal joint, and the reddish tufts on the sides of thorax. The pattern of the wings is very like that of *L. rostratus*, but the small cross-vein is usually enclosed in a pellucid spot, and the basal band is very distant from the end of the anal cell.

I am very doubtful if this species can be separated from *L. senegalensis*, Macquart (1840); and my *L. erythracus* (1906) seems to be also the same widely spread species.

Two specimens from North Nyasa, Karonga to Fort Hill, near Lufira River, May 30, 1909, and Mt. Waller, September 1, 1909 (*Dr. J. B. Davey*); another specimen from West Nyasa, Choma, May 1909 (*Dr. H. S. Stannus*).

49. *Litorrhynchus perplexus*, sp. nov.

♀. Length of the body 11 mm.; of wing 13 mm. Distinguished from the preceding by its smaller size and short third antennal joint.

Head reddish-brown, darkened above and behind. Antennae wholly yellow, with a very long style; thorax with the collar yellow-haired; lateral tufts with yellow and black hairs intermingled; the white tufts below the posterior calli are large; the bristles are black. Scutellum reddish. Abdomen reddish on the sides of the second, third and fourth segments; the hairs and spots as usual. Legs wholly yellowish-red, wings as in *L. rostratus*, but the pellucid spot on the small cross-vein less developed; basal band distant from the end of the anal cell. The outward margins of the two cross-bands are more straight than in the related species; the middle band not filling the apex of the second posterior cell, which remains hyaline in its whole length along the hind margin of the wing.

TYPE ♀, from West Nyasa, Ekwendeni (*Dr. H. S. Stannus*); a single specimen.

15. *Exoprosopa*, Macquart (1840).

Even as restricted here, with the exclusion of the genera *Litorrhynchus* and *Hyperalonia*, this genus remains a very rich one; and it must be recognised that the species included in it are rather heterogeneous.

It is very probable that many species, if not all, have, during their larval life, habits similar to those of *Thyridanthrax*.

The numerous forms in the collection can be divided as follows:—

- 1 (4). Discal cell with a strong right angle projecting into the third posterior cell.
- 2 (3). Body and legs black; wings almost all blackish
umbrosa, Loew, p. 638.
- 3 (2). Head, abdomen and legs yellow; wings yellowish hyaline
inermis, sp. n., p. 638.
- 4 (1). Discal cell without such an angle projecting into the third posterior cell, the vein dividing it from this cell being straight or only S-shaped.
- 5 (10). The transverse vein between the discal cell and the second basal cell very strongly S-shaped.
- 6 (7). Wing darkened almost over its entire surface, with broad fuscous borders along the veins; discal cell very pointed externally, as in *Litorrhynchus*; second longitudinal vein very strongly bent at its end; abdomen clothed with long erect black hairs *venosa*, Wied., p. 639.

- 7 (6). Wings not so coloured ; discal cell more obtuse ; second longitudinal vein not so curved before the end ; abdomen without black erect hairs.
- 8 (9). Wings darkened, the costal portion more intensively ; first posterior cell very narrowed at the end ; abdomen with patches of scales on the sides . *lepidogastra*, sp. n., p. 639.
- 9 (8). Wings clear, obliquely bordered with black on the anterior half ; first posterior cell broadly open ; sides of the abdomen without scales . . . *sigmoidea*, sp. n., p. 640.
- 10 (5). The transverse vein between the discal and the second basal cell straight, or only slightly curved.
- 11 (22). Wings obliquely bordered with black on the anterior half and the posterior half clear, without isolated black spots and with the discal cell mostly hyaline.
- 12 (19). The black fore border of the wings without any black projection on the external upper angle of the discal cell ; legs black or with only reddish tibiae.
- 13 (16). Pleurae wholly with yellowish hairs or with the yellow hairs predominant ; metapleural tuft yellow-grey, absolutely without black hairs.
- 14 (15). Antennae black ; sides of the second, third and fourth abdominal segments with a single broad silvery spot, which is connected with a white transverse band on the third segment ; discal cell short and broad . *dimidiata*, Macq. p. 641.
- 15 (14). Antennae reddish at base ; sides of the abdomen without such a large silvery spot ; discal cell narrow and more than twice as long as broad . *discriminata*, sp. n., p. 641.
- 16 (13). Pleurae with black hairs ; metapleural tuft black or with the black hairs predominant.
- 17 (18). Third abdominal segment only with a white band ; metapleural tuft black ; tibiae black ; black costal border of the wings extending beyond the small cross-vein ; species of greater size *luctifera*, sp. n., p. 642.
- 18 (17). Abdomen with the second, third and fourth segments wholly argenteous ; metapleural tuft black and grey ; tibiae reddish ; black costal border ending a little beyond the small cross-vein ; species of smaller size
argyrophora, sp. n., p. 643.
- 19 (12). The black fore border with a black tooth over the external angle of the discal cell ; legs reddish or red.
- 20 (21). The external upper angle of the discal cell is wholly filled with black *argentifrons*, Macq., p. 643.
- 21 (20). The external upper angle of the discal cell is hyaline
scaligera, sp. n., p. 643.

- 22 (11). Wings not so coloured.
- 23 (26). Wings mostly black, with hyaline apex; discal cell almost all black; no isolated brown spots; some pellucid spots on the cross-veins.
- 24 (25). Wings black also at the base and along the whole fore border; yellowish spots on the cross-veins very small; third posterior cell shorter than the fourth; head, abdomen, antennae and legs black . . . *jacchoides*, sp. n., p. 644.
- 25 (24). Wings yellow at base and in the middle of the fore border; yellow spots on the cross-veins very broad, therefore the wing-pattern showing two black bands fused together on the hind margin; third posterior cell as long as the fourth; head, abdomen, antennae and legs red
laeta, Loew, p. 645.
- 26 (23). Wings mostly or wholly hyaline; if the fore border is dark, the posterior edge of the marking is not sharply defined; the discal cell is always hyaline; there are sometimes isolated brown spots on the cross-veins.
- 27 (38). Wings with the fore border narrowly darkened along the costa, but not sharply defined; cross-veins for the most part infuscated.
- 28 (37). Abdomen of conical shape; face strongly conical and projecting; some cross-veins infuscated.
- 29 (30). Thorax with a distinct white stripe on the sides; abdomen with white scales; all the cross-veins margined with fuscous *punctulata*, Macq., p. 645.
- 30 (29). Thorax without lateral white stripe on the dorsum; the second cross-vein not margined with fuscous.
- 31 (32). Legs and antennae entirely black . . . *major*, Ric., p. 646.
- 32 (31). Legs and antennae partly red.
- 33 (34). Basal joints of the antennae red; frons almost without black hairs; very large species, without black bands on the abdomen *batrachoides*, sp. n., p. 646.
- 34 (33). Basal joints of the antennae black.
- 35 (36). Femora entirely red; hairs of the body grey, without black hairs on thorax; wings hyaline . . . *stannusi*, sp. n., p. 647.
- 36 (35). Femora with a black stripe; hairs of thorax of a golden colour, mesopleurae with black hairs; halteres and wings darkened *capnoptera*, sp. n., p. 648.
- 37 (28). Abdomen not conical; face less projecting, almost rounded as in *Litorrhynchus*; cross-veins not infuscated
penthoptera, sp. n., p. 648.
- 38 (27). Wings entirely hyaline, or only slightly yellowish along the costal cell.

- 39 (40). Third antennal joint very elongate, without style, and yellow in its basal half *heterocera*, sp. n., p. 649.
- 40 (39). Third joint of the antennae entirely black, not so long, and often very short, always with distinct style.
- 41 (42). Third joint of the antennae very short, ending in a short point, with the terminal style longer than the joint itself ; large species of the appearance of a *Villa*
villaeformis, sp. n., p. 650.
- 42 (41). Third joint longer than the style.
- 43 (46). Legs and body black.
- 44 (45). Hairs of the breast grey *minois*, Loew, p. 650.
- 45 (44). Hairs of the breast black . . . *hypomelaena*, sp. n., p. 651.
- 46 (43). Legs and body partly red.
- 47 (48). Wings with a slight yellowish tint ; hairs on the pleurae yellowish-grey *inornata*, Loew, p. 651.
- 48 (47). Wings pure hyaline ; hairs on the pleurae pure white
spec. indet., p. 651.

50. *Exoprosopa umbrosa*, Loew (1860).

A single female from West Nyasa (*Dr. H. S. Stannus*), which agrees well enough with the description. The third posterior cell is a little shorter than the second, and at the apex is only a little broader than the same cell. The angle of the discal cell shows the stump in the third posterior cell, as stated by Loew ; but there is a second stump in the discal cell itself, beginning at the vein dividing the second from the third posterior cell and making a small supernumerary cell in the upper apical corner of the discal cell. The spines of the female genitalia are yellowish-red.

51. *Exoprosopa inermis*, sp. nov.

♂. Length of the body 12 mm., of the wings 10 mm.

A species characterised by the angle of the discal cell and the luteous colour of the head, abdomen and legs ; a striking character distinguishing it from any other species is the apparent absence of bristles on the thorax and scutellum, but I am not absolutely sure of this, owing to the poor preservation of the specimen ; at any rate I cannot find a trace of the points of insertion of the bristles, if these are denuded.

Face not projecting at all, rounded, convex, shining ; frons broad, for a male, with sparse yellowish pubescence and short black hairs ; antennae yellow, the third joint a little darkened, of conical shape, longer than the two basal joints together, with the terminal style as long as one-third of the joint itself. Proboscis black, not prominent.

Thorax black, with a yellow spot before the scutellum and yellow shoulders; it is clothed with dense grey hairs, without any black hairs, as are also the pleurae; the tomentum is yellow; the usual bristles are wanting, so far as I can see; metapleural tuft white; squamulae dark brown, with a whitish fringe; halteres yellow. Scutellum yellow, with white hairs, without bristles. Abdomen of oval shape, entirely yellow, with a black rounded basal spot in the middle of the second segment and very narrow transverse black stripes before the hind margin of the second and third segments; there is white tomentum on the sides and on the venter; first segment with whitish hairs on the sides. Male genitalia yellow. Legs wholly yellow, the tarsi darkened at the tip; hind tibiae with short black bristles; ungues with the base red and bearing a small tooth; femora without bristles. Wings short and broad, greyish hyaline, with a yellowish tint, which is more intense towards the base and along the fore margin; veins thick, yellow, brown outwardly; small cross-vein placed a little before the middle of the discal cell; base of the second vein opposite to the small cross-vein; the vein dividing the second from the third submarginal cell bent at a right angle in the middle and here with a short stump; the first posterior cell very broadly open, second and third almost of equal width at the end; discal cell short and of a very characteristic shape, its posterior boundary deeply bisinuate, forming with the proximal boundary a wide **W** with rounded angles; in the right wing only of the typical specimen the middle angle of the **W** emits an appendix into the cell. Anal cell broadly open. Prealar hook yellow; basal comb of the wings yellow.

TYPE ♂, from North Nyasa, Lake shore, near Deep Bay, December 25, 1909 (*Dr. J. B. Davcy*); a single specimen.

52. *Exoprosopa venosa*, Wiedemann (1819).

A single specimen from Nyasaland, Blantyre, April 20, 1910 (*Dr. J. E. S. Old*), which agrees well enough with Loew's description, but has a rather longer proboscis and the white scales of the abdomen disposed in a somewhat different manner. The long erect black hairs covering the upperside of the abdomen are very peculiar.

53. *Exoprosopa lepidogastra*, sp. nov.

♀. Length of the body (of 5 specimens) 12-13 mm., of the wing 11-12 mm.

A very distinct species owing to its quite narrow and elongated discal cell and the conspicuous patches of black scales on the sides of the abdomen.

Head wholly black ; face projecting, the hairs black, with a black fringe, towards the margins of the mouth ; frons narrow for a female, clothed with long black hairs and sparse yellow pubescence, which is also to be seen on the face ; occiput with short grey pubescence and white tomentum at the indentation of the eyes. Antennae black, long ; first joint twice as long as the second, which is globular and sometimes of a dark reddish colour ; third joint narrow, elongate, twice as long as the two basal joints together ; style short, only half as long as the third joint, bearing a distinct terminal bristle. Proboscis black, a little projecting. Thorax and scutellum black ; the hairs of the collar and of the sides are yellow ; pleurae clothed with black hairs, but on the propleurae there is a golden yellow tuft ; metapleural tufts black ; the bristles are long and black. Squamulae black, with a white fringe ; halteres black, with greyish knob. Scutellum with long marginal black bristles. Abdomen entirely black ; first segment with a tuft of yellow hairs on the sides, the others showing only black hairs ; the bands of tomentum on the segments are yellowish before and whitish behind ; the patches of large black scales are on the sides of the segments from the second to the last. Venter black-haired ; spines of the female genitalia red. Legs entirely black, with black pubescence and black spines ; unguis black, with the tooth long. Wings long and narrow ; the costal third is blackish, but showing a graduated passage to the posterior darkened portion ; cross-veins with indistinct dark borders ; the basal comb and the prealar hook are black. No stumps of veins ; small cross-vein placed on the first third of the discal cell and a little after the origin of the second vein ; discal cell very long and narrow, not broader than the second basal cell ; first posterior cell very narrowed at the end, second and third of equal width ; the transverse vein between the discal and the second posterior cell is very strongly S-shaped. Predisoidal spot whitish.

TYPE ♀, from North Nyasa, Wovwi stream, near Deep Bay, May 14, 1909 (*Dr. J. B. Davey*) ; three additional specimens from West Nyasa, Mulowe and Nsisga (*Dr. H. S. Stannus*) ; another specimen from Nyasaland, Blantyre, April 25, 1910 (*Dr. J. E. S. Old*).

54. *Exoprosopa sigmoidea*, sp. nov.

♂. Length of the body 12 mm., of wing 13 mm.

A species belonging to the group of *E. dimidiata*, but very distinct owing to the strongly S-shaped cross-vein between the discal cell and second posterior cell.

Head black, with grey pubescence and black erect hairs on the frons ; face projecting ; mouth edges with a pale fringe, with

short and sparse black hairs. Antennae with the first two joints of a red colour; first joint very long; third joint in the shape of an elongate cone, as long as the first two together and bearing a style shorter than itself. Proboscis black, long, but not projecting. Thorax black; with the exception of the black bristles, all the other hairs seem to be yellowish, and those on the metapleura also. Squamulae of a dark colour, with a yellowish fringe; halteres with yellow knob and dark stalk. Scutellum black, reddish at the hind margin, with black marginal bristles. Abdomen black, reddish on the sides of second and third segments and yellowish on the venter, which has only the basal portion of the segments darkened; third segment with entire transverse band of white tomentum, fourth and fifth with interrupted bands, the others seem to be all covered with white tomentum; sides with black hairs. Legs wholly black, with black pubescence and black bristles, but the hind femora have yellowish tomentum towards the base; ungues long, with a very strong tooth. Wings hyaline, one-half brown; the limit of the dark fore border runs obliquely from the end of the second longitudinal vein along the middle of the discal cell to the base of the fourth posterior cell and to the middle of the anal cell. Prediscoidal spot greyish; third longitudinal vein very curved at the end; first posterior cell not narrowed; the second vein beginning opposite to the small cross-vein; second, third and fourth posterior cells of about equal width. Discal cell longer than in *E. dimidiata* and much narrower towards the base; the vein dividing it from the second basal cell very strongly S-shaped.

TYPE ♂, from West Nyasa (*Dr. H. S. Stannus*); a single specimen.

55. *Exoprosopa dimidiata*, Macquart (1846).

I here follow Loew's definition of this species; but it seems that the African fauna is very rich in allied species, some of which are very difficult to distinguish.

The third antennal joint, which was wanting in Loew's specimen, is of short conical shape, equal in length to the first two joints together and as long as the style which it bears; the first joint is short and black. Loew says that the pleurae bear also some black hairs, which, however, in the second specimen are sparse; in my specimen there are no black hairs; as stated by Loew, the metapleural tuft is always yellowish.

A single specimen from Uganda, Peta, December 15, 1910 (*C. C. Gowdey*).

56. *Exoprosopa discriminata*, sp. nov. (Plate L, fig. 15.)

♂. Length of the body 12 mm., of the wing 13 mm.

Very near the preceding, but well distinguished by the characters given above in the table. This species is perhaps the same as the aberrant ♀ specimen of *E. dimidiata* described by Loew (*l. c.*, p. 276), chiefly in regard to the form of the discal cell. It seems, moreover, to be nearly allied to *E. sigmoidea* described above, of which it is perhaps only a variety. The two species have a similarly shaped discal cell; but the vein dividing it from the second basal cell is in *E. discriminata* only slightly curved; and the black fore border of the wing is more narrow, being in *sigmoidea* as broad as in *E. dimidiata*.

Head black, with yellowish scales on the lower portion of the frons and on the face; frons black-haired. Antennae with the two basal joints of a red colour; third joint black, more long and thin than in *E. dimidiata*, shaped as in *E. sigmoidea*, the style being shorter than the joint itself. Thorax with a distinct stripe of yellowish pubescence on the sides; mesopleurae with some black hairs; bristles black. Scutellum dark reddish, with yellowish pubescence and black bristles. Abdomen black; first segment with white hairs on the sides, the others black-haired; it seems that the third segment bears a dorsal band of white scales; the fourth and fifth have these scales only on the sides, the sixth and seventh are all covered with scales. Venter clothed with yellowish pubescence and pale hairs. Genitalia black, yellowish at the end. Legs entirely black, with black pubescence and with black bristles. Wings longer than in *E. dimidiata*; the black pattern is more narrow, reaching only the first third of the discal cell; this cell is almost three times as long as broad, and much narrowed before the base (in *dimidiata* only twice as long as broad, and not narrowed towards the base); its exterior vein is only slightly curved; the first posterior cell is much narrowed at the end.

TYPE ♂, from Nyasaland, Fort Johnston, April 2, 1910 (*Dr. A. H. Barclay*); a single specimen.

57. *Exoprosopa luctifera*, sp. nov. (Plate L, fig. 16.)

♀. Length of the body 12 mm., of the wing 12 mm.

Very near *E. dimidiata*, but characterised by the black meta-pleural tuft.

Third joint of the antennae of the same short conical shape as in *E. dimidiata*; basal joints black. Thorax with the hairs of the collar only yellow, those on the pleurae entirely black. Scutellum with reddish hind margin. Squamulae with a dark fringe. Abdomen black; the white clothing seems to be disposed as in *E. discriminata*. Spines of the genitalia yellow. Legs wholly

black, with black hairs and bristles. Pattern of the wings as in *dimidiata*; shape of discal cell intermediate between *dimidiata* and *discriminata*; first posterior cell less narrowed at the end.

TYPE ♀ and another ♀ specimen from West Nyasa, Vitiya and Mzimba, June and October 1909 (*Dr. H. S. Stannus*).

58. *Exoprosopa argyrophora*, sp. nov. (Plate L, fig. 17.)

♂. Length of the body 9 mm., of the wing 8 mm.

A very small species near *E. dimidiata*, but distinguished by its silvery abdomen. Head black, with scanty pubescence and black hairs on the frons. Face short, conical; proboscis not projecting; antennae with the two basal joints black, the first with black hairs and short, third joint wanting. Thorax black and black-haired, with some grey hairs on the collar. Scutellum black, dark reddish at the hind edge. Halteres with a white knob. Abdomen black, the venter and the sides of the second to the fourth segments are yellowish; first segment with white hairs on the sides; second, third and fourth segments all covered with dense silvery scales and with white hairs on the sides; the remaining segments are black, with sparse white scales and black hairs. Legs black, the tibiae dark reddish; hind claws short and with a small tooth. Wings as in *E. dimidiata*, but the black pattern more narrowed, filling only the basal third of the discal cell; direction of the veins as in *sigmoidea*, but the discal cell is more regular and its exterior cross-vein is not S-shaped.

TYPE ♂, from West Nyasa, Momberas district, November 1909 (*Dr. H. S. Stannus*); a single specimen.

59. *Exoprosopa argentifrons*, Macquart (1855). (Plate L, fig. 18.)

A single specimen from West Nyasa, May 19, 1909 (*Dr. H. S. Stannus*), which agrees well enough with the description. The first joint of the antennae and the legs are red; the marking on the wing is more brown than black.

This and the following species belong to the group D of Loew; but I think that they are best placed with *E. dimidiata*.

60. *Exoprosopa scaligera*, sp. nov. (Plate L, fig. 19.)

♂. Length of the body 10 mm., of the wing 10 mm.

Allied to the preceding species, but distinguished by the shorter antennae and the different shape of the wing-marking.

Head black, dark reddish on the face, which bears whitish scales;

frons black-haired and with two black cross-bands. First joint of the antennae short, black and black-haired; third joint in the shape of a short cone, of a greyish colour, bearing a style longer than the joint itself. Face projecting, the proboscis not projecting. Thorax black, with yellowish pubescence and with black hairs on the sides anteriorly; mesopleuræ with hairs of amaranthine colour; metapleural tuft with white and below with black hairs. Squamulae dark, with a whitish fringe; halteres with yellow knob. Scutellum black, with red margin and black bristles. Abdomen black, the second and third segments narrowly reddish on the sides; pubescence black, white and yellow; hairs on the sides alternately black and white. Legs dark reddish, black on the knees and on the last joints of the tarsi. Wing-pattern like that of *E. ignava*, Loew, but with more indentations at the third, fourth and sixth longitudinal veins; the upper corner at the discal cell is hyaline, and in this the species differs from all the others of the group D. Origin of the second vein a little before the small cross-vein; first posterior cell broadly open, second and third of equal width, fourth broader than the others; a short stump in the discal cell before the lower apical corner.

TYPE ♂, from West Nyasa, Ekwendeni (*Dr. H. S. Stannus*); a single specimen:

61. *Exoprosopa jacchoides*, sp. nov. (Plate L, fig. 20.)

♂. Length of the body 13 mm., of the wing 12 mm.

A black species, with extensive black markings on the wings, recalling that of *E. jacchus*; the first abdominal segment bears on the sides tufts of black hairs (not white, as usual).

Head black; frons black-haired, the dark yellow tomentum forming a cross-band towards the middle. Antennae entirely black, the two first joints black-haired, the third of short conical shape, as long as the style. Face strongly projecting; proboscis as long as the mouth. Thorax black and clothed with predominantly black hairs, those on the collar being yellow; bristles black; pleuræ black-haired, the metapleural tuft entirely black. Squamulae dark brown, with a white fringe, which is brownish in its exterior angle; halteres dark, with whitish knob. Scutellum black, reddish at the hind margin, with black bristles. Abdomen black, reddish towards the sides and at the apex; the first and the following segments bear on the sides black hairs only; white scales are to be seen on the sides of the second, fourth, fifth and sixth segments, the third bearing an entire cross-band and the seventh being entirely covered with these scales; there are also black scales in the middle of the

segments; genitalia dark yellow; venter dark, with black and pale hairs. Legs dark reddish, with black pubescence and black bristles. Wings with black veins; discal cell twice as long as broad, narrowed towards the middle, obtuse at the end; first posterior cell little narrowed. The wings are blackened from the extreme base to the end of the first longitudinal vein; from here the border runs obliquely and sinuously to the vein dividing the second from the third posterior cell at the hind margin of the wing; apex of the first submarginal cell hyaline, as also the apical half of the second posterior cell; a small hyaline oblique spot in the discal cell before its end; third and fourth posterior cells each with a hyaline spot near the hind margin, which are fused together and in contact with the spot in the discal cell; apex of the axillar cell subhyaline. There are small yellowish spots at the cross-veins, chiefly on the small cross-vein and on the base of the second longitudinal vein, which originates a little before it; prediscal spot small, whitish; small cross-vein placed before the middle of the discal cell.

TYPE ♂, from Northern Nigeria, Zungeru, February 5, 1910 (*Dr. J. W. Scott Macfie*); a single specimen.

62. *Exoprosopa lacta*, Loew (1860).

A very well characterised and elegant species, distinguished by the prevalent yellow colour of the body, the rounded and not projecting face, the brown and yellow pattern of the wings, showing broad pellucid spots on the cross-veins and two broad blackish bands fused together at the hind margin.

A specimen from North Nyasa, Makongwa, February 12, 1909 (*Dr. J. B. Davcy*).

63. *Exoprosopa punctulata*, Macquart (1840). (Plate L, fig. 21.)

This species is, without any doubt, the same as that described by Loew under the name of *E. rasa* (1860). It represents the type of a natural group of closely allied species, with which are to be associated the following: *E. major*, *batrachoides*, *stannusi* and *capnoptera*. The characters of this group are:—

Abdomen of conical shape, pointed at end; body elongate, short-haired, without black hairs on the pleurae, and without silvery spots or bands on the abdomen; face little projecting; third antennal joint of conical shape, bearing a style not longer than itself; proboscis short. Wings rather narrow and long; the vein dividing the

second from the third posterior cell much shorter than the inferior vein of the discal cell and not placed on the same line with this; discal cell obtuse outwardly, with the basal angle more or less developed; small cross-vein placed at the middle or a little before the middle of the discal cell, the origin of the second longitudinal vein always taking place before it. Wing-pattern very simple, consisting only of a narrow brownish fore border and some small spots on the cross-veins.

Of *E. punctulata* (= *rasa*) there are in the collection five very similar specimens from North Nyasa, Karonga to Fort Hill, near Chikweta's village, May 31, 1909 (*Dr. J. B. Davey*); also a ♀ specimen taken between Deep Bay and Vua, May 14, 1909, by the same collector. The spines of the female genitalia are yellow.

64. *Exoprosopa major*, Ricardo (1901).

A single specimen from Nyasaland, Marimba, Kam-bindingo, January 20, 1910 (*Dr. J. B. Davey*), which agrees very well with the description of Miss Ricardo; the original locality was Fort Johnston, also in Nyasaland.

65. *Exoprosopa batrachoides*, sp. nov. (Plate L, fig. 22.)

♂ ♀. Length (of 6 specimens) of the body 18-20 mm., of the wing 16-17 mm., of the wing-expanse 34-40 mm.

A very large and robust species, closely allied to the preceding, but characterised by the red legs and different colour of the abdomen.

Head red, with yellow tomentum; a black spot on the occiput, near the vertex, sometimes wanting; frons with dense yellow pubescence towards the base of the antennae and very few black hairs near the vertex. Antennae short, the two basal joints red, the first bearing yellow hairs; third joint black, a little longer than the style. Proboscis black, little projecting; hind margin of the eyes very broad. Thorax black, clothed with short yellowish-grey hairs, absolutely without any black hairs, the bristles alone being black. Squamulae very large, dark red, with a yellowish fringe: halteres with whitish knob and reddish stalk. Scutellum red, with a complete row of strong marginal black bristles. Abdomen entirely red, without black cross-bands; there are rounded basal black spots in the middle of the second, third and fourth segments, which are of decreasing size; the first segment is black, with lateral tufts of whitish hairs. Venter covered with whitish tomentum. The hairs of the abdomen are very short and greyish, with scattered black hairs on the sides

near the hind margin of the segments; last segment with a very dense marginal black fringe. Genitalia of the male of larger size, red, with yellow hairs; genitalia of the female with red spines. Legs dark reddish, but the tarsi and the hind femora are darkened; claws red at the base, with a red tooth; bristles and pubescence black. Wings hyaline, with yellowish veins, which are darkened only near the end; basal comb very large, dark reddish and with a short black fringe; the base and the costal cell brownish; the subcostal and the first basal greyish; the small cross-vein and those on the base of fourth and third posterior cells (this last only near the extreme base) are narrowly margined with fuscous. First posterior cell a little narrowed at the end, the three others of almost equal width; the first posterior cell is very narrowed near the base; the nervure dividing the discal from the third posterior cell is very sinuous; small cross-vein placed in the middle of the discal cell.

TYPE ♂ and ♀, and three additional specimens from North Nyasa, near Deep Bay, October 3 and 4, 1909 (*Dr. J. B. Davey*); another ♀ specimen from Nyasa, October 21, 1910 (*Dr. J. E. S. Old*).

66. *Exoprosopa stannusi*, sp. nov. (Plate L, fig. 23.)

♂. Length of the body (of 5 specimens) 15–16 mm., of the wing 14–15 mm.

A species also near *E. major*, but with red legs; distinguished from the preceding by the smaller size and the black antennae.

Head black, reddish only on the face, on the lower portion of the frons and along the margins of the mouth; hairs of the face yellow, those on the frons black; antennae short, black, the first joint clothed with black hairs; the third greyish, conical, with the style a little shorter. Proboscis black. Thorax black, with yellowish hairs and some black hairs in the middle of the back; bristles black; squamulae yellowish and with a yellow fringe; halteres whitish. Scutellum black, with black marginal bristles. Abdomen yellowish-red, with grey pubescence; venter concolorous; a broad median black stripe which extends from the first to the sixth segment; moreover there are black cross-bands, with black tomentum at the hind margin of the segments; the hairs along the sides are pale, but there is a tuft of black hairs on a line with the black cross-band of each segment; last segment with a black fringe. Genitalia red, with yellow and black hairs. Legs paler yellowish-red, the tarsi darkened and the claws with a red tooth; knees black; bristles black, but the tomentum is yellowish. Wings greyish hyaline, the base and the fore border to the fourth longitudinal vein, extending

obliquely from the end of the second vein to the small cross-vein, dark brown. Isolated brown spot and shape of the cells as in *E. batrachoides*.

TYPE ♂ and four additional specimens from West Nyasa, Viyiya and Limpachi River, October and November 1909, all collected by *Dr. H. S. Stannus*, in whose honour the species has been named.

67. *Exoprosopa capnoptera*, sp. nov. (Plate L, fig. 24.)

♀. Length of the body 18 mm., of the wing 17 mm.

Very near the preceding and perhaps the female of it; but it seems to be distinct, being darker and having different wings.

The hairs on the collar and on the sides of the thorax are golden, not grey. Halteres with blackish knob. Abdomen black, being only narrowly reddish on the sides; the hairs of the sides are all black, only the basal tuft of the first segment being, as usual, white. Spines of female genitalia dark yellow. Legs dark red, the coxae and the tibiae being in part blackened. Wings uniformly clouded with a clear brownish-black tint, the base and the costal cell being yellowish-brown; cross-veins very lightly margined with fuscous. Wing-veins as in *E. batrachoides*, but the first posterior cell broadly open and the vein dividing the discal from the third posterior cell less sinuous.

TYPE ♀, from West Nyasa, hills, October 1909 (*Dr. H. S. Stannus*); a single specimen.

68. *Exoprosopa penthoptera*, sp. nov. (Plate L, fig. 25.)

♂ ♀. Length of the body (of four specimens) 13–14 mm., of the wing 13–14 mm.

In the venation this species agrees with those of the *punctulata* group, but differs in the shape of the abdomen, which is not conical.

Head black, narrowly pale yellow along the mouth edges alone; face rounded, not projecting; hairs black. Antennae with the first joint black and black-haired, the second reddish, the third dark reddish, of elongate conical shape, bearing a short style. Thorax black, the hairs of the sides yellow, those on the pleurae also, with some black hairs intermingled; metapleural tuft yellow; squamulae dark, with a yellow fringe; halteres with whitish knob. Scutellum black, with reddish margin and black marginal bristles. Abdomen entirely black, on the underside also; it is not well preserved, but it seems to be clothed with whitish tomentum and black hairs, the lateral tufts of the first segment being white. Legs black, the tibiae dark

yellowish ; claws yellow at the base, with a small tooth. Wings broad and long, greyish hyaline, the anterior half darkened, its limits being irregular and not sharply defined ; the veins are a little margined with fuscous. Venation as in the preceding species, but the origin of the second longitudinal vein opposite to the small cross-vein ; the first posterior cell is, moreover, not so narrowed at the base.

TYPE ♂ and ♀, and two additional specimens from North Nyasa, bush near Wovwi stream, November 27 and 28, 1909 (*Dr. J. B. Davey*).

69. *Exoprosopa heterocera*, sp. nov.

♀. Length of the body 11 mm., of the wing 10 mm.

A black species with unspotted wings, readily distinguished by the colour and the shape of the third antennal joint, which approaches to that of the species of *Thyridanthrax* of the group represented by *T. elegans*.

Head black, with white tomentum and with black erect hairs on the frons ; face projecting, with white hairs on the sides ; occiput with argenteous scales at the margins of the eyes ; proboscis black, not projecting. Antennae with the first two joints short, black, the first with short black hairs ; third joint very long, more than twice the first two together, of linear shape, not pointed, obtuse at the tip, with a very minute less distinct style ; its colour is yellow, darkened towards the end. Thorax black, with grey hairs and black bristles ; hairs on the pleurae white. Halteres black, with the knob white below. Scutellum black, yellow at the margin. Abdomen black ; with white tomentum ; first segment with tufts of white hairs on the sides ; spines of the female genitalia long, dark yellow. Legs black, black pollinose and with black spines ; hind claws small, yellow at the base, with a small tooth. Wings uniformly smoked, the second posterior cell and the base of the discal cell being a little more clear ; base and costal cell yellowish-brown, first basal cell and the middle of the subcostal cell darkened. Small cross-vein placed before the middle of the discal cell, the second longitudinal vein beginning opposite it ; first posterior cell a little narrowed at the end, second and third of almost equal width ; discal cell not broader than the second basal cell, which equals it in length ; third posterior cell very short. Veins yellow towards the base, blackish at the end ; basal comb black, very small.

TYPE ♀, from North Nyasa, Marimba, near Chia River, January 21, 1910 (*Dr. J. B. Davey*) ; a single specimen in not very good condition.

70. *Exoprosopa villaeformis*, sp. nov.

♂ ♀. Length of the body (of 6 specimens) 17 to 18 mm., of the wing 16 to 17 mm., of the wing-expanse 36 to 38 mm.

A robust species of larger size, with entirely hyaline wings, much resembling a *Villa*.

Head black, the frons, with exception of the vertex and the face, reddish; mouth edges whitish; occiput near the indentation of the eyes with a broad band of silvery scales; frons with yellowish, face on the sides with silvery, tomentum; the frons bears short but dense erect black hairs; the face shows white hairs on the sides. Face rounded, not projecting; proboscis not projecting; frons of the female at the vertex one and a half times broader than that of the male at the same point. Antennae very far apart from each other and very short; the two basal joints are black (or, when denuded, reddish), of equal length, the first bearing very short black hairs; third joint onion-shaped, the broad portion not longer than the first two joints together and as long as the styliform portion; the style almost as long as the whole antenna. Thorax black, reddish on the sides; the hairs on the collar and on the sides are yellow, those on the base of the wings are white; bristles black; hairs on the pleurae entirely white. Squamulae yellow, with a white fringe; halteres yellowish. Scutellum reddish, with black marginal bristles. Abdomen black, reddish on the sides and on the venter; there are on the segments cross-bands of black, yellow and whitish tomentum; the hairs of the sides are alternately black and white; venter clothed with white scales and hairs. The form of the abdomen is characteristic; it is flattened, of rectangular outline, but the last segments are contracted, forming a cone; male genitalia symmetrical; spines of the female genitalia blackish. Legs red, whitish pollinose and black spinose; tarsi and tibiae somewhat darkened; hind claws with a small tooth. Wings hyaline, the base narrowly yellowish and the costal cell yellowish-grey; origin of the second vein opposite or a little before the small cross-vein, which is placed before the middle of the discal cell; third posterior cell very long; second basal cell short and broad. Basal comb very large and yellow, like that of *Villa*.

TYPE ♂ and ♀ and four other specimens from North Nyasa, Deep Bay, Kaporo, Wovwi River and Mwiniwanda Valley, October to November 1909 (*Dr. J. B. Davey*).

71. *Exoprosopa minois*, Loew (1869).

Some specimens from North Nyasa, Nyungwi stream and Lake shore, October to November 1909 (*Dr. J. B.*

Davey), which agree well enough with this Mediterranean species.

72. *Exoprosopa hypomelaena*, sp. nov.

♀. Length of the body 10 mm., of the wing 8 mm.

A small species with hyaline wings, very closely allied to the preceding but differing in the following points.

Third antennal joint broad at the base, afterwards attenuated into a point, which ends in a style as long as this point. Lower half of pleurae and breast clothed with black hairs. The four front tibiae are yellow. Wings with the base and the costal cell only a little grey, almost hyaline; the direction of the veins is the same, but the anal cell is more narrowed at the end.

TYPE ♀, from West Nyasa, Chinktu, October 1909 (*Dr. H. S. Stannus*); a single not well preserved specimen.

73. *Exoprosopa* (?) *inornata*, Loew (1860).

A single specimen of very doubtful determination, from West Nyasa, Limpachi River, November 1909 (*Dr. H. S. Stannus*).

74. *Exoprosopa* sp. indet.

A single badly preserved and wholly denuded specimen of a species very near *E. iris*, Loew, from North Nyasa, Fort Hill, September 26, 1909 (*Dr. J. B. Davey*).

16. *Hyperalonia*, Rondani (1863).

This genus seems to be somewhat plentiful in South Africa; in the collection there are four species, which belong to two very distinct groups.

The first group embraces the species which have red, more or less darkened, legs and extensive brown markings on the wings, which are often all darkened and with strong metallic reflections. Hind claws with an obtuse tooth. Discal cell very much twisted, pointed outwardly, the vein dividing it from the second posterior cell being very sinuous and placed almost in the same direction as the axis of the wing; second posterior cell broader at base than at apex. To this group belongs the species *H. rufa*, Wied., from the Cape; *vittata*, Ric., from Nyasa; *nigripennis*, Loew, from Mozambique; *helena*, Loew, from Egypt, and *venus*, Karsch, from Zanzibar.

To the second group belong the species which have

black legs, the tibiae more spinose and with longer spines, the hind claws with an obtuse tooth which it is often very difficult to see; the wings are hyaline or with much less developed markings. The discal cell is not twisted, in the shape of a trapezium, and the vein dividing it from the second posterior cell is straight and almost perpendicular to the longitudinal axis of the wing; second posterior cell broader at apex than at base. The species are *H. sisypheus*, Fabr., from Guinea; *alula*, Bezzi, from Erythraea; and perhaps *monacha*, Klug, from Arabia.

The species in the collection can be distinguished as follows:—

- 1 (6). The vein dividing the discal from the second posterior cell is very sinuous, oblique and almost of equal length with that dividing the same cell from the third posterior cell; wings with extensive black markings or all darkened.
- 2 (5). Wings entirely darkened or blackish; second basal cell with a very small whitish spot in the upper corner, which often is very indistinct.
- 3 (4). Head, abdomen, basal joints of the antennae and legs red, wings brown, with the cross-veins shaded . . . *vittata*, Ric.
- 4 (3). Head, abdomen, antennae and legs black; wings blackish, with the cross-veins not distinctly shaded
nigripennis, Loew.
- 5 (2). Wings broadly hyaline at apex and towards the axillar cell; second basal cell with a very large subquadrate hyaline spot, which extends over almost all its apical half
thyridophora, sp. n.
- 6 (1). The vein dividing the discal from the second posterior cell is straight, almost perpendicular, and very much shorter than that dividing the same cell from the third posterior cell; wings entirely hyaline, with a narrow brown fore border along the costal cell *sisypheus*, Fab.

75. *Hyperalonia vittata*, Ricardo (1901).

Ten specimens of this species, which seems to be common in Central Africa; they agree very well with the description of Miss Ricardo, and one was besides compared with the type by Mr. E. E. Austen. The great variation in size of this species has already been mentioned by Miss Ricardo; of the specimens here recorded, the largest measures 19 mm. in length of the body and about 40 mm. in wing-expanse; the smallest 11 mm. and 24 mm. respec-

tively. I think that the distinction of *H. vittata* from *rufa*, Wied., is not an easy matter.

Five specimens from North Nyasa, Kaporo, Deep Bay and Mwiniwanda, June and October 1909 (*Dr. J. B. Davcy*); three specimens from Northern Nigeria, Zungeru, November 5, 1910 (*Dr. J. W. Scott Macfie*), and Dinia River, November 26, 1910 (*J. J. Simpson*); two specimens from Uganda, Oeta, December 15, 1910 (*C. C. Gowdey*). The type-locality was Fort Johnston in Nyasaland.

76. *Hyperalonia nigripennis*, Loew (1852).

A single specimen from Northern Nigeria, Gau, December 17, 1910 (*J. J. Simpson*). This species seems to be widely spread over Central Africa, as I have seen also a specimen from the Belgian Congo. Basal comb of the wing black. All the hairs of the sides and underside of the thorax and abdomen are of a golden yellow colour, which renders them conspicuous on the black ground-colour of the body. The metallic reflections of the wings are very strong, and in this the species agrees with *H. helena*, Loew, of which I have seen specimens from Erythraea.

77. *Hyperalonia thyridophora*, sp. nov. (Plate L, fig. 26.)

♀. Length of the body 18 mm., of the wing 20 mm., of the wing-expanse 44 mm.

A very distinct species, which I shall name, although the single specimen is without a head. The wing-pattern recalls that of *H. venus*, Karsch (1887), which has also a large hyaline spot in the second basal cell; but this last species shows also hyaline spots in the discal, anal, and third and fourth posterior cells, which are wanting in my species. The re-description of the species given by Speiser in 1907 seems to apply to some different species, perhaps of the group of *E. apicalis*, Wied.; at least in the species to be described here the tibiae are not pennate.

Thorax black, clothed with grey hairs and with some scattered black hairs on the sides; collar and pleurae with entirely yellowish grey hairs, also on metapleural tufts; bristles black. Squamulae yellowish, with a white fringe; halteres black, with paler knob. Scutellum dark red, narrowly black at base, with marginal black bristles. Abdomen black, the segments being narrowly yellowish at the hind border; hairs of the colour of those on the thorax, but each segment bears on the sides at the hind margin some black hairs, which are more numerous on the last segments; under the hairs

there is whitish tomentum. Venter black, the first segment reddish, clothed with short whitish hairs; spines of the female genitalia yellowish red. Legs black, the tibiae reddish, with black pubescence and black spines; hind claws with a very small tooth. Wings blackish brown, the apex broadly hyaline; the limit of the black marking runs outwards from the end of the costal cell over the apex of the first sub-marginal to the apex of the third posterior cell at the hind margin. There are less distinct pale clouds on the apex of the discal cell, on the third and fourth posterior cells and on the middle of the anal cell; the axillar cell is entirely hyaline; the large hyaline spot in the second basal cell is very conspicuous. Basal comb of a dark reddish colour and with black pubescence. Origin of the second longitudinal vein a little before the small cross-vein, which is placed at the middle of the discal cell; first posterior cell very narrow in its whole length and narrowed at the end; second and third of about equal width at the apex, the fourth being broader; discal cell very pointed outwardly, the vein between it and the second basal cell being sinuous; this last cell is in shape an almost regular rhomb, the vein dividing it from the third being almost straight, not sinuous as in *H. vittata*. The wings are longer than in the allied species.

A single specimen, without head, from Nyasaland, Dowa (*Dr. J. E. S. Old*).

78. *Hyperalonia sisypus*, Fabricius (1805).

A very distinct species, not recognised as *Hyperalonia* in the Catalogues.

My *H. alula* (1906) from Erythraea is an allied species, characterised by the argenteous bands on the abdomen and the brown clouds on the wings.

Six specimens from North Nyasa, Deep Bay to Vua, and Bundi village, Fuliwa, May 13-14, 1909 (*Dr. J. B. Davey*); two other specimens from Fort Johnston, June 12, 1910 (*Dr. A. H. Barclay*).

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| Beck. | 610 | " laeta, Loew | 645 |
| Anthrax aygulus, Fabr. | 621 | " lepidogastra, | |
| " camptocladus, sp. n. | 622 | sp. n. | 639 |
| " confusemaculatus, | | " luctifera, sp. n. | 642 |
| Macq. | 621 | " major, Ric. | 646 |
| " conspurcatus, Wied. | 621 | " minois, Loew | 650 |
| " diffusus, Wied. | 621 | " penthoptera, | |
| " hessii, Wied. | 621 | sp. n. | 648 |
| " homogeneous, sp. n. | 622 | " punctulata, Macq. | 645 |
| " leucogaster, Wied. | 623 | " rasa, Loew | 645 |
| " maculipennis, Macq. | 621 | " scaligera, sp. n. | 643 |
| " pithecius, Fabr. | 621 | " sigmoidea, sp. n. | 640 |
| " pusillus, Wied. | 623 | " stannusi, sp. n. | 647 |
| " simson, Fabr. | 621 | " umbrosa, Loew | 638 |
| " spectabilis, Loew | 621 | " venosa, Wied. | 639 |
| " tigrinus, de G. | 621 | " villaeformis, | |
| " volitans, Wied. | 623 | sp. n. | 650 |
| Argyramoeba, vide Anthrax | 620 | Heterostylum. | 613 |
| Bombylius micans, Fabr. | 606 | Hyperalonia alula, Bezzi | 654 |
| " ornatus, Wied. | 607 | " helena, Loew | 651, 653 |
| Chionamoeba | 615 | " monacha, Klug | 652 |
| Dischistus capito, Loew | 611 | " nigripennis, | |
| " diadematus, sp. n. | 610 | Loew | 651, 653 |
| " hirtus, sp. n. | 611 | " rufa, Wied. | 651 |
| " seriatus, Wied. | 611 | " sisyphus, Fabr. | 654 |
| Eurycareus laticeps, Loew | 613 | " thyridophora, | |
| Exoprosopa apicalis, Wied. | 653 | sp. n. | 653 |
| " argentifrons, | | " venus, Karsch | 651 |
| Macq. | 643 | " vittata, Ric. | 651, 652 |
| " argyrophora, | | Isotamia (gen. n.) daveyi | |
| sp. n. | 643 | sp. n. | 627, 628 |
| " batrachoides, | | Litorrhynchus argyrolepis, | |
| sp. n. | 646 | sp. n. | 631 |
| " capnoptera, sp. n. | 648 | " basalis, Ric. | 630 |
| " dimidiata, Macq. | 641 | " dentiferus, | |
| " discriminata, | | sp. n. | 632 |
| sp. n. | 641, 642 | " dilatatus, sp. n. | 634 |
| " heterocera, sp. n. | 649 | " erythraeus, | |
| " hypomelaena, | | Bezzi | 634 |
| sp. n. | 651 | " macropterus, | |
| " ignava, Loew | 644 | Loew | 630 |

| | PAGE | | PAGE |
|----------------------------|------|--------------------------|------|
| Litorrhynchus nyasae, Ric. | 630 | Systoechus albidus, Loew | 607 |
| " perplexus, | | " autumnalis, Wied. | 607 |
| sp. n. | 634 | " ctenopterus, Mikau | 609 |
| " repletus, sp. n. | 633 | " ferrugineus, Macq. | 608 |
| " ricardoi, sp. n. | 631 | " leucophaeus, Meig. | 608 |
| " rostratus, Loew | 633 | " melanopogon | |
| " senegalensis, | | sp. n. | 609 |
| Macq. | 634 | " mixtus, Wied. | 609 |
| " tollini, Loew | 634 | " oreas, Ost.-Sack. | 607 |
| Lomatia belzebul, Fabr. | 614 | " robustus, sp. n. | 608 |
| " gigantea, sp. n. | 614 | " simplex, Loew | 608 |
| " inornata, Loew (1854) | 613 | Thyridanthrax abruptus, | |
| " inornata, Loew (1860) | 613 | Loew | 627 |
| " loewi, nom. n. | 614 | " afer, Fabr. | 625 |
| " longitudinalis, Loew | 614 | " elegans, Meig. | 625 |
| Molybdamoeba decipiens, | | " fenestralis, | |
| sp. n. | 619 | Macq. | 626 |
| " incisuralis, | | " fenestralis, | |
| Macq. | 618 | Wied. | 626 |
| " inquirenda, | | " fenestralis, | |
| var. n. | 618 | Fall | 625 |
| " leucopogon, | | " leucoproctus, | |
| sp. n. | 618 | Loew | 627 |
| " mixta, Loew | 618 | " linea, Loew | 626 |
| " punctipennis, | | " macquarti, | |
| Wied. | 618 | sp. n. | 626 |
| " tripunctata, | | " melanopleurus, | |
| Wied. | 619 | sp. n. | 626 |
| Petrorossia fulvipes, Loew | 616 | " vagans, Loew | 627 |
| " gratiosa, sp. n. | 616 | Villa albescens, Loew | 625 |
| " hesperus, Rossi | 615 | " dizona, Loew | 624 |
| " letho, Wied. | 616 | " flavescens, Loew | 625 |
| " longitarsis, Beck | 616 | " humilis, Ruthe | 625 |
| Sisyrphanus homeyeri | | " ixion, Fabr. | 625 |
| Karsch | 611 | " lasia, Wied. | 625 |
| " leptocerus, sp. n. | 612 | " paniscoides, sp. n. | 624 |
| " (?) pachyceratus | | " paniscus, Rossi | 624 |
| Big. | 613 | " sexfasciatus, Wied. | 625 |
| " pyrrhocerus | | | |
| sp. n. | 612 | | |

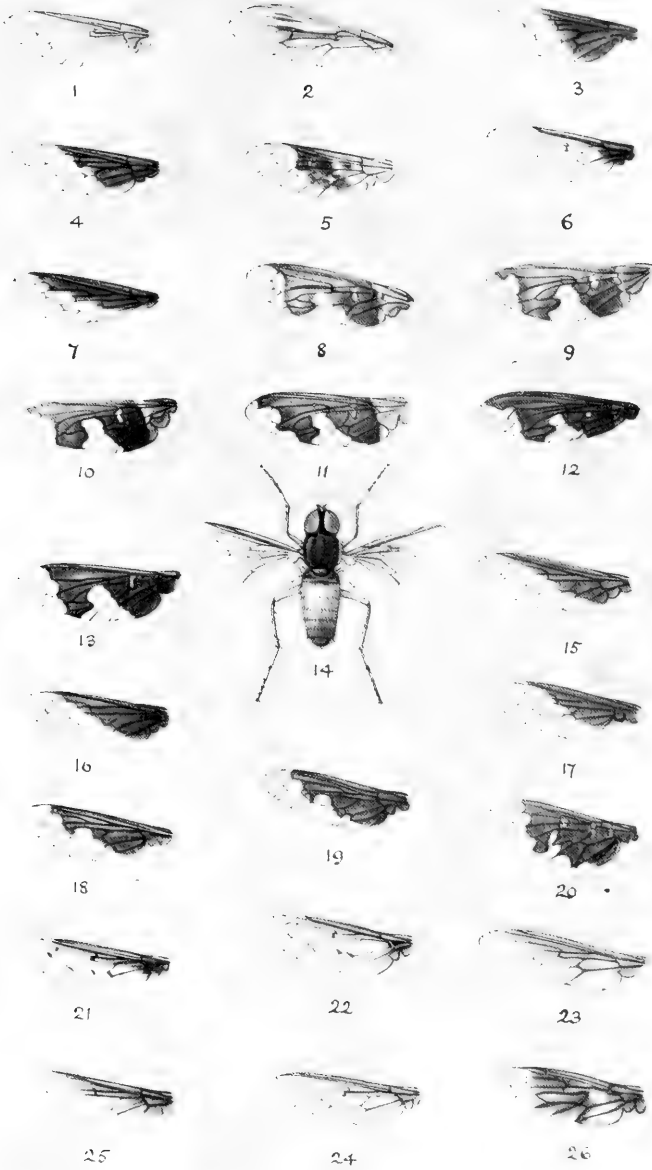
EXPLANATION OF PLATE L.

[See Explanation facing the PLATE.]

EXPLANATION OF PLATE L.

FIG.

1. *Systoechus robustus*, sp. nov. $\frac{3}{2}$.
2. *Lomatia gigantea*, sp. nov. $\frac{6}{5}$.
3. *Anthrax homogeneous*, sp. nov. $\frac{5}{2}$.
4. " *camptocladus*, sp. nov. $\frac{5}{3}$.
5. *Thyridanthrax macquarti*, sp. nov. $\frac{7}{4}$.
6. " *melanopleurus*, sp. nov. $\frac{5}{3}$.
7. *Isotamia* (gen. nov.) *daveyi*, sp. nov. $\frac{5}{2}$.
8. *Litorrhynchus basalis*, Ric. $\frac{1}{1}$.
9. " *nyasae*, Ric. $\frac{2}{2}$.
10. " *ricardoi*, sp. nov. $\frac{6}{5}$.
11. " *dentiferus*, sp. nov. $\frac{1}{1}$.
12. " *repletus*, sp. nov. $\frac{5}{2}$.
13. " *tollini*, Lw. $\frac{4}{3}$.
14. *Petrorossia gratiosa*, sp. nov. $\times 3$.
15. *Exoprosopa discriminata*, sp. nov. $\frac{3}{2}$.
16. " *luctifera*, sp. nov. $\frac{3}{2}$.
17. " *argyrophora*, sp. nov. $\frac{3}{2}$.
18. " *argentifrons*, Macq. $\frac{2}{1}$.
19. " *scaligera*, sp. nov. $\frac{2}{1}$.
20. " *jacchoides*, sp. nov. $\frac{3}{2}$.
21. " *punctulata*, Macq. $\frac{3}{2}$.
22. " *batrachoides*, sp. nov. $\frac{6}{5}$.
23. " *stannusi*, sp. nov. $\frac{6}{5}$.
24. " *capnoptera*, sp. nov. $\frac{6}{5}$.
25. " *penthoptera*, sp. nov. $\frac{3}{2}$.
26. *Hyperalonia thyridophora*, sp. nov. $\frac{1}{1}$.



H. Knight del.

C. Hentschel.

AFRICAN BOMBYLIIDAE.

PROF. MARIO BEZZI

DITTERI RACCOLTI DA LEONARDO FEA
DURANTE IL SUO VIAGGIO NELL' AFRICA OCCIDENTALE.

Parte II: **BOMBYLIIDAE** (1).

In occasione della preparazione della mia monografia sui Bombilidi della Regione etiopica pel British Museum, assieme ai materiali che mi furono mandati parecchi anni or sono da diversi Istituti stranieri, assai accetti mi giunsero quelli del Museo Civico di Genova. E sono grato al Prof. Gestro di avermene affidato lo studio perchè, se non sono molto numerosi, vantano però il pregio di contenere la ben conservata raccolta fatta nell' Africa occidentale, colla solita abilità, dal compianto L. Fea.

Il mio lavoro generale, che fu ritardato dagli avvenimenti di questi ultimi anni, ha raggiunto uno sviluppo considerevole, e si spera di vederlo pubblicato fra non molto. Intanto comparirà presto la parte che riguarda l' Africa del Sud, edita dal South African Museum di Cape Town. È quindi utile illustrare ora questo manipolo di 30 specie, 6 delle quali sono nuove e parecchie altre provengono da località non rappresentate nelle collezioni estere.

FAM. BOMBYLIIDAE.

I. **Bombyliidae Homoeophthalmae.**

1. **Bombyliinae.**

1. **Bombylius analis** Fabricius 1794.

Specie comune e diffusa per tutta la regione.

(1) Parte I: *Syrphidae*. V. questi Annali, serie 3.a vol. V (XLV) 1912, p. 400-443.

Guinea portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

Scioa: Mahal Unz 1877 (*Antinori*); Ciacaciae 24 giugno 1887: (*Ragazzi*).

Eritrea: Ghinda, Dongollo, 1000 m. s. m., marzo 1906, in copula (*C. Figini*).

2. *Bombylius suffusus* Walker 1849.

Specie poco nota, confusa colle varietà del precedente, dal quale è però ben distinguibile pel torace ornato sul davanti in ambo i sessi di densi peli fulvi, e per le ali infoscate verso il mezzo. Si rinviene solo nell'Africa centro-occidentale.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

3. *Bombylius argentatus* Fabricius 1805.

È la forma tipica, appartenente al gruppo *ornatus*, distinta per le antenne biforcute all'estremità, per le squamule fornite di frangiatura argentina in ambo i sessi, pel ciuffo metapleurale bianco e per le larghe ali che hanno la metà basale regolarmente infoscata. Anche questa è specie esclusivamente occidentale.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

4. *Bombylius plorans* Bezzi ined.

Una piccola specie del gr. *ornatus*, distinta per le squamule frangiate di nero in ambo i sessi e per la gran riduzione delle macchie argentine. Descritto della Rodesia.

Uganda: Bussu Busoga, maggio 1909 (D.^r *E. Bayon*).

5. *Bombylius nigrilobus* Bezzi ined.

Altra specie del gr. *ornatus*, distinta per le ali infoscate alla base, coll'alula nereggiante e frangiata di scuro, le squamule a frangia nera nel maschio e bianca nella femmina. Specie del pari occidentale.

Guinea Portoghese: Farim, Bolama, giugno-dicembre 1899, (*L. Fea*).

Africa equatoriale: Rigaf, settembre 1882 (*E. Dabbene*).

6. **Bombylius ornatus** Wiedemann 1828.

La forma tipica è ridotta da me agli esemplari aventi lunghi ciuffi di peli argentini sui lati del quarto segmento dell'addome del maschio. È diffusa per tutta la regione.

Congo francese: Capo Lopez, ottobre 1902 (L. Fea).

Uganda: Bussu Busoga 1909 (D.^r E. Bayon).

7. **Bombylius? rufiventris** Macquart 1846.

Specie dell'Africa del Sud, affine ad *ornatus*, distinta per la densa tomentosità fulva dell'addome.

Isola Fernando Poo: Punta Frailes, ottobre-novembre 1901, (L. Fea).

Molto dubbio; è una femmina colla proboscide lunga quanto il corpo.

8. **Bombylius neithokris** Jaennicke 1867.

Specie originariamente descritta dell'Abissinia, ma molto estesa verso il Sud.

Scioa: Fecheriè Ghem 1887 (*Ragazzi*).

9. **Anastoechus spinifacies** Bezzi ined.

Descritto dell'Eritrea.

Somalia: Da Matagoi a Lugh, novembre 1895 (*V. Bottego*).

10. **Eurycarenum dichopticus** Bezzi ined.

Specie principalmente occidentale, distinta dalle congeneri per gli occhi del maschio largamente separati e pel triangolo frontale nel medesimo sesso coperto di tomento dorato.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (L. Fea).

11. **Dischistus vitripennis** Loew 1855.

Descritto di Massaua, pare diffuso per tutto il centro del continente da E a W.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).
Scioa: Farré, agosto 1887 (*Ragazzi*).

2. Phthiriinae.

Gen. **Geron** MEIGEN.

Questo genere è rappresentato in Africa da ben 10 specie; ed è notevole che il Fea ne abbia trovate due alle Isole del Capo Verde. Ho visto altre forme insulari, una nuova dell'isola Rodriguez, mentre alle Seicelle si trova il diffuso *G. hybridus*; le due trovate dal Fea sono nuove. Tutte appartengono al gruppo *hybridus*, distinto per la forza cubitale delle ali breve e larga; quelle qui descritte sono caratterizzate dal grande sviluppo dei genitali maschili.

12. *Geron phallophorus* n. sp. ♂ ♀.

Omnino niger, griseo-tomentosus et albido-pilosus, antennis nigris articulis basalibus nigro-pilosis, facie nigra griseo-tomentosa haud nasuta, lateribus tantum albo-pilosa, genis non barbatis, halteribus albis, pedibus nigris tibiis tarsorumque basi rufescentibus, alis hyalinis, nervis luteis apicem versus fuscescentibus, furca cubitali brevi et lata, cellulae analis pedunculo apicali longo.

♂ *Oculis connexis, thorace et abdomine supra atro-velutinis, thoracis dorso vitta grisea lata longitudinali antica ultra medium non producta, genitalibus magnis apertis appendiculatis, peni luteo longe prominente incurvo, adminiculo basali pariter luteo praedito.*

♀. *Oculis late remotis, fronte albido tomentosa et nigro-pilosa, corpore griseo tomento aureo magis induto. Long. corp. mm. 6-6,5; alae mm. 5,5-6.*

Isole del Capo Verde: S. Thiago: Orgãos grandes, maggio 1898; Boa Vista, febbraio 1898 (*L. Fea*).

Occipite con tomento grigio e lunghi peli giallognoli; peli ocellari neri in ambo i sessi; occhi del maschio uniti per un lungo tratto, cosicchè non rimane che un piccolo triangolo frontale, coperto di densi peli bianchi a riflessi argentini; la fronte della

femmina è molto larga, con tomento cenerino e lunghi peli neri eretti rivolti in avanti, che mancano nella metà apicale, dove è coperta di tomento aureo. La faccia è piana, nera, ma coperta di tomento grigio che è specialmente denso nella femmina; nel mezzo è nuda e sui lati presenta lunghi peli bianchi; il peristoma è grigio, senza peli, tranne che nella parte posteriore, dove ve ne sono di lunghi rivolti in avanti. Antenne nere; il primo articolo è cilindrico, non rigonfiato, lungo circa tre volte il secondo, con brevi peli neri; il secondo è breve e quasi nudo; il terzo è lineare, lungo quanto i due primi presi insieme, regolarmente attenuato in punta verso l'estremità, dove termina senza stilo distinto. Proboscide nera, lunga come capo e torace assieme; palpi neri, piuttosto nudi: torace convesso, nero vellutato nel maschio, più grigio nella femmina; la striscia mediana longitudinale abbreviata si trova in ambo i sessi, ma nel maschio risalta molto di più; nella femmina si può dire che il dorso è grigio, con due larghe striscie nere, una per parte. Il torace è coperto di peli di color grigio scuro verso il mezzo del dorso, più lunghi e giallognoli verso i lati, tutti più lunghi nel maschio; vi si nota per di più il tomento aureo, che è più abbondante verso la parte posteriore, e più nella femmina che non nel maschio. Sulle pleure vi sono peli giallognoli. Non si notano macrochete distinte essendo sottili e del medesimo colore dei peli. Scudetto colorato e tomentoso come il dorso, con una serie di peli setoliformi gialli lungo l'orlo posteriore. Squamule bianche, orlate di giallo e cigliate di bianco; bilancieri bianchi, qualche volta colla clava infoscata nella femmina. Addome conico nel maschio, più largo e più tozzo nella femmina, nero vellutato nel primo, grigio nella seconda; è coperto di peli bianchicci o giallognoli, lunghi nel maschio, e più corti nella femmina, quest'ultima con peli rigidi setoliformi sui lati e verso l'estremità; il tomento aureo è più abbondante nella femmina. Il ventre è come il dorso. L'addome del maschio termina largamente aperto, come con due valve; quella superiore è di color nero lucido e porta superiormente due lunghe punte nere; quella inferiore ha due lobi triangolari, contro ciascuno dei quali si appoggia un pettine di forti puntine nere; dal mezzo di questa larga apertura sporge il pene, giallo, curvato verso l'alto, aguzzo, fornito verso la base di una lunga appendice pure gialla, ma ottusa e ripiegata verso il basso. Piedi

coi femori neri, piuttosto ingrossati, con peli scuri ed in parte biancastri; nella femmina i femori sono rossicci verso l'estremità; le tibie sono rossiccie, con lunghe spicole nere, nel maschio quelle del primo paio sono più scure, quasi nereggianti; tarsi neri, meno l'articolo basale che è rossiccio. Unghie nere, ricurve; pulvilli giallognoli, lunghi quanto le unghie. Ali ialine, iridescenti, colle nervature giallognole alla base ed al margine anteriore, infoscate nel resto; il secondo nervo longitudinale è diritto, leggermente e gradualmente ricurvo in alto all'estremità; il nervo trasverso mediano è posto un po' dopo il mezzo della cella discoïdale; forca cubitale non più lunga di quanto è larga al margine dell'ala; prima cella posteriore dilatata gradualmente all'infuori; seconda cella posteriore di forma romboidale, più larga della prima; cella discoïdale gradualmente allargata all'infuori, colla sua nervatura trasversale terminale obliqua e leggermente ricurva ad S. Il peduncolo terminale della cella anale è lungo poco meno del nervo trasverso mediano. Lobo ascellare largo; alula corta ma bene sviluppata.

13. *Geron priapeus* n. sp. ♂.

Praecedenti affinis ac simillimus, differt statura minori, thoracis vitta antica non distincta et tomento aureo corporis vix ullo.

Long. corp. mm. 4-5; alae mm. 4-4,5.

Molti esemplari, ma solo maschi.

Isole del Capo Verde: Boa Vista, gennaio 1898; Fogo: S. Filippe, giugno-luglio 1898; Ilheo Razo, ottobre-dicembre 1898. (*L. Fea*).

Forse solo una razza minore del precedente, limitata a talune isole.

Capo e sue appendici in tutto come nella specie precedente; proboscide in proporzione più lunga, misurando in media 3 mm. Torace parimenti conformato ed irsuto, ma quasi senza tomento aureo; la striscia grigia della parte anteriore non è visibile. Scudetto, bilancieri e squamule come nel precedente; così l'addome, colla sola differenza che il tomento aureo è molto più scarso od addirittura mancante. I genitali sono foggianti sul medesimo tipo, ma sono aperti meno ampiamente; la lamella superiore

presenta pure le due spine; quella inferiore è arrotondata, convessa al di sotto, di color nero lucente, meno intaccata nel mezzo, cosicchè i lobi triangolari son poco sviluppati; i pettini sono formati da 6-7 spine; il pene è pure giallo e biforcuto. Piedi ed ali come nel precedente.

3. **Toxophorinae.**

14. **Toxophora maculipennis** Karsch 1886.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

Congo francese: Fernand-Vaz, settembre-ottobre 1902; Ndjolé, novembre-dicembre 1902 (*L. Fea*).

Specie assai caratteristica ed esclusivamente propria dell'Africa centro-occidentale.

15. **Toxophora trivittata** Bezzi 1908.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

Altra specie occidentale, nota del Congo, della Nigeria e della Rhodesia.

II. **Bombyliidae Tomophthalmae.**

4. **Anthracinae.**

16. **Anthrax pithecius** Fabricius 1805.

Guinea Portoghese: Farim, aprile-maggio 1899 (*L. Fea*).

Congo francese: Lambarenè, novembre-dicembre 1902 (*L. Fea*).

Congo Belga: Kasai 1913 (*A. Crida*).

Scioa: Sciotalit, giugno 1887 (*Ragazzi*).

Specie diffusa e comune per tutta la regione etiopica; assai caratteristica e variabile.

17. **Anthrax aygulus** Fabricius 1805.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

Altra specie diffusa e ben riconoscibile, estesa anche a tutta la regione orientale.

18. *Spongostylum quinquemaculatum* Bezzi ined.

Guinea Portoghese: Farim, aprile-maggio 1899 (*L. Fea*).

Specie assai curiosa, anch'essa esclusivamente occidentale; si distingue subito fra le numerose congeneri per le ali ornate di 5 macchie oscure, larghe e rotondeggianti, e per la mancanza dei monconi ricorrenti di vene soliti a trovarsi nelle altre.

5. **Exoprosopinae.**

Gen. **Villa** Lioy.

Anche di questo genere, che conta circa 24 specie nella regione etiopica, il Fea ha trovato due interessanti forme insulari, ambedue non descritte, per quanto affini alle altre.

19: *Villa phaeotaenia* n. sp. ♂ ♀.

Nigra, antennis pedibusque concoloribus, fronte nigro-pilosa, pleuris partim nigro-pilosis, abdomine vittis quinque transversis albis ornato, tibiis posticis squamis nigris praeditis, alis hyalinis cellula costali nigricante.

Long. corp. mm. 6-12; alae mm. 6-12.

Isole del Capo Verde: Boa Vista, febbraio 1898; S. Nicolau, 0-400 m.s.m., novembre-dicembre 1898; S. Thiago: Orgãos Grandes, aprile 1898; Praia, marzo 1898; Pedra Badejo, aprile-maggio 1898 (*L. Fea*).

Numerosi esemplari dei due sessi, assai variabili nelle dimensioni, come spesso si osserva in questi ditteri parassiti.

Capo interamente nero; occipite con frangia centrale giallognola e squame biancastre, che si accumulano presso l'orlo oculare a formare una striscia biancastra, che è più distinta in corrispondenza dell'indentazione. Fronte interamente coperta di peli neri eretti, densi, e con squame pure nere, trovandosi solo nella femmina qualche squama giallognola nella parte anteriore; nel maschio la fronte è assai stretta superiormente, essendo presso al vertice poco più larga del tubercolo ocellare; nella femmina essa è circa del doppio più larga di quella del maschio. Faccia con peli neri e qualche squama giallognola, più nella femmina che

nel maschio; del peristoma non esiste traccia, i grandi occhi arrivando fino al disotto del capo; proboscide di color nero lucente, non sporgente dall'apertura boccale, con larghi labelli terminali; palpi sottili, neri, ricurvi in alto, con teneri peli scuri. Antenne nere, col primo articolo coperto di densi peli neri e col terzo articolo in forma di cipolla, colla parte stiliforme assai sottile, lunga come l'intera antenna, sormontata da un minuto stilo apicale. Torace nero, assai poco convesso; nel mezzo del dorso vi sono peli neri eretti, e sottili squame a lucentezza chiara; sopra la radice delle ali vi è da ciascun lato una stretta striscia di peli bianchi adagiati; nella parte anteriore i peli sono giallognoli, lunghi e densi, come quelli del collare e dei ciuffi notopleurali; le macrochete sono tutte gialle, solo fra le postalari ve n'è talora una o l'altra di colore scuro o nero. Le pleure, sotto i densi ciuffi notopleurali, hanno peli neri; il ciuffo propleurale è nero, qualche volta giallo nella femmina; quello metapleurale è sempre giallo. Scudetto interamente nero, con peli eretti scuri, con tomento giallognolo, e con 5-8 macrochete nere da ciascun lato lungo il margine posteriore. Squamule bruniccie nel maschio, più chiare nella femmina; in ambo i sessi con frangia bianca; bilancieri bianchi, col peduncolo giallognolo. Addome nero, a lati paralleli, non più largo del torace; i peli dei lati sono densi, lunghi e bianchi nella metà basale, poi nel resto sono molto più corti ed in parte neri verso l'estremità, dove si notano anche delle squame nere, strette e lunghe. Sul dorso è coperto di squame nere; il secondo segmento presenta alla base una larga fascia bianca trasversale completa, fatta di squame bianche e coperta di lunghi peli bianchi; la fascia basale del terzo segmento è più stretta e piuttosto giallognola, soprattutto verso i lati; quella del quarto segmento è larga come quella del secondo, ma è costituita solo da squame bianche, senza i lunghi peli bianchi eretti; il quinto segmento presenta una fascia giallognola apicale; il sesto ed il settimo hanno una stretta fascia bianca completa all'orlo posteriore. Ventre nero; con peli neri nel maschio, giallognoli nella femmina; genitali del maschio neri; spine dell'ovopositore gialle. Piedi interamente neri, con squame e tomento pure neri; anche anteriori con peli neri, spesso giallognoli nella femmina; femori con peli neri, i posteriori al di sotto con 4-6 spine nere; tibie del primo paio, colle spicole distinte; tibie dell'ultimo paio

cigliate al margine esterno, e per di più con delle squame nere strette e lunghe, più abbondanti nella metà basale; unghie brevi, nere. Ali con tegula basale giallognola anzichè argentina, e con pettine nero; le nervature sono nere, bruno-rossicce nelle parti basali, eccetto la costa; esse sono ialine, colle celle costali intensamente infocate fino all'apice; talvolta vi è anche una nube giallognola nella base della cella marginale e nella prima cella basale. Secondo nervo longitudinale con profonda sinuosità terminale; ramo superiore del terzo nervo assai incurvato nel mezzo; prima cella posteriore un po' ristretta all'infuori; cella discoidale acuta all'apice, non più larga della seconda basale; cella anale piuttosto largamente aperta; lobo ascellare largo; alula rotonda, con breve frangia giallognola. Il nervo trasversale mediano è posto prima del mezzo della cella discoidale.

20. **Villa bravae** n. sp. ♂ ♀.

Praecedenti simillima, differt pilis pleurarum nigris prorsus nullis, tibiis posticis non squamosis, alis distincte quamvis dilutissime fuscescentibus.

Long. corp. mm. 13; alae mm. 13.

Isole del Capo Verde: Brava, 600-1000 m. s. m., novembre 1898 (L. Fea), una sola coppia.

Capo in tutto come nella precedente; torace del pari, ma sulle pleure manca assolutamente ogni pelo nero, sia nel ciuffo propleurale, che nel mezzo delle mesopleure. Addome denudato nel caso dei tipi, ma differente da quello della precedente per avere le fascie trasversali piuttosto giallognole, il primo ed il secondo segmento sono inoltre rossi sui lati; il ventre manca di peli neri anche nel maschio. I piedi differiscono per avere le anche del primo paio senza peli neri; e soprattutto per avere le tibie dell'ultimo paio cigliate lungo tutto il margine esterno, ma affatto sprovviste di squame; le unghie sono più grosse e più forti. Le ali sono uguali sia nel decorso delle nervature che nel colore delle celle costali; ma tutto il resto dell'ala, invece di esser limpido come vetro, è suffuso di una leggera tinta bruno-giallognola, che nella base della cella marginale e nella prima basale si fa più intensa, prendendo l'aspetto di un'infoscatura.

21. **Thyridanthrax abruptus** Loew 1860.

Uganda: Bululo 1909 (Dr. E. Bayon).

Specie diffusa per tutta la regione ed importante perchè fu ottenuta, come parassita, da puparii di *Glossina morsitans* (Bull. Ent. Res. VI, 1915, p. 82) nella Nigeria meridionale.

22. **Thyridanthrax ternarius** Bezzi ined.

Scioa: Ciacaciac 24 giugno 1887 (*Ragazzi*).

Anche questa specie è diffusa per tutta la regione; essa è distinta per avere normalmente 3 celle sottomarginali come in *Exoprosopa*, mentre tutti gli altri caratteri sono del presente genere.

23. **Litorrhynchus phloeochromus** n. sp. ♂.

Omnino rufescens, antennis pedibusque tarsis nigris exceptis concoloribus, thoracis dorso abdominisque maculis centralibus singulorum segmentorum nigris, segmento abdominali ultimo nigro-fimbriato, alis basi late fasciaque media sinuosa brunneo rufescentibus, cellula marginali post nervum transversum submarginalem hyalina, cellula posteriori prima clausa et longe pedunculata.

Long. corp. mm. 14; alae mm. 16; expansio alarum mm. 38.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

È questa un'altra delle grandi e belle specie del gruppo *macropterus-corticeus-suberosus-siccifolius*, che sono proprie dell'Africa centrale ed hanno colore di foglia secca, con lembi lacerati imitati benissimo dal disegno alare. Questo peculiare aspetto deve esser senza dubbio in relazione con qualche particolare condizione etologica ancora ignota.

Capo interamente rossiccio; occipite con striscia bianco-argentina lungo il margine oculare; fronte larga, all'incirca quattro volte più larga del tubercolo ocellare, con peli neri eretti nella metà basale, quasi nuda nella metà apicale, dove si notano anche squame sparse di color giallognolo; faccia arrotondata, con peli neri

sui lati, nuda nel mezzo, con scarse squame giallognole; peristoma lineare; proboscide nera, rossa alla base superiormente, lunga come capo e torace presi assieme; palpi sottili, rossicci, con lunghi peli fulvi. Antenne largamente separate ed interamente rossiccie; il primo articolo ha peli neri ed è lungo circa come tre volte il secondo articolo, che ha pure peli neri; il terzo articolo è di forma brevemente conica, è lungo come il primo e non più ingrossato di esso, e termina con uno stilo lungo più del doppio dell'articolo stesso. Torace nero sul dorso, bruno rossiccio sulle pleure; sul dorso si notano due distinti solchi longitudinali, brevi peli scuri e squamette a riflessi rossicci; il collare è fatto da densi peli fulvi e del medesimo colore sono i ciuffi notopleurali, mentre sugli omeri e sopra la linea notopleurale si notano dei peli neri; sopra la radice delle ali vi è una stretta striscia di peli bianchi; tutte le macrochete sono nere. Pleure con peli neri nel mezzo delle mesopleure, mentre sul resto e nel ciuffo metapleurale sono rossicci. Scudetto interamente rossastro, con peli neri, squamette rossiccie e setole nere lungo l'orlo posteriore. Squame brunastre, con frangia dorata; bilancieri nereggianti. Addome interamente rossiccio, con macchia nera centrale di forma triangolare sui segmenti 2-3; tali macchie vanno impicciolendosi sempre più e finiscono collo scomparire sugli ultimi segmenti. Il primo segmento ha peli candidi sui lati, mentre nel resto dell'addome i peli laterali sono brevi e neri, e l'ultimo segmento è frangiato posteriormente di peli neri; il dorso è coperto di squame nere e di squame bianche, queste ultime formano un'orlatura al margine posteriore del primo segmento ed una macchia ovale da ciascun lato del terzo; sui segmenti 2 e 3, e 6 e 7 le squame bianche si notano anche sparse sul dorso; il ventre è rossiccio, immacolato, coperto di peli fulvi; i genitali sono rossicci, con folti peli di color fulvo-dorato. I piedi sono rossicci, coi tarsi neri; questi ultimi almeno appaiono tali anche se il colore del fondo è rossiccio, come nel pretarso posteriore, per i folti peli neri che li coprono; anche anteriori con peli fulvi e neri anteriormente nel mezzo; tibie del primo paio con piccole bene sviluppate, e quelle dell'ultimo assai fittamente spiculse; femori posteriori al di sotto con una serie completa di spine nere, come pure nere sono tutte le rimanenti spicole e spine; unghie nere, con base rossa e dente basale forte ed aguzzo. Ali col disegno solito, di color bruno rossiccio, nereggiante nella parte infe-

riore della fascia basale, dove risalta assai la macchia bianca discoidale, sopra la quale si nota un'altra macchia giallognola entro la prima cella basale. La base estrema dell'ala è rossiccia; l'alula è nereggiante, con frangia gialla verso la base e nera nel resto; lobo ascellare nereggiante colla base rossiccia perchè compresa nella parte basale dell'ala che è di quel colore. Il margine esterno della fascia basale è rettilineo ed esteso obliquamente da un po' prima del nervo trasverso discoidale ad un po' prima dell'apice della cella anale, che rimane così strettamente ialina; il margine interno della fascia apicale presenta una forte sporgenza dentiforme in corrispondenza della 2.^a e 3.^a cella posteriore, mentre il margine esterno è convesso e lascia ialino l'apice della cella marginale un po' oltre il nervo trasverso sottomarginale, l'apice della prima cella sottomarginale, strettamente l'apice della prima posteriore ed un po' più largamente quello della seconda; la terza cella posteriore è ialina solo nella sua metà posteriore. Il peduncolo terminale della prima cella posteriore è più lungo del nervo trasverso discoidale; la nervatura fra la 2.^a e 3.^a cella posteriore è molto contorta ed assai sollevata verso il margine anteriore dell'ala, cosicchè la terza cella posteriore riesce tre volte più larga della seconda al margine alare.

24. **Litorrhynchus erythraeus allothyris** (Speiser) Bezzi ined.

Etiopia: Auasc, ottobre 1910, 1 femmina (*C. Citerni*).

Differisce dall'*erythraeus* tipico, come fu da me descritto nel 1906, per avere la cella anale ed il lobo ascellare più largamente ialini all'estremità, e per avere la parte ialina centrale della cella discoidale più larga. Questa forma è nota del Kilimandjaro (è l'*erythraeus* dello Speiser del 1910) e dell'Abissinia.

25. **Exoprosopa pusilla** Macquart 1840.

Descritta originariamente del Senegal e non più ricordata dappoi; io non ne ho visti esemplari in nessun altro Museo, all'infuori di quello di Genova. Essa forma colla *jacchoides* Bezzi 1912 e colla *formosula* Bezzi 1920 un piccolo gruppo speciale, caratterizzato dalla presenza, entro l'esteso disegno bruno dell'ala, di macchie chiare fenestriformi alle nervature trasversali ed alle bi-

forcazioni. Tale gruppo corrisponde a quello esclusivamente mediterraneo, pel quale il Rondani aveva fondato il gen. *Argyrospila*.

Guinea Portoghese: Bolama, giugno-dicembre 1899 (*L. Fea*).

Poichè il Macquart non conobbe che la femmina, e ne diede una descrizione non più lunga di 6 righe di stampa, credo opportuno descriverla qui più ampiamente.

♂ ♀. *Long. corp. mm. 9-11; long. alae mm. 9-12.*

Capo nero, un po' rossiccio sulla faccia; occipite con frangia centrale giallognola o rossiccia e con striscia postoculare biancastra; fronte all'incirca di uguale larghezza in ambo i sessi, larga circa quattro volte il tubercolo ocellare, tutta coperta di ruvidi peli neri eretti e con squame giallognole; faccia conica, assai prominente, con peli neri e squame giallognole; orlo boccale frangiato di peli neri; proboscide nera, appena un po' più lunga della cavità bocale; palpi neri, con peli oscuri; antenne cogli articoli basali neri, il primo irto di peli pure neri; il terzo articolo è rossastro, coperto di tomento grigio, di forma regolarmente conica, lungo come il primo articolo, collo stilo terminale così lungo come l'articolo stesso. Torace interamente nero; sul dorso i peli e le setole sono neri, mentre il collare è rossiccio come il ciuffo notopleurale; pleure con peli neri nel mezzo, più abbondanti nella parte anteriore, nel resto con peli rossicci; ciuffo metapleurale rossiccio. Scudetto nero nella metà basale, rossiccio su quella apicale, rivestito come il dorso del torace e con setole nere lungo il margine posteriore. Squamule brune o nerastre, con frangia bianca; bilancieri colla clava bianca ed il gambo giallognolo. Addome nero, largamente rosso sui lati a partire dal secondo segmento; sul dorso è coperto di squame giallognole e bianche, le quali ultime formano fascie trasversali al margine anteriore del 2.^o e 3.^o segmento e coprono interamente i due ultimi segmenti; i peli dei lati sono bianchi alla base, neri nel resto; ventre rosso, con striscia nera longitudinale mediana, coperto di squame biancastre e con lunghi peli fulvi. Genitali del maschio di color rosso-bruno, con peli neri; ovopositore con spine rossiccie, lunghe e sottili. Piedi neri, però i femori sono coperti di squame rossiccie e le tibie hanno colorazione rossastra nel fondo; tibie del primo paio mutiche; femori mediani con 2, e posteriori con serie completa di spine nere; spicole delle tibie posteriori rade e lunghe; unghie

nere, con dente basale sottile e aguzzo. La figura dell'ala data dal Macquart (tav. XVIII, fig. 7) corrisponde bene come schema, solo il dente sporgente in corrispondenza della 2.^a e 3.^a cellula posteriore è meno aguzzo. Le macchie finestriformi sono giallognole e si trovano sul nervo trasverso discoidale, sulla radice del secondo nervo longitudinale e sulla radice della preforca; la macchiolina prediscoidale è bianca. Il secondo nervo longitudinale è profondamente sinuoso prima della fine; la prima cella posteriore è assai ristretta verso l'estremità, quasi quanto l'anale; il nervo trasverso mediano è collocato prima della metà della cella discoidale; il nervo fra la seconda cella posteriore e quella discoidale, che è di forma irregolare e rigonfia al di sotto, è diritto e non molto obliquo; terza cella posteriore assai lunga alla base.

26. **Exoprosopa eluta** Loew 1860.

Benadir: Mogadiscio, giugno-luglio 1908 (*A. Pantano*).
Specie sudafricana, già nota della costa orientale.

27. **Exoprosopa dimidiata** Macquart 1846.

Scioa: Ambucarra, agosto 1879 (*O. Antinori*).
Specie diffusa e ben nota.

28. **Exoprosopa atrinasis** Speiser 1910.

Scioa: Farré, agosto 1887 (*Ragazzi*).

Un maschio di questa specie ben riconoscibile, originariamente descritta del Kilimandjaro, ma già nota dell'Africa orientale inglese, del paese dei Niasa e dell'Abissinia.

29. **Hyperalonia evanida** n. sp. ♂ ♀.

Nigra, antennis pedibusque concoloribus, lutescenti et partim aureo tomentosa et pilosa, frontis dimidio antico facieque tota argenteo-tomentosis, squamulis brunnescentibus luteo-fimbriatis, abdomine luteo tomentoso fasciis albis nullis lateribus dense aureo-pilosis, pedibus non pennatis tibiisque anticis muticis, alis corpore vix longioribus, aequae sed

leviter infuscatis basi et secus marginem anteriorem fuscolutescentibus, nervo transverso discoidali mox ante medium cellulae discoidalis posito, nervo transverso inter cellulam discoidalem et posteriorem secundam longo, valde sinuoso et horizontali.

Long. corp. mm. 11-11,5; alae mm. 11,5-12; exp. alar. mm. 27-28.

Guinea Portoghese: Bolama, giugno-dicembre 1899, una sola coppia (*L. Fèa*).

È specie del gruppo *nigripennis*, distinta nei piedi interamente neri e per la colorazione fosca evanescente delle ali; essa è molto simile alla orientale *Hyp. sphinx* Fabr., che ha però i piedi rossi; e pare assai vicina alla *Hyp. erebus* del Walker.

Capo interamente nero; occipite con frangia centrale scura e larga striscia postoculare argentina; fronte nel maschio larga 3 volte e nella femmina 4 volte, il tubercolo ocellare con peli eretti neri nei due terzi basali e bianchi nell'ultimo terzo, nera nella metà basale, coperta di squame argentine nella metà apicale; faccia di forma conica, nera, coll'orlo boccale giallognolo, coperto di squame argentine, con peli bianchi sui lati ed inferiormente; antenne interamente nere, col primo articolo lungo due volte il secondo ed irto di peli neri brevi e densi; terzo articolo regolarmente conico, un po' più lungo dei due primi articoli assieme, collo stilo terminale più lungo della sua metà; proboscide nera, non più lunga dell'apertura boccale; palpi neri con peli scuri. Torace nel mezzo del dorso con brevi peli neri eretti, sul davanti, sui lati e dietro con peli giallognoli; collare e ciuffi notopleurali interamente giallognoli; sopra la radice delle ali vi è una striscia di peli biancastri. Tutte le macrochete sono nere. Pleure affatto sprovviste di peli neri, coi peli giallognoli che verso il petto e nel ciuffo metapleurale si fanno più chiari e perfino biancastri. Scudetto nero, rosso-bruno sulla metà posteriore, con peli e tomento giallastro e setole nere lungo l'orlo posteriore. Squamule bruno-rossicce, con frangia giallognola; bilancieri bianco giallastri. Addome nero, coi lati dei segmenti 2-4 rossi; sul dorso è coperto da tomento giallognolo, mancando le fascie trasversali bianche; i peli dei lati sono molto fitti e tutti di un colore giallo dorato uguale, tanto alla base sui lati del primo segmento, che all'apice lungo l'orlo posteriore del settimo; ventre nero, con

tomento argentino e peli chiari; genitali del maschio bruno-rossicci con peli dorati; ovopositore con spine rossiccie. Piedi interamente neri, con squame nere sui femori ed in parte giallognole sulle tibie; tibie anteriori senza spicole; femori posteriori con serie completa di spine; spine e spicole nere, mentre manca qualsiasi traccia di pennatura; tarsi del primo paio con breve pubescenza tenera; unghie nere, con dente basale piccolissimo. Ali in proporzione brevi e larghe; uncino e pettine basali neri; nervature rossiccie nella parte basale, nere in quella terminale, colla costa nera per copertura di squamette di tale colore. Secondo nervo longitudinale nascente contro il trasversale discoidale e poco sinuoso all'estremità; prima cella posteriore di forma piuttosto irregolare, ristretta verso l'estremità, dove termina di poco più larga di quella anale; cella discoidale assai aguzza all'infuori, col nervo trasverso terminale posto orizzontalmente, ricurvato ad *S* e lungo poco meno del nervo posto fra la discoidale e la terza cella posteriore; il nervo trasverso mediano è situato un po' prima della metà della cella discoidale; la seconda, terza e quarta cella posteriore sono pressochè di uguale larghezza all'infuori; lobo ascellare breve e largo; alula arrotondata, di color fosco-giallognolo, con frangia gialliccia. Il colore dell'ala è dato da una leggera infoscatura uguale, che è un po' più intensa verso la base e nella metà anteriore, mentre svanisce verso l'apice e nella metà posteriore che son quasi ialine; la cellula costale è giallognola in tutta la sua lunghezza; in corrispondenza della prima cella basale si nota una infoscatura più intensa; la macchia prediscoideale è piccola e grigiastra.

30. *Hyperalonia helena* Loew 1854.

Somalia: Lugh, novembre-dicembre 1895 (*V. Bottego*).

Nota specie, descritta in origine della Nubia e ricordata poi dell'Egitto, dell'Arabia e dell'Abissinia.

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I.—*On the Bombyliid Fauna of South Africa (Diptera) as represented in the South African Museum.*—By Prof. M. BEZZI.

(With Plates I and II.)

SINCE the publication of H. Loew's general treatment of the family Bombyliidae in his classical work of 1860 on the South African Dipterous Fauna,* no other paper has appeared dealing especially with this group of flies, which seems, however, to be plentifully represented in that country.

In the old publications of Linnaeus, Fabricius, Thunberg and Olivier, as also in the earliest papers of Wiedemann on the insects of the Cape (1818–1819), and even in the general works of Wiedemann, Macquart and Walker, there are numerous species described, most of which had not been recorded subsequently. In addition, after 1860 many other new forms have been added by Adams, Bigot, Hermann, Karsch, Loew, Ricardo, Romani, Schiner, Walker, Westwood, etc. But all these descriptions are scattered, often hardly accessible, and by no means arranged systematically; therefore a general survey of the subject seems to be not devoid of importance.

It was then with the greatest pleasure that I received through the kindness of Dr. L. Péringuey the very rich collection of South African Bombyliidae in the South African Museum. At the same time I had already before me extensive collections of Ethiopian Bombyliidae from

* "Die Dipteren-Fauna Südafrikas," 'Abhand. Naturw. Ver. für Sachs und Thuring in Halle,' Berlin, 1860.

the British Museum, and others from the Hungarian Museum at Budapest. To these collections I have added the species received from the Albany Museum, Grahamstown, and those sent me by Dr. Brauns of Willowmore (Cape). This large amount of material enables me to give here a general review of the group, and to describe many new genera and species.

The collection contains a number of species determined by Bigot, who had prepared a paper on the Diptera sent him from the Cape by Dr. Péringuey.* Most of these species have never been published; but many of them were evidently classified from Macquart's types in Bigot's collection. For instance there is a type of *Lasioprosopa bigoti*, Macquart, 1855, described from Oceania, which is none other than *Corsomyra nigripes*, as already stated by Schiner, who had received the species from Macquart himself; this important synonymy has not been as yet recorded in the catalogues.

The Bombyliid Fauna of South Africa, as compared with that of the remainder of the Ethiopian region, shows some peculiar characters, which make it at once recognisable.

Firstly there is a large number of purely endemic genera, such as *Adelidea*, *Crocidiium*, *Nomalonia*, *Péringueyimyia*, and some new ones—*Sosiomyyia*, *Oniromyyia*, *Pseudempis* and *Pteraulax*. But the main characteristic is the presence of the genera *Corsomyra* and *Callynthrophora*, which, with their now known 10 species, are exclusively South African; they represent certainly an endemic line of development which is no doubt adapted to some special characters of endemic flowers, to which they are adapted for pollination, as shown by their extraordinary facial brush. Very characteristic among the important genera is the great number of the species of *Bombylius*—a genus which is most sparingly represented in Central Africa; eminently peculiar are some groups of species, like that of the allies of *Bombylius micans*, and that of *B. lateralis* and *bivittatus*. The related genera *Systoechus*, *Anastoechus* and *Dischistus* comprise also characteristic species, chiefly those of the two first-named genera, which are very close to those of the group of *Bombylius micans*. *Lomatia* has a good series of peculiar forms, very often remarkable for their great size. In the genera *Anthrax* and *Spongostylum* peculiar specific forms are scarce, and so are likewise those included in the genera *Thyridanthrax*, *Villa* and *Litorrhynchus*. Against this a great number of characteristic species is to be found in *Exoprosopa*, some subgenera of which, like *Metapenta* and *Acrodisca*, and also groups, like those of *heros*, *seniculus*, *capensis*, etc., are exclusively or pre-eminently South

* Quoted by Bigot himself in 'Ann. Soc. Ent. France,' 4, xi, 1892, p. 371.

African. Poor in representatives is the genus *Hyperalonia*, which for a long time was believed to be absent from the Cape Fauna.

The classification of the family will be dealt with by me in my forthcoming general work on the Bombyliidae of the Ethiopian region in the British Museum; the classification has recently made great progress through the valuable contribution of my friend Th. Becker, 'Genera Bombyliidarum,' 1913, in which he recognised no less than fifteen subfamilies.

I give here a synoptic table of the groups and of the genera represented in the collection of the South African Museum.

- 1 (54). Hind border of the eyes not indented, or very rarely with a deep sinuosity only (*Eurycarenum*); eyes without a bisecting line.
- 2 (47). Occiput flat, not bilobate above and without a central cavity; occipital fringe typically placed at the border of the eyes.
- 3 (46). Prothorax less developed and not especially setose.
- 4 (45). Metasternum not specially developed; hind legs not specially strong; eyes of the females separated; body rather broad and more or less pilose.
- 5 (22). Tibiae with 3 rows of long spicules; proboscis long; palpi single-jointed; metapleurae usually hairy; body bristly.
- 6 (21). Abdomen broad, of oval or rotund shape; antennae approximate together at base (*Bombyliinae*).
- 7 (16). First posterior cell closed at end; metapleurae usually hairy.
- 8 (15). Hind border of the eyes absolutely entire; first posterior cell closed by the third longitudinal vein ending at costa; wings with a well-developed basal comb.
- 9 (12). First basal cell longer than the second.
- 10 (11). Three submarginal cells present *Triplasius*, Loew.
- 11 (10). Two submarginal cells present *Bombylius*, Loew.
- 12 (9). First basal cell not longer than the second.
- 13 (14). Face prominent and moderately pilose; discoidal cell as in the preceding genus *Systoechus*, Loew.
- 14 (13). Face rounded and more densely pilose; discoidal cell very obtuse at end *Anastoechus*, O.S.
- 15 (8). Hind border of the eyes with a deep sinuosity; first posterior cell closed by the fourth longitudinal vein ending at costa; basal comb small or wanting *Eurycarenum*, Loew.
- 16 (7). First posterior cell open; wings with no distinct basal comb; metapleurae usually bare.
- 17 (18). Only two submarginal cells present *Dischistus*, Loew.
- 18 (17). Three submarginal cells present.
- 19 (20). Third antennal joint quite bare above *Adelidea*, Macq.
- 20 (19). Third antennal joint beset with long hairs above
Sosiomyia, gen. nov.
- 21 (6). Abdomen narrow and cylindrical; antennae separated at base (*Cythereinae*) *Oniromyia*, gen. nov.

- 22 (5). Tibiae bare or only pilose, destitute of spicules disposed in rows; but if the spicules are sometimes distinct, then the palpi are 2-jointed; body not bristly.
- 23 (32). Cubital fork very broad; if it is rather narrow, then the body is short and broad (*Uriinae*).
- 24 (29). Body very pilose; squamulae with a long fringe; plumula usually distinct; face provided with a more or less distinct circular brush.
- 25 (28). Proboscis long; third antennal joint dilated at end; facial brush well developed.
- 26 (27). First antennal joint more or less elongate, but always of a cylindrical shape; antennae placed near the upper border of the facial brush
Corsonomyra, Wied.
- 27 (26). First antennal joint short and swollen; antennae placed near the middle of the facial brush *Callynthrophora*, Schin.
- 28 (25). Proboscis shorter than the mouth-opening; third antennal joint linear; facial brush less distinct; antennae placed near the upper border of the facial convexity *Gnumyia*, gen. nov.
- 29 (24). Body almost bare; squamulae with a short fringe or nearly bare; face destitute of circular brush.
- 30 (31). Antennae inserted near the mouth, with a thick third joint.
Hyperusia, Bezzi.
- 31 (30). Antennae set far from the mouth, with a slender third joint; palpi long and thin *Megapalpus*, Macq.
- 32 (23). Cubital fork narrow; if it is rather broad, then the body is narrow and elongate (*Phthiriinae*).
- 33 (40). Ambient vein complete.
- 34 (39). Four posterior cells present; palpi 2-jointed.
- 35 (36). Cubital fork broad; anal cell open; tibiae with three rows of distinct spicules *Gonarthus*, Bezzi.
- 36 (35). Cubital fork narrow; anal cell closed; tibiae without or with less distinct spicules.
- 37 (38). Face hairy; third antennal joint longer than the first; eyes of the male united *Crocidium*, Loew.
- 38 (37). Face bare; third antennal joint shorter than the first; eyes of the male separate *Apatomyra*, Wied.
- 39 (34). Three posterior cells only; palpi single-jointed; first antennal joint longer than the third *Pseudomictus*, Big.
- 40 (33). Ambient vein incomplete, ending at apex of the anal vein.
- 41 (42). Four posterior cells present; discoidal cell complete; face bare; third antennal joint with a lateral stype apically; palpi single-jointed.
Phthiria, Meig.
- 42 (41). Three posterior cells only.
- 43 (44). Discoidal cell closed; third antennal joint acute at end, with a terminal style; palpi single-jointed *Geron*, Meig.
- 44 (43). Discoidal cell open; third antennal joint obtuse at end, with a lateral style; palpi 2-jointed *Apolysis*, Loew.
- 45 (4). Metasternum exceedingly developed; hind legs very strong and long; eyes coalescing in both sexes or nearly so; body bare and narrow; wings and abdomen pedunculate (*Systropinae*) . . . *Systropus*, Wied.

- 46 (3). Prothorax much developed and beset with strong bristles (*Toxophorinae*) *Toxophora*, Meig.
- 47 (2). Occiput prominent, bilobate above, with a central cavity, and with the fringe placed at the border of this cavity (*Cylleninae*).
- 48 (53). Ocelli well developed; metapleuræ bare.
- 49 (52). Second longitudinal vein not recurrent; first posterior cell open; three submarginal cells present.
- 50 (51). A marginal cell only *Nomalonia*, Rond.
- 51 (50). Three marginal cells *Henica*, Macq.
- 52 (49). Second longitudinal vein recurrent; first posterior cell closed; two submarginal cells *Péringueyimyia*, Big.
- 53 (48). Ocelli not distinct; metapleuræ hairy *Tomomyra*, Wied.
- 54 (1). Hind border of the eyes indented; eyes with a more or less distinct bisecting line; occiput always prominent and bilobate above.
- 55 (60). Origin of the second longitudinal vein beginning before the middle cross-vein, and usually at acute angles with it (*Lomatinae*).
- 56 (59). Origin of the second longitudinal vein acute and distant from the middle cross-vein.
- 57 (58). Middle cross-vein placed much beyond the middle of the discoidal cell; eyes of the male separate; two submarginal cells.
Lomatia, Meig.
- 58 (57). Middle cross-vein a little before the middle of the discoidal cell; eyes of male united; three submarginal cells . . . *Pteraulax*, gen. nov.
- 59 (56). Second longitudinal vein originating at an obtuse angle and rather near to the middle cross-vein *Petrorossia*, Bezzi.
- 60 (55). Origin of the second longitudinal vein quite opposite to the middle cross-vein, or nearly so (but a little before it in the gen. *Synthesia*).
- 61 (64). Third antennal joint with a pencil of hairs at end; squamulae with hairy fringe; metapleuræ bare (*Anthracinae*).
- 62 (63). Third antennal joint broader than the second, and with a produced margin; wings with a broad black pattern, and often dimidiate.
Anthrax, Scop.
- 63 (62). Third antennal joint globular, inserted into the cup-shaped second joint and not broader; wings only with infuscated spots at cross-veins and bifurcations *Spongostylum*, Macq.
- 64 (61). Third antennal joint without terminal pencil of hairs; squamulae with scaly fringe; metapleuræ hairy (*Exoprosopinae*).
- 65 (72). Two submarginal cells only, or very rarely three; ocelli placed at vertex or nearly so; claws usually not toothed.
- 66 (71). Front tibiae beset with distinct spicules; proboscis short, retracted, with fleshy terminal flaps; third posterior cell long.
- 67 (70). Face rounded, not prominent, never very convex; second longitudinal vein originating quite opposite to the middle cross-vein; third antennal joint globular, quickly attenuated into a long, thin filiform style.
- 68 (69). Mouth-opening developed as usual, like the proboscis; facial plate short; thoracical macrochaetae well developed . . . *Villa*, Lioy.
- 69 (68). Mouth-opening very small, with the proboscis rudimentary; facial plate very long and broad; no thoracical macrochaetae.
Oestranthrax, Bezzi.

- 70 (67). Face bluntly convex, rather prominent; second longitudinal vein originating before the middle cross-vein; third antennal joint gradually tapering into a not thin point; pulvilli well developed.
Synthesia, gen. nov.
- 71 (66). Front tibiae smooth; proboscis projecting; face conically prominent or at least bluntly convex; third antennal joint cone-shaped; third posterior cell often short *Thyridanthrax*, O.S.
- 72 (65). Three or four submarginal cells; ocellar tubercle far remote from the vertex; claws usually with a distinct basal tooth.
- 73 (76). Three submarginal cells only; claws with a long and acute basal tooth.
- 74 (75). Face rounded; proboscis longer than the oral cavity, usually very projecting; fore tibiae beset with spicules *Litorrhynchus*, Macq.
- 75 (74). Face mainly conical; proboscis shorter and less projecting; fore tibiae usually smooth *Exoprosopa*, Macq.
- 76 (73). Four submarginal cells; claws with a short and obtuse tooth.
Hyperalonia, Rond.

FAMILY BOMBYLIIDAE.

SUBFAMILY BOMBYLIINAE.

BOMBYLIUS, Linné.

Syst. Natur., ed. x, p. 228, 1758.

This genus is very abundantly represented in the South African Fauna. The genus *Triplasius*, as it was understood by its author in 1855 and 1860 (with the exclusion of the American species added subsequently), is evidently the same as *Bombylius*, being based only on the variable character of the three submarginal cells; at any rate the type-species *T. bivittatus* (which is wanting in the South African Museum collection) must be considered as congeneric with *B. lateralis*.

The very numerous South African species in the collection may be divided in the following traditional groups of higher value:

- 1 (6). Hind femora spinose at base; antennae approximate at base and with the first joint not thickened; wings with a more or less developed basal comb, often of very large size.
- 2 (5). Eyes of the male united; no strong bristles on head or on fore part of thorax; third antennal joint usually short, and not much attenuated at end; pulvilli more or less but always well developed; wings with small basal comb and with the discal cell usually more or less acute outwardly.
- 3 (4). Hairs of prevalent black colour, at least on abdomen; there are usually silvery spots of squamose hairs on head, thorax and abdomen *ater* Group.

- 4 (3). Hairs mostly of yellowish or greyish colour, the black hairs on abdomen very scarce and limited to the sides or apex; no distinct silvery spots, or very rarely small ones on the frons alone. *minor* Group.
- 5 (2). Eyes of the male separated, head and fore part of thorax provided with strong bristles; third antennal joint long and very attenuate; pulvilli very small, almost wanting; wings with a broad basal comb and with the discoidal cell very obtuse outwardly, almost truncate. *micans* Group.
- 6 (1). Hind femora not spinose at base, with long hairs only; antennae rather distant at base, with the first joint distinctly thickened; wings with no distinct basal comb. *senex* Group.

(A) GROUP OF *B. ATER*.

In this group are included the species which have united eyes in the male and a narrow frons in the female, no strong bristles on the fore part of the thorax, and hind femora with strong bristles underneath near the base. They may be at once distinguished by the prevalent black colour of the dense furry pubescence under which are very distinct spots of silvery scales.

This group, however, is a very artificial one, and the following species may be divided at least in three natural series: (1) that of *B. lateralis*—that is to say, the gen. *Triplasius*; (2) that of *B. analis* (No. 2); and (3) that of *B. ornatus* (No. 3 to No. 7). The known South African species may be distinguished as follows:

- 1 (4). Thorax on each side with a broad and complete whitish stripe; frons of female with numerous, long and partly bristly hairs; wings with the basal comb long but formed by very thin bristles; they are blackish on the fore half, and hyaline with black spots on the posterior half; second longitudinal vein rather strongly looped at end.
- 2 (3). Three submarginal cells usually present; the dark spots on the hind half of wings more numerous and confluent. *bivittatus*, Loew.
- 3 (2). Only two submarginal cells present; hind half of wings with only four round and isolated dark spots. *lateralis*, Fabr.
- 4 (1). Thorax void of whitish lateral stripes; wings without isolated dark spots; second longitudinal vein less looped at end.
- 5 (10). The black patch at the base of the wings extending to the discal cross-vein; alula very long and narrow, black.
- 6 (7). Wings with the basal half equally black, the apical half hyaline; first posterior cell broad and briefly stalked; squamae provided with a silvery fringe; thorax with yellowish hairs in front. *argentatus*, Fabr.
- 7 (6). Wings with the basal black patch limited to the fore part, the anal and axillary cells being in part hyaline; first posterior cell narrow, and long-stalked; squamae with a black fringe; thorax with entirely black hairs in front.

- 8 (9). From the basal black part of wing springs an arched brown band, which is prolonged to the hind border along the sixth longitudinal vein *delicatus*, Wied.
- 9 (8). Wings destitute of such a pattern *mutilatus*, sp. n.
- 10 (5). The black pattern at the base of the wings very narrow, not extending over the basal cross-vein.
- 11 (18). Species of greater size (10-14 mm.), with rather short pubescence, chiefly in the female, which has, besides, the thorax densely clothed with white hairs; discal cross-vein never placed before the middle of the discoidal cell.
- 12 (17). Second longitudinal vein straight; discal cross-vein placed on or after the middle of the discoidal cell; basal comb strong.
- 13 (16). Body stout and broad, 12-14 mm. in length; wings with the black basal pattern more spread and extended over the alula; discal cross-vein after middle.
- 14 (15). Abdomen black-haired, with a tuft of white hairs at end. *analis*, Fabr.
- 15 (14). Abdomen with a row of fulvous spots along the middle line. *fulvonotatus*, Wied.
- 16 (13). Body slender and narrower, about 10 mm. in length; wings almost hyaline at base, darkened along the fore border to the end of the costal cell; discal cross-vein on middle *acroleucus*, sp. n.
- 17 (12). Second longitudinal vein wavy; discal cross-vein on middle; basal comb small; hind femora less spinose; wings at base yellowish, with hyaline or whitish alula *kilimandjaricus*, Speis.
- 18 (11). Species of smaller size, not reaching 10 mm. in length; pubescence longer, even in the female, the latter never densely white pilose on thorax; discal cross-vein always before the middle; wings with a very small basal comb.
- 19 (20). Abdomen with a conspicuous tuft of bright fulvous hairs on the central part of the sides *furiosus*, Walk.
- 20 (19). Abdomen destitute of such tufts on the sides.
- 21 (22). Thorax and abdomen destitute of golden-coloured pubescence; face with the silvery hairs prevalent; second posterior cell usually broad at base and sessile *ornatus*, Wied.
- 22 (21). Thorax and abdomen with distinct golden tomentum below the black hairs, more abundant in the female; face with the black hairs prevalent; second posterior cell very narrow at base and sometimes stalked *rufiventris*, Macq.

BOMBYLIUS LATERALIS, Fabricius.

Syst. Antl., 129, 3, 1805.

An isolated species, very like *bivittatus*, but on account of the bristles of the head and thorax making a passage to the group of *micans*; the eyes of the male are coalesced for a short distance, and the head has the shape of the species of the *B. micans* group.

A male from Howick, Natal; another male from Rondebosch (Cape), September, 1883, determined as *lateralis* by Bigot, and a female from the same locality. Of *B. (Triplusius) bivittatus*, Loew, I have received a male from Grahamstown (Cape).

BOMBYLIUS BOMBIFORMIS, Bezz. (ined).

Easily distinguished from the allies of *B. analis* on account of the broad, transverse band of orange hairs across the middle of the abdomen. Originally described from Rhodesia in my work on the Ethiopian Bombyliidae of the British Museum, there is a ♂ specimen likewise from Rhodesia (Pemba), 1918 (Father Casset).

BOMBYLIUS HAEMORRHOIDALIS, sp. nov.

Almost the same as *B. analis*, Fabr., but distinguished in being of greater size, in having a bright fulvous (not white) terminal tuft on the abdomen, and in the discoidal cell of the wings being acute outwardly. Type ♂, from Mashonaland, Salisbury, 1894 (G. A. K. Marshall). Salisbury (March 20, 1914), R. Jack.

♂. Length of the body, 17 mm.; of the wing, 18 mm.; of wing-spread, 45 mm. Head, its appendages and its furry pile exactly as in *analis*; thorax, scutellum, squamulae and halteres likewise. The hairs at end of the abdomen have the same length and extension, but they are above and below of a bright fulvous colour, with golden sheen; in *analis* they are always of a pure white colour, or there are only some fulvous hairs at base of the tuft on the ventral side alone. Legs and wings as in *analis*; but the discoidal cell is acute at its distal end, touching in a point only the second posterior cell, which is thus almost stalked at base; in the very numerous specimens of *analis* which I have seen there is always a rather long cross-vein between the above-named cells. Besides, the distinct yellowish tint of the wings of *analis* is wanting in the present species.

BOMBYLIUS ACROLEUCUS, sp. nov., ♀.

Near *B. kilimandjaricus*, and I formerly considered it to be the female of that species; but the second longitudinal vein being straight it belongs to the group of *analis*, and is to be considered as a connecting link between this group and that of *ornatus*, on account of the elongated body and of the position of the discal cross-vein.

Type ♀, a single specimen from Van Wyk's Vlei (Cape).

Length of body, 9.5 mm.; expanse of wings, 25 mm. Head black, clothed with dense but short white hairs, with some bristly black hairs near the ocelli; occipital hairs short; antennae black, shaped as in *analisis*; palpi black; proboscis black, 6 mm. long; shape and width of the frons as in *analisis*. Thorax black, clothed with dense and short white hairs, but having on the back three distinct longitudinal stripes of dark hairs; macrochaetae strong and long, black, but the longest end in a white point; mesopleural bristles well developed, white; pleurae and breast with hairs altogether white. Scutellum black, with black hairs and with long black bristles on hind border. Squamae brown, white-fringed; halteres black. Abdomen black and black-haired at base and on middle, with short white hairs on the sides, and at end with long hairs, black at base and white at end; venter with long greyish hairs. Legs entirely black and black-spinose; pulvilli yellowish; hind femora beneath with a complete row of 15-16 strong spines. Wings hyaline, narrowly blackened at the extreme base and distinctly yellowish-brown to the end of the costal cell at the fore border; alula grey, white-fringed behind; basal comb of middle size, black, with white hairs above. Wing-veins yellowish, but darkened outwardly; second longitudinal perfectly straight; first posterior cell broad and obtuse at end; discal cross-vein on the middle of the discoidal cell, which is rather obtuse outwardly, its external cross-vein being almost as long as the discal cross-vein; upper branch of the third vein very little retreating at base.

BOMBYLIUS MUTILATUS, sp. nov., ♂ and ♀.

Very like *B. delicatus*, but at once distinguished by the want of the arcuate brown band, which along the sixth longitudinal vein unites the brown of the base with the hind border of the wing.

Type ♂ and type ♀, and other specimens of both sexes, from Dunbrody, Uitenhage (Cape), December 19th and March 1st, 1912; Parys, Orange Free State; January, 1889; M'Fongosi, Zululand, March, 1911 (W. E. Jones).

Length of the body 4-6 mm. Head black and clothed with long black hairs; eyes of male coalescing for a long distance; frons of female broad, shining, with a dullish band above the base of the antennae; ocellar tubercle opaque black; both sexes have a small silvery spot outside the base of antenna, a cross-band of silvery hairs on the lower part of the face interrupted towards the middle, and a small round silvery spot in the middle of the occipital

border, near the eyes; the face is dull velvety black, with long and numerous black hairs; the beard is also black behind; proboscis a little shorter than the body. Antennae rather long and closely set at base; first joint with long black hairs; second joint globular; third joint a little longer than the first, not attenuate at end, with parallel sides, ending with a very minute style which is curved upwards. In the female there is a tuft of dark yellowish hairs on the upper part of the occiput, wanting in the male. Thorax entirely clothed with black hairs, even on the pleurae; there are silvery spots on the humeri, before the base of wings and in front of the scutellum; there is also the beginning of two longitudinal silvery stripes on the fore part of the thorax. Squamae and halteres black. Abdomen entirely black-haired, even on the venter; there is a row of silvery spots on each side, the spots on the fourth segment being broader than the others, and a median row of smaller silvery spots; there are no bristles on the hind borders of the segment, or only very thin and hair-like ones. Legs entirely black; hind femora with 4-6 strong bristles below; claws of male not much longer than those of the female. Wings with the discal cross-vein placed much before the middle of the discoidal cell; first posterior cell unusually narrow, blunt at end and long-stalked; second posterior cell with broad base; marginal cell with broad end; third posterior cell longer than broad; alula narrow and long, black. The pattern of the wings is as in *delicatus*, but with the difference above mentioned.

BOMBYLIUS KILIMANDJARICUS, Speiser (1910).

A male from Hex River, December 30th, named by Bigot i. litt. *B. nitidipunctatus*; another male from M'Fongosi, Zululand, March, 1911 (W. E. Jones); a female from Kimberley (Cape), November, 1913 (J. H. Power).

I am convinced that the present species is the *B. elegans* of Wiedemann on account of the fact that this author compares the species with *B. ambustus*, which is indeed very like; but as Loew has placed decisively *B. elegans* in the group of *micans*, I prefer to use the name under which Dr. Speiser has recently redescribed the species.

The hitherto undescribed female is very like *analis*, but is easily distinct in being smaller and in having the discal cross-vein placed on or very little after the middle of the discoidal cell; besides, the wings are not so intensively black at base, but only brownish; the hind antennal joint is shorter and less attenuate at end.

BOMBYLIUS FURIOSUS, Walker (1860).

A very distinct species on account of the bright orange tufts on the sides of the abdomen.

Originally described from Port Natal; there are some males from M'Fongosi, Zululand, December, 1911 (W. E. Jones), from Barberton, Transvaal (H. Edwards), and from Durban, Natal, April (J. H. Bowker).

BOMBYLIUS ORNATUS, Wiedemann (1828).

Easily distinguished by its smaller size and hyaline wings, which have the base only narrowly black.

Plettenberg Bay (Cape), June; Potchefstroom, Transvaal (T. Ayres); Dunbrody (Cape) (J. A. O'Neil); Estecourt, Natal (Haviland).

BOMBYLIUS RUFIVENTRIS, Macquart (1846).

Closely allied to the preceding species, but distinguished by the prevalent black hairs on the face, and by the reddish tomentum of thorax and abdomen.

Some specimens of both sexes from M'Fongosi, Zululand, December, 1911 (W. E. Jones); Durban, Natal (T. D. Butler); Lourenço Marques (Mozambique) (T. B. Paulus). Originally described from Port Natal.

Length of the body 5-7 mm. Previously mistaken by me for *ornatus*. On the face the black hairs are so prevalent that the cross-band of silvery hairs is much less distinct than in *ornatus*. Thorax and scutellum of male with only a less distinct scaly tomentum of golden colour, while in the female this tomentum is so dense that these parts appear to be entirely golden reddish; in addition in the female the hairs on the pleurae are yellow, not black. The scaly tomentum of the abdomen is well developed in the male, while in the female it is as dense as that of the thorax. On the wings the discoidal cell is very acute outwards, and therefore the base of the second posterior cell is pointed and often this cell is briefly stalked, while in *ornatus* the same cell is always sessile and usually broad at base.

The female of the present species is very like a small *Usia* in appearance.

(B) GROUP OF B. MINOR.

I have placed here a great number of species of medium and often of very small size, which were completely unknown to Loew at the

time he wrote his work on the Diptera of South Africa; only in 1863 did he describe some species belonging to this group.

They are characterised by the united eyes of the male, spinose hind femora, small basal comb and absence of bristles in front of the thorax; the hairs of the body are mostly or entirely yellow, and there are no silvery spots on the body; only very rarely are these spots present on the head alone.

Of the following species, only the first is different in many respects from the others, and, together with the two other species mentioned for comparison, forms a group allied to the Mediterranean *B. nubilus*. All the remaining species are very homogeneous, and constitute a peculiar group very characteristic of the South African fauna.

They may be tabulated as follows:

- 1 (6). Occipital hairs short; upper branch of the third longitudinal vein straight at base and in its whole length parallel with the costa or rarely very little retreating, the second marginal cell therefore as broad at base* as at apex; antennae at base black-haired; proboscis entirely black; scutellum entirely black; legs always with black spines; discal cross-vein before the middle of the discoidal cell; wings infuscated at base and with a black comb.
- 2 (3). First posterior cell not acute at end; upper branch of the third longitudinal vein a little retreating at base, and usually provided there with a short stump; antennae and palpi entire black.
neithocris, Jaenn.
- 3 (2). First posterior cell rather acute at end; upper branch at base not retreating and not appendiculated.
- 4 (5). Face of the male clothed with black hairs; abdomen at end with a broad tuft of white hairs; antennae and palpi red, the third antennal joint bright red *erythrocerus*, Bezzi.
- 5 (4). Face of the male with dense yellow hairs; abdomen at end not broadly white-haired; antennae and palpi black. *mollis*, sp. nov.
- 6 (1). Occipital hairs long and dense, but without longer black bristles; upper branch of third longitudinal vein much retreating at base, and therefore the second submarginal cell is twice as broad at base as at end; antennae with pale hairs at base, and usually with red basal joints; proboscis often red—at least in part; scutellum usually red; legs with yellow spines; wings not infuscated at base, or only rarely pale yellowish, and with a yellow comb.
- 7 (12). Proboscis entirely red with a black end, or at least red on upper side; third antennal joint usually reddish; discal cross-vein placed much before the middle of the discoidal cell.
- 8 (11). Scutellum red; frons of female very broad; hairs of body of a moderate length; wings broadly reddish yellow at base; species of large size.

* The base is that on the third vein, the end is that at the costa.

- 9 (10). First posterior cell broad and less attenuate outwardly; discoidal cell large; proboscis long; third antennal joint reddish; large size.
eurhinatus, sp. nov.
- 10 (9). First posterior cell narrow and acute outwardly; discoidal cell very small; proboscis very short; third antennal joint black; smaller size *brachyrrhynchus*, sp. nov.
- 11 (8). Scutellum greyish black, like the thorax; frons of female much narrower; hairs of body longer; wings entirely hyaline; proboscis short; species of smaller size *globulus*, sp. nov.
- 12 (7). Proboscis entirely black, or only red on the under side; third antennal joint usually black; discal cross-vein placed on or a little after the middle of the discoidal cell.
- 13 (14). Antennae entirely black, but with whitish hairs on the base; palpi black; proboscis entirely black; femora broadly black at base, but with yellow spines; abdomen with rows of black hairs at the hind borders of the segments; great size *impurus*, Loew.
- 14 (13). Antennae with red base or entirely red; palpi red; proboscis often red below; femora entirely yellow; abdomen without rows of black hairs; usually smaller.
- 15 (18). First posterior cell long and exceedingly attenuate outwardly, very acute, with a short stalk; second antennal joint red like the first.
- 16 (17). Abdomen broadly red on the sides and on the hind borders of the segments; hairs of body yellow; frons of female of usual width; third antennal joint short; first posterior cell with a short but distinct stalk; proboscis red below *mundus*, Loew.
- 17 (16). Abdomen entirely greyish black, or only with a narrowly red hind border to the segments; hairs of body grey; frons of female distinctly broader; third antennal joint longer; first posterior cell very briefly stalked, almost sessile; proboscis entirely black.
sessilis, sp. nov.
- 18 (15). First posterior cell of usual shape, blunt outwardly, with a long stalk; second antennal joint usually black like the third.
- 19 (20). Antennae entirely red; proboscis entirely black; scutellum without black border; abdomen entirely black with dense and equal yellowish hairs *xanthocerus*, sp. nov.
- 20 (19). Antennae with the third joint black, and usually with the second also black.
- 21 (22). Scutellum with a broad black hind border; abdomen and proboscis entirely black *marginellus*, sp. nov.
- 22 (21). Scutellum without black border.
- 23 (24). Very small species; proboscis black, or only dark red below; abdomen with yellow sides, end and hind border of segments red; hairs of body usually whitish *patereculus*, Walk.
- 24 (23). Species of large size; proboscis red below, abdomen entirely black.
- 25 (26). Head and end of abdomen with yellowish hairs; face dark; small size *fucatus*, sp. nov.
- 26 (25). Head and end of abdomen with white hairs; face yellow; large size *ruficeps*, Macq.

BOMBYLIUS MOLLIS, sp. nov., ♂.

Very distinct from all the other species of the present group on account of the short hairs of the occiput and of the peculiar shape of the second submarginal cell.

Type ♂, a specimen from Salisbury (South Rhodesia), June, 1913; another badly preserved male specimen from Barberton, Transvaal (H. Edwards).

The present species is closely allied to the East African *neithocris* Jaenn. (*appendiculatus*, Bezzi) and *erythrocerus*, Bezzi (*rufoantennatus*, Beck). Length of body, 10 mm.; of proboscis, 6 mm. Eyes contiguous for a distance a little longer than the vertical triangle. Head black; vertical and frontal triangles black-haired, this last with some shorter yellow hairs on the sides. Face with dense yellow hairs, only beneath with a few black ones; occiput with short yellow hairs; the dense hairs of the underside of the head are more pale-coloured. The two basal joints of the antennae are wholly black and black-haired, the third is elongate and black, proboscis entirely black; palpi black, thin. Thorax and scutellum deep black, clothed with equal and entirely yellowish hairs, without any black hairs even on the pleurae; there are no distinct bristles. Squamae brown, halteres with whitish knob. Abdomen entirely deep black, without bristles, clothed with equal yellowish hairs like those on the thorax, but on the sides of the 2nd, 3rd and 4th segments there are tufts of black hairs. Legs yellow with black coxae, trochanters and tarsi; but the praetarsi are yellow; spines of the hind femora black.

Wings greyish, distinctly but very faintly infuscated at base to the second basal cell and to the discal cross-vein; comb very small, black; alula brownish, with whitish fringe behind; veins entirely black; marginal cell rather broad in the last part; first posterior cell very acute outwardly and briefly stalked; discal cross-vein a little before the middle of the discoidal cell; the cross-vein dividing the discoidal cell from the second posterior cell is very short, and therefore the discoidal cell is rather acute outwardly.

BOMBYLIUS DISJUNCTUS, Bezzi.

Near *B. mollis*, but very distinct from it and from all the other species here recorded on account of the separated eyes of the male.

The species seems to be widely spread throughout the whole Ethiopian region, from Abyssinia to Natal; there is a male specimen from Salisbury, April 24th, 1917.

BOMBYLIUS EURHINATUS, sp. nov., ♀.

Easily distinguished by the long and red proboscis, by the red antennae, scutellum and legs, and by the wings being brownish along the fore border near the base.

Type ♀ and another specimen from Namaqualand, O'Okiep (Cape), the smaller one labelled by Bigot with the MS. name which I have retained for the species; another ♀ from Namaqualand, Springbok (Cape), November, 1890 (R. M. Lightfoot). Length of body 8–12 mm.; of proboscis, 6–10 mm. Entirely clothed with fulvous hairs of moderate length, the bristles of body and legs being also entirely yellow. Head yellowish, with black, grey-dusted occiput; frons very broad. Face produced; antennae entirely yellow, approximate at base, with the third joint narrow, long, gradually attenuate, with a very short terminal style; hairs of the occiput dense and rather long, of a pale yellowish colour, those of frons, face and base of antennae short and more yellowish. Palpi yellow; proboscis about as long as the body, red above and below, with a black tip. Thorax entirely dull black, clothed with dense fulvous hairs, and provided with yellow bristles before and behind the base of wings; pleurae without any black hair. Scutellum red, narrowly black at base, clothed with hairs like those of the thorax and with a row of yellow bristles at the hind border. Squamae and halteres yellowish. Abdomen entirely black, clothed with fulvous hairs with rows of thin, yellow bristles at the hind border of the segments; venter black, with only the hind border of segments yellow. Legs entirely yellow, whitish-dusted, with yellow bristles, those of the hind femora well developed and numerous. Wings with the basal infuscation extending to the second basal cell and to the end of the first longitudinal vein; marginal cell broad at end; second submarginal cell at base twice as broad; first posterior cell broad and not attenuate outwardly; discal cross-vein situated much before the middle of the discoidal cell; this cell is broadly obtuse outwardly and much longer than the second posterior cell, which has a broad base. Alula with a very short fringe, like that of the hind border of wings; basal comb rather long and yellow. Veins and costa yellow, the first vein red but black at end; ambient vein black.

BOMBYLIUS BRACHYRRHYNCHUS, sp. nov., ♀.

Allied to the preceding, but distinct by its smaller size, by the very short proboscis, by the shape of the first posterior cell, and by the colour of the antennae. The species is also allied with *mundus* and

sessilis, being, however, distinct owing to the basal infuscation of the wings, the red upper side of the proboscis, and from the first by the much broader frons of the female.

Type ♀ and another specimen of the same sex from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Length of the body 7-7.5 mm.; of the proboscis 3 mm.

Head as in the preceding; third antennal joint black, and distinctly shorter; proboscis strong, red above, but black at end and below, the base excepted, which is dark red; the proboscis is besides much shorter, being hardly longer than the thorax. Thorax and scutellum as in the preceding. Abdomen black, narrowly red on the sides and with the venter altogether red; towards the end there are very long and white bristly hairs, which are entirely wanting in *eurhinatus*. Legs as in the preceding. Wings with the basal infuscation more blackish than reddish and limited to the second basal cell; first posterior cell very narrow, long and acute, but less than in *mundus*; discoidal cell very small, as long as the second posterior cell.

BOMBYLIUS GLOBULUS, sp. nov., ♀.

A very small species of globular shape, distinct by the long hairs of body, by the red antennae, proboscis and legs, by the black scutellum (an aberrant character in the present group), by the very narrow frons of the female and by the entirely hyaline wings.

Type ♀, and another specimen of the same sex from Namaqualand, O'okiep (Cape), September, 1890 (R. M. Lightfoot).

Length of the body 5 mm.; of the proboscis 1.5-2 mm. Body entirely black, and entirely clothed with long yellowish hairs, without any black hair. Frons very narrow, about half as broad as in the two preceding species; antennae entirely pale yellow, provided at base with long hairs, with the third joint rather thick and pointed, ending with a style longer than that of the two preceding species; proboscis short and strong, red, with a black tip. Thorax clothed with long, pale yellowish and shiny sericeous hairs, which are almost whitish on the lower part of the pleurae; there are no distinct bristles. Scutellum entirely black, haired like the thorax. Abdomen entirely black, but red on the venter; it is hairy like the thorax; the bristles at the hind border of the segments are thin and hardly distinguishable between the hairs. Legs entirely yellowish, and with yellowish bristles, those on the femora well developed. Wings quite hyaline, with yellow veins which are darkened at end; basal comb very small; marginal cell also very broad, the upper branch of the cubital fork being very strongly

curved at base; discal cross-vein situated much before the middle of the discoidal cell; first posterior cell rather broad, not pointed, and very long stalked; discoidal cell rather small, but longer than the second posterior cell, which is broader than long.

BOMBYLIUS IMPURUS, Loew (1863).

A single male specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

A well-marked species characterised by the numerous black bristles at the hind border of the abdominal segments, by the entirely black antennae, by the black base of the femora and by the red scutellum. The palpi are dark brownish; the proboscis is entirely black and rather long, measuring 8 mm., with a length of body of 14 mm. Bristles of legs entirely yellow, those on the hind femora numerous and well developed. Abdomen entirely black. The long bristles of the thorax are of a dark yellowish colour. Wings with a rather long and yellow basal comb; veins yellow, black outwardly; marginal cell broad at base; second submarginal twice as broad at base as at end; first posterior cell broad and short, obtuse, long-stalked. Discal cross-vein after the middle of the discoidal cell; this last cell broad, obtuse at end, much longer than the second posterior cell, which is broader than long; alula very briefly fringed. Halteres with whitish knob.

BOMBYLIUS MUNDUS, Loew (1863).

I refer to this species, of which Loew has described the female only from Bloemfontein, some specimens which agree very well with his description. Length 8-10 mm., but the proboscis is only 4-5 mm. long, and therefore not *corpori subaequalis* as stated in the description.

Some specimens of both sexes from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot); a female from O'Okiep, October, 1885, labelled by Bigot *B. picticornis*, MS. I think that the *B. flavus* of Macquart may prove to be the same species. I have assumed as principal character of the present species the acute form of the first posterior cell, the sides of which are stalked; marginal cell broad at end; upper branch of the cubital fork not much bent at base, but the second submarginal cell always twice as broad at base as at end; discal cross-vein after the middle of the discoidal cell, which is very broad, but longer than the second posterior cell; this cell very broad at base. Basal comb yellow, short. The proboscis is entirely black above, but red below. Eyes of male contiguous for a short

space, but there is a very thin white stripe between them; frons of female comparatively narrow. The hairs of the occiput are dense and shorter than in the allied species. Squamae yellowish, white-fringed; halteres white. All the bristles of thorax and abdomen are concealed between the hairs and concolorous with them. Hind femora with numerous yellow spines. Claws of the female not longer than those of the male.

BOMBYLIUS SESSILIS, sp. nov., ♀.

Very nearly allied to the preceding, but distinct by the entirely black proboscis, by the much broader frons of the female and by the more pointed first posterior cell.

Type ♀, a single specimen from Bushmanland, Henkries (Cape), October, 1911 (R. M. Lightfoot).

Length of the body 8 mm., of the proboscis 4 mm. Hairs of body rather short, those on frons and face yellowish, on occiput and thorax pale greyish, on the sides almost whitish; there are no black hairs or black bristles. Palpi yellow; proboscis stout, black above and below. Thorax entirely greyish black; scutellum red, with a black base. Squamae and halteres whitish. Abdomen black, the hind border of the segments and the venter reddish. Legs entirely yellow, with the two last tarsal joints black; hind femora with 7-8 strong, yellow spines; claws of female short. Wings entirely hyaline; the veins are disposed as in the preceding species, but the first posterior cell is so pointed and so prolonged to the hind border that it is almost without a stalk.

BOMBYLIUS XANTHOCERUS, sp. nov., ♂.

Very closely allied to *mundus*, but distinct on account of the entirely red antennae, entirely black proboscis, longer occipital hairs, entirely black abdomen and the obtuse and long-stalked first posterior cell.

Type ♂, a single specimen from Bushmanland, Een Riet (Cape), October, 1911 (R. M. Lightfoot).

Head as in *mundus*, but the hairs of the occipital border are about twice as long; third antennal joint red like the others, with a hardly distinct terminal style; palpi yellow; proboscis black above and below. Hairs of thorax and abdomen rather long and dense, entirely yellow, like the less distinct bristles, and a little paler on the pleurae. Scutellum red, narrowly black at base. Abdomen entirely black, even on the venter, with the genitalia red. Halteres with a white knob. Legs entirely yellow, the last joints of the tarsi black; hind femora

with 7-8 strong and yellow bristles. Wings wholly hyaline; the veins as in *mundus*, but the discal cross-vein placed exactly on the centre of the discoidal cell, and the first posterior cell obtuse at end, with a long stalk.

BOMBYLIUS MARGINELLUS, sp. nov., ♀.

Like the preceding, but distinct owing to the black third antennal joint and by the scutellum marginated with black.

Type ♀, a single specimen from Matjesfontein (Cape), September, 1896 (W. F. Purcell).

Length of body 8 mm.; of proboscis 4 mm. Head as in *mundus*, with entirely yellow hairs, those on the hind border of the occiput very long; first antennal joint dark yellowish and with yellow hairs, second blackish, third black, long, with a very short and thin style. Palpi dark brown; proboscis entirely black; frons as broad as in the female of *mundus*. Thorax and abdomen with wholly pale yellowish hairs; the bristles are hidden between the hairs. Scutellum red, with a black base and a broad black border. Halteres with a white knob. Abdomen entirely black, even on the venter. Legs yellow, with the two last tarsal joints black; claws short; hind femora with 6-7 very long and strong yellow bristles. Wings hyaline, a little dark yellowish at base and along the costal cells; basal comb yellow; veins as in *mundus*, but the first posterior cell short, obtuse, with a long stalk; the discal cross-vein is placed a little after the middle of the discoidal cell, and the fourth longitudinal vein is strongly curved below after that cross-vein; the discoidal cell therefore is less obtuse at the end than in the other species.

BOMBYLIUS PATERCULUS, Walker (1852).

Distinct owing to its smaller size, dark pubescence, and yellow hind borders of the abdominal segments.

A single female example from Bushmanland (Cape), Jackal's Water, October, 1911 (R. M. Lightfoot).

Head as in *mundus*; second antennal joint black like the third; proboscis dark red below, 3 mm. long, while the length of body is 7.5 mm.; occipital hairs long. Scutellum red, with black base. Abdomen black, sides, venter and narrow hind borders of segments red. Legs as in the preceding, the hind femora with five long, yellow bristles. Wings as in *mundus*, entirely hyaline, with the first posterior cell short and long stalked.

BOMBYLIUS RUFICEPS, Macquart (1840).

Dipt. Exot. ii, 1840, pl. vii, fig. 5.

A species distinguishable by its greater size (length of body 12 mm., of proboscis 5 mm.), red underside of proboscis and entirely black abdomen.

A single male specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Face yellow; second and third antennal joint black; palpi yellow; occipital hairs long and shining white. Hairs of body dense and entirely yellowish. Scutellum red, with black base. Abdomen entirely black, even on the venter; its apical half clothed with whitish hairs. Legs yellow, the two apical joints of the tarsi black; hind femora with numerous yellow bristles. Wings distinctly yellowish at base and fore border; veins as in *mundus*, but first posterior cell short and long-stalked. Discoidal cell broad and very obtuse outwardly.

It is interesting to note that in the same place and time are found together numerous species of the present very homogeneous group, viz. *brachyrrhynchus*, *impurus*, *mundus*, *sessilis*, *xanthocerus*, *paterculus*, and *ruficeps*. In the European Fauna a similar fact is often to be observed in the species of the allied group *minor*.

(C) GROUP OF B. MICANS.

This group has been well characterised by Loew in his work on the South African Fauna, together with the statement that it is the most abundant in species at the Cape and that the distinction of the species is a very difficult one. But Loew has known only species with a brown fore border on the wings, like *micans*; there is, however, a long series of species with entirely hyaline wings, and another with spotted wings. These last species have nothing to do with the group *medius*, as those with a dark fore border have nothing to do with the group *major*.

The principal features of the group are as follows: Eyes of male separated; head with strong bristles on frons, and usually on the genae also; antennae with the first joint not thickened, and the third very long and thin; thorax with very strong bristles in front, on the shoulders; hind femora provided below with very long and strong bristles, even near the base; pulvilli very short, much shorter than the claws; wings with a very large basal comb, formed by strong bristles; discoidal cell very obtuse at end, the vein dividing it from the second posterior cell being rather long; discal cross-vein usually placed after the middle, and often on the last third of the discoidal cell; upper branch of the cubital fork much retreating at base.

The numerous species in the collection, with the addition of others before me, may be distinguished with the aid of the following table:

- 1 (24). Scutellum black; bristles on the genae always present; wings with an extended pattern consisting of a brown fore-border or of some broad dark spots.
- 2 (11). Wings with a dark fore border, provided with more or less distinct darker spots, but without any distinct broad brown spot on the hind half; bristles of the genae entirely yellow, or rarely with a few black ones intermingled; bristles of abdomen entirely yellow; thorax usually with three distinct longitudinal stripes (*micans* group).
- 3 (6). Wings with a red or yellow basal comb; femora entirely yellow.
- 4 (5). All the bristles of the body are of a bright purple-red colour, even those of the basal comb; wings with a reddish fore border.
purpureus, sp. nov.
- 5 (4). All the bristles yellow, even those of the comb; fore border of wings brownish-yellow as usually *micans*, Fahr.
- 6 (3). Wings with a black comb; femora black towards the base.
- 7 (10). Spines of the legs of a yellow colour; bristles of the genae entirely yellow; thoracical stripes of the female distinct; infuscation of the cross-veins into the dark fore border of wings not spot-like.
- 8 (9). Second and third posterior cells short, distinctly broader than long; species of greater size *hypoleucus*, Wied.
- 9 (8). The above-named cells are long, longer than broad or as long as broad; smaller size *hirtus*, Loew.
- 10 (7). Spines of the legs entirely black; genae with a few black bristles between the yellow ones; thorax of female not distinctly striped; infuscations into the dark fore border broader and spot-like.
servillei, Macq.
- 11 (2). Wings with broad, isolated dark spots on the hind half, the dark fore border being more or less developed or wanting, basal comb always black, genae with wholly black bristles, or rarely with a few yellow ones intermingled, abdominal bristles black or yellow (*capensis* group).
- 12 (21). Legs with black spines; peristomial comb usually black; abdominal bristles usually black and distinctly longer than the hairs.
- 13 (20). Marginal cell entirely filled with brown, with or without hyaline spots at end.
- 14 (19). Marginal cell with two broad hyaline spots at end; abdomen with the usual strong black bristles.
- 15 (18). Along the hind border of the wings there are brown spots on the last segments of the longitudinal veins; anal cell with a brown spot at apex.
- 16 (17). Brown spots at end of the veins on the hind border very small and isolated; anal cell with a small dot at apex, species of greater size.
capensis, Loew.
- 17 (16). Brown spots of the hind border very broad and united with those on the discoidal cell; anal cell at end with a very broad spot; species of middle size *megaspilus*, sp. nov.

- 18 (15). No spots along the hind border and at end of the anal cell; smaller size *braunsi*, sp. nov.
- 19 (14). Marginal cell entirely brown, without hyaline spot at end; no spots on the hind border, nor at end of small cell; abdominal bristles dark yellow; species of very small size *punctatellus*, sp. nov.
- 20 (13). Marginal cell broadly hyaline at end *punctifer*, sp. nov.
- 21 (12). Spines of the legs dark yellow; abdominal bristles yellow, and hardly longer than the hairs; peristomial comb yellow, or rarely black in part.
- 22 (23). Marginal cell filled with brown to the end; the cross-vein between the discoidal and the second posterior cell is not marginated with brown *pentaspilus*, sp. nov.
- 23 (22). Marginal cell entirely hyaline; the above-named cross-vein is marginated with brown *obesus*, sp. nov.
- 24 (1). Scutellum red; bristles of the genae often wanting; basal comb of the wings usually yellow or white; wings entirely hyaline, mainly without any dark pattern, or with a light yellowish tint near the base and along the fore border, or with very small and less distinct fuscous spots on the cross-veins.
- 25 (28). Genae with some strong yellow bristles, which form the usual peristomial comb of all the preceding species; body mainly yellow-haired.
- 26 (27). Scutellum entirely red behind; discoidal cell without a prominent angle below *spinibarbus*, sp. nov.
- 27 (26). Scutellum with a black hind border; discoidal cell with a prominent angle inwards, and there provided with a stump. *angulosus*, sp. nov.
- 28 (25). Genae without distinct bristles, but if they are rarely distinct, the body is mostly white-haired.
- 29 (34). Frons of female of the usual moderate breadth; wings usually not punctate.
- 30 (31). Scutellum with a broad black hind border; wings rather infuscated and punctate, with a black basal comb *nigripecten*, sp. nov.
- 31 (30). Scutellum without black hind border; wings with a yellow or white basal comb.
- 32 (33). Discal cross-vein before the middle of the discoidal cell; wings lightly infuscated at base; thorax of male with brown hairs. *peringueyi*, sp. nov.
- 33 (32). Discal cross-vein on the middle; wings entirely hyaline, even at base; thorax of male white-haired *argentifer*, Walk.
- 34 (29). Frons of female twice as broad as usual; wings hyaline, punctate, with the discal cross-vein before the middle of the discoidal cell. *molitor*, Wied.

BOMBYLIUS PURPUREUS, sp. nov., ♂, ♀.

Closely allied to *micans*, but distinct by the bright purple colour of the macrochaetae of the comb and of the thoracical stripes, and also by the more reddish fore border of the wings.

Type ♂ from Klipfontein, Namaqualand (Cape), August, 1890

(R. M. Lightfoot), and type ♀ from Namaqualand, August, 1873 (R. Trimen).

Length of body 12–13 mm., of proboscis 4–4·5 mm. Body yellow-haired, but here and there with purple-coloured macrochaetae. Frons of male broad, that of female twice as broad, but only of usual width; the hairs are yellow, white below, with only a few black hairs on the underside of the first antennal joint; on the upper part of occiput and on the sides of frons and face there are bristles of a bright red colour, chiefly in the female; the peristomial comb is well developed, and of a purple red colour. Antennae black, the third joint narrowly yellowish at base, elongate and very thin, with a short style; the first joint is not thickened, and is provided with long and numerous yellow and red hairs, with a few black ones at the underside. Proboscis black, rather short; palpi black; the hairs of the occipital border are short, but above near the vertex they are very dense and long. Thorax clothed with pale yellowish shining hairs, which on the lower part of the pleurae are whitish. The three longitudinal stripes of red hairs on the back are well developed in both sexes; there are long and strong bristles of a purple colour in front, in the notopleural region and on the breast; the metapleural tuft is formed by yellow hairs and red bristles. Scutellum entirely black like the thorax, clothed with yellow hairs and provided with strong bristles of purple colour at the hind border. Halteres yellow with a red stalk; squamae dark, with a reddish fringe. Abdomen black, clothed with long and shining yellow hairs, which are depressed to form a tuft in the female; on the sides there are tufts of black hairs, which, however, are almost wholly hidden between the yellow hairs; the bristles are long and strong, much longer than the hairs, chiefly those on the last segments; in the male they are more yellow, in the female more purple and coloured like those of the thorax. Venter black, with short reddish-yellow hairs. Legs entirely yellow, whitish-dusted, with yellow spines, those of the hind femora very long and strong, numerous, 8–10 on the lower row; claws long, black, with reddish base; pulvilli very short in both sexes. Wings hyaline; the fore border to the basal cells and to the last fifth part of the marginal cell is of a reddish-brown colour; basal comb strong, with purple bristles, yellow hairs above and a very conspicuous tuft of whitish hair also above near the base. The veins are red at base and brown at end; marginal cell with broad end; upper branch of cubital fork very retreating, the second submarginal cell being, therefore, three times as broad at base as at end; first posterior cell about of equal width throughout with parallel sides; broad, obtuse at end and

long-stalked; discoidal cell very broad at end, the vein between it and the second posterior cell being of unusual length, with the sides about parallel; discal cross-vein perpendicular, placed after the middle of the discoidal cell; anal cell broadly open; alula opaque, brownish-yellow, with a short yellowish fringe.

BOMBYLIUS MICANS, Fabricius (1798).

This species may be at once distinguished from all the others here recorded on account of its yellow alar comb and of the yellow femora. A single couple from Darling (Cape), 1905 (L. Péringuey).

It answers very well to Loew's description, but all the hairs and bristles of the head are without any exception yellow or whitish. The tuft of yellow bristles on the genae, or peristomial comb, is well developed.

BOMBYLIUS HYPOLEUCUS, Wiedemann (1821).

A species easily distinguished by the greater size and the short and broad second and third posterior cells.

There are numerous specimens of both sexes, answering to Loew's description: Namaqualand, O'Okiep (Cape), September–October, 1890 (R. M. Lightfoot); Stellenbosch, 1887, and Darling (Cape), 1905 (L. Péringuey); Bushmanland, Henkries (Cape), October, 1911 (R. M. Lightfoot); Giftsberg, Van Rhynsdorp (Cape), September, 1911. One of these specimens was labelled by Bigot, "*B. stylicornis*, Macq.," wrongly, as this last species is undoubtedly a *Systoechus*, and is perhaps the same as *S. miatus*, as shown by fig. 2, pl. vii, of Macquart.

BOMBYLIUS HIRTUS, Loew (1860).

Closely allied to the preceding, but distinct by its smaller size and by the different shape of the posterior cells of the wings.

Some specimens of both sexes from Darling (Cape), 1905 (L. Péringuey); Matjesfontein (Cape), September, 1896 (W. F. Purcell); Namaqualand, O'Okiep (Cape), September, 1893 (R. M. Lightfoot).

BOMBYLIUS SERVILLEI, Macquart (1840).

Very distinct from all the foregoing species owing to the black spines of the legs; in this character, and in the almost spotted wings and in the partly black bristles of the peristomial comb the present species is a connecting link with the following *capensis* group.

Two female specimens from Fraserburg (Cape), April–June, 1885, determined by Bigot as *servillei* and answering very well to the original description.

BOMBYLIUS CAPENSIS, Linné (1767).

I refer to this species, which has never been recorded again from the time of the earlier authors, a single female specimen from Namaqualand, O'Okiep (Cape), September, 1890 (R. M. Lightfoot). It is 12 mm. long, with 30 mm. of wing expanse. It is wholly clothed with long, sericeous, whitish hairs, with long black bristles between them; the abdomen shows tufts of black hairs on the sides and at ends. The bristles of frons, face and genae are black, but on the occiput there are some yellow bristles. Proboscis black, 6 mm. long. Bristles in front of thorax numerous and strong, black, with a few yellow ones inwards. Femora black; tibiae yellow, with black spines. The wings are blackened at the base and along the marginal cell, which shows at end two broad hyaline spots, one after the other; there are broad, rounded fuscous spots at the end of the second basal cell, on the discal cross-vein and at the base of the second submarginal cell; other smaller spots are seen at the base of the third posterior cell and at the end of the discoidal and of the first posterior cell; much smaller and less distinct spots are on the ends of the veins along the hind border. Discoidal cell very long and obtuse; the discal cross-vein is situated after its middle; upper branch of the third vein very bent.

BOMBYLIUS MEGASPILUS, sp. nov., ♂, ♀.

Closely allied to the preceding species, but smaller, and distinct owing to the very broad black spots at hind border of the wings.

Type male from Giftsberg, Van Rhynsdorp (Cape), September, 1911; type female from Touw's River, Cape (W. F. Purcell).

Length of body 9-10 mm.; of proboscis 4-5 mm. Head black. Frons of the female three times as broad as that of the male; the hairs are white, but the bristles are black and very long, chiefly in the female; hairs and bristles of the occipital border long, at least near the vertex. Antennae black, the first joint with numerous and long black hairs; third joint very thin, entirely linear. Proboscis black; palpi black; peristomial comb strong. Thorax and scutellum entirely black; the thorax with greyish hairs and three less distinct longitudinal stripes of yellowish hairs; pleurae with white and yellowish hairs, bristles of the sides long and black, but those on the hind border of the scutellum are dark yellowish. Squamae dark; metapleural tuft black and some white hairs below the squamae; halteres blackish-brown, with a whitish spot on the knob. Abdomen black, clothed with long hairs, which are in part silky-white, but are mostly black; after the middle of the abdomen the hairs are directed behind, forming

a tuft: the bristles are longer than the hairs, black, but those of the hind half are mainly yellow. Venter white-dusted and white-haired in the middle, the sides with long and dense yellow bristly hairs, which are strikingly noticeable between the black pubescence. Legs with strong, black spines, those of the hind femora numbering 5-7, and very long; femora black, white-scaled; tibiae yellow; tarsi black with yellowish base. Claws of the male very long, black; claws of the female more than one-half shorter than those of the male; pulvilli dark, linear. Wings with the upper branch of the cubital fork thoroughly curved near the base; first posterior cell short, narrow and rather obtuse at end; discoidal cell broad and obtuse; second and third posterior cells short and broad; discal cross-vein placed after the middle of the discoidal cell. Veins black. Base and marginal cell blackened, but the latter with two hyaline spots at end; black spots placed as in *capensis* and likewise broad, but those at the base of the second and third posterior cells much broader, and united with the spots on the ends of the veins in the shape of a single angular spot; at the end of the anal cell there is a very broad spot, which is united with the one at the end of the second basal cell.

BOMBYLIUS BRAUNSI, sp. nov.

Allied to the preceding, but distinct by its smaller size, and in wanting the brown spots at the hind border of wings.

This species was found near Willowmore (Cape) by Dr. Brauns, and will be described by me in a forthcoming paper on the African Bombylidae of the Hungarian Museum.

BOMBYLIUS PUNCTATELLUS, sp. nov., ♂.

Allied to the three preceding species, but distinct, being the smallest of all, and having the marginal cell completely filled with brown to the end, without any hyaline spot.

Type ♂, an example from the Cape without special locality.

Length of body 6 mm.; wing expanse 13 mm. Head black; the eyes are more widely separated than in the other males; hairs long and whitish, those on the occiput rather long; bristles long and black, but those of the peristomial comb yellowish. Proboscis black, 2.5 mm. long; third antennal joint linear, with a rather long terminal style. Thorax and scutellum entirely black, with long yellowish hairs and very long, dark yellow bristles. Abdomen black, with dark yellow hairs on sides and at end with partly black hairs; bristles longer than the hairs and yellow. Legs yellow, black-spinose; femora dark,

white-scaled; tarsi blackish at end; hind femora with some long spines underneath; claws black, very long. Wings with black and long basal comb; upper branch of the cubital fork retreating at base; first posterior and discoidal cell very short, discal cross-vein set after the middle of the discoidal cell; anal cell closed at end. Wing pattern as in *capensis*, but no hyaline spots at end of the marginal cell and no brown spots along the hind border. There is a second male specimen in which the hairs of body are shiny white instead of yellowish, and the peristomial bristles are black; the bristles in the fore part of the thorax are black; the anal cell is broadly open.

BOMBYLIUS PUNCTIFER, sp. nov., ♀.

Distinct from the other species with punctate wings and with black spinose legs, owing to the marginal cell being hyaline at end; it is perhaps referred by Macquart to the varieties of his *B. servillei*.

Type ♀, and an additional specimen of same sex from Namaqualand, O'Okiep (Cape), September, 1890 (R. M. Lightfoot).

Length of body 10–11 mm. Head black; the eyes are moderately separated for a female; hairs white, the bristles long and all black, except a few yellowish ones at vertex. Third antennal joint linear, with a very short style; proboscis black, 3·5 mm. long. Thorax and scutellum black, clothed with whitish, sericeous hairs; thoracical bristles yellow, only a black tuft before the root of the wings and a few in front; scutellum margined with yellow bristles. Squamae dark, fringed with long, silvery hairs; halteres blackish. Abdomen black, clothed with hairs like those of the thorax, with only a few black hairs towards the end underneath; bristles black and longer than the hairs, which are tuft-like at end. Legs yellow, with black, white-scaled femora and black-ended tarsi; the spines are black, and very strong and long, chiefly those on the hind tibiae; hind femora with 5–6 spines underneath; claws short, black. Wings with a long-stalked first posterior cell and very obtuse and short discoidal cell; discal cross-vein a little after the middle of the discoidal cell. Basal comb strong, black; costal vein white-scaled to the end of the first vein. The wings are very little infuscated towards the base and along the fore border; the marginal cell is entirely hyaline after the end of the first vein; the greater brown spots are on the discal cross-vein and on the base of the upper branch of the cubital fork; the medium-sized spots are on the cross-veins closing outwardly the second basal and the discoidal cells; the smallest ones are on the base of the third posterior cell and at the end of the first posterior cell; these two

last spots are sometimes very faintly distinct, but there are no other spots besides the six above described.

BOMBYLIUS PENTASPILUS, sp. nov., ♂.

Distinct from the other species on account of the yellow peristomial comb and of the yellow spines on the legs. Wings blackened along the fore border.

Type ♂, from Dunbrody, Uitenhage (Cape), May, 1900 (J. A. O'Neil). Length of body 11–13 mm. Head black, with whitish hairs, those of the hind border long; bristles black, but those of the peristomial comb yellow, with a few black ones intermingled; antennae black, with the third joint linear; proboscis black, 4–5 mm. long. Thorax and scutellum black, with dense whitish sericeous hairs; bristles yellow, but black on the notopleural line and before the root of the wings; those on the hind border of the scutellum are yellow. Squamae dark brown, white-fringed; halteres blackish. Abdomen clothed with hairs like those of the thorax and with yellow bristles; there are black hairs below at end and on the sides; the pubescence at the apex is tuft-like. Legs black, with yellow spines, even those of the hind femora; claws black, long. Wings with black basal comb and with white-scaled costa; first posterior cell with a long stalk; discoidal cell broad at end, the discal cross-vein set a little after its middle. Wings with the base and the fore border broadly infusate to the end of the marginal cell, which has no hyaline spots at apex; the three greater brown spots at the end of basal cell and at the base of the second submarginal cell are in contact with the dark fore border, and they are therefore much less striking; the two smaller spots are at the end of the first and at the base of the third posterior cells.

BOMBYLIUS OBESUS, sp. nov., ♂, ♀.

Of this species of greater size I have two specimens in my own collection, collected by Dr. Brauns at Willowmore (Cape) in August, 1906. It is distinguished from the preceding by the hyaline marginal cell and by the infuscated cross-vein at end of the discoidal cell. A female specimen from Isipingo (Natal) in the collection has a black peristomial comb. Head black; frons of male broader than usual, and that of the female twice as broad; hairs long, greyish or white; bristles black, but those on the occiput yellowish, chiefly in the female; bristles of the peristomial comb yellow above and black beneath. Antennae black, with long black hairs at base; third joint linear, styliform; proboscis black, 5.5–6 mm. long. Thorax and

scutellum black, clothed with long and dense yellowish-grey hairs, which, seen from the front, are shining white; on the back there are three less distinct, dark, longitudinal stripes, more developed in the female; all the bristles are yellow, but along the notopleural line there are a few black ones. Squamae brown, white fringed, with yellow bristles. Abdomen clothed with hairs like those of the thorax; on the sides and behind there are some small tufts of black hairs, not visible from above; all the bristles are yellow, and only a little longer than the hairs; venter with long yellowish hairs. Legs white scaled, the tarsi and femora black, the tibiae dark yellowish; all the spines are long and yellow, even the 8-9 of the underside of the hind femora; claws black, those of the male twice as broad as those of the female. Wings with black basal comb, but under the base there are some yellow bristles, and inwards there is a tuft of long white hairs; costa white scaled; first posterior and discoidal cell rather short, the last broadly obtuse outwardly; discal cross-vein placed on the last third of the discoidal cell. The wings are almost entirely greyish hyaline, the costal cell and the base being only lightly yellowish-grey; the brown spots are small and less darkened, the greatest of all being, as usual, placed at the end of the second basal; first basal end at the base of the second submarginal cells; the others are at the end of the first and at the base of the third posterior cells; the cross-vein at end of the discoidal cell is, besides, margined with fuscous.

BOMBYLIUS SPINIBARBUS, sp. nov., ♂.

An entirely yellow-haired, very distinct species with red scutellum and yellow alar comb, forming a connecting link between the preceding and the following group, it being provided with a well-developed peristomial comb.

Type ♂, and an additional example of the same sex from Stellenbosch (Cape), November, 1887 (L. Péringuey).

Length of body 10-12 mm. Head black; frons moderately broad; all the hairs are yellow; those on the occipital border are short and those of the lower side are white; all the bristles are yellow, those on the first joint of the antennae are long, and those of the peristomial comb are whitish. Antennae black, with the third joint linear, but rather thick at base; proboscis black, 4-5 mm. long. Thorax black, densely clothed with rather short, entirely yellow hairs, which are white and shining in certain lights; the bristles are yellow, but less developed than in the foregoing species, only those before the root of the wings being strong. Scutellum entirely red above, with only the

base black, clothed with hairs like those of the thorax and without distinct bristles along the hind border; squamae brown, yellow-fringed; halteres with a white knob. Abdomen black, but sometimes red at the hind border and sides of the second segment; the hairs are like those of the thorax, but longer and tuft-like towards the end; the bristles at the hind borders of the segments are yellow and longer than the hairs, but very thin; venter with reddish hairs. Legs entirely yellow and with yellow spines; hind femora with 5-6 long yellow spines at the underside; claws reddish yellow, with black tip. Wings with yellow veins and with yellow basal comb; upper branch of the cubital fork much retreating at the base; first posterior cell acute at end and with a rather short stalk; second posterior cell very short, much broader than long; discoidal cell short and broadly obtuse at end, the discal cross-vein placed a little after its middle. The wings are greyish hyaline, but with a faint infuscation extended to the fourth longitudinal vein and to the cross-vein; there are traces of three less distinct dark spots on the ends of the second and of the first basal cells and on the base of the second submarginal cell.

BOMBYLIUS ANGULOSUS, sp. nov., ♂, ♀.

Very near the preceding, but distinct by its greater size, black margined scutellum, more spotted wings and by the peculiar venation.

Type ♂ and type ♀, a couple from Van Wyk's Vlei, Carnarvon (Cape), September (E. G. Alston), a badly preserved female specimen from Modder River (J. H. Power). Length of the body 13-14 mm. Head as in the preceding, with yellow hairs and bristles; frons of the female very broad, more than twice as broad as the eye, and bearing very strong and long bristles; peristomial comb long and strong, yellow. Antennae black, with the third joint less thickened at base; proboscis black, 5-6 mm. long. In the female the hairs of the face, chiefly those on the sides, are white, and the hind occipital border is white-scaled. Thorax as in the preceding, but the hairs on the breast are white, and in the female there are traces on the back of three dark longitudinal stripes. Scutellum red, with a black base and with a broad black hind border, or almost entirely black with a median red spot in the female. Abdomen as in the preceding. Legs entirely yellow and with yellow spines as in the preceding. Wings with yellow basal comb and with dark yellow veins; the discoidal cell is broader, and has beneath an angle prominent inwards and provided with the stamp of a vein; the basal infuscation is likewise less distinct; there are, however, more distinct but small brown clouds at the ends of the

first and second basal cells, at the base of the second submarginal cell, and at the bases of the second, third and fourth posterior cells; the second posterior cell is more elongate, about as broad as long.

BOMBYLIUS NIGRIPECTEN, sp. nov., ♂.

A species of medium size, distinct from the two following ones, which are likewise destitute of peristomial comb, by the wings having a black basal comb and being rather spotted.

Type ♂, a single specimen from Bushmanland, Henkries (Cape), (R. M. Lightfoot). Length of body 9.5 mm.

Head black, entirely clothed with long white hairs, only the vertex and the narrowest part of the frons with fuscous hairs; hairs of the occipital border very long and erect; frons rather narrow. Antennae entirely black, with white hairs at base, the third joint linear, not thickened at base, a little longer than the first; proboscis black, 4 mm. long. Thorax entirely clothed, even on the pleurae, with rather long white hairs, which on the back have a sericeous sheen; the bristles in front and near the base of the wings are well developed and of a yellowish colour. Scutellum with a deep black hind border, clothed, like the thorax, with yellowish bristles at the hind border. Squamae dirty brownish with fuscous border and long and dense grey fringe; halteres yellowish, with whitish knob. Abdomen black, only the three last segments being narrowly red on the sides; it is denuded, but its hairs seem to be longer but coloured like those of thorax, with some tufts of dark hairs on the sides; on the hind border of each segment, excepting the first, there is a complete row of very strong and long bristles, which, at least on the last four segments, are dark with yellowish base; the venter is clothed with white hairs and has strong bristles like those of the upper side; the genitalia are red in part. Legs with black femora and yellow tibiae and tarsi; the femora are clothed with silvery scales and have a yellow tip, which is broader on the four anterior ones; hind femora with a row of 7-8 very strong yellow bristles; underneath the hairs of the legs are all white and the spicules of the tibiae yellowish; claws black. Wings greyish hyaline, with black veins, but the first and the auxiliary vein are yellow; the anterior basal half show a distinct but faint infuscation; on the origin of the second longitudinal vein, on the discal cross-vein, on the anal cross-vein and on the base of the cubital fork there are rather distinct fuscous spots, and two other less distinct spots are set on the two basal angles of the third posterior cell. Upper branch of the cubital fork much retreating at base; first posterior cell rather narrow, acute at end and long-stalked; discal cross-vein set a little after the middle of the

discoidal cell, which is broad and short; second posterior cell longer than broad; third posterior cell in the shape of a trapeze. Basal comb well developed, consisting entirely of black bristles, with only a few white scaly hairs above.

BOMBYLIUS PERINGUEYI, sp. nov., ♂, ♀.

An elegant species, very distinct owing to the brown hairs of the thorax contrasting strikingly with the white ones of the middle of the abdomen; the wings are not spotted, but distinctly infuscated towards the base and along the costal cell.

Type ♂ and type ♀ from Klipfontein, Namaqualand (Cape), 1885 (L. Péringuey), the first specimen labelled by Bigot "*Systoechus péringueyi*, nov."; an additional female specimen from Spektakel, Namaqualand (Cape), October, 1890. I take pleasure in preserving for this beautiful species Bigot's MS. name in honour of the Director of the South African Museum, whose high merits in entomology are so greatly appreciated.

By the bristles of face and thorax the present species approaches those of the preceding group.

Length of body 11–12 mm. Head with wholly white hairs, but with brown hairs on the vertex and on the upper part of the frons; occipital hairs moderately long, but sometimes partly infuscated and with some bristles intermingled; on the genae there are some more or less distinct bristles of white or yellowish colour, more developed in the female than in the male. Antennae elongate, black, but the second joint sometimes brownish; the third linear, a little longer than the first; proboscis black, thick, 4–5 mm. long. Frons of the male rather broad, and that of the female nearly twice as broad, with distinct bristles on the sides. Thorax clothed with rather long and dense brownish hairs, which, seen in a certain light, are shiny white; pleurae white-haired; there are very numerous yellowish bristles on the fore part, on the sides and behind. Squamae brown, with yellowish or greyish fringe; halteres yellowish, with whitish knob. Scutellum red with black base, clothed, like the back, with yellowish and thin bristles behind. Abdomen with dense, erect white hairs, but at end with a fine tuft of brownish ones, coloured like those of the thorax; on the sides of the first segment there are broad tufts of brownish hairs, with similarly coloured bristles; the last two segments in the male and the last three in the female bear rows of strong and long bristles of a blackish colour with yellow base; the hairs at the end of abdomen are tuft-like; venter with dense white hairs, in the male almost without distinct bristles, in the female with

strong bristles at apex and with a very dense tuft of black bristles in the middle before the apex; male genitalia of a pale reddish colour. Legs yellow, with the femora more or less broadly black at base; they are provided with silvery scales and have yellow spines, those of the hind femora very numerous and strong; claws black, with yellow base. Wings hyaline, yellowish at base and along the costal cell and base of the subcostal cell; discal cross-vein and end of second basal cell sometimes narrowly margined with fuscous; basal comb large, yellowish, white-scaled and white-haired above; veins yellow, infuscated at end; disposed like the preceding species, but the discal cross-vein placed distinctly before the middle, nearly at the first third of the discoidal cell.

One female has the hairs on the back of thorax white, not brownish.

BOMBYLIUS ARGENTIFER, Walker (1840).

A couple of specimens from Spektakel, Namaqualand, and Clanwilliam (Cape) determined as *argentifer* by Bigot. They answer very well to the description of this species from the Cape. It is closely allied to the preceding, but distinct by the much less developed bristles, entirely white hairs of the thorax, wholly hyaline, vitreous wings with the discal cross-vein placed on the middle of the discoidal cell; in the female the wings show a trace of the coloration of the preceding near the base and on the cross-veins. The venter of the female is destitute of black tuft; and the female only has at the end of the abdomen some scarce brownish hairs, which do not form the distinct tuft of the preceding. Hind femora below with the usual strong spines.

BOMBYLIUS MOLITOR, Wiedemann (1830).

A couple of specimens from Bushmanland, Jackal's Water, and Henkries (Cape) (R. M. Lightfoot). This species also has never been recorded since its original description, and is closely allied to the preceding one, being distinguished by the very broad frons of the female, by the strong bristles of the abdomen and by the punctate wings. Bristles of genae and of peristome entirely wanting; frons of the male as narrow as in the preceding, that of the female with bristles on the sides; third antennal joint linear, but very much narrowed in its last half. Hairs of body white or grey; bristles of thorax, scutellum and abdomen very numerous and long, yellowish, but those on the abdomen of the female black with yellow base, well developed even on venter. Legs clothed with dense silvery scales, the femora black, those of the hind pair with strong spines below even

near the base. Wings with the neuration as in the two preceding species, but the discal cross-vein before the middle of the discoidal cell, and the upper branch of the cubital fork usually provided with a short stump near the base. The six fuscous spots on the cross-veins and bifurcations are much less developed, but always distinct.

The present species is somewhat aberrant owing to the unusually broad frons of the female, which thus approaches that of the following group; but the antennae are not widely separated at the base.

(D) GROUP OF *B. SENEX*.

To the present group I refer the species which are like the South European *B. senex*; they have a rather elongate, ovate body, the eyes of the male are separated, the frons of the female is very broad and long-haired, but with the bristles much less distinct than in the *micans* group. The antennae are rather distant at the base, with the first joint distinctly thickened—much more thickened than in any other group of the genus *Bombylius*. The mouth-opening is very broad, and around it there is a very prominent and large praelabrum, which is differently coloured from the face and the peristome; the face, besides, is very short. Hind femora without bristles at base, underneath provided with long hairs alone; in *senex* there are some bristles near the end, which are wholly wanting in the North African *separatus*, Beek, as in the new South African species here described. Wings rather narrow, with the discal cross-vein placed on the last third of the discoidal cell; basal comb very indistinct, almost wanting; there is usually a rather long, recurrent stump at the base of the upper branch of the cubital fork.

BOMBYLIUS HIRTICEPS, sp. nov., ♀.

Closely allied to *separatus*, Beek, from Tunis, but distinguished by the darker hairs of the face, by the absence of the stump at the base of the cubital fork, and by the shorter claws.

Type ♀, and another specimen of the same sex from Fraserburg (Cape), June, 1885 (E. G. Alston).

Length of body 8·5–10 mm. Head black, grey-dusted; frons very broad, about three times as broad as the eye, very long-haired, but without distinct bristles; the hairs on frons, face and genae are mostly black, but towards the middle line there are numerous yellow hairs. Antennae black, of the usual length of the preceding group, but of a peculiar structure; the first joint is distinctly thickened, grey-dusted, clothed with long black hairs; the second joint is ovoid; the third is long and thin, a little longer than the first linear, but at the extreme

base it shows an annular swelling which has the shape of a supplementary joint of a lighter brownish colour; in addition the antennae are distinctly separated at base—a feature never so developed in the true *Bombylius*, chiefly in those of the group *micans*. Mouth-opening very broad, the praelabrum being very large and prominent and of a rather shining, black colour; proboscis short and thick, 8 mm. long; occipital hairs very long, those near the eye black, the other yellowish. Thorax black, clothed with rather long, yellowish-grey hairs, which, seen from the front, are shining white; there are on the sides and on the hind part numerous but thin, black bristly hairs longer than the usual pubescence; there are besides two rows of such hairs along the dorsocentral lines; on the pleurae these black hairs are more numerous, and sometimes the pleurae are entirely black-haired. Scutellum entirely black, clothed like the thorax, and with similar black bristles on the hind border and even on the disc. Squamae brownish, with a long yellow fringe; halteres with a blackish knob. Abdomen altogether of an opaque velvety black colour, like the thorax and scutellum, and clothed with similar hairs; there are rows of black, bristly hairs on the hind borders of the segments and tufts of black hairs at the apex and on the sides underneath, the venter being much darker-haired than the upper side. Legs reddish yellow, but the femora more or less black near the base, and sometimes almost entirely black; tarsi also blackened at end on the upper side; the femora are destitute of silvery scales, but are clothed with very long black hairs; those of the hind pair are absolutely without spines underneath; all the spines of the tibiae and tarsi are black; those of the four anterior tibiae are longer than usual; claws very short, black, with reddish base; pulvilli yellow, about as long as the claws. Wings greyish-hyaline, rather narrow and cuneiform, hardly faintly infuscated at the extreme base and along the fore border; veins yellow, blackened at end; basal comb very little developed, almost wanting; upper branch of the cubital fork much retreating at base without recurrent veinlet; first posterior cell broad, acute at end and moderately stalked; discal cross-vein on the last third of the discoidal cell, which is rather narrow and rather attenuated outwardly, the cross-vein dividing it from the second posterior cell being short; second and third posterior cells almost of equal size.

SYSTOECHUS, Loew.

Neue Beitr. iii, p. 34, 1855.

This genus seems to be well represented in the South African fauna. The species are rather difficult to separate, as already stated by Loew;

but at the Cape there are some striking forms very distinct from the others. Those in the collection can be distinguished as follows :

- 1 (12). Abdomen destitute of black bristles at the hind border of the segments—at least on the middle line.
- 2 (9). Legs mainly yellow, the femora sometimes with dark base.
- 3 (6). Species of very great size (13–16 mm.), without black bristles on the abdomen or with yellow ones; femora almost bare beneath, those of the front pair with many spines underneath.
- 4 (5). Proboscis conspicuously scabrose beneath; eyes of male broadly separated; thorax striped on back and pleurae; pulvilli very small.
scabrosostris, sp. nov.
- 5 (4). Proboscis smooth beneath; eyes of male very approximate; thorax not striped; pulvilli well developed *ventricosus*, sp. nov.
- 6 (3). Species of smaller size, not above 11 mm. in length; abdomen with some black bristles; femora much hairy beneath, those of the front pair not spinose or only with 1–2 spines below.
- 7 (8). Scutellum red, at least in the middle; frontal triangle of the male small and with a distinct furrow; mystax yellow; wings hyaline, with yellow veins *simplex*, Loew.
- 8 (7). Scutellum altogether black; frontal triangle of the male broad and swollen, almost without furrow; face fringed with rigid black hairs; wings strongly infuscated, with black veins. *tumidifrons*, sp. nov.
- 9 (2). Legs black, the femora entirely black, or only those of the hind pair with pale end.
- 10 (11). Species of greater size, measuring not less than 9 mm. in length; scutellum red, at least in the middle; legs stout and spinose.
albidus, Loew.
- 11 (10). Species of smaller size, not above 7 mm. in length; scutellum entirely black; legs thin and less spinose *nigripes*, Loew.
- 12 (1). Abdomen with complete rows of very strong and distinct black bristles at hind border of the segments.
- 13 (14). Eyes of the male separated; front legs usually black-spotted on femora and tibiae; species of larger size, measuring 7–14 mm., but usually 10–12 mm. *mixtus*, Wied.
- 14 (13). Eyes of the male almost contiguous; front legs with yellow tibiae and femora; smaller size, not more than 10 mm. in length.
- 15 (16). Thorax with yellow hairs, which are rather long, and without bristles in front *ctenopterus*, Mik.
- 16 (15). Thorax clothed with short, paler hairs, which show silvery sheen and on the pleura are of a whitish colour, and provided with brownish bristles in front *spinithorax*, sp. nov.

SYSTOECHUS SCABRIROSTRIS, sp. nov., ♂, ♀.

A gigantic species, very distinct from any other by the pattern of the thorax, by the shape of the labium and by the shortness of pulvilli, making a passage to the genus *Anastoechus*.

Type ♂ and type ♀, a single pair of specimens from Namaqualand, Springbok and O'Okiep (Cape), September and October, 1890 (R. M. Lightfoot).

Length of body 15–16 mm., of wing expanse 36–38 mm. Head of much broader shape than usual, black on the occiput, but yellowish on the face and genae, clothed with greyish-dusty; frons a little hollowed at vertex, the ocelli being placed on a very prominent tubercle; its breadth at the narrowest point is in the male as broad as the ocellar tubercle, the frontal triangle in the same sex being broad and provided with a deep, longitudinal middle furrow; in the female the frons is very broad, with the middle furrow distinct basally only and with a deep transverse furrow before the ocelli, homologous with the less developed one which is to be observed at the same point in the male. Face broad and much projecting, mouth-opening rather short and broad; gena broader than usual; proboscis rather long, straight, 11–12 mm. long, entirely black; the labium is conspicuously scabrose beneath, owing to the fact that it is clothed almost on the whole length with very numerous but short spinules, which in the female are distinct even at the base of the labella. Palpi long and slender, black, with very short black hairs. Antennae wholly black, rather distant at base; first joint with short but strong yellowish hairs; second joint globular; third joint longer than the first two taken together, with an ovate base, but with the linear terminal part longer than the basal and ending in a minute style. All the hairs at the head are rather short and light coloured; those on the very swollen and broad occiput are white if viewed from the side, and very dense; the hairs on the ocellar tubercle and on the vertex are brownish, yellowish, on the frons, scarce and rigid towards the middle, denser and soft on the sides; the face is almost bare in the middle and has on the sides rather short, pale, yellowish hairs. Around the mouth-borders there is a fringe of short, but dense, yellowish hairs, leaving the lower part of the genae bare; peristome almost bare; beard on chin, much less developed, white. Eyes bare, with the upper areolets not at all enlarged in the male. Thorax entirely black, broad and stout, rather flattened above; clothed with dense and short hairs of equal size, which are only a little longer on the sides and on the pleura; the hairs on the back are of a brownish-yellow colour, but if viewed from the front show a white sheen chiefly in the male; in certain lights there are to be seen four longitudinal white stripes, two on the middle and two on the notopleural line, one on each side, all placed at equal distance, not extending over the middle, and more distinct in the female than in the male. On the pleurae, between the reddish-brown hairs, there are two vertical bands of white

hairs, a less distinct one in front and a much broader one on the mesopleura, extending to the breast; metapleural tuft very dense and of a reddish brown colour; the notopleural and supraocellar bristles are yellow and long, chiefly the latter ones. Scutellum broad, reddish brown, black at base, and, on the hind border, clothed like the thorax and with strong yellow bristles on the hind border. Squamae yellowish brown, with a dense and long white fringe; halteres with brown knob and whitish end. Abdomen broad, obtuse, rather shining black, narrowly red on the sides in the male, in which sex it is void of bristles, clothed with rather short, dense and soft, equal hairs, which, viewed from behind, are of a light yellowish colour, and viewed from the front are whitish with a silvery sheen; in the female the hairs are of a darker colour, and at the hind border of the segments there are short but strong brownish bristles disposed in many rows, but interrupted in the middle. The venter in the male is yellow towards the middle, while in the female it is entirely black, clothed in both from the base to the middle with silky hairs, and from the middle to the end with dark hairs. Male genitalia proportionally small, hidden, of a dark colour; anal tuft of the female reddish. Legs rather stout but long, wholly of a reddish yellow colour, the hairs only being blackened at end; they have pale yellowish, little-developed scales, and numerous black spines, but they are almost absolutely bare, even the front femora being destitute of hairs underneath at base; the spicules are well developed and numerous, but short in the front tibiae. All the femora are spinose beneath, even those of the front pair being provided with many short spines, disposed in two rows; spines of the hind femora very numerous underneath, 13-14 in number, extending from the base to the end, but those of the minor row are very short, the row of the upper side being 2-3 apical spines. Claws long and thin, black with reddish base; pulvilli whitish, very small, as long as half the claws. Wings long and narrow (length of a wing 16 mm., breadth of a wing 5 mm.); basal comb very strong and black, whitish yellow, pilose at base, with reddish sheen on the bristles in the male; they are greyish yellow, faintly infuscated at base and along the fore border to the end of the first vein, the brown yellowish tint running obliquely across the cross-veins to the middle of the anal cell, but without being well defined. Alula infuscated, with a short yellowish fringe. The veins are red, infuscated at end; the second longitudinal vein is strongly sinuous; the first posterior cell is long and narrow, narrower than the discoidal cell, which is rather obtuse at end, but not in such a manner as in *Anastoechus*; second and third posterior cells of equal length, but the former much broader at end.

SYSTOECHUS VENTRICOSUS, sp. nov., ♂.

This species is much like the larger specimens of *miatus*, Wied., but is at once distinguished by the more narrowly approximated eyes of the male, by the entirely yellow legs and abdominal bristles and by the non-infuscated base of the wings.

Type ♂, a single specimen from Stellenbosch (Cape) (L. Pécrin-guey), 1888.

Length of the body 13 mm., of the wing 13 mm. Head black, dusted with grey, of the usual shape, viz. much smaller than in *scabrirostris*. The occiput is clothed with dense and short fulvous hairs, which become paler below, changing to a quite white beard; the frons is very narrow, its breadth at the narrowest point being half as much as the distance between the two basal ocelli; it is clothed in the middle with erect black hairs like those of the ocellar tubercle, and on the sides with shorter and yellow ones. The frontal triangle is half as broad as in the preceding species, with a less distinct median furrow; the face is entirely clothed with dense hairs, which are black on the middle and on the sides and yellow along the mouth-borders, forming a dense fringe which is produced to the extreme end of the genae. Peristome short and moderately broad; the bare eyes have the upper areolets a little larger than the lower ones. Antennae entirely black, the first joint with long and rigid black hairs above and below; third joint longer than the two first joints taken together, almost linear, broadening very little towards the base. Proboscis entirely black, 6.5 mm. long, with the labium smooth below; palpi hidden. Thorax clothed with short, equal and dense fulvous hairs, without any black hairs or bristles, and with strong sericeous sheen if viewed from the front; before the root of the wings others are bright fulvous tufts, which on the pteropleura and on sternopleura are paler but on the breast are still fulvous; metapleural tuft fulvous. Scutellum entirely red, with only a very narrow black base, clothed like the thorax and with yellow bristles at the hind border. Squamae yellowish, with dense fulvous fringe; halteres with whitish knob. Abdomen broad and ovate, black, but narrowly red on the sides, clothed with dense equal fulvous hairs like those of the thorax; hind border of the segments with fulvous bristles which are concealed among the fur; venter with dense fulvous hairs and with a stripe of white hairs on each side; genitalia of greater size, their lamellae fulvous, with dark base. Legs entirely yellow, the coxae and the extreme base of femora and almost the whole of the tarsi blackish; they are clothed with pale scales and have a few pale hairs on the base of the femora below; the

spines are black, but those of the four anterior tibiae are partly yellow. Front and middle femora with rather numerous but short spines below; hind femora with 9-10 strong spines on the complete inferior row, the other rows being reduced to a few spines on the apical half. Claws black, with red base; pulvilli whitish, about as long as the claws. Wings hyaline, narrowly yellowish at the extreme base, in the first basal and in the costal cells; alula almost hyaline, with a short yellow fringe; basal comb of large size, black, yellow tomentose near the base. Veins red, a little darkened at end; venation as in the preceding, with the oval cell broadly open.

SYSTOECHUS SIMPLEX, Loew, 1860.

A species closely allied to the preceding one, but at once distinguished by the smaller size, the whitish, not fulvous, pubescence, the unarmed front femora, and by having a few but distinct black bristles on the sides of the last abdominal segments.

Some specimens of both sexes from Stellenbosch and Hex River, (Cape) (L. Péringuey), December, 1884.

The undescribed female is very like the male; the frons is very broad, with some bristly dark hairs on each side; palpi short, clavate, yellow, with black end; femora entirely yellow to the extreme base. Upper areolets of the eyes of the male a little enlarged; frontal triangle small and with a less developed middle furrow; third antennal joint linear; labium smooth below. Spicules of the 4 anterior tibiae well developed, partly yellow; front femora without spines, middle femora with 3-4 long spines; pulvilli as long as the claws.

SYSTOECHUS TUMIDIFRONS, sp. nov., ♂.

Readily distinguished by the broad and tumid frontal triangle, the black scutellum, the face fringed with rigid black hairs, the yellow legs and the strongly infuscated base of the wings.

Type ♂, a single specimen from Barberton, Transvaal, April, 1911 (H. Edwards).

Length of body 10 mm.; length of a wing 9 mm. Head black, dusted with grey dark yellow at the mouth borders and on the chin; occiput less developed than in all the preceding species, almost hollowed instead of being inflated, clothed with dense, rather long, pale yellowish hairs; chin and lower part of occiput with a long, conspicuous, quite white beard. Frons at the narrowest point as broad as the ocellar tubercle, and afterwards expanded in a very broad and inflated frontal triangle, the middle furrow of which is distinct but not

deep; it is clothed, like the vertical triangle, with long, erect, rather strong, black hairs, and only near the sides with some very short yellow ones. Face short but much produced, with rigid black hairs forming a long moustache-like fringe, very much developed and produced horizontally, and extended to the extreme end of the genae, only on the sides, near the eyes, are a few short yellow hairs; upper areolets of the eyes hardly enlarged. Antennae entirely black; first joint with dark yellowish hairs, which are longer below than above; third joint as long as the two first joints taken together, gradually tapering in a moderately thin point; proboscis entirely black, straight and thin, 6 mm. long, with the labium smooth below; palpi short, club-shaped, black with paler base. Thorax clothed with rather long pale yellowish hairs, which viewed from the front show a whitish tinge; on the pleurae they are a little longer but scarce, and white with a sericeous sheen; on the notopleural line there is a distinct stripe of darker, sometimes blackish, hairs; bristles whitish yellow; metapleural tuft rich and white. Scutellum entirely black, clothed with long hairs like those of the thorax, with no distinct bristles on the hind border, or at least they are concealed within the hairs. Squamae whitish yellow, with white fringe; halteres with white knob. Abdomen entirely black, clothed like the thorax but the hairs are whiter, with a silvery sheen; there are rather numerous and distinct black bristles on the sides of the last segments; venter with whitish hairs and black erect bristles along the middle; genitalia red, of medium size. Legs yellow, with tarsi and coxae black; base of the 4 anterior femora and end of the hind tibiae more or less broadly infuscated; they bear white scales, few white hairs on the base of femora, and black spines. Spicules of the 4 anterior tibiae well developed; front femora with 1-2 short spines, middle femora with 3-4 long spines, hind femora with 7-8 very long spines, the other rows being less developed; coxae with long and dense white hairs; claws thin, black, with narrowly red base; pulvilli whitish, long. Wings with the usual venation, but with black veins; they are strongly infuscated from the end of the first longitudinal vein to the end of the second basal cell and to the base of the alula, which has a yellowish fringe; basal comb of great size, black, pale tomentose basally; discoidal cell obtuse at end, its terminal vein as long or even a little longer than the discal cross-vein.

SYSTOECHUS ALBIDUS, Loew (1860).

Very near the two preceding species, but distinguished by the black femora and by the more numerous abdominal black bristles. A single

male specimen from Smithfield (Orange Free State), 1910 (D. R. Kannemeyer). The scutellum is red, black at the base and at the hind border; spicules of the anterior tibiae well developed, but the front femora are unarmed; all the spines of the legs are black.

SYSTOECHUS NIGRIPES, Loew (1863).

Very closely allied to the preceding species, but half as small, and with broadly separated eyes in the male and also with an entirely black scutellum.

A male specimen from Klerksdorp, Transvaal, December, 1890, and another from Kimberley (Cape), March, 1912 (J. H. Power).

Eyes of the male separated for a distance equal to the breadth of the ocellar triangle; antennae entirely black, with the third joint rather short, linear, not narrower at end than at base; proboscis and palpi black. Squamae whitish; halteres white. Hairs on the whole body pale yellowish, but if viewed from the front they are almost white; abdomen with only a few less distinct or even not distinct black bristles at the end of the sides. Legs entirely black, with only the knees a little yellowish, while in *albidus* the tibiae are more or less but always broadly yellow; the 4 anterior tibiae are thin and with less developed spicules; front femora unarmed, middle femora with 1-2, hind femora with 5-6 spines below. Basal infuscation of the wings rather broad, but of a more yellowish fringe; basal comb long, black, but with thin and more sparse bristles; discoidal cell shorter than usual, and therefore the second and third posterior cells longer than in all the preceding species.

Note.—The present species is closely allied to the European *S. leucophaeus*, Meig., being chiefly distinguished by the more broadly separated eyes of the male.

SYSTOECHUS MIXTUS, Wiedemann (1821).

A well-known and common South-African species, easily distinguished by the complete rows of black bristles on the abdomen and by the partly black spotted front legs, the front femora being also unarmed below.

A female specimen from Salisbury (S. Rhodesia), June, 1913; another from Bushmanland, Henkries (Cape), October, 1911 (R. M. Lightfoot); another from Marico (Transvaal), April, 1911 (A. T. Cooke); and one from Natal, Maritzburg, labelled by Bigot as *B. aurantiacus*, Macq.,

which of course cannot be so, because Macquart's species is a true *Bombylius* and not a *Systoechus*. I have also seen the present species from Grahamstown (Cape).

SYSTOECHUS CTENOPTERUS, Mikane (1796).

This Palæarctic species, which seems to be widely spread over the Ethiopian region, is closely allied to *mixtus*, but distinguished by the smaller size, the eyes of the male, which are very much more approximated, and by the entirely yellow front legs of the female, the middle femora being also less spinose beneath. A single female specimen from Stellenbosch (Cape) (L. Péringuey).

SYSTOECHUS SPINITHORAX, sp. nov., ♂.

Nearly allied to the preceding species, but distinguished by the silvery sheen of the hairs of the thorax and of the base of the abdomen, and differing from any other on account of the strong bristles on the fore border of the thorax.

Type ♂, a single specimen from Klipfontein (Namaqualand) (Cape), November, 1885 (L. Péringuey).

Length of the body 9.5 mm.; spread of the wings 23 mm. Head black, a little dark yellowish along the mouth borders; occiput less developed, clothed with soft and dense greyish hairs, which viewed from the front are whitish, becoming quite white below like those of the chin; ocellar tubercle with black hairs; frons very narrow, the eyes almost touching, being separated by a very narrow streak not broader than the width of the fore ocellus; frontal triangle small; with less distinct middle furrow, with long and erect black hairs on middle and with short and dense, depressed white hairs on the sides; facies rather long and prominent, clothed with short and dense whitish hairs, and longer and erect black ones, the moustache not extending to the extreme end of the genae, the last portion of which is therefore bare, as in *scabrirostris*; peristome narrow. Eyes with the upper areolets more distinctly enlarged than usually; antennae entirely black, with the first joint with long black hairs; third joint a little longer than the two first taken together, with the basal half broadened and narrowly ovate and the apical half linear; proboscis entirely black, 7 mm. long, with the labium smooth below; palpi short and hidden. Thorax black, clothed on the dorsum with very short greyish hairs, which, viewed from the front, show a silvery sheen; pleurae and breast white haired; notopleural line with darker hairs; notopleural and postular bristles brownish; metapleural tuft white, a little

yellowish below. Scutellum red, black at base, clothed, like the thorax, with strong brownish bristles on the hind border. Squamae whitish yellow, with yellowish fringe, which show a white sheen; halteres with white knob. Abdomen short, rotund, black; the hairs disposed on separate rows and of a greyish lacteous colour, those on the base, sides and end with strong silvery sheen; there are complete rows of strong black bristles on the hind border of the segments; venter with white hairs and black bristles in the middle; genitalia hidden. Legs entirely yellow, with black coxae and last tarsal joints infuscate; they have white scales, white hairs on the femora and black spines; the spicules of the four anterior tibiae are slender, but well developed; front femora without any, middle femora with one, hind femora with 6-7 spines below. Claws black, with a red base; pulvilli whitish, long. Wings hyaline, a little darkened at the extreme base and along the first basal and the costal cells; alula almost hyaline, yellow fringed; basal comb of larger size, black, yellow-pollinose near the base; veins red, a little darkened at end; venation of the usual type, the discoidal cell rather pointed at end, its apical cross-vein being only half as long as the discal cross-vein.

SYSTOECHUS FULIGINEUS, Loew (1863).

Very distinct from all the other species having strong black bristles on the abdomen, on account of the very dark, almost blackish furriness of the body.

A female specimen from Namaqualand, Spektakel, October, 1890 (R. M. Lightfoot), measuring less than 9 mm. in length. I refer it to the male of greater size (13 mm.) described by Loew in a few words from Bloemfontein, chiefly on account of the dark furriness of the body; from *S. austeni*, Bezzi, from Rhodesia it is distinguished by the non-ciliated third antennal joint and by the infuscated wings. Occiput with yellowish hairs, frons and face with more infuscated ones. Antennae entirely black, with the first joint more than twice as long as the second, and a little shorter than the third, which is of elongate conical shape and quite bare. Proboscis entirely black. The dullish black thorax and the shining reddish scutellum are clothed with fuscous hairs and with black bristles. Squamulae yellowish-brown with a whitish fringe; halteres with a white knob. Abdomen black, rather shiny, with fuscous hairs and with very numerous and strong black bristles at hind border of the segments; venter with pale yellowish hairs at base; anal tuft dirty whitish. Legs stout, entirely blackish-brown, but with yellowish scales on the femora; all the spines

and spicules are black; hind femora with a complete row of 8–10 spines below. Wings with a fuscous basal comb and with dark yellowish veins; they are yellowish-infuscated at base and along the fore border, and greyish-hyaline on the rest. Discoidal cell obtuse at end; second longitudinal vein undulated; third posterior cell much narrower than the second; anal cell broadly open.

A very small female specimen (only 4 mm. in length) from Namaqualand, O'Okiep, 1885 (L. Péringuey), has the frons with parallel sides and about as broad as the eye; the thorax is black on the back, with 4 longitudinal greyish stripes, 2 of which are on the dorso-central lines and 2 on the sides; the abdomen with rather distinct pale yellowish bristles at hind border of the segments.

ANASTOECHUS, Osten-Sacken (1877).

This genus is well represented in the South African fauna—a fact entirely unknown hitherto, and even not suspected before. The species can be easily distinguished from those of the preceding genus, not only on account of the characters given in the table, but also by the following ones: The face is white-haired; the underside of body is white-haired; the spines of the legs are always strong and always yellow or white; there are often strong bristles on the face and the basal joints of the antennae are usually of a red colour; the abdominal fur is long and usually tuft-like, and between it there are usually strong and long bristles at the hind border of the segments; the basal comb of the wings is very often yellow or white.

The species in the collection can be distinguished as follows:

- 1 (12). Body without a silvery pubescence above and always with distinct bristles on the abdomen; scutellum red, at least on the disc.
- 2 (3). Genae with a distinct comb of strong, yellowish bristles; wings variegated, with the marginal cell completely filled with brown to the end, and with a yellow basal comb; antennae with red base.
rubricosus, Wied.
- 3 (2). No distinct peristomial comb; wings with the marginal cell hyaline—at least in its terminal half.
- 4 (7). First joint of the antennae very short, not longer than twice the length of the second; face of the male without bristles; hairs of thorax very short; femora mainly yellow; wings of the male dimidiate.
- 5 (6). First antennal joint red; eyes of the male rather separated; wings with the basal comb black and yellow . . . *varipecten*, sp. nov.
- 6 (5). First antennal joint black; eyes of the male more widely separated; wings with the basal comb entirely yellow . . . *ceri*, Loew.
- 7 (4). First joint of the antennae rather long, three times the length of the second; hairs of thorax long; femora mainly black.

- 8 (11). Wings infusate or dimidiate, with a black basal comb of usual size; face even in the male with distinct bristles; antennae entirely black.
- 9 (10). Head and thorax with numerous black bristles; eyes of the male broadly separated, with small areolets; palpi black; wings infuscated basally *erinaceus*, sp. nov.
- 10 (9). Head and thorax with yellow bristles; eyes of the male very approximate and with enlarged areolets above; wings of the male dimidiate. *macrophthalmus*, Bezzi.
- 11 (8). Wings hyaline, with a small and whitish basal comb; face of the male without bristles, and eyes in the same sex rather separated; antennae of the male entirely black, with yellow base in the female. *innocuus*, sp. nov.
- 12 (1). Body wholly clothed with a long, silvery pubescence and without distinct bristles even on the abdomen; scutellum entirely black; wings hyaline, with a very small and silvery basal comb. *leucosoma*, sp. nov.

ANASTOECHUS RUBRICOSUS, Wiedemann (1821).

A very characteristic species, distinct from any other on account of its strong peristomial comb and of the very peculiar wing pattern.

Some specimens of both sexes from Namaqualand, Springbok, November, 1890 (R. M. Lightfoot); O'Okiep, October, 1885 (L. Péringuey); Bushmanland, Jackal's Water, Namaqualand (Cape), October, 1911 (R. M. Lightfoot). One specimen was already recognised by Bigot as belonging to the present species.

This species was not recorded since Wiedemann's description. It is very variable in size, measuring in length 9–13 mm., but one female is only 6 mm. The second antennal joint is red like the first; the attenuated part of the third joint is very long and thin. The frons is without black hairs—in opposition to Wiedemann's statement (*Stirne schwarz behaart*); the bristles on the face are of the same colour as the fur, but they are always distinguishable, and those of the genae are very distinct, numerous and free. Eyes of the male broadly separated, their distance being about twice as broad as the base of the ocellar triangle; areolets of equal size. Proboscis rather short, black, but the labium is usually red at the extreme base below; palpi yellow. Thorax with long hairs and with no black ones; those on pleurae and breast are whitish; scutellum red; all the bristles are of the same colour as the fur. Abdominal fur very long and tuft-like; the numerous bristles are longer than the hairs, disposed in complete rows, and are pale at base and dark brown at end. Venter yellow, with pale pubescence and short yellow bristles along the middle; anal tuft of the female very conspicuous, yellow; male genitalia hidden within the dense apical tuft. Legs with only the apical part of the

last tarsal joint black; they have whitish scales on the femora and entirely yellow spines, which are well developed even on the anterior tibiae; front femora with 2-3, middle and hind femora with very numerous spines below; claws red with black end; pulvilli yellowish, much shorter than the claws. Wings with a peculiar pattern of a light yellowish-brown tint; the marginal cell is completely filled to the end; the discoidal cell is almost entirely hyaline; the infuscation of the base and fore border shows three points separated by hyaline spaces, one at the end of the marginal cell, the second at the base of the cubital fork and the end of the first posterior cell, the third at the end of the second basal cell, passing a little over the discal cross-vein. There is a distinct pale yellowish, longitudinal streak on the whole of the first basal cell, more or less broadened towards the base and below. Discoidal cell with parallel sides, as broad at end as the base of the second posterior cell; its apical cross-vein is longer than the discal cross-vein. Basal comb formed with entirely pale yellow bristles; alula yellowish, with long yellow fringe; veins of a red colour, infuscated at end. In the present species the first posterior cell is much narrower than the discoidal cell.

ANASTOECHUS VARIPECTEN, sp. nov., ♂, ♀.

This species, probably only a variety of the following one, is distinguished by the characters given in the table.

Type ♂ from Spektakel, and type ♀ from O'Okiep, Namaqualand (Cape), October, 1886 (L. Péringuey), this last specimen being determined by Bigot as *Systoechus mixtus*, Wied.

Length of body 13 mm.; of wing expanse 32 mm. Head yellow on the face, black on the vertex, but the ocellar tubercle in the male is of a dark red colour; eyes of the male with the upper areolets only a little enlarged, separated for a distance as broad as the ocellar tubercle; frons of the female very broad, broader than the eye, provided on each side with very numerous and strong brownish bristles directed forwards and outwards, a dense tuft of short bristles of darker colour being placed on the ocellar tubercle; occiput clothed with short hairs, which are yellowish only in the upper part and pure white on the sides and below. In the male the frontal triangle, the face and the cheeks are clothed by short but dense white hairs without any bristle, only the ocellar tubercle being clothed with yellow hairs. In the female the frons has a short yellow pubescence, which is white on the face and on the cheeks, but in the middle of the face there is a spot of yellow hairs in which some bristles of the same colour are noticeable, while two or three distinct bristles are present also in the middle of the

sides. The genæ are clothed with white hairs, and are absolutely destitute of bristles in both sexes. Antennæ with the first joint very short, only twice as long as the second; pale red in the male and clothed with white hairs, dark red with yellow hairs in the female; the second joint is globular and black; the third is black, about twice as long as the two first joints taken together, only a little dilated at base and gradually tapering in a long styloform end. Proboscis black, short, 6.5 mm. long, with the basal ring reddish yellow and with the extreme base of the labium dark red below; palpi reddish-yellow, very thin, with short whitish hairs and with a few longer ones at end; peristome yellow. Thorax black, clothed with short equal hairs of a tawny colour, darker in the female; on the pleuræ and breast the hairs are short and quite white; in the male the bristles are pale yellowish and only notopleural and post-alar; they are darker in the female, and in addition there is a strong tuft below the notopleural line, and other tufts in front behind the head and on the hind border of mesopleura. Scutellum red, with soft hairs like those of thorax, and with strong, pale, or dark yellowish bristles at the hind border. Squamæ dirty yellowish, with a white fringe; halteres yellowish. Abdomen black, with the hind border of the segments and the venter red; it is clothed with dense and equal pale yellowish hairs, which from a front view show whitish sheens, and are denser in the male than in the female, but in both are distinctly tuft-like at end; there are complete rows of bristles at the hind borders of the segments, thinner and pale yellowish in the male, stronger and darker in the female; venter with scarce white hairs and almost destitute of bristles. Male genitalia yellow, anal tuft of the female luteous, but in both they are hidden within the fur. Legs entirely pale yellow, even at the end of the tarsi; the femora are bare and clothed with white scales; all the spines are yellow, the front femora with 1, the middle with 3-4, the hind with 7-9 spines below. Claws yellow, with black end; pulvilli yellowish, one third as long as the claws. Wings with the basal comb formed by yellow and black bristles; they are hyaline, but with a basal infuscation of a pale yellowish-brown tint, more extended in the male than in the female, but in both not surpassing the end of the first vein; in the male the border of this infuscation goes obliquely from the above-named point to the end of the fourth posterior cell, the second basal, anal and axillary cells being in greater part hyaline; in the female the infuscation is almost limited to the fourth vein; alula hyaline, with pale fringe. Veins rufous, a little infuscated at end. Discoidal cell broadly truncate, but its sides less parallel than in the preceding species, and its apical

cross-vein a little longer than the discal cross-vein; first posterior cell as broad as the discoidal one.

ANASTOECHUS CERVINUS, Loew (1860).

Easily distinguishable by the yellow basal comb of the wings and by the entirely black antennae, the first joint of which is short. A male and a female from the Cape, without precise locality. To Loew's original description may be added: face and genae destitute of bristles; antennae with the first joint only twice as long as the second; eyes of the male with the upper areolets a little enlarged, separated for a distance which is only as broad as the fore ocellus (a fact which seems to be contrary to Loew's statement); proboscis entirely black, with yellow basal ring; palpi yellow; hairs of frons entirely white. Scutellum red. Abdomen black, with red sides and red hind border of the segments; its bristles are not longer and not darker than the fur. Front femora with one, the others with more spines below; pulvilli very short. Wings with the two basal cells, the anal and the axillary cells almost entirely hyaline; neuration as in the preceding species.

The female, hitherto undescribed, has a broad frons, which is broader than the eye, and bears on the sides and on the ocella numerous but not very strong tubercles and dark yellow bristles; face without bristles, rather bare above the upper mouth-edge, and there shining yellow; proboscis with a black basal ring. Abdomen and venter entirely black, with the hind border of the segments narrowly yellowish; bristles strong and long, but of a pale yellowish colour like the fur. Hind femora below more reddish yellow, with whitish scales. Wings almost entirely hyaline, the fuscous pattern of the male being only indicated by a hardly distinct greyish tint.

ANASTOECHUS ERINACEUS, sp. nov., ♂, ♀.

A very peculiar and bristly, dark species of medium size, very distinct from any other on account of the numerous black bristles of the frons and thorax.

Type ♂ and type ♀ a single couple from Namaqualand, Springbok (Cape), November, 1890 (R. M. Lightfoot); an additional male specimen from O'Okiep (Cape) (L. Péringuey).

Length of body 8-9 mm.; of wing expanse 19-24 mm. Head entirely black, dusty-grey, but rather shiny around the vertex; occiput rather developed, clothed with long greyish hairs and with long dark

brown or black bristles, more numerous in the female; these hairs become shorter and whiter below, and besides the eye-borders show a broad band of silvery scales. Eyes of the male of smaller size, with equally small areolets, and more separated than in the other species, their distance at the narrowest point being three times as broad as the breadth of the ocellar triangle; frontal triangle very broad and not triangular, clothed with very long and erect, bristly, black hairs, and with short, silvery, scaly hairs on the front half, continued on the cheeks; face clothed with long white hairs, and with numerous, long and strong curved bristles of a white colour, some of which near the middle are black. In the female the frons is exceedingly broad, $2\frac{1}{2}$ times as broad as the eye; on the first half it is clothed with short white hairs, on the basal half it is bare and rather shining, and there and also on the sides it bears very numerous erect black bristles; face with white hairs and scaly silvery ones near the eye-borders, with numerous and strong white bristles and 2-3 black ones near the middle and on the sides above. On the genae there are no distinct bristles in either sex; the genae and the lower part of the cheeks are provided with long white hairs. Antennae entirely black, with the first joint long, almost 4 times as long as the globular second joint, with long black hairs and some black ones intermingled; third joint not longer than the two first joints taken together, slender, linear, less broadened at the base. Proboscis entirely black, 4.5-5 mm. long, the basal ring, like the peristome, with a yellow border; palpi very thin, black, almost bare, with a few dark hairs near the end. Thorax black, a little shining, with a faint dark-grey dust, clothed with long greyish hairs, which, viewed from the front, are shining white, and on the pleura and breast with quite white hairs. There are very numerous black bristles forming a complete row on the fore border, another row on the sides from the humeri to the postalar cell, a rich tuft below the notopleural line and a row at the hind border of the mesopleurae. Scutellum dark red, with black base and black hind border, clothed like the thorax, and with long black bristles on the disc and on the hind border. Squamae dirty white, with a narrow dark border and with a white fringe; halteres yellowish; metapleural tuft white. Abdomen entirely black, with a very long pubescence coloured like that of the thorax, and strongly tuft-shaped; on the hind borders of the segments there are complete rows of very numerous and long black bristles. Venter black, with white hairs and numerous black bristles; chiefly towards the end of the abdomen the bristles are exceedingly numerous, long, and intricate. Legs pale yellow, with the last joint of the tarsi black; the femora are black with yellow end, but are closely covered

with dense white scales and have white hairs below near the base; all the spines are well developed and yellow, there are none on the front femora, 3-4 on the middle femora, 6-7 on the hind femora; claws black, with red base; pulvilli very short. Wings greyish hyaline, with a suffused fuscous fringe along the fore border and near the base, more extended in the male than in the female and ending in the marginal cell at the end of the first vein. Basal comb black, with white tomentum near the base; alula almost hyaline, with pale fringe; discoidal cell with parallel sides, as broad as the middle of the first posterior cell, its terminal vein being longer than the discal cross-vein; second posterior cell as long as the discoidal cell, which is somewhat short.

ANASTOECHUS MACROPHthalmus, Bezzi.

Nearly allied to the preceding species, but distinguished by the closely approximated eyes of the male, and by the bristles of the head and thorax being yellow instead of black.

A single rather old and discoloured male specimen from Hex River (Cape), December, 1884 (L. Péringuey). Type is described by me from Willowmore (Cape) in the Museum at Budapest.

ANASTOECHUS INNOCUUS, sp. nov. ♂, ♀.

A smallish oblong, less bristly species, making a passage to the following on account of the small and entirely white basal comb of the wings.

Type ♂ and type ♀, a single couple of specimens from Van Wyk's Vlei (Cape) (E. G. Alston).

Male.—Length of body 8-8.5 mm.; of wing expanse 7.5-8 mm. Head black, but entirely clothed with dense hairs, which on the occiput are rather long, pale yellowish above and whitish below; lower border of the eyes with silvery scaly hairs; ocellar tubercle with yellowish hairs. Eyes of the male more broadly separated than in the preceding species, the frons at the narrowest point being as broad as the ocellar triangle; the upper areolets are a little broader than the lower ones. Frontal triangle at the base and on the middle with scarce, erect, dark hairs, and in front around the base of antennae with long yellowish hairs, mingling with those of the same colour which cover entirely the face concealing the mouth opening and of a white colour below; between this dense pubescence there are no bristles at all. Antennae entirely black, the first joint three times as long as the second, with dense pale yellowish hairs; third joint linear, narrower than the

second at the base, with the terminal part less attenuated. Proboscis entirely black, 4 mm. long, its basal ring with yellow border like the peristome; palpi blackish. Thorax black, faintly shining, clothed with dense and equal, rather long hairs which are light yellowish and shining silvery on the back and whitish on the pleura and below; there are no bristles in front, and the notopleural and postalar bristles are thin and yellowish. Scutellum dark red on the disc, black at the base and on the borders, clothed, like the thorax, with indistinct bristles at the hind border. Squamae dirty white, with yellowish border and with whitish fringe; halteres yellow, with whitish knob. Abdomen elongate, black, rather shining; the narrow lateral border (not the hind border of the segments) and the venter are red; it is clothed with dense and long soft hairs, which are coloured like those of the thorax, but are paler on the sides and at end, becoming white on the venter. The bristles at the hind border of the segments are well developed only on the last segments, and are thin and of a darker brownish-yellow colour; the fur is not tuft-like; on the venter there are no distinct bristles. Legs pale yellow; the femora are black, with only the tip yellow, more broadly so on the 2 anterior pairs, but they are clothed with white scales and with white hairs below near the base; all the bristles are thin and of a whitish colour; front femora without any, middle femora with 2, hind femora with 4-5 spines below; claws black, with a red base; pulvilli almost wanting. Wings entirely hyaline, the extreme base and the costal and first basal cells with a less distinct greyish tinge; basal comb small, with entirely white bristles; alula hyaline, white fringed; veins reddish-yellow, darkened at end; discoidal cell less obtuse, with the terminal vein only a little longer or as long as the discal cross-vein; first posterior cell narrower than the discoidal cell, which is a little longer than the second posterior cell.

Female.—Length of body 5.5 mm.; of the wing expanse 14 mm. Doubtfully the same species, but taken at the same place and time with the male, and half the size of it. Frons exceedingly broad, three times as broad as the eye, with numerous bristles on the sides, which are of a dark yellowish-brown colour; on the face there are no distinct bristles, but only a few bristly hairs of the same colour as the surrounding pubescence; the antennae are of the same shape as in the male, but the first joint is pale yellow. Thorax as in the male, but with numerous yellowish bristles below the notopleural line. Abdomen with more numerous, stronger and longer dark bristles, which, however, are set only at the end; in the middle the rows are incomplete. Legs and wings exactly as in the male.

ANASTOECHUS LEUCOSOMA, sp. nov., ♀.

An elegant species of small size, distinct from any other owing to the body being clothed entirely with long silvery hairs, without distinct bristles even on the abdomen, and by the vitreous wings, which have a silvery basal comb.

Type female, Bushmanland, Jackal's Water, October, 1911 (R. M. Lightfoot); O'Okiep (Cape), November-December; a specimen from Matjesfontein (Cape) is much larger, measuring 8.5 mm. in length. The present species was named by Bigot *Systoechus leucosoma* in M.S.; I have retained the very appropriate specific name.

Length of body 5.5-6.5 mm.; of wing expanse 13-16 mm. Head black, but densely clothed with silvery scales at the hind border of the eyes and on the sides of frons and face; on the vertex only there is a broad transverse black band clothed with erect black hairs enclosing the ocelli and extending from one eye to the other, like those of the ocellar tubercle; all the other hairs are silvery, long and dense, chiefly on the upper part of the occiput and on the face; there are no distinct bristles; the frons is twice as broad as the eye. Antennae entirely black; the first joint long and clothed with long, white hairs; the third joint linear, restricted to a long and thin petiole at the base, not broader in the middle than the second joint, and less attenuated at end. Proboscis as long as the body, 6-6.5 mm. long, thin, entirely black; palpi black, thin, with same long white hairs at the end. Thorax short and rather arched above; entirely clothed with long silvery hairs, those of the disc being only slightly dark if viewed from the side or from above; there are no distinct bristles, the notopleural and postalar ones being concealed within the fur, from which they cannot be distinguished. Scutellum entirely black, clothed like the thorax, and likewise destitute of bristles. Squamae white, with pale yellowish border and with argenteous fringe; halteres yellowish. Abdomen entirely black, with long hairs like those of thorax; the bristles at the hind border of the segments are thin and of the same colour as the fur, from which they are not distinguishable; venter black, yellowish at end, with shorter white hairs; the genitalia are destitute of the usual tuft of hairs, but have two approximate lamellae with a longitudinal fissure between them. Legs short and strong, with well-developed spines of a white (not yellow, as in the other species) colour; they are clothed with broad silvery scales, which are developed chiefly on the femora, but are abundant even on the tibiae. The femora are black, those of the two anterior pairs with the apical half pale yellow and those of the hind pair with the end yellow; the anterior and middle

femora have also white hairs below near the base, but are destitute of spines; the hind femora have 3-4 long spines below; tibiae and tarsi pale yellow, but those of the hind pair are distinctly darker. Claws black, with narrowly yellow base; pulvilli nearly wanting. Wings entirely vitreous, only a little whitish at the extreme base and along the fore border; basal comb very small and silvery; alula with a white fringe; veins pale yellow, darkened at end. Discoidal cell short and obtuse at end, its apical vein being longer than the discal cross-vein: it is as long as the second posterior cell and much broader than the narrow and elongate first posterior cell, the veins of which are almost entirely parallel.

EURYCARENUS, Loew (1860).

The species of this characteristic and rather aberrant genus seem to be more abundant in mid-Africa. The present collection contains only a few specimens of the typical species, and in addition there is a couple of specimens of a new form from Mozambique.

EURYCARENUS LATICEPS, Loew (1852).

Dipteren-Fauna Sudafrikas, p. 187, pl. ii, fig. 7.

A very distinct species on account of its generic characters.

A male from Morokweng (Bechuanaland) (J. M. Bain); a female from M'Fongosi, Zululand, December, 1914 (W. E. Jones).

EURYCARENUS SESSILIS, sp. nov., ♂, ♀.

Nearly allied to the preceding, but distinct from it and from any other species owing to the silvery abdominal bands and the very briefly stalked, almost sessile first posterior cell.

Type ♂ and type ♀, a single couple of specimens from Inhambane, Mozambique; an additional male example from Bechuanaland (G. Alston).

Length of body 8.5-9 mm.; of a wing 8-8.5 mm. Head black, with whitish-grey dust; occiput flat, with silvery tomentum on the sides beyond the lateral sinuosity of the eyes, and with white shiny hairs above; ocellar tubercle black-haired. Eyes of the male with the upper areolets broader, united on a line as long as the length of the ocellar tubercle; frontal triangle broad, with rather dense, erect black hairs, and a few whitish-dusted in front; frons of the female broad, one-third as broad as the head, yellowish-dusted, whitish near the eye borders, with sparse black hairs near the antennae, and with 4 strong, black, orbital bristles on each side, the apical one bent forwards, the

other backwards. Face broad, with a white tomentum on the sides and below, and with white hairs and a few black ones in the centre of the sides; genae with white hairs underneath; antennae entirely black, the basal joint with black hairs, the third joint long, narrow and pointed as in *laticeps*, but the upper ciliae seem to be caducous.

Proboscis entirely black, 3.5–4 mm. long; palpi not visible and seemingly less developed than is usual. Thorax and scutellum entirely black, with yellow pubescence, pale yellowish hairs and strong black bristles, which are numerous before the root of the wings and at the hind border of the scutellum; pleurae and breast with white hairs; metapleural tuft well developed. Squamae pale yellowish, with a dark border showing short black bristly hairs and a white fringe of moderate length. Halteres with blackish stalk and whitish knob. Abdomen entirely black; it is clothed with long white pubescence and has some black hairs at the base of the segments on the sides; very characteristic are the narrow bands of silvery tomentum on the hind border of the segments from the 2nd to the 6th; on the hind border of the segments there are besides complete rows of very strong and numerous black bristles; there is no trace of the white longitudinal stripe of *laticeps*; venter black and black haired, with a broad white transverse band in the middle; male genitalia black and black haired. Legs entirely black, with dark yellowish tibiae and basal joints of tarsi; in the female only they are white-scaled on the femora and the tibiae, but those of the hind pair have black scales on the apical half of the femora and the tibiae; the coxae and the 4 anterior femora are white-pilose near the base; all the spines are black, those of the tibiae well developed even on the front pair; middle femora with 4–5, hind femora with 10–12 spines below; claws black, with narrowly yellow base; pulvilli dark, as long as the claws. Wings greyish-hyaline, pale yellowish at base, with the black basal spot less developed; they have the typical venation of *laticeps*, with this exception, that in both sexes the first posterior cell has a very short stalk, being extended almost to the hind border, as in the genus *Sisyrophanus*. Alula hyaline, whitish fringed; praealar hook strong, of a deep black colour; basal comb small, black, yellow tomentose; veins dark, yellow at base, especially the auxiliary and the sixth; base of the first and of sixth vein with a broad yellow pubescence.

DISCHISTUS, Loew (1855).

The present genus is rich in species provided with important characters. It can be divided in groups, like those of the genus *Bombylius*. Of these groups, only two are characteristic of the South African

Fauna, viz. the groups of *mystax* and of *seriatus*; and only these two are indeed represented in the collections of the South African Museum. Some species previously included in the genus will be removed to the new genus *Gonarthrus*. All the species here enumerated have the eyes of the male separated or only approximate; they can be distinguished as follows:

- 1 (4). Species of great size and of broad, stout body; metapleurae bare; antennae widely separated at the base, with the first joint thickened; hind femora without bristles below, only with rigid black hairs; tibiae with black spicules; wings short, with the discal cross-vein placed much after the middle of the discoidal cell; upper branch of the cubital fork less retreating; alula small and not fringed (group *mystax*).
- 2 (3). Proboscis short, not longer than the thorax; palpi concealed; femora black, with only the end yellow and with numerous rigid black hairs below *capito*, Loew.
- 3 (2). Proboscis as long as the body; palpi long and feathered; femora yellow, without black hairs below, or only with a very few thin ones on the hind pair. *plumipalpis*, sp. nov.
- 4 (1). Species of small size and of more elongate body; metapleurae haired; antennae approximate at base, with non-thickened first joint; hind femora with yellow bristles below; tibiae with yellow spicules; discal cross-vein set much before the middle or rarely in the middle of the discoidal cell; upper branch of the cubital fork much retreating, alula broad and fringed (group *seriatus*).
- 5 (6). Wings very short, with the discal cross-vein placed on the middle of the discoidal cell, which is short and broad, triangular; the two basal joints of the antennae, scutellum and legs entirely of a yellowish-red colour; pulvilli long *rubicundus*, sp. nov.
- 6 (5). Wings of usual length, with the discal cross-vein set much before the middle of the discoidal cell which is variable in shape; base of the antennae, scutellum and legs never completely yellow at the same time; pulvilli usually much shorter than the claws.
- 7 (8). Antennae, scutellum and legs entirely black; discoidal cell as long as broad; body clothed with silvery long hairs and below these with yellow tomentum *niveus*, Macq.
- 8 (7). Legs mainly yellow, at least on the tibiae; discoidal cell elongated, often very much longer than broad.
- 9 (14). Proboscis entirely black; frons in the known females narrow.
- 10 (13). Scutellum black; proboscis short; wings small, entirely hyaline; discoidal cell rather short, not twice as long as broad; femora not black striped.
- 11 (12). Femora entirely yellow, without distinct spines below; wings with rather distinct basal comb *ovatus*, sp. nov.
- 12 (11). Femora black, with distinct bristles below on the hind pair; wings with no distinct basal comb *seriatus*, Wied.

- 13 (10). Scutellum red; proboscis long; wings very broad and long, and broadly infuscated; discoidal cell almost three times as long as broad; basal comb developed; femora with black stripes below.
vittipes, sp. nov.
- 14 (9). Proboscis red above, at least near the base; frons of the known females very broad.
- 15 (16). Scutellum red; body grey, with pale or white fur; basal comb of the wings rather developed. *variegatus*, Macq.
- 16 (15). Entire body and scutellum of a deep black colour with dark reddish fur; basal comb smaller *tripunctatus*, Macq.

DISCHISTUS CAPITO, Loew (1860).

A species of great size (for the present genus), very near *mystax*, but at once distinguished from it and from the others by the characters given in the table.

Originally described from Caffraria. There is in the collection a male specimen from Grahamstown, May, 1885 (Billinghurst), measuring 12 mm. of length with 25 mm. of wing-spread; it was named by Bigot *Dischistus heterocerus*, Macq.; but Macquart in its description says that the third antennal joint is spindle-shaped and that the legs are yellow—characters which apply better to *mystax*, with which therefore it must be placed as a synonym.

The male was unknown to Loew and is hitherto undescribed; it is very like the female. The eyes have equally small areolets, and are set close to each other on the frons but separated for a distance which is as broad as the ocellar tubercle; the genitalia are black, with reddish borders to the lamellae; the black bristles of the abdomen form complete rows and are very numerous. All the femora are provided on the underside with long and numerous, rigid, black hairs, with some yellow ones intermingled chiefly near the base and on the middle pair. The pulvilli are only a little shorter than the claws. Wings with the discoidal cell long, the two middle segments of its lower vein being of equal length; basal comb not distinct; alula very small and destitute of fringe.

DISCHISTUS PLUMIPALPIS, sp. nov., ♂.

Closely allied to *mystax* and *capito*, but at once distinguished by the long proboscis, the feathered palpi and the much more approximate eyes of the male.

Type ♂, a single specimen from Grahamstown (Cape), 1883.

Length of the body 10.5 mm.; spread of the wings 22 mm. Head black, grey-dusted; occiput flat, concave in the middle, with rather

long yellowish hairs at the upper border, which become shorter and paler below, but along the whole ocular border, in front of these hairs, there is a fringe of thin but distinct black ones. Ocellar tubercle black, with a tuft of long black hairs; eyes with the upper areolets distinct but little broader than the others; they are greatly prolonged above, approaching each other to a distance which is only a little broader than the breadth of the fore ocellus. The frontal triangle is very short and very broad, with short yellowish hairs on the middle and with dark ones on the sides; cheeks clothed with long, reddish hairs forming a rich moustache, but margined near the eyes with black hairs; below this moustache are to be seen the rather broad, shining black and bare mouth borders. Beard very dense, becoming longer behind, of a dirty whitish colour. Antennae entirely black, rather separated at the base; first joint long, grey-dusted and distinctly thickened, clothed with very long and dense hairs which are pale yellowish above and reddish below, with some black hairs intermingled; second joint globular; third as long as the first, but much thinner (almost spindle-shaped as in *mystax*), but less narrowed at the base, its terminal half being very thin, with a short capillar style at the end. Proboscis entirely black, very long and thin, with small terminal labella, 11 mm. long; palpi very long, as long as the antennae, black, feathered with long and dense, rigid hairs which are black above and at apex, whitish below, and also at the base. Thorax and scutellum entirely of a deep black colour, clothed with dense, equal yellowish hairs of moderate length; on the pleurae the hairs are paler and those of the breast are whitish, but the metapleura is bare, concealed below the squamae and the mesopleural tufts; there are distinct, but thin, bristly, black hairs at the posterior end of the thorax and on the hind border of the scutellum. Squamae dirty-whitish, with dark brown border and very long and dense whitish fringe; halteres with a white knob. Abdomen entirely deep black, clothed with hairs like those of the thorax, whitish-shiny from a front view; the black bristles at the hind border of the segments are very numerous, forming complete rows, but they are very thin; venter with greyish hairs and without bristles; genitalia black. Legs entirely pale yellow, but the tarsi broadly black at the end and the femora narrowly darkened at the base; they are pale-dusted, and the femora have very long white hairs below, but only a few thin black hairs and no spines; the spicules of the tibiae are very long and numerous; claws red with black end; pulvilli dirty-whitish, a little shorter than the claws. Wings very short, entirely hyaline; only at the extreme base and in the costal cells have they a faint yellowish tinge; veins

yellow, darkened at end; no distinct basal comb; linear alula very narrow, not fringed, venation typical of the group.

DISCHISTUS RUBICUNDUS, sp. nov., ♂.

A species of middle size, with elongate body and short wings, very distinct owing to the colour of the antennae and legs, and by the typical venation. The present species in coloration, shape and disposition of the abdominal fur strongly recalls *Bombylius mundus*, Loew, and some other species of the same group, which were taken in the same locality and at the same time; even the specimens of *D. rubicundus*, Wied., from the same locality, have a very similar facies.

Type, ♂; a single specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Length of the body 9 mm.; of a wing 6.5 mm.; spread 17 mm. only. Head black, with dense grey dust; occiput much developed, swollen, clothed with short and dense pale yellowish hairs, which below are very short and become tomentose near the borders of the eyes; no black hairs behind; ocellar tubercle less prominent with pale hairs; frons as broad as the ocellar tubercle, moderately broadened forward, with dense yellow hairs. Face and cheeks with entirely yellow hairs forming a scarce and short moustache, the lower hairs being rigid and paler; beard scarce and short, whitish. Eyes dark red, with irregular black spots and with equally small areolets. Antennae approximate at the base, rather strong; first joint of a pale reddish colour, with sparse hairs, which are very short and whitish above, very long and yellowish below, forming a tuft; second joint of the same colour as the first, and twice as long; third joint deep black, as thick as the first, truncate, very little attenuated at the extreme end, of even shape throughout; terminal style very thin. Mouth-opening broad; proboscis short and strong, 2.5 mm. long, black above, dark red below near the base, glabrous at end; palpi yellow, thin, pale-haired. Thorax black, densely clothed with very short pale yellowish hairs; it seems that on the back there are 4 longitudinal stripes of more yellow pubescence, more distinct on the posterior half; pleurae grey-dusted, with short hairs and with some bare parts, but the metapleura with a fine, whitish tuft; the bristles are long, yellow; below the notopleural line, on the upper part of the pleurae, there is a dense tuft of short, yellowish, bristly hairs. Scutellum red, black at base, grey-dusted, clothed like the thorax with strong but short pale bristles on the hind border. Squamae dirty pale-yellowish, with whitish fringe; halteres

yellow, with white knobs. Abdomen ovate, red, the two first segments and the middle of the third black; it is clothed with dense, whitish, depressed pubescence; at the hind border of each segment there is a broad band of erect, pale yellowish hairs, but there are no distinct bristles; the long abdominal fur appears thereby to be disposed on 5 parallel rows alternating with tomentose bands; venter red, with short whitish hairs; genitalia red. Legs entirely reddish-yellow, even on the coxae and at the end of the tarsi; they have whitish scales and very scarce pale hairs on the femora; middle femora with 4, hind femora with 6 yellow spines underneath; spicules of the tibiae yellow, those of the front pair very minute; claws red, with black end; pulvilli narrow, dirty-whitish, shorter than the claws. Wings short, with a faint yellowish tinge on the basal half; veins yellow; basal comb very small, pale yellowish; alula broad, rounded, hyaline with pale fringe. Upper branch of the cubital fork arched in the middle and much retreating at base; discal cross-vein on the middle of the short and broad discoidal cell, which is of triangular shape, with the two lower veins of nearly equal length; first posterior cell narrowed at end, but the second posterior cell not triangular; apical cross-vein of the discoidal cell much longer than the discal cross-vein.

A very small female specimen (only 4 mm. in length) from Namaqualand, O'Okiep, 1885 (L. Péringuey), has the frons with parallel sides and about as broad as the eye; the thorax is black on the back, with 4 longitudinal greyish stripes, 2 of which are on the dorso-central lines and 2 on the sides; abdomen with rather distinct pale yellowish bristles at hind border of the segments.

DISCHISTUS NIVEUS, Macquart (1840).

A small species, very distinct on account of its entirely black legs and its white fur.

Macquart described the male from the Cape, but without mentioning the colour of the legs; from his short description it seems to be a species of *Gonartherus*, but the position of the discal cross-vein differs. I refer to this species a female specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Length of body 6 mm.; of a wing 5.5 mm. Head, thorax, scutellum and abdomen black, grey-dusted and clothed with a short golden tomentum, which is silvery only on the face and at the hind borders of the eyes. All the hairs are long, but rather sparse, of a silvery white colour; on the pleurae there is no golden tomentum, only white scaly hairs and no distinct bristles between the hairs. Frons much

broader than the eye. Antennae entirely black, the third joint one and a-half times as long as the two first taken together, linear, obtuse, thinner than the rather thin, short and white-haired first joint. Proboscis entirely black, 3.5 mm. long. Halteres whitish. Legs white-scaled, with white spines and white spicules; claws black; pulvilli absent. Wings entirely hyaline, vitreous, with pale yellow veins, no distinct comb, but the costa is white-scaled at the base; alula broad, rounded and fringed with white. Upper branch of the third vein very much retreating at the base; discal cross-vein placed much before the middle of the discoidal cell, which is as broad as long, triangular; first posterior cell not narrowed at end; anal cell sometimes narrowed at end.

DISCHISTUS OVATUS, sp. nov., ♂.

A dark species with long ovate body, recalling that of *Bombylius kilimandjaricus* and differing from the other species of the present group in having the hind femora not spinose below.

Type ♂, a single, not well-preserved specimen from the Cape, without special locality.

Length of body 11 mm.; of wing 10 mm. Head dark-tawny, grey-dusted, black on the occiput; this last little developed, clothed with short and dense black hairs above which become very short and brownish below and merge into the less developed beard of a paler colour; ocellar tubercle black-haired. Eyes with equally small areolets, less approximated, the frons at the narrowest point being as broad as the vertical triangle; it is less broadened forwards, and bears sparse and short, erect black hairs; face gently rounded, clothed like the cheeks with sparse black hairs, with some shorter yellowish ones intermingled. Antennae entirely black, but the first joint pale-dusted, three times as long as the second, clothed on the two sides with long black hairs; third joint as long as the two first joints taken together, not broader at the base than the second, gradually tapering to a short point. Proboscis entirely black, rather thick, 4 mm. long. Thorax, scutellum and abdomen deep black, clothed with rather short dark brownish hairs, which, viewed from the front, are shining-pale; there are no black hairs intermingled; the bristles at the postalar cells and at the hind border of the scutellum, like those of the hind border of the abdominal segments, are black and well developed. Pleurae below and breast with greyish hairs; metapleurae with whitish and black hairs intermingled. Squamae tawny, with short whitish fringe; halteres yellowish-brown. Venter black, reddish-yellow at base, grey-haired; genitalia dark red. Legs.

with the coxae entirely yellow, pale-scaled, scarcely white-haired on the femora, which are unarmed, and having even on the hind pair only a few rigid hairs; spicules of the tibiae less developed, yellow, claws yellow, with black point; pulvilli not distinct. Wings vitreous, hyaline, faintly yellowish at base and along the costal cell; basal hook strongly reddish; basal comb distinct, black, yellowish tomentose; alula broad, yellow-fringed. Veins black, but the entire first vein and the base of the others are yellow; upper branch of the cubital fork retreating; first posterior cell narrowed at end; discoidal cell short and broad, truncate at end, its terminal vein being longer than the discal cross-vein, which is placed before the middle; the two lower veins of the discoidal cell are of almost equal length.

DISCHISTUS SERIATUS, Wiedemann (1821).

Closely allied to the preceding species, from which it is distinguished by the smaller size, the darker legs and the well-developed spines at the underside of the hind femora.

A very small male specimen, measuring only 5 mm. in length, from Van Wyk's Vlei, Carnarvon (Cape) (E. G. Alston), 1893. Wiedemann has described the female from the Cape; the eyes of the male have equally small areolets and are approximate to a distance equal to the distance of the posterior ocelli. Proboscis short; genitalia dark red; abdomen mainly black-haired; pulvilli very short. Wings entirely hyaline; first posterior cell not narrowed at end and very long; discoidal cell obtuse at end, twice as long as broad.

DISCHISTUS VITTIPIES, sp. nov., ♂.

A species of proportionally large size, having strongly spinose legs and broadly infuscated, very long wings, which have in addition a rather large basal comb.

Type ♂, a single specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Length of the body 10.5 mm.; of the wing 12 mm. Head reddish, grey-dusted, black on the occiput, which is developed and convex, clothed with pale yellowish hairs above, with whitish and shorter ones on sides and below, without any black hairs; beard scarce, white. Frons broad; eyes with equal areolets, less approximate, separated for a distance twice as broad as the ocellar triangle; ocellar tubercle with some dark hairs; frons little broadened forwards, with sparse dark hairs in the middle and other whitish and longer hairs on the sides. Face very broad and long, gently curved, clothed like the very narrow cheeks with scarce and long white hairs; genae

broad, red before and black beneath. Antennae dark reddish, but infuscate above at the base and on the basal half of the third joint; first joint three times as long as the second, with sparse and short whitish hairs; third joint narrow, linear, a little longer than the first two taken together. Proboscis entirely black, 7.5 mm. long; palpi reddish-yellow, thin, almost bare. Thorax black, with red humeral calli; it is entirely clothed with dirty-greyish hairs having a white sheen if looked at from a front view; bristles long and entirely yellow; pleurae grey-dusted, the sternopleura with a broad red band above; they are whitish-pilose below and on the breast; sternopleura with a dense tuft of long pale hairs. Scutellum red, narrowly black at the base, clothed like the thorax with long whitish bristles at the hind border. Squamae yellowish, with white fringe; halteres yellow, with white knob. Abdomen short oval, black, rather shining, broadly red on the sides; it is clothed like the thorax and has whitish bristles at the hind border of the segments; genitalia reddish above, black below; venter red, each segment broadly black at the base, with sparse greyish hairs. Legs yellow, with the tarsi blackened at end; the femora have a well-marked black stripe below from the base to the end, and are provided with whitish hairs and strong yellow spines, 3-4 on the middle, 5-6 on the hind pair; spicules of the tibiae much developed, yellow; claws black, with a red base; pulvilli very short. Wings very long and broad; basal comb pale-yellowish, larger than usual; alula broad, hyaline, pale-fringed. The wings have only the apical third greyish-hyaline; the rest has a yellowish-brown infuscation which forms broad dark borders along the veins, the centre of the cells being paler. Veins black, the first entirely and the others yellow at the base; upper branch of the cubital fork retreating at base; first posterior cell narrowed at end; discal cross-vein set much before the middle of the discoidal cell, which is very long, being three times as long as broad, obtuse at the end and with parallel sides, the second of the lower veins being three times as long as the first; anal cell narrowed at end.

DISCHISTUS VARIEGATUS, Macquart (1840).

A species very distinct owing to the red proboscis, but closely allied to the preceding one; it is perhaps its female. Macquart has described the female from the Cape, and likewise there are in the collection females from Namaqualand, Springbok (Cape), October, 1890, and from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot). The present species show a very striking affinity with

Bombylius brachyrrhynchus, sp. nov., taken at the same time and in the same locality, and which has also a red proboscis.

The ground-colour of the head is reddish, but it is concealed below the white dust, which is very dense on the rather developed and prominent occiput; the soft hairs of the upper part of the occiput, the bristly hairs of the ocellar tubercle, and those, likewise bristly, of two tufts, set one on each side of the frons, are yellowish; the other hairs of the head are white or even silvery. Frons as broad as one-third of the head. Antennae reddish, more or less infuscated above; the basal joint with short yellowish hairs above and long white hairs below. Proboscis entirely red above and below, with a black tip; palpi pale-yellow, almost bare; proboscis 4 mm. long. Thorax black, clothed with yellowish and white hairs; pleurae reddish, white-dusted, with white and yellowish hairs; metapleurae with a tuft of white and yellow hairs. Scutellum red, hairy like the thorax, and with yellowish marginal bristles. Squamae brownish-yellow, white-haired; halteres yellow, with a whitish knob. Abdomen as in the preceding species. Legs as in the preceding and even more spinose, but the femora are not striped and only a little darkened below near the base; pulvilli well developed. The wings are very like those of the preceding species, but there is no broad infuscation in the middle; they are only yellowish near the base and along the fore border right to the basal and discal cross-veins, which are sometimes narrowly margined with fuscous.

DISCHISTUS TRIPUNCTATUS, Macquart (1840).

Distinguished by the red proboscis and red antennae, by the deep black body with dark fulvous pubescence and by the tripunctate wings.

The female was described as a *Bombylius* from an unknown country by Macquart. There is in the collection a male specimen from Namaqualand, Springbok (Cape), October, 1890 (R. M. Lightfoot). Notwithstanding the differences the present species also may prove to be the male of the preceding, as it was caught in the same locality and at the same time.

Length of the body 7 mm.; of a wing 7 mm. Head black, but densely clothed with a dark dust and by a short fulvous pubescence which is destitute of black hairs; occiput less developed; beard scarce and pale-coloured. Antennae approximate at the base, rather short, of a dark reddish colour; the first joint is more than 3 times as long as the second, and provided with tawny hairs; third joint a little more darkened above, linear, gradually attenuated, obtuse, not longer and

never thicker than the first, ending in a thin style. Proboscis short, 2 mm. long, red above with black tip, entirely black below or narrowly red only at the base. Thorax and scutellum of a deep black colour, clothed by an equal, rather short, dark fulvous pubescence, with long dark reddish bristles on the postalar calli and on the hind border; pleurae with more reddish hairs, reddish-dusted, almost bare below and on breast; metapleural tuft dense, of reddish colour. Squamae brownish, with short yellow fringe; halteres yellow. Abdomen ovate, deep black, but with dark-red sides and red genitalia; it is rather shining and has a bluish tinge on the middle of the tergites; it is clothed like the thorax with dark-reddish bristles at the hind border of the segments; venter red, with short hairs, pale at the base and reddish at tip. Legs pale yellow, with long fulvous hairs on the femora, well-developed fulvous spicules on the tibiae and 5 long fulvous spines on the under-side of the hind femora; claws red with black tip; pulvilli dirty-whitish, a little shorter than the claws. Wings hyaline, with a small but distinct fulvous basal comb; they are yellowish-fuscous near the base and along the costal cell; the 3 fuscous spots are as described by Macquart. Veins dark yellow, paler near the base; alula of great size, yellowish brown, with a pale fringe; upper branch of the cubital fork much retreating at the base; discal cross-vein set much before the middle of the discoidal cell. First posterior cell a little narrowed at end; discoidal cell long, with parallel sides, almost rectangular, its apical vein being almost twice as long as the discal cross-vein; anal cell broad in the middle and narrowed at end.

DISCHISTUS CORACINUS, Loew (1863).

An entirely deep black species of smaller size, at once distinguishable from all the other species here recorded on account of its entirely black hairs.

A male specimen from Pretoria, November 20th, 1916 (G. A. H. Bedford). This and the following species belongs to the group of *D. minimus*, a group which was believed to be very scarcely represented in the South African fauna. The present species was originally described from Bloemfontein. To the short diagnosis may be added: Eyes touching on a line longer than the frontal triangle; occiput not prominent, with rather long black hairs at the border; antennae entirely black, with the first joint a little inflated and black-haired, and with the third joint more than twice as long as the first, quite linear, with a short style at end. Proboscis entirely black, 1.5 mm.

long. Thorax without distinct bristles; hind border of the scutellum with thin and long bristly hairs; squamulae black, and black-haired. Abdomen with long bristly hairs at hind border of the segments. Coxae black and black-haired; hind femora with 2 spines below on the apical half; all the spines and the spicules of the legs are black. Wings with no distinct basal comb; 2nd longitudinal vein straight and gently curved at end; upper branch of the 3rd longitudinal vein long and oblique, a little S-shaped, not retreating; small cross-vein considerably before the middle of the discoidal cell; third posterior cell of a regular trapezoidal shape; discoidal cell rather broad.

DISCHISTUS PECTORALIS, Loew (1863).

A middle-size species of an entirely deep black colour, but clothed with a yellowish furriness which is black only on the breast. A male specimen from Pretoria, December 12th, 1916 (G. A. H. Bedford). Originally described from Bloemfontein, it is closely allied to the preceding species, being distinct by the greater size, the yellowish fur-like pile of body, the broadly yellow ends of femora and the yellowish base of wings. I have not succeeded in finding characters of distinction between the present species and the West African *D. senegalensis*, Macq.

Pröboscis entirely black, 3 mm. long; palpi black; occiput a little prominent, with yellowish hairs, those of the hind border being darkened. Thorax, scutellum and abdomen without distinct bristles; mesopleurae with some black hairs; squamulae dirty whitish, with whitish fringe; halteres whitish. Hind femora with a complete row of 4-5 long spines below; spicules of the tibiae long and black. Venation as in the preceding species, but the upper branch of the cubital fork is shorter and more straight, and nearly parallel with the hind border of the wing.

SOSIOMYIA, gen. nov.

This new genus has a striking resemblance to *Adelidea anomala*, from which its type-species is at once distinguished by the conspicuous bristles of the third antennal joint and by the black femora. I believed at first that the present insect might prove to be *Adelidea fuscipennis* of Macquart because this last species is different from *Sobarus anomalus* as pointed out by Loew. But Macquart says nothing of the bristles of the third antennal joint, which are, moreover, more developed than in the genus *Acreotrichus* of the same author;

the figure also lacks these bristles; and besides, in the description of *A. fuscipennis* we read "*pedibus flavis*," and "*petite nervure transversale située aux deux tiers*": two characters which applied to *A. anomalus*, but not to the present species. It is therefore certain that Macquart had not *Sosiomyia* before him when describing *Adelidea*.

I have no hesitation therefore in describing the new genus, the name of which (from *Sosias* and *myia*) is an allusion to its deceptive resemblance to *Adelidea anomala*; and it is very curious that the present collection has no representatives of the last species, which does not seem to be rare in South Africa.

Body short and broad, rotund. Head narrower than the thorax. Occiput rather developed, swollen, provided in the female with bristly hairs. Ocelli disposed in an equilateral triangle, on a little prominent tubercle. Eyes with equally small areoletts in both sexes, approximate in the male, very distant in the female; the frons in the male at the narrowest point is as broad as the distance between the two basal ocelli; in the female it is one and a half times as broad as the eye, with parallel sides and with numerous bristles. Face broad in both sexes, rounded, less prominent, without bristles, genae rather narrow, without bristles. Antennae approximate at the base, and of a very peculiar and characteristic shape; first joint a little, yet distinctly thickened, twice and a half as long as the second, with long hairs directed forwards; second joint globular; third as long as the first two together, broad at base in the male, gradually tapering to a point but deeply excavate below near the middle; in the female the basal two thirds are very broad and ovate, much broader than the second joint, the apical third is abruptly attenuated, linear in both sexes, truncate, with a thin and short style above, and having below near the end a tuft of 7-10 rather long hairs; near the base it is provided above with 4-6 very long and strong bristles, directed forwards and nearly reaching the end of the joint. Mouth-opening broad and short; proboscis short, not longer than the thorax, strong, with broad and long, lanceolate terminal labella; palpi concealed. Thorax with very numerous long bristles on fore border (more developed in the female) and on the sides; some shorter bristles are present even on the back; pleurae less pilose; metapleura bare. Scutellum with numerous and long marginal bristles disposed in three irregular rows on the hind border; abdomen short and broad, with the bristles at the hind border of the segments forming complete rows. Legs stout, with the femora spinose beneath; tibiae with much developed and strong spicules; claws curved; pulvilli as long as the claws. Wings long and rather narrow. Praealar hook short and acute; basal comb very small, but distinct;

alula rounded, of moderate size, but destitute of fringe. Second longitudinal vein gently curved at end, the marginal cell being broad at end; three submarginal cells present; upper branch of the cubital fork much retreating at base, the cross-vein dividing the first submarginal cell being situated near its base and distinctly longer than the part of the third between it and the origin of the fork; first posterior cell not narrowed, as broad at end as in the middle; discal cross-vein after the middle of the discoidal cell, but not so much as in *Adelidea*. Discoidal cell triangular at base, truncate at end and there with parallel sides, its terminal vein being as long as the discal cross-vein; the two lower veins of the discoidal cell are of equal length, but form a deep angle in the middle at their junction; second posterior cell narrow and long, rectangular, the third being much broader. Anal cell narrowed at end; axillary lobe well developed, but very little prominent; ambient vein complete. The wings are besides strongly pilose at the base from the first to the sixth vein, which is not the case in *Adelidea*.

Type: the following new species.

SOSIOMYIA CARNATA, sp. nov., ♂, ♀.

A strange fly, very like *Adelidea anomala*, but distinguished, besides the generic characters, by the darker general coloration, by the legs having black femora and partly black spicules on the tibiae, and by the different pattern of the wings.

Type ♂ and type ♀, a single pair from the Cape, without precise locality.

Length of the body 6.5–7 mm.; of a wing 8 mm.; spread 20 mm. Head entirely black, even on the mouth borders, grey-dusted, with some golden tomentum on the upper border of the occiput and on the frons; hairs of the occiput of middle length, golden yellow above, white and shorter on the sides and below; beard long, but not dense, white; hairs of the ocellar tubercle black. Frons in the male with a few black hairs over the golden tomentum in the narrowed basal half; densely clothed in the apical half with pale yellowish hairs which are directed forwards and outwards. The numerous bristles of the frons of the female are golden-coloured and only near the antennae are yellowish hairs. Face and cheeks in both sexes whitish-dusted and with long white hairs, which only on the upper part are pale yellowish. Antennae entirely black, grey-dusted; the hairs of the first joint are partly yellowish and partly golden; those of the third are also pale-

yellowish, but the strong bristles of the base are black in the male and dark-golden in the female. Proboscis entirely black, 3 mm. long. Thorax and scutellum black, densely bluish-grey dusted; they have a scarce but well-developed golden tomentum on the back, and are clothed with erect, rather long and scattered dark hairs, with some shorter pale ones and very numerous and very long golden-red bristles. The pleurae are densely pale grey-dusted, and have scarce white hairs below and on the middle, being bare on the metapleura and on the surrounding parts; the mesopleural bristles near the root of the wings are golden like those of the back. Squamae brownish black, grey-dusted with yellow fringe. Halteres yellow, with paler knob. Abdomen black, dusted-pollinose, pubescent like the thorax and provided with golden-red bristles; on the sides are numerous yellow hairs intermingled with the dark ones. Male genitalia small; concealed, black, yellow-haired. Venter entirely black, grey-dusted, without the yellow hind borders of *A. anomala*, clothed with white hairs. Coxae and femora black, the former with long white hairs, the latter whitish pubescent, with some white hairs below at the base and with yellow tips; their spines are strong and long, yellow, 2-3 on the middle, 5-6 on the hind pair. Tibiae and tarsi pale yellow, only the last tarsal joint being black or darkened, with long and stout spicules, even those of the front pair, the spicules being in great part black, but those of the inner side are yellow. Claws yellow, with black tip; pulvilli dirty-whitish. Wings greyish-hyaline, with the base and the fore half infuscated; the fuscous spots are more numerous; and more distinct than in *anomala*. There is a broad quadrate spot on the discal cross-vein, extending above almost to the second vein and preceded by a hyaline space of equal size; two united spots at the base of the cubital fork and of the cross-vein delimiting the upper submarginal cell; a spot on the vein at the end of the discoidal cell; another at the extreme basal angle of the third posterior cell and a third at the base of the fourth posterior cell; there is besides a rounded spot before the end of the anal cell, of which there is no trace in *anomala*. The second basal cell has a rounded whitish spot above before the base of the discoidal cell, which is not distinct in *anomala*. The alula is dark brownish, like the squamae and the extreme base of the wings; the small basal comb is black, but densely golden yellow-tomentose and white pubescent at base, this last pubescence extending to the base of the sixth vein. The veins are dark yellow, but the first and the costa to the end of the upper branch of the cubital fork are pale yellow; the costa is golden-tomentose.

SUBFAMILY CYTHEREINAE.

ONIROMYIA, gen. nov.

An aberrant genus, apparently allied to *Amictus* on account of the narrow and short wings with similar venation, but distinct by the different antennae, absent ocelli, absent abdominal macrochaetae and haired metapleurae. Owing to the shape of the occiput the genus must be placed in the *Cythereinae*, notwithstanding the approximate antennae; the form of these organs agrees with that of *Peringueymyia*, from which it is differentiated by the narrow elongate body with conical abdomen and by the very different venation.

Head of female (the male being still unknown) a little broader than the thorax; frons broad, broader than one third of the head, with parallel sides and long hairs; occiput flat, not bilobed above, briefly pilose, without ocular fringe; no ocelli and no ocellar tubercle; there is instead a depression in the form of a shallow furrow. Eyes bare, with entire hind border. Face very short, not prominent, bare, but concealed below the long hairs of the base of the antennae; genae and chin rather broad, haired. Antennae inserted near the mouth border, but at the level of the middle of the eyes, approximate at the base; first joint thickened, with a prominent tubercle below, bare above, densely clothed with a tuft of exceedingly long and soft hairs underneath; second joint small, short, globular; third joint small, once and a half as long as the two basal joints taken together, ovate at base, narrow and styliform for more than the terminal half, this narrowed part being provided with rather long hairs chiefly on the under side and ending with a thin but rather long style. Proboscis horizontal, longer than the head and thorax together; mouth-opening small, subquadrate; palpi rather short, with long hairs at end. Thorax short, subquadrate, with not very strong praesutural and supra-alar bristles; metapleural tuft long and dense, fan-shaped. Scutellum with bristly hairs only at the hind border; squamae less developed, briefly hairy on the border; mesophragma on the sides with a membranous tubercle as in *Systropus*. Abdomen very long, conical, acute at end, destitute of macrochaetae at the hind border of the segments; female genitalia with a yellow bladder above, and destitute seemingly of a terminal circle of spines. Legs stout and short; the hind femora only with a few spines below at apex; all the tibiae with numerous and long spicules and with numerous spurs at end; pulvilli well developed.

Wings very short and narrow, stalked at base, destitute of alula; first longitudinal vein straight, less looped at the end and not retreating; only two submarginal cells. Upper branch of the cubital fork straight, not at all retreating, running parallel with the border; discal cross-vein situated in the last third of the discoidal cell; four posterior cells, the 1st of which is closed and briefly stalked, the 2nd and 4th are broadened, the 3rd narrowed at end. Discoidal cell very narrow, with almost parallel sides, its terminal cross-vein being straight and only a little longer than the discal cross-vein; anal cell open but narrowed at end; ambient vein complete. The supernumerary vein in the anal cell placed in the concave fold just below the sixth vein, long and very distinct, extending almost to the end of the anal cell.

Type: *Eurycarenum pachyceratus*, Bigot, a species upon which, before seeing the co-types, I have made many wrong speculations; whence the name, from *oneiros*—dream.

ONIROMYIA PACHYCERATA, Bigot, ♀.

A peculiar species with thickly pilose head and thorax, at once distinguished from any other by its generic characters. Bigot has described it from the Cape in a recognisable manner, much better than usually with him, and has pointed out that it must be the type of a new genus. In the collection there is a female specimen from Namaqualand, O'Okiep, October, 1890 (R. M. Lightfoot). Length of the body 9.5–10 mm.; of a wing 6.8–7 mm. To Bigot's description may be added: Occiput grey-dusted, but the vertex and the frons are shining black; the tuft of white hairs at the under side of the first antennal joint is very long, and is fused with the tuft of the sides of the frons and of the base of the cheeks, forming a sort of moustache; proboscis black, 5 mm. long; palpi black, with pale yellowish hairs, all the thoracic macrochaetae are yellow; metapleural tuft pale yellowish; squamae dirty-yellowish, with sparse white hairs. Abdomen at end with long and rigid black hairs. Venter black, grey-dusted, densely clothed with white scaly tomentum with some long white hairs at base. The ground-colour of the tibiae and of the praetarsi of the 4 anterior legs is yellow; all the spines and spurs are yellow, but on the hind tibiae, partly black; hind femora with 3–4 short yellow spines below at the end on the outer side; claws pale yellowish red, with black tip; pulvilli dirty whitish. Wing-veins dark brown, pale reddish at base; costa very thin at base, with scarce pale yellowish scales.

SUBFAMILY USIINAE.

CORSOMYZA, Wiedemann (1820).

Of this peculiar genus, very characteristic of the South African Fauna, there are in the collection numerous specimens, representing all the known species, with the addition of some new ones. The special feature of the genus resides in the facial circular brush, which consists of a dense pubescence of short hairs clothing the anterior part of the frons and the whole face, which is surrounded by more rigid and often differently coloured hairs. From this dense brush are projecting on the upper side the antennae (the basal joints of which are often clothed by a tuft of hairs of different colour), and below the proboscis and the long palpi. A similar conformation of the face is to be found only in the North American genus *Pantarbes*, Osten Sacken, which, however, has a closed first posterior cell, and in the Australian genus *Lasioprosopa*, Macquart. But this last genus, as already stated by Schiner in the Novara work, is synonymous with *Corsomyza*, its type species, *Lasioprosopa bigotii*, being *Corsomyza nigripes*, as confirmed by a specimen in the collection labelled under this name by Bigot.

The species in the collection are much alike in habitus and in the colouring of the body fur; they probably mimic Hymenoptera, having a very great resemblance to certain species of *Osmia*. They can be distinguished as follows:

- 1 (14). Third antennal joint wholly black; anal cell closed and usually provided with a short stalk.
- 2 (3). First antennal joint elongate, as long as the half of the third, which is broad; base of the antennae pale-haired; face yellow, with the circular brush not margined with black; tibiae and tarsi red.
simplex, Wied.
- 3 (2) First antennal joint short, always shorter than the half of the third.
- 4 (5) Hind tibiae densely feathered with very long black hairs; face yellow, the circular brush not margined with black hairs; antennae with the first joint pale-haired and the third joint broad.
pennipes, Wied.
- 5 (4) Hind tibiae not densely feathered, sometimes only thinly ciliated.
- 6 (13) Facial brush formed by whitish or pale yellowish hairs.
- 7 (8) First antennal joint clothed on the upper side with black hairs, which form a striking black tuft within the brush; this last is surrounded with dense black hairs. Tibiae and tarsi black; third antennal joint narrow, but a little dilated at end *nigripes*, Wied.
- 8 (7). First antennal joint with yellowish or whitish hairs; third antennal joint filiform and much dilated at end.

- 9 (12). Abdomen as broad as or only a little narrower than the thorax, not, or less distinctly, conical; halteres with a white knob.
- 10 (11). Tibia and tarsi red; chin with a dense tuft of black hairs; femora dark-pilose; species of greater size *hirtipes*, Macq.
- 11 (10). Tibiae and tarsi black; chin destitute of black hairs; femora white-pilose below; eye-division in the male less distinct than usually.
clavicornis, Wied.
- 12 (9). Abdomen conical, only half as broad as the thorax; halteres with dark knob; tibiae and tarsi dark reddish-brown; sometimes there are three submarginal cells in the wing *anceps*, Bezzi.
- 13 (6). Facial brush formed entirely by black hairs, with a yellow tuft on the base of the antennae; tibiae and tarsi black; third antennal joint thin at base and broadly clavate at end *bicolor*, sp. nov.
- 14 (1). Third antennal joint rufous; anal cell narrowly open at the wing border, tibiae and tarsi yellow *ruficornis*, sp. nov.

CORSOMYZA SIMPLEX, Wiedemann (1820).

A species of proportionately large size, distinct from any other by the elongation of the first antennal joint. Described and figured from the Cape by Wiedemann, and not recorded subsequently; but I am convinced that Macquart's *C. fuscipennis* from the Cape is the female of this same species, chiefly on account of the form of the antennae; the infuscation of the wings is in the male more yellow than fuscous. There is in the collection a male specimen from Cape Town, 1888 (W. F. Purcell), and another example from Namaqualand, 1889 (R. M. Lightfoot).

The pubescence of the body is of a pale fulvous colour, but shows white gleams when seen from the front. Occiput shining black, with a faint grey dust and with scarce and short pale yellowish hairs; the crest of white hairs on the vertex has a black tuft on each side; frons without dust, broad, almost twice as broad as the distance between the basal ocelli. The face and the cheeks are entirely of a pale yellow colour; the whitish circular brush is surrounded below by dark, but not black, hairs. Very characteristic are the antennae, as shown in Wiedemann's figure. The first joint has only whitish hairs. Beard white. Proboscis entirely black, 5 mm. long; palpi very long, as long as one third of the proboscis, with scarce and thin hairs.

The hairs of the pleurae are partly white and partly black; on the mesopleura there is a white vertical stripe, with a black one on each side; breast black-haired. Femora with dense black hairs below; the four anterior tibiae nearly bare; the hind tibiae with dark ciliae, but not properly feathered; last tarsal joint black; claws red with black point; pulvilli yellowish. The yellowish infuscation of the wings is

more intensive in the second basal cell, but not as strikingly as shown in Wiedemann's figure. The veins are intensely rufous, as in the other species of the genus.

CORSOMYZA PENNIPES, Wiedemann (1820).

Nearly allied to the preceding species, but distinct from it owing to the short first antennal joint and by the white- and yellow-haired pleura, and distinct from any other on account of the densely and long-feathered hind tibiae. Wiedemann has described the female from the Cape; there is in the collection a male from the Cape, without precise locality. *C. pennipes* of Macquart, "Suites à Buffon," is doubtful, because the author says that the femora (and not the tibiae) have long hairs.

Head exactly as in the preceding species; the first antennal joint is less than one-third of the third, and of a similar shape, which is very different from that of the species following. Eyes more broadly separated; the middle frontal furrow is even more distinct. Proboscis black, shorter, only 3.5 mm. long; palpi black, long, with much longer and dense, almost leathery hairs. Pleurae destitute of black hairs; on the upper border of the metapleurae there is a rich tuft of bright fulvous hairs, the other hairs being whitish; breast with pale hairs. Coxae with yellowish or whitish hairs; the feathering of the hind tibiae is formed by dense and numerous, very proximate black hairs, which on the upper side are longer and equally extended to the end, while on the under side they are shorter and growing shorter before the apex, which is bare; even the hind tarsi are feathered; no other species has such a conspicuous feathering of the hind legs.

Wings as in *C. simplex*, but clearer and with a very faint yellowish tinge at the base and along the fore border. The venation is identical.

CORSOMYZA NIGRIPES, Wiedemann (1820).

Allied to the two preceding species, but distinguished by the wholly black legs, by the black-haired first antennal joint, and by the facial brush being surrounded by black hairs.

Described from the Cape and subsequently recorded by Loew, Schiner, Ricardo and Becker; there are in the collection two males from Cape Town, one of which, caught in 1874, is labelled by Bigot "*Lasioprosopa bigotii* Macq."! The colour of the fur of the body in the present species varies from bright fulvous to pale yellowish and shining white. To Loew's good description may be added: Frontal furrow narrow but deep. The shape of the third antennal joint in the present

species is intermediate between the non-clavate form of *simplex* and *pennipes* and the very clavate form of the following species; it is well figured by Becker. Strongly characteristic of the species is the tuft of black hairs on the under side of the base of the antennae, which is very strikingly within the brush. The beard is blackish, while in the two preceding species it is white. Proboscis black, short, only 2.5-3 mm. long; palpi black, thin, with short black pile. The face is distinctly yellow on the under side below. Scutellum black. Claws red, with black point; pulvilli yellowish; hind tibiae with long and thin ciliae outwards, which are not continued on the praetarsus.

CORSOMYZA HIRTIPES, Macquart (1840).

Closely allied to *nigripes* and of equal size, but at once distinguished by the form of the third antennal joint, by lacking the black hairs at the base of the antennae and by the colour of the legs.

Macquart has described the female (?) from the Cape; in the collection there are two males and one female from Namaqualand, Port Nolloth (Cape), August, 1890 (R. M. Lightfoot).

Both sexes are coloured alike, the pubescence being of a paler colour than in most specimens of *nigripes*; the length is 8-9 mm., but one male measures only 6.5 mm. Occiput black, whitish-tomentose on the sides at the border of the eyes, with short and scarce pale hairs; at the vertex there is the usual transverse crest of erect hairs, which are of a pale yellowish colour, only in the male with some black hairs on the sides near the eyes. Frons shining black, with erect black hairs; only near the antennae is a circlet of pale yellowish hairs; it is in the male as broad as twice the distance between the basal ocelli, and in the female it is more than twice as broad as in the male. Face entirely yellow in both sexes, black only in the hind part of the genae and on the chin; the brush is shaped as in *nigripes*, and is likewise surrounded with black hairs, which are less developed in the female, but beneath, at the base of the proboscis, there is a broad tuft of black hairs, triangular in shape, with the vertex directed forwards and the base merged in the black beard.

Antennae black, with the first joint short, densely clothed with long pale-yellowish hairs radiating all round, with some black hairs intermingled beneath, but not forming a distinct black tuft within the brush; third joint very long and thin, filiform, with the last fourth part abruptly dilated in an ovate club, which is truncate at end. Proboscis black, short, not more than 3 mm. in length; palpi thin and long, black, with scarce and short black hairs. Thorax and scutellum

entirely black; the hairs on the pleurae are whitish or pale yellowish, but in the male those of the lower part and of the breast are blackish. Halteres with white knob; squamae pale-yellowish, white fringed, like the plumula. Abdomen shining black, clothed with equal hairs, which are denser in the male, of a pale yellowish colour and shining white if looked at from the front; venter black, with short and scarce pale hairs. Femora black, with yellow tip, clothed below with dense and long hairs, partly whitish and partly dark, these last being sometimes predominant; tibiae and tarsi red, the hind tibiae being ciliated outwards, more densely in the male than in the female; last tarsal joint black; claws black with reddish base; pulvilli yellowish. Wings as in *nigripes*, but with a distinct milky-white tinge.

CORSOMYZA CLAVICORNIS, Wiedemann (1819).

Closely allied to *hirtipes*, but distinguished by the usually much smaller size and by the entirely black face and black legs. Described from a male from the Cape, and subsequently recorded from the same locality by Walker. There are in the collection a male from Dunbrody, Uitenhage (Cape), December, measuring 6 mm. of length, a female from Namaqualand, Port Nolloth (Cape), August, 1890, 6.5 mm. long (R. M. Lightfoot), and a doubtful female from the same locality, only 4 mm. long.

Head exactly as in *nigripes*, but the black outline of the facial brush is less developed and the first antennal joint has no black tuft beneath; beard pale yellowish; eyes with the division of the broader areolets less marked than in all the preceding species. Third antennal joint very characteristic, thin and filiform basally, much broadened apically on the last third or more, and with the broadened part incised beneath. Proboscis black, proportionally long, measuring about 3 mm.; palpi black, long, with a sparse black pile. Thorax, scutellum and abdomen as in *nigripes*, but the pleurae and breast with entirely whitish hairs. Halteres yellow, with a white knob; squamae and plumula with a white fringe. Legs entirely black, the femora with long and numerous white hairs below, which only on the front pair are more fuscous; hind tibiae shortly and scarcely ciliated outwards; claws black, pulvilli dirty-yellowish.

The female is very like the male, the frons being almost twice as broad. The broadened end of the third antennal joint is thinner and more regular; the fur of the body is coarser.

In a female specimen from Hottentots Holland Mountains, Caledon, C.C., 1916 (K. H. Barnard), the upper branch of the cubital

fork shows in both the wings, at the angular basal bend, a short stump of vein, which must be considered as the beginning of the cross-vein which divides the first submarginal cell into 2 cells, as is sometimes the case with *C. anceps*, Bezzi.

CORSOMYZA ANCEPS, Bezzi.

A smallish species, with bright fulvous pubescence and with clavate antennae, distinct by its narrow and conical abdomen, by the dark halteres, and by the reddish-brown tibiae and tarsi. I have described the male in my work on the Bombyliidae of the British Museum. That specimen bears on the wing 3 submarginal cells, making therefore the separation of the genus *Callynthrophora* on this character alone very doubtful. There is in the collection a very small female from Namaqualand, Port Nolloth (Cape), August, measuring only 4 mm. in length; it agrees with the male, with the following exceptions: The frons is more than twice as broad; the face is dark brownish, with a fulvous brush, which is not margined with black, but is entirely black below on the genae and on the chin. Wings exactly as in the male, but without any trace of the 3 submarginal cells.

CORSOMYZA BICOLOR, sp. nov., ♂.

A small species allied to the preceding one, but distinct from it and from any other on account of the wholly black facial brush, in the centre of which the radiating hairs of the base of the antennae form a striking yellow tuft.

Type ♂, a single specimen from O'Okiep, November, 1886 (L. Péringuey). The possibility is not excluded that the female described above as belonging to *anceps* may be that of the present species, notwithstanding the great difference in the colour of the facial brush.

Length of body 7.5 mm.; of a wing 6 mm.; of wing expanse 14 mm. Head entirely shining black; occiput with a faint grey tomentum at the sides on the eye borders and with scarce and short yellow hairs above in the middle; hairs of the vertical crest yellow in the middle and black on the sides; frons twice as broad as the distance between the basal ocelli, with a middle longitudinal depression and a basal transverse furrow; the frons is anteriorly broader than in the other species, the antennae being inserted lower down, thus approaching to the condition found in *Callynthrophora*; it is clothed with long, pale-yellow, erect hairs with some black ones forming a transverse band before the ocellar triangle; ocellar tuft pale yellow. Eyes with the upper

areolets only a little broader and not really distinctly separated from the others. Face with the brush formed by long and less dense black hairs, with a few yellow ones scattered in the middle; the genae and the chin are likewise clothed with black hairs. Antennae entirely black; the first joint short, provided with long and radiating bright yellow hairs; third joint with the basal half thin and filiform, the apical half broadened to form an ovate spatula acute at tip, instead of being obtuse as in *clavicornis*. Proboscis entirely black, 2.5 mm. long; palpi elongate, black, with rare black hairs. Hind part of thorax and scutellum black, clothed with long but not dense, bright fulvous hairs; only below the root of the wings there is a small tuft of fulvous hairs directed backwards. Halteres yellowish with whitish knob; squamae small, dirty yellowish, with whitish fringe, the plumule with yellow fringe. Abdomen black, densely clothed with bright fulvous equal hairs, even on the belly. The contrast of colour between the upper and lateral parts of the thorax and head is very striking. Legs black, the tibiae sometimes with dark yellowish brown ground-colour; coxae and underside of femora with long, rather rigid, black hairs; hind tibiae shortly ciliated outwards; claws black, pulvilli dark. Wings exactly as in *hirtipes*.

CORSOMYZA RUFICORNIS, sp. nov., ♂.

A small, rather aberrant species, easily distinguished from any other on account of its red third antennal joint.

Type ♂, a single damaged specimen from the Victoria Falls (S. Rhodesia), July, 1911 (L. Péringuey).

Length of the body 6 mm.; of a wing 5.5 mm. Head black; occiput grey-dusted with scarce and short whitish hairs above in the middle. The usual vertical crest seems to be reduced to the ocellar tuft which is entirely formed by whitish hairs; eyes with the upper areolets broader, the smaller ones being confined to the lower third, and being separated by a sharply defined line; frons a little broader than the ocellar triangle, clothed with long black hairs, turning to whitish before the antennae; facial brush formed by long whitish hairs surrounded by not well-defined dark ones; beard whitish. First antennal joint short, black, with whitish hairs; third joint red, with the basal half thin and filiform, and the apical half a little broadened to form a dark spatula bilobate at end. Proboscis broken off in the type example. Thorax, scutellum and abdomen black, clothed with long but not dense whitish hairs; pleurae, breast and belly likewise whitish haired. Halteres pale yellowish, their knob blackish above; squamae very small, with rare and pale hairs,

Femora black, with yellow tip, and provided below, like the coxae, with numerous white hairs; tibiae and tarsi entirely yellow to the end, the hind tibiae with a few white hairs; claws yellow, with black tip; pulvilli yellowish. Wings whitish hyaline, with yellow veins, distinctly more elongated than usually; the venation is typical, but the anal cell is narrowly open at the hind border.

CALLYNTHROPHORA, Schiner (1867).

I refer to this genus a new species, which is different from the typical ones in having only 2 submarginal cells. But I think that the essential character of the genus, as believed by its author, is not to be found in the number of the submarginal cells, which may be 3 even in a true *Corsomyza* like *C. anceps*; we have here a case analogous to that of *Triplasia vittatus* and *Bombylius lateralis*, which are evidently congeneric notwithstanding the difference in the number of submarginal cells. From Schiner's description it is evident that the principal distinction is to be found in the shape of the head and antennae. The frons is in both sexes much broader than in *Corsomyza*. Besides the antennae being inserted in a much lower position, the frons appears to be much longer than the face, and is inflated above the antennae, being consequently much broader. From this fact is derived the other—that is, the antennae are inserted exactly in the centre of the facial circular brush, and not on its upper border as in *Corsomyza*. The frons declines gradually to the face, because a part of this last is becoming part of the first, as a result of the lower insertion of the antennae; therefore in the female the facial brush is not so well formed as in the male. The first joint of the antennae is shorter than in *Corsomyza*, and distinctly swollen, being nearly of a spheroidal shape; the third joint is strongly clavate. All the other characters, as well as the general facies, are as in *Corsomyza*. I have not seen the typical species, but only the following new one:

CALLYNTHROPHORA MARGINIFRONS, sp. nov., ♂, ♀.

A small species, distinguished from the typical one by the yellow colour of the face and of the fore-part of the frons and of the basal joints of the antennae, and the presence of only two submarginal cells in the wings.

Type ♂ and type ♀, a single couple of specimens from Namaqualand, Port Nolloth (Cape), August (R. M. Lightfoot).

Length of the body 6-6.5 mm.; of a wing 5-5.5 mm. Body perfectly conical, the head being broader than the thorax and the

abdomen being much narrower than the thorax. Head shining black, but the anterior half or even most of the frons and the whole face are of a pale yellow colour. Occiput with a faint pale dust on sides at the borders, and with short and scarce pale hairs; vertical crest formed by whitish hairs only. Ocellar tubercle very prominent, whitish-haired. Frons of the male a little broader than the ocellar tubercle, but becoming much broader in front, being inflated and measuring in front of the antennae more than four-sixths of the breadth of the head; the middle furrow is narrow but well developed, reaching the base of the antennae; the hairs are black on the part not clothed by the facial brush and whitish on the rest; the eyes have the areolets of the upper half a little broader but not sharply separated from the lower ones. Frons of the female gently rounded, inflated, three times as broad at the vertex as that of the male, measuring $\frac{3}{4}$ of the breadth of the head; the division of the black from the yellow part is formed by a straight line placed nearly at half the distance between the vertex and the base of the antennae; the middle furrow is not distinct; it is clothed with black hairs on the black part and with whitish ones on the yellow part, but as the frons merges gradually into the face and into the cheeks, there is no distinct brush, the face being entirely yellow and very short. The face is clothed with entirely whitish hairs, like the cheeks and their sides, which are exceedingly broad and partly black haired. In the male the face is also yellow, but has a very well-developed circular brush, which is formed by white hairs and surrounded by black ones. Antennae with the first joint short and inflated, almost spheroidal, of a dark, reddish yellow colour, with long and scarce, rigid black hairs; second joint very small, perfectly globular, reddish yellow, black above; third joint entirely black, thin and filiform for more than the basal half, and subsequently dilated to an ovate spatule, which is narrowed at end. Mouth-opening proportionally small and narrow; proboscis very short, its end usually not projecting beyond the end of the antennae, and measuring only 1-1.5 mm. in length; palpi long, white-haired. Thorax, scutellum and abdomen black; in the male they are less shining, and entirely clothed with rather long but not dense, equal, pale yellowish hairs; in the female they are much more shining, with a very short, and on the abdomen very sparse, pale yellowish pubescence. Pleurae almost bare, with hairs on the mesopleura only, which are whitish in the female and partly black in the male. Halteres with a pale yellowish or whitish knob, which bears a black spot on the upper side in the male. Squamae whitish hyaline, with a yellow border and a very short pale fringe which is nearly wanting in the female. Legs

entirely black, in the male with dark hairs on the coxae and on the under side of the femora, with whitish ones in the female; hind tibiae scarcely ciliated on the outer side; claws black, with yellow base; pulvilli yellowish. Wings whitish hyaline, with yellow veins, and with the typical venation of *Corsomyza*, but the anal cell closed at the hind border itself or rarely very briefly stalked; the axillary lobe is also distinctly broader. There is no trace of the cross-vein forming the third submarginal cell in *Callynthrophora capensis*.

GNUMYIA, gen. nov.

I have to create here this new genus for a form which unites the characters of *Corsomyza* with those of *Callynthrophora*; the antennae and their position are more like those of the former, while the shape of head approximates more to that of the latter; there are, moreover, 3 submarginal cells on the wings; but it differs from both the genera in the linear third antennal joint, and from all the other genera of *Usinae* in having a short proboscis, which is more like that of a Muscid than that of a Bombyliid; the facial brush (in the female) is indicated only by some denser lateral hairs. Head very broad and inflated, distinctly broader than the thorax. Occiput a little concave, not bilobate above; vertex rounded, distinctly lower than the eyes; there is no distinct occipital fringe. Ocelli disposed in equilateral triangle on a broad, rounded protuberance. Frons convex, very broadened forwardly and passing gradually to the very broad and convex cheeks and to the convex face; the breadth of the frons at the level of the antennae is three times as broad as that at the vertex, and that of middle of face is more than four times such. The face is separated from the cheeks by a deep furrow, which becomes deeper below and is directed towards the eyes; there the furrow makes a bend and is directed towards the mouth, separating thus the very broad but short cheeks. The face is densely pubescent, but the hairs are not disposed to form a distinct brush. Eyes bare, proportionally narrow, much narrower than high; in profile they are not broader than the prominence of the face and of the cheeks before them. Antennae inserted much above, near the level of the upper border of the eyes; they are broadly separated at base, the distance between them being as broad as that between the 2 basal ocelli; first joint rather swollen, but of an elongate cylindrical shape; second joint globular and setose; third joint very elongate, equal throughout its whole length, almost linear, more than twice as long as the two first joints together; it ends in a short, acute point, without a distinct style. The mouth-opening is proportionally small; the proboscis is

shorter than the mouth, rather incrassate, and ends with fleshy flaps; the palpi are very thin and are a little longer than the proboscis. Thorax and scutellum with long pubescence, but without distinct bristles; metapleuræ bare; no distinct plumula; squamulae with a long but not dense, hairy fringe. Abdomen with long pubescence, and with distinct bristly hairs at the hind border of the segments. Legs simple; hind tibiae with long fringe outwardly. Wings of normal shape. First longitudinal vein very long; second vein straight, cubital fork broad, with the upper branch retreating at base and united with the second longitudinal vein by a cross-vein. Thus three submarginal cells are present: first posterior cell broadly open, broader at end than on middle or at base, about of the same breadth at end as the 2nd or the 3rd posterior cell; discoidal cell about twice as broad as long, obtuse outwardly, the middle cross-vein placed a little beyond its middle; anal cell closed and shortly stalked. Auxiliary lobe broad; alula short and rounded; ambient vein complete; costa densely but shortly pilose at base.

Type: the following new species.

GNUMYIA BREVIROSTRIS, sp. nov.

A black and black-haired species of middle size, with a dark-yellowish head and pale yellowish wings.

Type ♀ a single specimen from Hex River, January 10th, 1882 (L. Péringuey).

♀. Length of the body 8 mm.; of the wing 7 mm.; of the wing-spread 16 mm. Head rather shining; the whole occiput is black and bare, being provided with a rather long, black pubescence only below; the vertex is occupied by the broad and flat ocellar protuberance, which is entirely black and clothed with long, black, erect hairs. Frons yellowish, but on each side it shows an elongate black spot, which is in contact with the eyes inwardly and is rounded outwardly; besides there is a lanceolate small black spot in the middle, with the base in contact with the ocellar spot near the front ocellus; the frons is very shortly pubescent in the middle, and has on the sides black hairs which are denser near the cheeks. Face and cheeks entirely yellow, quite unspotted; they are equally clothed with black hairs, which are shorter on the face and denser and longer near the eyes; the cheeks are yellow anteriorly, but they are merging posteriorly into the black lower part of the occiput. Antennae with the first joint yellow like the frons; 2nd joint more brownish; 3rd joint entirely black; basal hairs of the antennae black. Palpi and proboscis dirty blackish,

with short and pale pubescence. Thorax and scutellum shining black, but the humeri more narrowly so, the postalar cell broadly and the posterior border of sternopleura with part of the pteropleurae, reddish brown; they are entirely clothed with black, long hairs; the hairs below the notopleural line at the upper border of meso- and pteropleura are longer, denser, and tuft-like. Squamulae dirty whitish, with a dark border and a pale fringe; halteres dark yellowish, with white knob. Abdomen entirely shiny black, even on the venter; its long hairs are entirely black, like the long and thin bristles. Legs entirely black and black-haired, but the tibiae somewhat reddish-brown and the knees narrowly yellowish. Wings with all the veins pale yellowish and with the membrane whitish-hyaline, with a faint yellowish tinge, chiefly at base and along the fore border; at hind border they are more iridescent.

HYPERUSIA, Bezzi.

This genus was founded by me for a robust species of proportionally greater size, from Natal, in the British Museum. The species here described as new is much smaller than the type-species, but agrees with it in the low position of the antennae and in the venation, although the anal cell is open.

HYPERUSIA MINOR, sp. nov.

A small, but robust, black species, resembling the female of the European *Usia versicolor*, and very distinct on account of its yellow antennae.

Type ♂; a single specimen from Zululand (M'Fongosi), April, 1916 (W. E. Jones).

♂. Length of the body 4 mm.; of the wing 3.5 mm. Head entirely shiny black, clothed at vertex, on frons and at sides of face with rather abundant greyish or pale hairs. The frons is not at all prominent; it is flat, or even concave on the fore half, and is very broad, broadening even more forwards, being at level of antennae nearly as broad as long. The face is very short, and is distinctly reddish-yellow on sides of the middle; the mouth border is prominent, and there is a furrow between the face and the cheeks and jaws. The antennae are inserted very near the mouth border, the mouth-opening being much produced above; but in profile they are always placed near the middle of the eyes; the two basal joints are short and black, but the first is about twice as long as the very short second joint, and is clothed on the under side with rather long, whitish hairs;

the third joint is twice as long as the two first joints together, elongate, oval, obtuse at end and without style; it is yellowish, but is blackened on the apical third. Proboscis very stout, broad at base, quadrate in section, straight and directed forwards, 1.5 mm. long; it is entirely shining black. Palpi about as long as $\frac{1}{2}$ of the proboscis, thin, acute, black, with rather long greyish hairs, and with scattered golden-yellow, scaly hairs below them; the pleurae are almost bare, but with a tuft of long and dense whitish hair on upper part of the mesopleurae. Scutellum like the thorax, and destitute of bristles at hind border; squamulae whitish, with a scanty whitish fringe; halteres with whitish knob and yellowish stalk. Abdomen elongate, attenuated behind; it is shiny black, with scattered golden dust like the thorax, but almost devoid of hairs; only on the sides are some greyish ones; spines of the ovipositor reddish; venter black, but not shining, and without golden dust. Legs rather short, with coxae and femora black, tibiae and tarsi yellow; last tarsal joint blackish; they have no bristles, but only a scarce, pale pubescence; hind tibiae on outer side with a long but scanty fringe of hairs. Wings proportionately short, whitish-hyaline, immaculate, with entire pale yellowish veins. Their venation is as in *Cersomyria*; 2nd vein gently curved and broadly S-shaped; upper branch of cubital fork not retreating at base; middle cross-vein placed on the last third of the discoidal cell. First posterior cell broadened at end, but distinctly more narrow than the 2nd; the 3rd posterior cell is the narrowest of all, and the 4th is the broadest of all; anal cell rather broadly open. Ambient vein complete; axillary lobe broad, but the alula very short. Costa bare at base.

MEGAPALPUS, Macquart (1834).

I am attempting here to revive this genus, which was united by Schiner to *Corsomyza* ('Novara. Dipt.,' pp. 114 and 139). The likeness to this last genus is very great: the general shape of the body and head is the same; the structure of antennae is very like; the elongation of palpi also, and even the shape and pubescence of the legs. The wings have the same shape and neuration; only the anal cell is typically broadly open, or sometimes exceptionally closed at the wing border itself. The differences are to be found in the much greater nakedness of the body; in the absolute want of the circular facial brush; in the narrow genae; in the prominent hem at the mouth border and in the longer proboscis. In the male the eyes have equally small areolets and are much more broadly separated, the frons being

only a little narrower than that of the female. Halteres and wing veins black.

Notwithstanding Schiner's contrary opinion, *Phthiria capensis*, Wied., belongs to this genus, and may be considered the type of the gen. *Megapalpus*, as stated by Macquart himself in the "*Suites à Buffon*"; the new gen. *Dasyopalpus* founded by the same author in 1840 is based on the difference in the hairiness of the palpi—a difference which does really not exist.

MEGAPALPUS NITIDUS, Macquart (1840).

A small black species, distinct from all the species of *Corsomyza* aforementioned on account of the sparse hairiness of the body, and of the black halteres and black veins of the wings.

This species strongly recalls the female of the Mediterranean *Usia versicolor*, Fabr; but has a very different head, antennae and wings.

A couple of specimens from Namaqualand, Port Nolloth (Cape), August, 1890 (R. M. Lightfoot).

Length of the body 3·5–4 mm.; of a wing 3–3·5 mm. Head broader than the thorax, entirely shining black; occiput flat, with very short and scarce black hairs; frons almost equally broad in both sexes, flattened, with parallel sides, and having a less distinct median longitudinal furrow, equally clothed with rather long erect black hairs. Ocellar tubercle less prominent; ocelli well developed. Face short, with a prominent hem at the mouth border, clothed like the narrow genae with black hairs; beard white. Antennae entirely black, rather separated at the base; they are as described by Macquart, and seem to be carried in a peculiar way, the third joint being erect and produced almost at right angles to the first joint; this last joint is clothed with black hairs, which are longer below and in the female are partly of pale colour. Proboscis entirely black, almost as long as the body, measuring 3–4 mm. in length; palpi black, very long, with short but distinct black hairs (Macquart says that the palpi are yellow and bare). Thorax, scutellum and abdomen entirely black, rather shining, with distinct bluish glance in the male; they are clothed with scattered, erect, black hairs, rather long in the male and shorter in the female; only on the notopleural line and on the hind border of mesopleura are tufts of short, yellowish hairs; on the sides of the thorax and on the hind border of the scutellum are rather distinct and longer bristly hairs. First joint of abdomen with white pubescence in both sexes, the sides of the other segments with pale short pubescence in the female. Halteres with yellowish stalk and black knob. Squamae

white, without distinct fringe. Genitalia of the male shiny bluish black, retracted; those of the female with two broad lamellae. Legs entirely black, the femora with rare, pale and dark hairs below; hind tibiae with 4-5 long ciliae outwardly in the basal half; middle tibiae with two ciliae; claws minute, black with yellow base; pulvilli dirty yellowish. Wings hyaline, with black veins; venation as in *Corsomyza*, but the anal cell in the male is closed at the border, in the female it is narrowly open.

MEGAPALPUS FULVICEPS, sp. nov.

A very strange and robust insect, which was named by Bigot "*Amictus fulviceps*," and which may be provisionally placed in the present genus.

Type ♀, a specimen from the Cape, Van Rhynsdorp (R. M. Light-foot), Namaqualand, Port Nolloth.

♀. Length of the body 9 mm.; breadth of the body 5 mm.; length of the wing, 8.5 mm.; wing spread 22 mm. Head very developed, and distinctly broader than the thorax. Occiput concave above, shiny black, but with a broad yellow spot extending from the neck to the upper corner of the eyes; it is clothed with short white hairs, which become longer and denser on the sides and below, merging into the dense white beard of the chin. Frons twice as broad as the eye, shiny black, but with a yellow curved band on the fore part above the antennae, in contact with the yellow face; from the ocellar tubercle two abbreviate black stripes start hindwards, reaching the yellow occipital patch. The frons has only scarce and short fuscous hairs, which are more whitish and longer on the vertical edge; above the root of the antennae there is in the middle of frons a circular depression. Eyes rather narrow in profile. Antennae inserted at the level of the upper corner of the eyes, very long (measuring 4.5 mm. in length) and horizontally porrect; they are entirely black. The first joint is cylindrical, only a little shorter than the third, with very scarce and short pale hairs; second joint very short and lenticular; third joint compressed, of an elongate oval shape, broader in the middle than at the end, obtuse at end. Face very broad and entirely yellow, shining, with only a small black, transverse spot near the root of the antennae; the mantle border is prominent in the shape of a conical protuberance separated from the broad cheeks and jaws by a deep furrow; the entire face is bare, with only a very short and thin, pale pubescence. Palpi long and thin, black, shortly pubescent; proboscis 5 mm. long, horizontal, stout, entirely black, bearing near

the base into the oral cavity long white hairs. Thorax very stout, broad and short, quadrate, shining black, finely punctate; on the back it is clothed with a very short white pubescence, which on the sides is longer and forms a narrow white border. The pleurae are clothed with longer white hairs, which form very rich tufts on the notopleural line and on the mesopleurae; metapleurae bare. Scutellum like the thorax and likewise clothed with a short and obtuse, white pubescence; mesophragma concealed. Squamulae white, with a narrow yellowish border and a short white fringe; halteres white. Abdomen broader than the thorax, broader than long, shining black, finely punctate, clothed with short, whitish pubescence, which is denser on the 2 last segments; first and second segment on the sides with rather long white hairs; venter shining black. Legs short and stout; coxae black, with whitish pubescence; femora shining black, reddish-yellow above and at end; middle femora with a row of long black hairs on front side; tibiae and tarsi reddish, with yellowish spicules, but partly black on the middle pair; last tarsal joint deep black; claws black, with red base; pulvilli dirty yellowish. Wings broad and short, suffused with a faint yellowish tint, more intensive at base and at fore border, and fainter at the apex, which is hyaline; veins entirely reddish. Costal cell long and dilated outwardly; middle cross-vein placed near the tip of the discoidal cell; 1st, 2nd and 3rd posterior cell of about the same breadth at end, the vein between the 1st and the 2nd rather wavy; anal cell closed and shortly stalked. The venation is typical as in *Corsomyza*.

SUBFAMILY PHTHIRIINAE.

GONARTHURUS, Bezzi.

This new genus was recently founded by me for my *Dischistus cylindricus*; I include here two species described by Bigot and two new ones. The present genus is very distinct owing to its narrow and elongate, cylindrical body, devoid of strong bristles; the moustache is dense and soft; the occipital hairs are long and form a very dense crown. The eyes of the male are coalesced for a considerable distance and have the upper areolets enlarged; the frons of the female is rather narrow. The antennae are long, with the third joint linear and provided with a very thin terminal style; the proboscis is rather short, and sometimes exceedingly short and thick; the palps are long, two-jointed, with the apical joint produced outwardly and thus at

right angles with the basal one; the metapleura is bare; the legs have bristly hind femora, bristly tibiae and long pulvilli; the wings are short, destitute of a basal hook, comb, and alula. The first vein is straight and the marginal cell not dilated at end; discal cross-vein placed on the last third of the discoidal cell; first posterior cell broadly open.

In the collection are three species, to which I can add another from my own collection; they may be distinguished as follows:

- 1 (6). Proboscis very short and thick, shorter than the thorax, with broad terminal labella.
- 2 (5). Body clothed with moderately long hairs, which are of a yellow colour; halteres of male white; tibiae black.
- 3 (4). Species of larger size, at least 10 mm. long; pubescence of a paler yellow colour; ocellar tuft in both sexes and first antennal joint in the male with black hairs above; female with black hairs on the vertex.
leucophys, Bigot.
- 4 (3). Species of smaller size, not over 8 mm. in length; pubescence of bright yellow colour; ocellar tuft and first antennal joint in both sexes yellow-haired; female without black hairs on vertex.
xanthinus, sp. nov.
- 5 (2). Body clothed with exceedingly long and white hairs; halteres of the male with black knob; tibiae sometimes yellow. *cygnus*, Bigot.
- 6 (1). Proboscis thin, longer than thorax and head, with narrow terminal labella; basal joint of antennae black-haired above.
chioneus, sp. nov.

GONARTHURUS LEUCOPHYS, Bigot (1892).

A species distinguished by the short and thick proboscis, the black hairs on the ocellar tubercle and on the base of the antennae in the male, the yellow pubescence and the straight, not retreating base of the upper branch of the cubital fork.

Originally described from the Cape; there is a male from Barberton, Transvaal, April, 1911 (H. Edwards).

In the present species the third antennal joint is very narrow and acute, being much narrower than the first. The hind femora have more numerous spines, 3-4 in number; the middle femora have 2 spines.

GONARTHURUS XANTHINUS, sp. nov., ♂, ♀.

Very near the preceding, but at once distinguished by the smaller size, the yellow ocellar tuft, the wholly yellow-haired base of the antennae and the bright yellow colour of the pubescence of the body.

A male specimen from Kimberley (Cape) March 14th, 1912 (J. H. Power), and a female from Potchefstroom (Transvaal) (T. Ayres).

Length of body 7-8 mm.; of wing 6-7 mm. Occipital border with very long yellow hairs which form a complete crown; ocellar tuft yellow in both sexes, but in the male a little darker. Face very short, with entirely yellow hairs, continued over the very narrow cheeks; beard short, yellow; eyes of male intimately connected; frons of the female less broad than the eye, clothed with dense golden yellow tomentum and with erect yellow hairs; the hairs of the cheeks in the female are white. Antennae entirely black, the first joint with yellow hairs, those of the upper side very short, those of the under side very long; third joint longer than the first two joints taken together, linear, obtuse at end, not narrower than the second at base, with a very minute style. Proboscis black, 2 mm. long; palpi black, pale-haired. Thorax and scutellum wholly deep black, clothed with equal, dense and rather long yellow hairs, those on the back being pale shining if viewed from the front; the hairs on the pleurae are less pale; metapleura bare, but concealed below the mesopleural and squamal tufts; there are no distinct bristles. Squamae dirty-whitish, with long yellow fringe; halteres yellow, with a white knob. Abdomen of conical shape, entirely black, clothed with hairs like those of the thorax, which on the venter are shorter and rarer; male without, female with distinct and long, black, bristly hairs at the hind borders of the segments; male genitalia black, yellow-haired; female genitalia with broad black lamellae, the upper one rather shining and golden-fringed at apex. Legs black, with yellowish scales, whitish hairs and black spines on femora; middle femora with 1, hind femora with 2-3 spines on the apical half. Wings entirely hyaline, narrowly yellowish near the base; veins yellow, darkened at end; upper branch of the third vein a little retreating at base.

GONARTHUS CYCNUS, Bigot (1892).

Allied to the preceding, but distinguished by the very long, white pubescence of the entire body and by the black knob of the halteres in the male sex.

The present species was briefly, but recognisably, described from the Cape. There are in the Museum Collection numerous specimens of both sexes from Stellenbosch (Cape) (L. Péringuey), Potchefstroom (Transvaal) (T. Ayres), Namaqualand, O'Okiep (Cape), October, 1890 (R. M. Lightfoot). One of these examples was labelled by Bigot as *Bombylius niveus*, Macquart—an impossible thing, however,

because in Macquart's species the discal cross-vein is situated near the base of the discoidal cell.

The length varies between 7 and 11 mm., but usually it is 8-9 mm. The third antennal joint is very broad in the male, and less distinctly so in the female; the hairs of the first antennal joint are very dense and long underneath; the ocellar tuft is black in the male and dark yellow in the female; the frons of the female is very narrow, even narrower than the eye, and on each side of the vertex there is sometimes a tuft of long yellowish hairs, but no black hairs at all. The proboscis is black, very short and exceedingly thick, with broad terminal labella. Thorax, scutellum, and abdomen entirely deep black, clothed with very long and shining whitish hairs, without bristles, even on the hind borders of the abdominal segments of the female; in this sex there is a short and dense tomentum of more yellowish colour under the long pubescence. The knob of the halteres is entirely yellow in the female, and is white with a black band above in the male. Venter with short and scarce hairs, but concealed under the very long and dense hairs of the lower sides of the tergites. Legs with dense white scales, long white hairs and black bristles; middle femora with 1-2, hind femora in the male with 2-3, and with 5-7 spines in the female; they are black, but the tibiae and the tarsi at base are often of a yellowish ground-colour below the scales. Wings very short, entirely vitreous and iridescent, with a tuft of silvery hairs near the base on the outer side; veins black, yellowish toward the base; upper branch of the cubital fork a little retreating at the base.

GONARTHURUS CHIONEUS, sp. nov., ♂.

Closely allied to the preceding species, but distinct owing to the long and thin proboscis and to the basal joint of the antennae being black-haired above.

Two males in the writer's collection, from Willowmore (Cape), February, 1907 (Dr. Brauns).

Length of body 7.5-9.5 mm.; of a wing 5.5-7.5 mm. Occipital crown formed by very long, white hairs, which appear to be fairly yellowish near the base; ocellar tuft black, rather short; frontal triangle very small and deep. Antennae black, with the first joint rather black, and provided with short black hairs above and with long ones partly yellowish, partly white below; third joint longer than the two first together, linear, obtuse, as broad at the base as the second joint, with a minute terminal style. Face very short, almost bare, concealed below the long antennal hairs; the mystax is confined to the

small cheeks, which are clothed by dense hairs, dark yellowish above and white below, the latter being the more developed; beard white. Proboscis entirely black, thin, with small terminal labella, 3-4.5 mm. long; palpi black, long, the apical joint with short white hairs. Eyes intimately connected. Thorax, scutellum and abdomen deep black, the last a little shining, chiefly at the base of the segments; they are entirely clothed with dense, soft, equal, rather long white hairs which from a front view have a silky sheen, without any dark bristles, even on the abdomen; the hairs of the end of the abdomen are narrowly yellowish at the base; venter with long hairs, but it is concealed under the long hairs of the sides of the tergites. Genitalia black. Squamae white, with yellow border and long white fringe; pleurae densely clothed with grey-dust. The black band of the knob of the halteres is limited to the upper side. Legs entirely black, white-scaled, with the femora white-haired and black-spinose; middle femora with 2, hind femora with 4-6 spines; claws black, with a reddish base; pulvilli dirty yellow. Wings hyaline, iridescent, a little whitish on the basal half and along the fore border, with yellow veins; base of the costa with a short tuft of silvery hairs; upper branch of the cubital fork a little retreating at base.

GONARTHUS CYLINDRICUS, Bezzi (1906).

Easily distinguished from *chioneus*, Bezzi, on account of the black abdominal bristles and of the white knob of the halteres.

Of this widely spread species there is a female specimen from South Rhodesia, Gwelo, April, 1917 (Miss Skaife).

CROCIDIUM, Loew (1860).

This genus is not represented in the collection, but I have received a specimen of the typical species from Willowmore (Cape), and have seen a new species with unspotted wings from the same locality. Its nearest ally is *Gonarthrus*, which, however, differs in the venation being that of a *Dischistus* with a broad cubital fork and an open anal cell.

To Loew's description of the genus may be added: Occiput flat, not inflated, briefly haired along the border. Ocelli disposed in an equilateral triangle. Eyes of the male united for a long distance, with the upper areolets enlarged and sharply separated from the smaller ones. Antennae inserted at the centre between the eyes, approximate at the base, with the third joint twice as long as the first. Face of the male with long moustache. Thorax, scutellum and abdomen without distinct

bristles. Legs without spines on femora, but with minute spicules on tibiae; pulvilli long. Squamae briefly fringed. Wings with a broad and prominent axillary lobe; alula of median size, rounded.

CROCIDIUM POECILOPTERUM, Loew (1860).

Dipt.-Faun. Sudafrikas, p. 195, pl. 11, f. 8.

A curious fly intermediate between *Dischistus* and *Phthiria*, and at once recognisable on account of the peculiar wing pattern.

A male specimen in my collection, from the Cape, Willowmore, January 15th, 1907 (Dr. Brauns). Another male from Ceres (Cape), Matroosberg, 3500 ft. (R. M. Lightfoot), distinguished on account of its peculiarly spotted wings.

The male, hitherto not described, is very like the female. The eyes are united in a line as long as the frontal triangle; their enlarged upper facets occupy two thirds of the eye and are of a reddish brown colour, while the lower small faceted part is lighter; the line of division between them is a very conspicuous one. The facial hairs are longer than the 2 basal antennal joints. Frontal triangle white-dusted, as broad as the ocellar one. Pubescence of body and legs distinctly longer than in the female. Genitalia spheroidal, bilobate, greatly developed, grey-tomentose and white-haired.

CROCIDIUM NIGRIFACIES, sp. nov.

Closely allied to *immaculatus*, Bezzi, on account of its unspotted wings, but at once distinguishable by the completely shiny black, more convex face, and by the black tibiae.

Type ♂, a single specimen from Bulawayo, September, 1911 (H. C. Pead).

♂. Length of the body 5.5 mm.; of the wing 5.5 mm.; of the proboscis 2.5 mm. Head black, but clothed with dense grey dust on frontal triangle and on cheeks, only the rounded and prominent lower part of face being shining black. Occipital border with greyish hairs; cheeks and lower part of occiput with long and soft white hairs. Ocellar tubercle prominent, with erect whitish hairs; eyes rounded, of great size, touching for a space a little longer than the ocellar triangle. Antennae entirely black; first joint about three times as long as the very short second joint; third joint as long as the two first joints together, narrow, elongate-oval, with a distinct terminal style. Proboscis black, gently curved downwards; palpi long and thin, acute, pilose at the under side. Thorax entirely black, opaque, but clothed

with dense grey dust; on the back are 4 blackish, longitudinal, dull stripes, 2 of which on the middle more narrow, approximate and abbreviate behind, and 2 broader and abbreviate in front, one on each side. The hairs on back and pleurae are long, soft, whitish. Scutellum like the back, with no distinct bristles. Squamulae whitish-pellucid, with white marginal hairs; halteres yellowish, with the knob infuscated above. Abdomen like the thorax and likewise clothed with long whitish hairs, devoid of bristles; genitalia black, grey dusted. Legs quite black, the knees only being narrowly yellow; fore femora with long white hairs; hind tibiae with short, but distinct black spicules. Wings whitish hyaline, quite unspotted, only the subcostal cell and the stigma being dark yellowish; veins yellowish on the basal half, black on the rest; cubital fork narrow and elongate, with the upper branch gently curved at base and originating at an acute angle; middle cross-vein placed beyond the middle of the obtuse discoidal cell, with a faint greyish shading in the middle; first posterior cell broadly open, only a little narrower than the 2nd following ones, which are of equal width at end; anal cell closed and shortly stalked.

PSEUDEMPIS, gen. nov.

Allied to *Apatomyza*; and in the same way that this last genus recalls a *Therevid*, thus the present one strongly resembles an *Empis*, hence the name. It is founded on *Amictus heteropterus* of Wiedemann, a species which is very different from *Thlipsomyza heteroptera* of Macquart, which is now placed in *Amictus*; on this last species Rondani in 1863 has founded its genus *Thlypsogaster*, which has nothing to do with *Amictus heteropterus*, Wied., or as mistaken by Williston in *Psyche*, 1899.

The characters of the new genus are as follows: Head rounded, small, narrower than the thorax; occiput developed, inflated, without fringe at the eye's border. Ocelli of greater size, placed on a rounded prominent tubercle and disposed in an equilateral triangle. Eyes bare, not indented behind, comparatively small, with equally small areolets in both sexes; in the male they are separated, but the frons between them is narrower than the ocellar tubercle; in the female the frons is broadening, measuring at vertex one-fifth, and before the antennae one-third, of the breadth of head. Face short, perpendicular, not prominent, bare. Antennae inserted above the middle of the eyes, and horizontally porrect; first joint long, rather thickened, haired; third joint much smaller, linear, as long as or a little shorter than the first two joints together, acute at end, with a thick terminal style.

Mouth opening rather small, horizontal or nearly so; proboscis twice as long as the head; palpi very long and thin, pointed, briefly pilose. Thorax and scutellum without bristles, with only a few thin bristly hairs; pleurae almost bare; no metapleural tuft. Squamae small, with short and thin marginal hairs. Abdomen elongate, conical, with bristles at the hind border of the segments; male genitalia exerted, appendiculate below; female genitalia very peculiar. Legs long, almost bare, without spines or spicules; tarsi distinctly thickened; pulvilli and claws well developed. Wings long and broad; second longitudinal vein straight; cubital fork long and narrow; discal cross-vein placed after the middle of the discoidal cell; only three posterior cells present, the first being broadened at end, anal cell closed and provided with a rather long stalk. Ambient vein complete; axillary lobe broad; alula small, rounded, ciliated. The stumps of veins on the outer border of the discoidal cell, figured by both Wiedemann and Macquart, are the rudiment of the vein dividing the second from the third posterior cell—a vein which in the present species is wanting, the two cells being fused into one.

The new genus *Pseudempis* is based on the same type-species on which Bigot has founded his undescribed genus *Pseudoamictus*. I think that the *Amictus heteropterus* of Wiedemann is very different from that interpreted by Macquart and accepted by me; this last one has only 3, while the former has 4 posterior cells. Bigot's species is evidently the same as that of Macquart.

Type: *Pseudempis heteroptera*.

PSEUDEMPIS HETEROPTERA, Wiedemann (1821).

An elongate species, with wholly infuscated wings, strongly recalling the European *Empis tessellata*.

Originally described from the Cape, there is in the collection a single couple—the male from Cape Town (L. Péringuey) and the female from Namaqualand, O'Okiep (Cape), September, 1890 (R. M. Lightfoot).

Length of body 10–10.5 mm.; of a wing 11.5–12 mm.; of the wing expanse 24–26 mm. To Wiedemann's description may be added: The hairs of the first antennal joint are of a very dark-yellowish colour, or even blackish, chiefly in the male; the moustache is reduced to a tuft of hairs on each side, placed on the lower part of the cheeks, yellow in the male and white in the female like the beard and the hairs of the lower part of the occiput. The antennae are black, but the first joint is grey-dusted; proboscis black, 3 mm.

long; palpi black, with yellowish hairs. The thoracic pattern is very striking; the hairs and the pubescence are in the male yellower and longer, in the female whiter; but on the sides, on the posterior half and on the scutellum there are some scattered blackish hairs. Squamae dirty yellowish, with pale hairs; halteres yellow, with the knob black-spotted below. Tomentum of the abdomen golden-yellow in the male and yellowish-grey in the female; the venter is grey, with paler hind borders of the segments. Male genitalia yellowish-red, the inferior appendices bearing in the inner part a strong black hook; female genitalia yellowish, the last abdominal segment being open and bearing below a horn-like process; the ovipositor is tubular, with the basal joint much greater. Legs with the coxae blackish-grey, with yellow end; in the female the front femora are in the greater part black with yellow end, and yellow on the inner side; the femora are whitish tomentose, and have very scarce and short whitish hairs below; the greater part of the tarsi is black, chiefly in the female, in which they are much thickened; claws black; pulvilli dark. Wings with black veins.

PHTHIRIA, Meig.

Illiger's Mag. f. Ins., ii, p. 44, 1803.

This genus is represented in South Africa by some characteristic species, three of which are represented in the collection.

The species may be distinguished as follows:

- | | | | |
|---|------|-------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1 | (2). | Body black and yellow; legs entirely reddish | <i>laeta</i> , sp. nov. |
| 2 | (1). | Body and legs entirely black. | |
| 3 | (4). | Third antennal joint rather short and less gibbous, pubescence of the body short; wings greyish hyaline | <i>pubescens</i> , Bezz. |
| 4 | (3). | Third antennal joint longer and very gibbous above; pubescence long; wings whitish hyaline | <i>lanigera</i> , sp. nov. |

PHTHIRIA LAETA, sp. nov.

A yellow and black species near *Phthiria nitens*, Bezzi, from Abyssinia, but distinguished by the quite opaque abdomen, and by the different thoracic and abdominal patterns.

Type ♀ from the Transvaal, Florida, December, 1918 (R. W. E. Tucker).

♀. Length of body 5 mm.; of proboscis 2.5 mm.; of wing 5 mm. Head reddish, quite opaque; occiput broadly black in the middle;

frons with a longitudinal, black, median stripe, which is angularly dilated in front of the ocelli and forms a transverse band above the root of the antennae.

Antennae quite black, with the third long joint, about linear, ciliated above, with very short terminal style at its upper angle; peristome and chin yellowish, with long and soft white hairs. Palps and proboscis quite black. Thorax blackish and opaque on the back, with a fine dark grey tomentum and with whitish hairs; the humeri, a narrow stripe above the notopleural line, a broader stripe above the root of the wings and the postalar calluses yellow. The pleurae are yellow and opaque, with black spots on the mesopleura and on the breast; the hairs are long and whitish. Scutellum yellow, with a very narrow basal black stripe, and with a broader black apical border, which is, however, not visible from above. Post-scutellum and meso-phragm black; halteres and squamulae whitish.

Abdomen rather swollen and convex, quite opaque, clothed with whitish hairs; each segment is of a deep black colour, with a proportionally broad, equal and complete yellow stripe at the hind border; the second segment has the black part twice as broad as that of the following segments; venter with the black and yellow parts of about the same width, and with whitish hairs. Legs reddish, with pale yellow coxae, infuscated tibiae, and blackish tarsi; anterior femora with a black longitudinal stripe on the outer side; trochanters blackish; hairs whitish. Wings greyish hyaline, with yellowish stigmata; veins black, with yellowish base; discal cross-vein placed at about the middle of the discoidal cell; cubital fork about three times as long as broad at end; anal cell briefly stalked.

PHTHIRIA LANIGERA, sp. nov.

A small, entirely dull black species with whitish wings, entirely clothed with very long, soft and dense whitish hairs.

Type ♂, from Cape Town (K. H. Barnard); ♀ (rubbed) from Hottentots Holland Mts., 4000 ft., Cape.

♂. Length of the body 4.5 mm.; of the wing 4.5 mm. Occiput, frons and face clothed everywhere with long, whitish hairs. Eyes touching for a length a little longer than the black, prominent ocellar triangle which bears only scarce and darkish hairs. The frons above the antennae is not triangular but transverse, very broad laterally, merging gradually into the cheeks; it is very prominent in profile like the cheeks; genae very narrow, linear. Antennae entirely black; first joint twice as long as the second, with white hairs, while the latter is clothed above with short, dark hairs; third joint more elongate than in

the allied species, being $1\frac{1}{2}$ times as long as the two first joints together ; it is very gibbose at its upper border and shows there 2-3 bristly hairs ; at the end it is almost bifurcated, having above a thick and proportionally long style, and below a point with a tuft of hairs. Proboscis thin, black, gently curved downwards, 2.2 mm. long ; palpi very thin and long, black, with scattered short hairs below. Thorax and scutellum deep black, dull, everywhere clothed with long, soft, white hairs, without distinct bristles ; the pleurae are hairy only on meso- and pteropleurae. Squamulae quite white, with scarce and short marginal hairs of the same colour ; halteres pale yellowish. Abdomen of conical shape, coloured and clothed like the thorax ; venter more grey dusted ; genitalia with the lamellae reddish at the hind border. Legs entirely black, with yellowish knees ; the 4 front tibiae are clothed with a dense, scaly, greyish dust ; all the femora with long whitish hairs ; only the middle tibiae with some very short spicules at the hind side. Wings whitish hyaline, with yellowish stigma ; veins black, with yellowish base. Second longitudinal vein straight ; cubital fork proportionally short and widely open at end ; middle cross-vein placed near the last third of the discoidal cell, which is of greater size and broadly obtuse at end ; first posterior cell broadly open, broader than the 3rd, but less broad than the 2nd ; terminal stalk of anal cell rather long.

The female is like the male ; the broad frons is black, convex and somewhat shiny above the antennae.

PHTHIRIA PUBESCENS, Bezzi.

Closely allied to the preceding species, but distinct by the shorter and yellowish pubescence, by the shorter and less gibbose third antennal joint which has a much shorter and thin terminal style ; besides, the wings are not whitish. The cubital fork is much longer ; the middle cross-vein is placed near the middle of the discoidal cell, and the 3rd posterior cell is more narrowed at end.

Described by me from Willowmore, Cape Colony, in my paper on the Bombyliidae of the Museum of Budapest, there is a denuded female specimen from the Transvaal, Junction Crocodile and Marico Rivers, February, 1918 (R. Tucker).

GERON, Meigen.

Even this genus seems to be very numerous in South Africa, being represented in the collection by no less than 5 species. It is interesting

to note that besides the widely spread *G. hybridus*, all the other species belong to the group in which the cubital fork is long and narrow; this group seems therefore to be characteristic of the South African fauna. The species may be distinguished as follows:

- 1 (2). Wings proportionally short, with the cubital fork short and broad, the second submarginal cell being at end about as broad as its own length *hybridus*, Meig.
- 2 (1). Wings more elongate, with the cubital fork long and narrow, the second marginal cell being at least twice as long as broad at end.
- 3 (8). Antennae entirely black; coxae black; halteres with black knob, at least above in the male; abdomen quite black.
- 4 (7). First antennal joint distinctly thickened and clothed with dense and long hairs; cheeks clothed with very long and dense hairs.
- 5 (6). Wings hyaline, eyes of male touching in a long line, the frontal triangle being small, triangular, grey dusted *barbatus*, Bezzi.
- 6 (5). Wings strongly infuscated; eyes touching for a short line, the frontal triangle being broad and deep black *luctuosus*, sp. nov.
- 7 (4). First antennal joint very thin and scarcely haired; cheeks not barbate *leptocerus*, sp. nov.
- 8 (3). Basal joints of antennae, coxae and abdomen yellow; knob of halteres entirely yellowish *dichromus*, Big.

GERON HYBRIDUS, Meigen (1804).

This Mediterranean species is not rare in South Africa; S. Rhodesia, Salisbury, May, 1917 (R. W. E. Tucker); Cape Colony, O'Okiep (L. Péringuey), Transvaal, Barberton, December, 1916 (H. Edwards).

GERON BARBATUS, Bezzi.

Very distinct by the barbate jowls and by the hyaline wings. Described from the Cape in my work on the Bombyliidae of the British Museum; there are specimens from Cape Colony, O'Okiep and Knysna, October, 1916 (L. Péringuey).

GERON LUCTUOSUS, sp. nov.

Closely allied to the preceding species, but at once distinguished on account of its strongly infuscated wings.

Type ♂ and type ♀ from Basutoland, Maseru (Mrs. Dieterlen).

♂, ♀. Length of the body 5-6 mm.; of the wing 5-6 mm.; of the wing spread 12-14 mm. Head black, with a dark grey dust; occipital border above and vertex with long, erect, black hairs. Eyes of male touching for a line as long as the ocellar triangle, while in *barbatus* this line is twice as long and more; they are narrowed above, the head in profile presenting the characteristic outline of the genus; eyes of female broadly separate. Frons grey dusted, broadening

forwards, being near the antennae more than twice as broad as at vertex. Face clothed with a dense grey dust and distinctly whitish below, like the mouth borders; it is bare in the middle, but at sides below are long and dense black hairs which are directed forwards and in contact with the whitish hairs of the genae, thus forming the characteristic beard; lower part of the occiput likewise white-haired. Antennae entirely black, but in the case of the types the 3rd joint is wanting; 1st joint long, distinctly thickened, and clothed with very long and dense black hairs which are more dense, more rigid and directed forwardly on the underside; 2nd joint short and globular; in the female the first joint is less thickened and less hairy than in the male. Proboscis black, 1.5-1.8 mm. long; palpi very thin and long, one-jointed, almost bare. Thorax and scutellum entirely deep black, opaque; in the middle of the back there is in front a grey longitudinal stripe, much broader than that of *barbatus*; the back is clothed with long, erect, black hairs, but in front and on sides with pale yellowish ones, and under the hairs there is a short, golden-yellowish scattered dust; pleurae with the pale hairs more numerous, but devoid of golden dust; no distinct bristles. Squamulae whitish, with black border and with long white hairs; halteres yellowish, with the knob black above in the male, but entirely whitish in the female. Abdomen of elongate conical shape, coloured and clothed like the back of mesonotum, but with more pale hairs at base and on sides; the golden dust is, moreover, very abundant in the male; venter grey, pale-haired; male genitalia with shiny black lamellae. Legs with black coxae, femora and tarsi; tibiae and base of praetarsi dark reddish; femora with yellowish scales and pale hairs; spicules of tibiae very small. Wings with the veins entirely black to the base; they are strongly infuscated, chiefly at base and at fore border, and moreover along the veins. Cubital fork $2\frac{1}{2}$ times as long as broad at end; middle cross-vein placed near the middle of the upper border of the discoidal cell; apical cross-vein of the discoidal cell very sinuous and very oblique; apical stalk of the anal cell rather short. The greyish prae-discoidal spot is very striking, passing into the blackish 2nd basal cell. The base of the upper branch of the 3rd longitudinal vein is nearly above the upper end of the apical cross-vein of the discoidal cell, while in *barbatus* it is beyond, and in *hybridus* very much beyond.

GERON LEPTOCERUS, sp. nov.

Nearly allied to the two preceding species, but distinct by the less barbate genae and by the very different antennae.

Type ♂, a single specimen from Transvaal, Barberton, December, 1916 (H. Edwards); a damaged male specimen from Basutoland, Likhoele (Dieterlen) seems also to belong here, but has the knob of halteres entirely whitish above.

♂. Length of body 6 mm.; of wing 6 mm.; of wing spread 13 mm. Head black; eyes in profile much narrowed above and touching for a very long line, even longer than in *barbatus*; the hairs of occipital border and of vertex are scarce, short, darkish; ocellar tubercle black and very small; frontal triangle very small and grey-dusted. Face very narrow, a little prominent, clothed with dense, whitish tomentum, quite bare even on the sides; the genae with scarce, white hairs which are directed forwards; lower part of the occiput with long white hairs. Antennae entirely black; first joint long and thin, not broader than the third, with scarce, short, darkish hairs; second joint globular, third joint linear, gradually tapering into a long point; it is twice as long as the first. Proboscis black, 1.5 mm. long; palpi black. Thorax and scutellum dull black, the former more gibbose than in the two preceding species; the hairs are whitish, and the short dust below them is whitish, not golden; no distinct bristles. Squamulae whitish, with yellowish border and with white marginal hairs; halteres yellowish, with the knob black above. Abdomen black, narrowly yellowish at base of venter, and clothed like the thorax; genitalia entirely reddish. Legs in the greatest part reddish, only the four front femora being more or less blackened; the coxae are reddish on the apical half; hairs and dust whitish. Wings greyish-hyaline, iridescent, with pale yellowish stigma; veins dark, with yellowish base. Cubital fork twice as long as broad, obtuse at base, with the upper branch rounded at base, and originating much beyond the upper end of the apical cross-vein of the discoidal cell; middle cross-vein beyond the middle of the rather elongate discoidal cell, the terminal vein of which is S-shaped but not much oblique. Stalk of anal cell moderately long.

GERON DICHROMUS, Bigot (1892).

Very distinct from all the other known South African species of the genus on account of its prevalent yellowish colour.

Described with a query from South Africa, I think that a single male specimen from Aus, S. West Protectorate, 1916 (Dr. Knobel), may be referred to it, even if it has the wings quite hyaline. I give a description of this specimen.

♂. Length of body 6 mm.; of wing 6 mm.; of proboscis, 2.5 mm. Head black; occiput with scarce and very short dark hairs above like

the vertex; eyes of typical form, but not much narrowed above, touching for a space longer than the ocellar tubercle; frontal triangle much narrower, longer than broad, of a dark grey colour; face narrow, not prominent, quite bare, even the genae being furnished with very scarce, whitish hairs like those of the lower part of head. Antennae long and thin; first joint thin, very scarcely pilose, entirely reddish-yellow; second joint globular, reddish-yellow; third joint elongate, linear, gradually tapering to a point, entirely black. Proboscis black. Thorax and scutellum entirely black, but as it seems, they are entirely clothed with dark grey dust and with whitish hairs. Squamulae and halteres dirty whitish, the latter with an entirely yellowish knob. Abdomen with the sides and the venter entirely reddish, but the middle of the back black, grey-dusted, with the hind border of the segments reddish; it seems to be dusted and hairy like the back of mesonotum; end of abdomen and genitalia entirely reddish. Legs and coxae entirely yellowish, only the last 4 tarsal joints being black; they are clothed with whitish scales on femora, and with scarce whitish hairs. Wings quite hyaline, iridescent, with a pale yellowish stigma; the veins are yellowish at base, dark in middle and at end, and show no trace of fuscous margination. Cubital fork $2\frac{1}{2}$ times as long as broad at end, obtuse at base, its upper branch originating at a right angle a little beyond the upper end of the apical cross-vein of the discoidal cell, and rounded at base; middle cross-vein placed beyond the middle of the discoidal cell; discoidal cell long and narrow, its terminal vein deeply S-shaped but not much oblique; apical stalk of the anal cell short.

APOLYSIS, Loew (1860).

A very distinct genus, well described and figured by Loew in his great work.

APOLYSIS HUMILIS, Loew (1860).

A very small fly, at once distinguished by its generic characters. Originally described from Caffraria and the Cape. There are in the collection some specimens from Cape Town (L. Péringuey).

SUBFAMILY SYSTROPINAE.

SYSTROPUS, Wiedemann.

This important genus is represented by 3 species, one of which is described here as new. There are rather numerous South African species described; but some confusion has arisen between them, chiefly

about the interpretation of the *S. macilentus* of Wiedemann. This species is indeed figured by its author as having only 2 marginal cells, while the type at Berlin is said to have 3 of these cells; it seems that Macquart, Loew and Schiner have all comprised different species under the same name. I give here the following table of the known South African species, to clear up the position of the new species, and considering all the species as different, according to the characters given by the authors:

- 1 (10). Three submarginal cells present.
- 2 (9). The cross-vein forming the third submarginal cell unites the upper branch of the cubital fork with the second longitudinal vein.
- 3 (4). Eyes of the female narrowly separated; wings broadly yellow at base and at fore border *marshalli*, Bezzi.
- 4 (3). Eyes of the female touching as usual; wings not yellow.
- 5 (8). Front coxae yellow, and moreover there is a yellow stripe above them on the prothorax; first posterior cell distinctly narrowed at end.
- 6 (7). Abdominal stalk black above; wings rather infuscated.
leptogaster, Loew.
- 7 (6). Abdominal stalk entirely reddish-brown; wings more clear.
clavatus, Karsch.
- 8 (5). Front coxae red; no yellow prothoracical stripe; first posterior cell not at all narrowed at end *sanguineus*, sp. nov.
- 9 (2). The above-named cross-vein is placed before the cubital fork, uniting its stalk with the second longitudinal vein.
macilentus, Schin. (nec Wied.).
- 10 (1). Two submarginal cells only present.
- 11 (14). Eyes narrowly separated, or only approaching above near the ocelli.
- 12 (13). Wings wholly infuscated *macilentus*, Wied.
- 13 (12). Wings with a sharply defined dark fore border *crudelis*, Westw.
- 14 (11). Eyes touching for a long line.
- 15 (16). No yellow spot above the front coxae.
miobrochus, Speis., *macilentus*, Macq. (nec Wied.).
- 16 (15). A yellow spot above the front coxae *snowi*, Ad.

SYSTROPUS LEPTOGASTER, Loew (1860).

A typical male specimen from Durban, April, 1913 (W. Haygarth).

SYSTROPUS SANGUINEUS, sp. nov.

A middle-sized species of *Ammophilus* facies, distinguished by the prevailing red colour of body and legs.

Type ♂ from Stellenbosch, November, 1887 (L. Péringuey), and an additional specimen of same sex from O'Okiep. I think that the present species may be the *macilentus*-type of Berlin, which is described by Karsch and by Speiser, in spite of Wiedemann's figure, as having 3 submarginal cells.

♂. Length of the body 14–15 mm.; of the wing 6·8–7 mm.; of the wing spread 15·5–17 mm. Occiput bare, dull black, with a faint, dark grey dust near the border; the very small, less prominent, bare ocellar tubercle is red. Eyes united for a space about as long as the frontal triangle; the latter narrow and very acute above, bare, red, with a tuft of short dark hairs in the middle; mouth sides silvery, shining, red on terminal and pale yellowish on basal half and on fore border of chin, which is black with scattered darkish hairs like the lower part of the occiput. Antennae with the first joint as long as the two following joints together, red, with short blackish hairs; second joint black, one-fourth as long as the first, third joint black, three times as long as the second, narrowly oval and flattened. Proboscis black. Thorax deeply punctulate on the back and therefore rather dull; it is black in centre, red on sides and in front of the scutellum; the black of centre runs in front as a narrow point to the junction of head. Pleurae red, with a broad black patch on mesopleurae, continued as a stripe in front below the humeri; the metasternum is broadly black behind, and is clothed with silvery, shiny pubescence; the back of mesonotum has a short, pale yellowish pubescence, like the mesopleurae. Squamulae brown, with scarce dark hairs at border; halteres with dark yellowish stalk, and with the knob pale yellowish below, black above. Scutellum entirely black, like the mesophragma; lateral callosities yellow. Abdomen with a long cylindrical stalk formed by the hind half of the first segment, and by the whole of the second, of the third and of the fourth segment, the terminal club being thus formed by three segments only; first segment with the broad basal half black, punctulate and pubescent like the back of mesonotum, but with a red transverse stripe at the extreme base; the rest of the first segment as well as the whole of the abdominal stalk to the end of the fourth segment are entirely red above and below; the fifth, sixth and seventh segments are black, rather shiny, but the fifth is broadly red on the sides below in front. Genitalia red above, black below, with the prominent, spine-like lamellae black. Legs and coxae entirely red, but the front coxae are bristly black on the front side; the 4 terminal joints of the tarsi are blackened; hind legs with the tibiae black on the thickened terminal part, and with the tarsi entirely black; spines of hind tibiae 2:5:2. Wings greyish-hyaline with two distinct yellowish longitudinal stripes, one along the upper part of the first basal, the base of the marginal and almost the whole of the first submarginal cell except at its end; the second along the base of the second basal and the upper part of the anal cell; subcostal cell and stigma dark yellowish. Upper branch of the cubital fork originating

at a right angle, afterwards bent at right angle and there with the cross-vein uniting it to the second longitudinal vein; the rest is strongly S-shaped. Middle cross-vein on the middle of the discoidal cell; first posterior cell as broad at end as at base; second posterior cell in the shape of a regular rhomb; discoidal cell small and acute, its terminal cross-vein being S-shaped and oblique; stalk of the anal cell long.

SYSTROPUS SNOWI, Adams (1905).

A male example from Zululand, M'Fongosi, May, 1916 (W. E. Jones).

An example seen and named by Adams from Salisbury (June, 1911), S. Rhodesia, is in the collection.

SUBFAMILY TOXOPHORINAE.

TOXOPHORA, Meig.

Illig. Mag. f. Insect., ii, p. 270, 1803.

The species may be distinguished as follows :

1. (2) Wings devoid of a distinct fuscous pattern, only with a faint yellowish tint on the fore half *maculata*.
2. (1) Wings more or less infuscated, sometimes with the fore half black, and usually with dark spotted cross-veins.
3. (6) Wings faintly infuscated, with very striking dark spotted cross-veins.
4. (5) Cross-veins broadly infuscated in the shape of rounded spots of greater size *punctipennis*, Bezz.
5. (4) Cross-vein not so much spotted *diploptera*, Speis.
6. (3) Wings with the fore half blackish, the cross-veins being thus included in the general suffusion *caeruleiventris*, Karsch.

TOXOPHORA MACULATA, Rossi (1790).

A male from Van Wyk's Vlei, Cape Colony, 1875, is the first authentic specimen which I have seen from Africa of this Mediterranean species. It had been already recorded from the Cape by Loew.

TOXOPHORA PUNCTIPENNIS, Bezzi.

Closely allied to the preceding species, but distinct by the absence of white scales on the outer side of the antennae, and chiefly by the three rounded, blackish spots on the cross-veins.

Described by me from Natal in my work on the Bombyliidae of the British Museum. There is a specimen from M'Fongosi, Zululand, May, 1916 (W. E. Jones).

TOXOPHORA DIPLOPTERA, Speiser (1910).

A species very like *T. maculata*, from which it is distinguished by the bluish-scaled body, and by the infuscated and dark spotted wings.

Originally described from Usambara, but widely distributed in South Africa. I believe that Loew mistook the present species for *maculata*. Damaraland, Grootfontein, December, 1918 (R. M. Lightfoot); Bulawayo, S. Rhodesia, September 3rd, 1913; M'Fongosi, Zululand (W. E. Jones). The female only has white scales, while in the male those on the middle abdominal stripe are yellow, as also those at the end of the side stripes.

TOXOPHORA CAERULEIVENTRIS, Karsch (1887).

A beautiful species, at once distinguished by the blue and white striped abdomen, and by the blackish fore border of the wings.

Originally described from Delagoa Bay, there is a male from Bulawayo, S. Rhodesia, February 11th, 1912. The spines of the legs in the male are typical, but the middle femora have no spines.

SUBFAMILY CYLLENIINAE.

NOMALONIA^{*}, Rondani (1863).

The present genus was founded by Rondani on *Cyllenia afra* Macquart, non Wiedemann; and it is very fortunate that the collection contains the two insects of Macquart, which are very different from that of Wiedemann; we are therefore able to clear up the great confusion in Dr. Kertész's Catalogue, pp. 69, 70.

The genus is evidently connected with *Cyllenia*, with which it agrees apparently in the venation, having, however, a long praefurca; but it is distinguished by the broad body, which is devoid of long bristles on the abdomen, by the bare face, the very different shape of the antennae, and the long proboscis. In these characters it agrees with *Henica*, from which it is separated here only as a tribute to the memory of Rondani.

The principal features of the genus are: Three well-developed ocelli disposed in an equilateral triangle. Frons of the male narrowed at the vertex, but very broad on the fore part; that of the female

broad. Face short, bare; genae with a very deep furrow, as in *Cyllenina*; occiput less developed than in this genus, but likewise furrowed above. Antennae inserted at the level of the centre of eyes, approximate at base; first joint globular, bare, as long as the second; third joint very elongated and bare at end. Proboscis twice as long as the head; palpi well developed. Thorax and scutellum with bristles on the sides and at the hind border; metapleurae bare, squamae rudimentary. Abdomen broad, destitute of long bristles; male genitalia much developed and prominent. Legs with spinose femora and spinose tibiae; pulvilli rudimentary, while in *Cyllenina* they are well developed. Wings with rudimentary alula; first longitudinal vein scaled at the base like the costa; second vein curved at end, but not recurrent; a single marginal and 3 submarginal cells; discal cross-vein placed on the last fourth of the discoidal cell; 4 posterior cells all open, but the first being at the end and half as broad as the second; discoidal cell obfuse outwardly, its terminal vein being straight and a little longer than the distal cross-vein; anal cell open, but narrowed at the end; ambient vein entire. The second longitudinal vein springs from the third at a right angle and has often the stump of a vein; the praefurca is very long.

NOMALONIA AFRA, Macquart (1840).

A robust species of proportionally great size, easily recognisable by the fenestrate wings with a single marginal cell.

Macquart has described the male from the Cape, believing wrongly that he had before him *Henica longirostris* = *Cyllenina afra*, Wied. There is in the collection a pair from Namaqualand, Springbok (Cape) November, 1890 (R. M. Lightfoot). To Macquart's description must be added: Length of body 11–13 mm.; of a wing 11–12 mm.; of the wing spread 26–30 mm. Occiput red, with a broad yellow border near the eyes, which becomes broader below; this border is marginated with a black stripe on the upper end, and more broadly in the female; it is closed with dense but short white hairs, the eyes' border, however, being bare; it is deeply excavated above in the middle, forming a deep furrow, from which springs the ocellar tubercle. Ocellar tubercle ovate, greatly developed and very prominent, black on the fore-half and reddish behind, black-haired in front. Eyes purplish-black, proportionately small, with equal areolets in both sexes. In the male the frons at the narrowest point is about as broad as the distance between the 2 basal ocelli; in the female it is about $\frac{1}{3}$ of the head-breadth; the frons becomes afterwards very broad, being equally

broad in both sexes and measuring about $\frac{1}{3}$ of the head; at a level with the antennae; it is very convex, and densely clothed with white or whitish thick hairs, with some black ones in the basal half, more numerous in the female; the colour of the frons is a pale yellow like that of the face and of the cheeks, with a faint white dust. The face and the cheeks are bare and rather shining; a deep furrow divides the prominent mouth-border from the reddish genæ, which are clothed beneath with short yellowish hairs, like the chin. Antennae inserted in a depression between the arched frons and the prominent face; first joint short, globose, bare, pale yellow; second joint shorter and smaller, reddish; third reddish, with the styliform terminal part black, in the female entirely black, three times as long as the first two together, linear, gradually tapering to a styliform point. Proboscis 3.5 mm. long, entirely black; acute; palpi thick, straight, black, not prominent but long, clothed with yellowish hairs. The praesutural, supra-alar and postalar bristles are long and numerous; there is besides a very dense tuft of short bristles on the upper border of the mesopleura, just below the notopleural line; scutellum with 6-8 pairs of strong marginal bristles; all the above-named bristles are black in colour. Pleurae entirely reddish, grey-dusted, with scarce scaly tomentum on mesopleura and sternopleura, yellowish or whitish in colour like that of the back. The small squamae are whitish, with short, whitish fringe. Abdomen broadly conical in the male, obtuse and more flattened in the female; its ground-colour is red, but each segment has a broad basal black band in the middle; in well-preserved specimens the whole abdomen is clothed by dense, scaly tomentum, which is white on the venter, sides and end, and much darker-yellowish above and at the base; on the sides and at the end there are short black bristles. The male genitalia are very long and prominent, red, black and pale-pubescent, and surrounded at the base with black bristles; female genitalia with dense and long anal tuft of golden-yellow hairs. Legs reddish, irregularly darkened and blackened, pale tomentose; they have numerous and strong black bristles on all the coxae; the femora underneath bear two rows of bristles, shorter and less numerous on the front pairs: tibiae with many rows of long spines, like the underside of the tarsi at the base. The three last joints of the front and middle tarsi with a peculiar structure; in the male they are of a semilunar form, and are provided below with a dense and soft fringe without bristles, with the exception of a single strong bristle at the base of the third segment. Claws strong and short, black, with dark-reddish base. The wings are greyish-hyaline, more or less infuscated towards the middle, but not at the end as in

longirostris, and hyaline around the transverse veins; the veins are pale yellow, darkened at end; the scaly hairs on the base of the costa and first vein are yellowish; there is sometimes the recurrent stump of a vein in the basal angle of the second longitudinal vein.

HENICA, Macquart (1834).

The characters of this genus and the differences from *Cyllenia* have been pointed out by Loew under the name of *Lagochilus*; Loew has also noticed the length of the praefurca, or, as he says, the shortness of the first submarginal cell. This character shows an affinity between *Henica* and *Nomalonia* and the true *Exoprosopinae*, and it is important to note that Wiedemann first described the species as belonging to *Anthrax*. Both genera have a rather isolated position in the Cylleniinae.

HENICA LONGIROSTRIS, Wiedemann (1878).

A well-known, common South African species, very distinct owing to the peculiar venation.

A couple of specimens from the Cape, Hex River, November, 1882, labelled by Bigot "*Cyllenia pluricellata*, Macq.;" another female specimen from Stellenbosch (Cape), L. Péringuey.

The four anterior tarsi of the male have the same structure as described above for *Nomalonia afra*.

PERINGUEYIMYIA, Bigot (1886).

A genus briefly described by Bigot, and with affinity to *Amictus*, from which it differs chiefly in the recurrent, strongly looped end of the second longitudinal vein, and in the long, strongly curved and appendiculate upper branch of the cubital fork. The structural features of the genus are as follows: Body broad and stout; abdomen depressed. Head with the occiput much inflated above; the middle longitudinal furrow of the vertex is present, but it is much less pronounced than in *Cyllenia*; ocular border bare. Ocellar tubercle less prominent, with three well-developed ocelli, disposed in an equilateral triangle. Eyes bare, with non-indented hind border and with the upper areolets distinctly enlarged in the male; they are closely approximate together for a long distance, but not touching in the male and not broadly separate in the female. Vertical triangle of male small—many times smaller than in *Henica* or in *Nomalonia*. Face short, not prominent, with a fine moustache of dense hairs on the sides

and on the mouth-edge; cheeks and chin narrow; mouth-opening long. Antennae short, inserted over the centre of the eyes, approximate at the base; first joint thickened, provided with a tuft of very long and dense hairs below; second short and globular; third joint much smaller and a little longer than the first, with the basal half ovate and the apical half styliform. Proboscis short and thick, not longer than the head, with broad terminal labella; palpi thin and rather long. Thorax villose, with long but not rigid praesutural, supra-alar and postalar macrochaetae; scutellum with bristles at the hind border; metapleurae and hypopleurae bare and shining. Squamae short, but well developed and fringed. Abdomen villose, but without bristles at the hind border of the segments. Male genitalia of great size and complicated, but not prominent. Legs stout, with spinose femora and tibiae; pulvilli well developed, long. Wings long, with no distinct alula; second longitudinal vein much looped at the end and retreating, reaching the costa nearly in contact with the first vein, the marginal cell being therefore very broadened at end but almost closed; praefurca very short; upper branch of cubital fork very retreating at base, and there angulate and provided with a recurrent stump; distal cross-vein placed in the last third of the discoidal cell, which is long, and with the vein dividing it from the third posterior cell very long and S-shaped. First posterior cell closed at border, anal cell open but narrowed at end; axillary lobe proportionally short; ambient vein complete. There are 2 sub-marginal and 4 posterior cells present.

PERINGUEYIMYIA CAPENSIS, Bigot (1886).

A rather hairy species, reminding one of *Nomalonia afra*, and at once distinguished by the black punctate wings.

Originally described from the Cape, there are 1 male from Namaqualand, Springbok, November, 1890 (R. M. Lightfoot), a male from Garies (Cape), November 28th, 1885 (L. Péringuey), labelled by Bigot (type); and another female from Bushmanland, Jackal's Water, October, 1911 (R. M. Lightfoot).

Length of body 9–12.5 mm.; of wing expanse 20–26 mm. Head entirely black; occiput rather shining, grey-dusted near the eye-borders, with short pale yellowish hairs; ocellar tubercle black and black-haired; frontal triangle of male bare, densely grey-dusted. The linear frons between the eyes is not broader than the front ocellus. Frons of female at the vertex not more than $\frac{1}{7}$, and at the base of antennae $\frac{1}{5}$ of the head, shining black, black-haired near the ocelli, white-haired on

the remainder, more densely near the antennae. Hairs of moustache white or pale yellowish. Antennae entirely black; the short hairs on their upper side are black, very long and dense; the hairs of the under side are white; proboscis and palpi black. Thorax and pleurae entirely black; the back is clothed with a rather long and dense, pale yellowish or dirty whitish pubescence, and with a little longer, numerous black hairs. The bristles are black; some have yellowish tips; the pleurae are shining, with tufts of whitish hairs only on the propleurae and the hind border of the mesopleurae. Scutellum red, with a narrow black base, and bearing a pale yellowish pubescence, longer black hairs, and yellowish bristles along the hind border. Squamae dirty yellowish, with golden or whitish yellow fringe; halteres with a dark stalk and whitish knob. Abdomen black, with the hind border of each segment, the first excepted, with a narrow but complete reddish-yellow band, which is broader in the male; venter black, grey-dusted, with long whitish hairs. The pale yellowish or whitish pubescence of the upper side is rather long and dense, chiefly on the sides of the first segment; in the female the pubescence on segments 1-5 is quite white, and forms short bands on the ventral side of the hind border of the tergites.

Male genitalia red, the end of the abdomen in this sex is black pilose below; the ovipositor of the female appears provided with a circlet of long spines, like that of some *Exoprosopinae*. Legs black, grey-scaled; tibiae and basal joints of tarsi reddish yellow; the coxae are densely pilose, the hairs being white above and black below; all the femora are black spinose underneath, like the tibiae; claws black, with a reddish base; pulvilli dirty-yellowish. Wings wholly hyaline, vitreous; veins yellow, darkened outwardly; costa with black hairs at the base, but the first vein is entirely bare. The dark spots are on the short praefurca, on the discal cross-vein and on the angulate base of the upper branch of the cubital fork; three smaller and less distinct spots are situated on the base of the fourth posterior cell, on the inner base of the third posterior cell, and on the base of the second posterior cell; sometimes there is also a less distinct spot at the closed end of the first posterior cell.

SUBFAMILY LOMATIINAE.

LOMATIA, Meigen (1822).

The rather numerous South African species of this genus can be divided into three groups, based on the shape of the third antennal joint and on other characters. These groups are different from those proposed by Loew; they are distinguished as follows:

- 1 (2). Wings narrow and long, with the upper branch of the cubital fork angulate at the base and there provided with a recurrent veinlet; discoidal cells three times as long as the second posterior cell and very acute outwardly; third antennal joint in the shape of a very long, acute cone, linear; praesutural macrochaetae black; hind femora with many spines below. (First group) . . . *acutangula*, Loew.
- 2 (1). Upper branch of cubital fork not appendiculated and discoidal cell not more than twice as long as the second posterior cell; third antennal joint not linear.
- 3 (14). Third antennal joint broad at base and afterwards forming a very thin and long styliform point; wings with a more or less extended pattern, with a distinct basal comb and with a rather long discoidal cell; praesutural bristles yellow; hind femora with many spines below. (Second group.)
- 4 (9). Species of great size, with the wing pattern extended to the hind border, and with clear stripes on the fuscous middle area; anal cell with narrow end.
- 5 (6). Legs entirely yellow; wings infuscated, with a whitish end, and a whitish, longitudinal middle stripe . . . *longitudinalis*, Loew.
- 6 (5). Legs entirely black, or with dark-yellowish tibiae or base of tarsi.
- 7 (8). Wings with the fore basal half infuscated and the hind half clear with broad fuscous borders of the veins; body pubescence pale yellowish; tibiae with yellow ground-colour . . . *liturata*, Loew.
- 8 (7). Wings yellow and brown on the disc, with a broad brown, praeapical band and a brown hind border; pubescence bright yellow or golden; tibiae black . . . *pictipennis*, Wied.
- 9 (4). Wing pattern limited to the fore border, not extending in the middle over the fourth longitudinal vein; if the hind border is infuscated, there are no clear stripes in the middle; anal cell less narrowed at end; species of medium size.
- 10 (11). First basal cell infuscated at the base only and first submarginal cell entirely hyaline in the male; antennal tuft with black hairs on the inside . . . *simplex*, Wied.
- 11 (10). First basal cell entirely darkened as far as the discal cross-vein in both sexes and first submarginal cell darkened at base.
- 12 (13). First posterior cell not narrowed at end; wings with the hind half rather infuscated . . . *infuscata*, sp. nov.
- 13 (12). First posterior cell much narrowed at end; wings with the hind half quite hyaline . . . *conocephala*, Macq.
- 14 (3). Third antennal joint in the shape of a short cone; wings entirely hyaline, without basal comb; thorax with black praesutural bristles and provided with a distinct collar of black bristly hairs in front; hind femora with a few bristles below; smaller species, of a deep black colour, with silvery hairs on abdomen. (Third group.)
- 15 (16). Tibiae yellow; pubescence on pleurae and abdomen of a yellowish colour . . . *latiuscula*, Loew.
- 16 (15). Tibiae black; pleurae and abdomen with white pubescence. . . . *tenera*, Loew.

LOMATIA ACUTANGULA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 203, pl. ii, fig. 10.

A species very distinct from any other on account of its slender body and of the very long and narrow wings, which have besides a peculiar venation.

Originally described from Caffraria, and subsequently recorded from Pretoria (Transvaal), there are in the collection some specimens from M'Fongosi, Zululand, February and December (W. E. Jones).

In the present species the middle femora have 2 strong spines in the middle of the fore side, and the hind femora 3-4 spines below. The hitherto undescribed male is very like the female; the eyes are more approximate but always more distinct than in the allied species; the ocellar tubercle is curiously shaped, with a prominent border behind.

LOMATIA LONGITUDINALIS, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 204, pl. ii, fig. 11.

A gigantic species, very different from any other by having wholly yellow legs. Originally described from Caffraria, there is a male specimen from Berg River (Cape).

Middle femora with 4, hind femora with 8-9 spines.

LOMATIA LITURATA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 205, pl. ii, fig. 13.

A species distinguished by the yellowish tibiae and by the peculiar, often less pronounced coloration of the wings. Described from the Cape, and recorded with a doubt from Barberton (Transvaal), there are a couple of specimens from Potchefstroom (Transvaal) (T. Ayres).

Middle femora with 5-6, hind femora with 7-8 spines.

LOMATIA PICTIPENNIS, Wiedemann (1828).

Loew's Dipteren-Fauna Süd-Afrikas, pl. ii, fig. 12.

A well-known species, easily recognisable by the black legs and the very variegated yellow and brown wings.

Common in South Africa; M'Fongosi, Zululand, December, 1911 (W. E. Jones); I have received it also from Grahamstown, March, 1909 (Miss Dale).

Middle femora with 3, hind femora with 5-6 spines.

LOMATIA SIMPLEX, Wiedemann (1819).

A smaller species, very distinct from the others of the present group owing to the reduced wing pattern of the male, the first basal cell being darkened at the base only.

This species seems to be common in South Africa; there are many specimens of both sexes from Barberton, Transvaal, December, 1911 (H. Edwards); a large male specimen from Hex River (Cape) is labelled by Bigot as *Anthrax albifrons*, n. sp.; it has a wholly yellow antennal tuft. The present species is variable in the coloration of the hairs on the face and frons, which in the male are often white, not yellow; in the female the hairs of the under side of the first antennal joint have usually no black hairs on the inner border, while in the male they have such as in *pulchriceps*. Middle femora with 2-3, hind femora with 3-4 spines.

In the female the wings are more infuscated; the first basal cell is fuscous to the end, and the second basal cell, and often even the discoidal cell, are also infuscated.

LOMATIA INFUSCATA, nov. sp., ♀.

A rather large species, distinct from the others by the wholly infuscated wings, which are destitute of clear stripes, but show a distinct fuscous pattern, of the type of that of *pulchriceps*.

Type ♀, a single specimen from Pinetown, Natal, June, 1883 (G. H. Bowker).

Length of body 10.5 mm.; of a wing, 10 mm. Occiput shining black, with faint grey dust; scarce golden tomentum and short yellowish hairs along the borders of the middle depression. The longitudinal furrow behind the vertex is narrow but deep; ocellar tubercle brown, with a prominent hind border, black haired; frons shining black and black pilose, with a transverse band of golden hairs above the base of the antennae. Face and cheeks black, with golden hairs; chin black, almost bare. Antennae entirely black; first joint black and briefly hairy on the upper side, with a long tuft of rigid golden hairs underneath and with black ones intermingled on the inner side; third joint at the base as broad as the second, gradually tapering in a long styliform point, which is of a reddish colour at end. Proboscis and palpi black. Thorax and scutellum deep black, densely clothed with golden yellow hairs; the bristles are yellow or dark yellowish, but the 2 praesutural ones on the right side are quite black (in 2 specimens of the British Museum these bristles are, however, entirely yellow, which may be the rule); pleurae black, densely grey-dusted,

with golden yellow hairs on propleura, mesopleura and sternopleura. Squamae black, with golden fringe; halteres dark yellow, with paler knob. Abdomen entirely black, a little shining, broader than the thorax, with faint bands of golden tomentum at the hind border of the segments, and with golden-yellow hairs dense and long on the sides and long black hairs intermingled after the middle; venter black, grey-dusted and yellow-haired; genitalia with a dense and long tuft of metallic shining hairs. Legs entirely black, with dense yellowish scaly tomentum on femora and outer side of tibiae; all the spines are black; middle femora with 4, hind femora with 2-3 spines; claws short, black; pulvilli blackish. Wings long, shining, iridescent, rather infuscated over the entire surface (but it is possible that in the yet unknown male they are clear at the hind border, because in the present genus the females have the wings always darker than the males); the usual pattern, filling out the fore border and the first basal cell to the discal cross-vein, is distinct and very dark; venation typical. First posterior cell not narrowed at end; discoidal cell more than twice as long as the second posterior cell; third posterior cell very narrow and long; anal cell narrowed at end, more than in the applied species. Base of wing blackish; basal comb less developed.

LOMATIA CONOCEPHALA, Macquart.

Dipt. Exot., ii, p. 62, pl. xx, fig. 1 (1840).

Easily distinguishable from the allied species by the much narrowed end of the first posterior cell and by the infuscated lower end of the second basal cell.

Macquart has described in an unrecognisable manner the female from the Cape as *Anthrax conocephala*; but as the figure represents without doubt the wings of a *Lomatia* of the present group with a narrowed end of first posterior cell, I think that this name should be retained for the present species. There is a male from Smithfield, Orange Free State, September, 1910 (Dr. D. Kannemayer).

Occiput black, briefly black-haired above and grey-haired on sides; frons black, with the basal half black-haired, the apical half with long, pale-yellowish, sericeous shining hairs divided along the middle line and directed outwards. Antennae black, the hairs of the lower side of the first joint being entirely yellowish like those on face and cheeks. Hairs of thorax pale-yellowish on back and whitish on sides; bristles yellow. Scutellum black, haired as the thorax. Squamae dirty-whitish, with brown border and dense white fringe; halteres yellowish, with whitish knob. Abdomen entirely black, hairy like the thorax,

with black hairs intermingled at end; the hairs are dense and long on the sides, and have a white sericeous sheen; venter grey-dusted and pale yellowish tomentose, with scarce but long pale hairs. Legs entirely black, yellowish or whitish scaled, with pale hairs on coxae and under side of femora, and with black spines; middle femora with 4-5, hind femora with 5-6 spines; claws black, pulvilli blackish. Wings hyaline, with a long, black basal comb and black veins; costal cell, marginal cell to the end of the first vein, first submarginal cell at base and first basal cell to the distal cross-vein infuscated; base of wing infuscated above and yellowish below; second basal cell infuscated at base, at the fore-border and on the vein dividing it from the fourth posterior cell; first posterior cell much narrowed at end, nearly as narrow as the anal cell; discoidal cell twice as long as the second basal cell.

LOMATIA PULCHRICEPS, Loew (1860).

Closely allied to *conocephala*, Macq., but distinguished by the black and stout prae-alar bristles, and by the white tufts below the antennae.

A specimen from Salisbury, Areturus, 1916 (Dr. Melle), and another from M'Fongosi, Zululand (W. E. Jones).

LOMATIA LATIUSCULA, Loew (1860).

A smallish, deep-black coloured species, very like a little *Thyrid-anthrax* with hyaline wings, easily distinguishable from the allied species by its yellow tibiae.

Described from the Cape. I have received a specimen from Grahamstown (Cape), February, 1903 (Miss Dale and Miss M. Soly).

In this species the bristles of the collar in front of the thorax are thin and yellow, but the praealar bristles are strong and black. Middle femora with 1, hind femora with 1-2 spines; the spicules of the 4 hind tibiae are very long and strong, but less numerous than usually.

LOMATIA TENERA, Loew (1860).

Nearly allied to the preceding, but at once distinguished by the black collar in front of the thorax and by the entirely black legs. Originally described from Caffraria, there is a single male specimen from Bulawayo (South Rhodesia), December 11th, 1911. The femora are as in the preceding species; the tibiae have numerous but thin spicules.

PTERAULAX, gen. nov.

The present new genus is very near *Cononedys* and *Aphobantus*; with them it forms a small group distinct in having no prominent face, separated antennae, united eyes of male, a folded wing membrane, short praefurca, and the second vein originating at an acute angle. In general shape, however, this group agrees perfectly with that of *Plesiocera-Stomylomyia* and with that of *Petrorossia-Chionamoeba*; and therefore I place all these 3 small groups of Becker with *Lomatia* in a single group of Lomatiinae.

The structural features of the new genus are as follows: Head nearly spherical, broader than the thorax. Occiput convex and prominent, with a very deep post-vertical furrow, bilobate above; it is excavated in the middle and destitute of fringe at the border. Eyes bare, of great size, with a very developed indentation in the middle of the hind border and with a well-developed bisection line; in the male they have the upper inner areolets much broader and are united for a rather long line; in the female they are broadly separated and have equally small areolets. Ocellar tubercle prominent but small, ovate, with three equidistant ocelli. Face broad, long, not prominent, pilose; genae very narrow; chin broad and flat, destitute of long beard. Antennae short, inserted a little above the middle of the eyes; they are broadly separated at the base, but the first joint shows a protuberance on the inner side by means of which the antennae are approximate; the hairs of the under side are not tuft-shaped as in *Lomatia*. The second joint is short and globose; the third joint is as long as the 2 first joints together, broadened and rounded at base, and narrowed to form a point half as long as the first, which bears at the end a well-developed, bi-articulate style. Mouth-opening of small size, oval; proboscis very short, shorter than the head, thick, with broad terminal labella; palpi short and strong, less pilose, bi-articulate, the apical joint ovate, about half as long as the first. Thorax convex, with strong and long praesutural and supraalar bristles, and also with 2 pairs of bristles in front of the scutellum; metapleurae bare; squamae rather developed, with short fringe; scutellum developed, with some bristles at hind border. Abdomen of conical shape, in the male very narrow and obtuse, in the female more depressed, broader and acute at end. Male genitalia of great size, rounded, closed; female genitalia with dense tuft of hairs. Hind border of the abdominal segments with more or less developed rows of bristles, more developed in the female. Legs strong; hind femora much spinose beneath; spicules of tibiae long and thin; many long spurs at the

end of the tibia. Claws long; pulvilli well developed. Wings short and narrow, without basal comb, and with the membrane strongly folded (whence the name *Pteraulax*). Base narrow, the alula less developed, but distinct and rounded; praefurca short. Second and third vein at an acute angle; second vein looped at end, but not retreating; cubital fork broad, retreating at the base of the upper branch and united with an appendage to the second vein. Therefore there are 3 submarginal cells, the base of the upper branch of the cubital fork in the shape of a short cross-vein between the appendix and the rest, which are on the same line. First posterior cell closed before the border, acute at end, and provided with a rather long stalk; discoidal cell obtuse at end, less than twice as long as the second posterior cell, the discal cross-vein placed a little before its middle; 2nd, 3rd and 4th posterior cells of equal breadth at end; anal cell long, with parallel sides, narrowed at end but open. Ambient vein complete; axillary lobe well developed.

In the allied *Cononedys stenura*, Loew, there are no pulvilli; but in *C. erythraspis* they are present, and Prof. Hermann has proposed for it a new genus, *Conogaster*—a name which cannot be maintained, because it is preoccupied in the Diptera by Brauer and Bergenstamm, 1892.

Type: The following new species.

PTERAULAX FLEXICORNIS, sp. nov., ♂, ♀.

An *Aphoebantus*-like species of middle size, very distinct owing to its singular venation and by the shining black hind part of the scutellum.

Type ♂ and type ♀; a single couple of specimens from Bushmanland, Een Riet (Cape), October, 1911 (R. M. Lightfoot). I have seen in the Museum of Budapest a second species from Willowmore, in which the scutellum is not shining black behind and the abdomen is more setose.

Length of the body 10 mm.; of a wing 7 mm. Entirely black, grey-dusted, and white and yellowish tomentum. Occiput dark grey-dusted above and paler grey below, with short greyish pubescence and white scales on the sides near the eye's indentation. Ocellar tubercle black, grey or brownish-haired. Frons of the male grey-dusted and entirely clothed with whitish hairs, like the face; frons of female shining black, with brownish hairs, with whitish ones like those of the face in front only. Antennae black; first joint with whitish hairs. Proboscis black; palpi yellow. Thorax black; on the back it is dark grey-dusted, with three distinct but narrow longitudinal

stripes of paler dust, one along the middle line, the others along the dorsocentral lines. The hairs in front and on the sides are pale yellowish or whitish; in the female there are besides numerous short bristles on the notopleural line. Pleurae with pale grey dust, and with white scales on the lower part of the mesopleura and on the sternopleura; the mesopleural hairs are greyish. Scutellum grey-dusted at base and with yellow tomentum, shining black at the hind border and on the sides; the bristles of the hind border are yellow or yellowish. Squamae dirty whitish, with pale yellow border and white fringe; halteres yellow, with darker knob. Abdomen black, grey-dusted; the segments have whitish scales at the base on the sides and on the hind border, and yellow scales in the middle; first segment with long, dense, whitish hairs, the other segments with scarce, grey or pale yellowish hairs, more developed in the male. The ventral side of the tergites has a narrow yellow border; venter grey-dusted, white-scaled, with greyish hairs. Male genitalia grey, with the lower border of the lamellae reddish; terminal tuft of the female genitalia of golden yellow colour. Coxae and femora black, grey-dusted, white-scaled, whitish haired; the 4 anterior femora only narrowly yellow at end; middle femora with 3-4 yellow spines on the middle of the anterior side; hind femora with 6-7 whitish or yellow spines below, which in the male are very long, forming near the base a tuft of 4-5 longer ones placed in many rows. All the tibiae are pale yellowish, with numerous and long yellowish or whitish spicules and spurs, even on the front pair. Tarsi pale yellowish, darkened at end, with whitish or yellowish spines at end of the two first joints; claws pale yellowish with black tips; pulvilli whitish yellow, longer in the male than in the female. Wings hyaline, vitreous, iridescent; veins black, the first and the extreme base of the others being yellow; alula pale yellowish, with a short white fringe. In the present species the recurrent veinlet dividing the first from the second submarginal cell is about twice or even a little more as long as the basal part of the upper branch of the cubital fork—looking, therefore, as not being the continuation of the second longitudinal vein.

PETROROSSIA, Bezzi (1908).

This genus is well represented in the Ethiopian Fauna, and there are also some species in South Africa; those in the collection can be distinguished as follows:

- 1 (4). Thorax, scutellum and abdomen with yellowish or greyish tomentum abdomen black, but with reddish yellow sides; legs pale yellow.

- 2 (3). Wings hyaline, with a less defined basal infuscation; second longitudinal vein with the usual less deep loop at end *hesperus*, Rossi.
- 3 (2). Wings entirely blackish-brown, with hyaline spots in the centre of the cells; second longitudinal vein exceedingly looped at end. *vinula*, sp. nov.
- 4 (1). Thorax, scutellum and abdomen with bright orange tomentum; abdomen of an orange yellow colour, with a black middle stripe; legs orange-colour. *fulvipes*, Loew.

PETROROSSIA HESPERUS, Rossi (1790).

There is a female of large size of this Mediterranean species from Hex River (Cape) (Dr. L. Péringuey), January 3rd, 1883, but without a head, and it cannot be ascertained if the example belongs to the var. *tropicalis* or not. The wings have the basal half infuscated, and there is a short appendix at the base of the upper branch of the cubital fork.

PETROROSSIA VINULA, sp. nov., ♂, ♀.

Closely allied to the preceding, but at once distinguished on account of its peculiar wing pattern and venation.

Type ♂ and type ♀, a single pair from Hex River (Cape), December, 1889 (Dr. L. Péringuey), labelled by Bigot as "*Lygira vinula*"—a name which has never been published. Bigot has evidently placed the species in the genus *Lygira* on account of the strong terminal loop of the second longitudinal vein; but in this genus the form of this loop is a very different one, the end of the second vein being strongly recurrent; there are, moreover, 4 submarginal cells, and the position of the discal cross-vein is as in *Lomatia*.

Length of body 6.5–8 mm.; of a wing 7.5–9 mm.; of the wing spread 16.5–20 mm. Head black, grey-dusted; occiput well developed, deeply bilobate above, with a short pale yellowish pubescence; ocellar tubercle small, rounded, with blackish pubescence; frons with long, blackish, erect hairs and short yellowish pubescence on fore half; face grey-dusted, with yellowish pubescence. Antennae entirely black, short; first joint black-haired in the male, with some yellowish hairs below in the female; third joint with the basal part broad and discoidal, the styliform part long and ending in a pencil of sparse hairs. Proboscis short, black. Thorax and scutellum entirely black, a little shining, with pale yellowish pubescence, yellow tomentum and yellowish bristles; pleurae with pale grey dust, with whitish hairs on propleura, mesopleura and sternopleura. Squamae dirty whitish, with a pale fringe; halteres yellow. Abdomen black, rather shining, with yellow tomentum and pale yellow hairs; on the sides near the

base there is a narrow reddish-yellow stripe; venter reddish, whitish-haired; male genitalia of great size, bilobate, black above, red below, with yellow hairs. Legs entirely pale yellow, white-scaled; femora and tarsi more or less darkened at end; hairs of coxae and of the under side of femora white; the thin spines of the hind femora and the short spicules of the tibiae are black; claws black, pulvilli whitish. Wings very long, with pedunculate base; the costa is not ciliated at base and the alula is very rudimentary; they are entirely and equally infuscated, the axillary lobe only being hyaline with a dark end. The hyaline stripes are placed on the end of the first and of the second submarginal cells, this last being in contact with the whole wing border between the ends of the two branches of the cubital fork, in the middle of the 2nd, 3rd and 4th posterior cells, and one broader than the others, of ovate shape, in the last half of the discoidal cell; in addition there is the usual whitish spot on the upper exterior angle of the second basal cell. The veins are black; the second longitudinal is suddenly and deeply looped before the end, and its origin is equidistant from the base of the third vein and the discal cross-vein; upper branch of cubital fork gently rounded at base and destitute of stump. First posterior cell long, not, or little narrowed at end; discal cross-vein placed on the first third of the discoidal cell; this last cell is long, very dilated in its last half, and therefore much constricted before the middle; third posterior cell very elongate and very narrowed in its last half; anal cell narrowed at end; ambient vein complete.

PETROROSSIA FULVIPES, Loew (1860).

Dipteren-Fauna Sud-Afrikas, p. 210, pl. ii, fig. 14.

A well-known Ethiopian species, easily distinguished by its elegant coloration. M'Fongosi, Zululand; Natal, Stella-Bush; but the species is common and widely distributed over the entire region; it is hardly distinct from the Oriental *P. fulvula*, Wied.

SUBFAMILY ANTHRACINAE.

ANTHRAX, Scopoli (1763).

This name is used here, not in the usual sense of the authors (for these species, see *Villa* and *Thyridanthrax*), for the species of *Argyro-moeba* which have a broad third antennal joint, an extended black pattern on the wings and a silvery abdominal apex in the male. The rather numerous species may be tabulated as follows:

- 1 (2). Squamæ dark brown; second longitudinal vein deeply looped at end; upper branch of the cubital fork with a second stump in the middle; wings with many confluent dark spots, 4-5 of which are placed at apex *pithecius*, Fabr.
- 2 (1). Squamæ white or whitish; second longitudinal veins less looped at end; upper branch without appendix in the middle, or only as an exception; apex of wings hyaline, without dark spots.
- 3 (6). Basal black pattern of the wings extended over the discal cross-vein, filling out a great part of the marginal cell and the base of the first submarginal and of the first posterior cell; plumula with a black fringe; discal cross-vein placed before the middle of the discoidal cell.
- 4 (5). Wings with the brown pattern well defined and with 4 isolated dark spots, 3 of which placed on the lower vein of the discoidal cell; a hyaline spot in the dark base of the first posterior cell. *hessi*, Wied.
- 5 (4). Wings with a diffused pattern and with only 3 dark spots, 2 of which are on the discoidal cell; no distinct hyaline spot in the dark base of the first posterior cell *diffusus*, Wied.
- 6 (3). Basal black pattern not extended over the discal cross-vein; discal cross-vein usually placed on or after the middle of the discoidal cell.
- 7 (10). Two distinct isolated dark spots in the hyaline part of the wings.
- 8 (9). Species of great size, measuring 14-15 mm. in length; recurrent veinlet at the base of the upper branch of the cubital fork long; plumula white *aygulus*, Fabr.
- 9 (8). Species of smaller size, measuring only 6-7 mm.; recurrent veinlet at the base of upper branch short and often rudimentary; plumula black *pusillus*, Wied.
- 10 (7). No distinct dark isolated spots in the hyaline part of the wings.
- 11 (12). The black basal pattern of the wings is limited by an oblique line extending from the end of the auxiliary vein to the end of the anal cell, the extreme apex of which is hyaline *hemimelas*, Speis.
- 12 (11). The black basal pattern reaches only the middle of the anal cell, and has a tooth-like projection on the discal cross-vein. *fuscipennis*, Ric.

ANTHRAX PITHECIUS, Fabricius (1805).

A well-known and common African species, easily distinguished by the peculiar wing pattern.

Many specimens of both sexes, varying in size from 8.5 to 12 mm. M'Fongosi, Zululund, October, 1911 (W. E. Jones); Dunbrody (Cape) (O'Neil); Potchefstroom, Transvaal (T. Ayres); Bulawayo, S. Rhodesia (G. Arnold), September, 1913; Salisbury (S. Rhodesia), January, 1914 (J. A. O'Neil). A specimen from Hex River, December, 1882, was determined by Bigot as *Exoprosopa reticulata* Macq. (*sic!*). I have received the species also from Grahamstown (Cape).

ANTHRAX HESSII, Wiedemann (1818).

An elegant species, very distinct owing to the well-defined and characteristic wing pattern.

It is known only from South Africa. Giftsberg, Van Rhynsdorp (Cape), September, 1911; O'Okiep (Cape), September, 1890.

A female specimen from Hex River (Cape), December, 1884, determined by Bigot as *Anthrax punctipennis*, Wied., seems to belong to this species, but is aberrant in having the first submarginal and the first posterior cells almost hyaline to the base, and therefore the hyaline spot after the discal cross-vein is wanting.

ANTHRAX DIFFUSUS, Wiedemann (1824).

Closely allied to the preceding, but at once distinguished by the less defined and more extended wing pattern, the isolated dark spots being therefore much less marked. Known from South Africa and recorded by me from Nyassa. A single male specimen from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot); an old specimen of great size (37 mm. of wing expanse), without a head, with wholly infuscated wings.

It is notable that of *A. diffusus* I have seen males only, and of *hessii* females only; they are perhaps the two sexes of a single species.

ANTHRAX AYGULUS, Fabricius (1805).

A species of great size with dimidiate wings and two dark spots in the vitreous part.

Widely spread over the entire Ethiopian region, and seemingly also over the whole Oriental region. A single female specimen from Dunbrody (Cape), March 20th, 1912; the species was not yet recorded from South Africa.

ANTHRAX TRIMACULATUS, V. der Wulp (1868).

Easily distinguished from the allied species by the presence of three isolated brown spots in the hyaline part of the wings.

A female specimen from East London, Cape Colony, July, 1914 (R. M. Lightfoot).

ANTHRAX PUSILLUS, Wiedemann (1821).

Very like *A. aygulus*, but only half its size.

Widely spread in Africa, but less known; very like the Oriental *distigma*, Wied., but smaller. A single male specimen from Hex

River (Cape), January 10th, 1887, labelled by Bigot as *Anthrax pusilla*, Wied. An additional example from Kimberley (Cape), 1918 (J. H. Power).

ANTHRAX HEMIMELAS, Speiser (1910).

A black species of small size, very distinct on account of its perfectly dimidiolate wings.

Described at the same time by Speiser from Kilimandjaro and by me as *A. homogeneous* from Nyassa, it is interesting to record it from South Africa. A single female from M'Fongosi, Zululand, December, 1911 (W. E. Jones).

ANTHRAX FUSCIPENNIS, Ricardo (1903).

Distinct owing to the reduced black pattern of the wings, which have a tooth-like projection on the fore border, the apical half of anal and axillary cell being hyaline.

A single female specimen from Bushmanland, Henkries (Cape), October, 1911 (R. M. Lightfoot).

This species seems to be widely spread over all the Ethiopian region, but was not recorded from South Africa. It seems that *muscarius*, Klug (*nee* Pallas), from Egypt, *fuscipennis*, Ric., from Sokotra, *dentatus*, Beek, from Egypt and *camptocladus*, Bezzi, from Nyassa are all the same species, the latter one representing a colour variety with entirely black first basal cell, and therefore without a tooth-like projection on the fore border.

SPONGOSTYLUM, Macquart (1840).

Under this name I include the species which Becker has placed in his restricted genus *Argynamoeba*; they are distinguished from the preceding genus chiefly in the shape of antennae and in the wing-pattern. All the following species have only 2 submarginal cells and they may be distinguished as follows:

- 1 (2). Origin of the second longitudinal vein placed a little before the discal cross-vein; base of the second vein and of the upper branch of the cubital fork destitute of stumps, or if present they are very short. *muticum*, sp. nov.
- 2 (1). Origin of second vein just opposite to the discal cross-vein; base of second vein and of upper branch always provided with long stumps.
- 3 (4). No brown spot at the base of the cubital fork or a very indistinct one, abdomen with narrow or less distinct yellow hind border on segments, and on sides, with usually tufts of black hairs, or with very few scales *incisurale*, Macq.

- 4 (3). A broad brown spot at the base of the cubital fork; abdomen with yellow hind borders and with tufts of black, scaly hairs on sides.

punctipenne, Wied.

SPONGOSTYLUM MUTICUM, sp. nov., ♂, ♀.

Closely allied to the following species, but distinguished by the characters of the venation and by the somewhat different wing pattern.

Type ♂ and type ♀ from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot); a ♂ from Een Riet (Cape), October, 1911; a ♀ from Namaqualand, August, 1873 (R. Trimmen).

Length of body 8–10 mm.; of wing 9–11 mm.; of the wing spread 21–26 mm. A description is not necessary, because this species is almost similar to *incisurale*, of which it may be perhaps only a variation. But in the wings there are important differences:—(a) in *venation*: The origin of the second vein takes place at a considerable distance before the discal cross-vein, this distance being, however, shorter than the length of the discal cross-vein; this cross-vein is placed nearer to the middle of the discoidal cell. The basal angle of the second vein is rounded and without recurrent veinlet, or exceptionally only with a very short stump; the upper branch of the cubital fork is likewise rounded at base, and very rarely provided with a rudimentary stump. (b) In *pattern*: The brown spots on the cross-veins are broadened to form short bands, recalling the pattern of *S. trifasciatum*, Wiedemann. The costal cell is dark in its whole length: the base of the wing is brown right to the humeral cross-vein, ending in an oblique line extended from this cross-vein to the axillary incision: the abbreviated band below the origin of the third vein extends to the sixth, filling out the end of the second basal cell; sometimes the 2 basal cells and the base of the marginal cell are entirely filled with brown, thus reproducing the *Anthrax* wing pattern.

One ♀ specimen from Jackal's Water has the wings wholly hyaline, pale yellowish toward the base, and without any distinct dark pattern, except the grey praediscoidal spot; the discal cross-vein is placed much before the middle of the discoidal cell, as in *incisurale*, but the curvature of the base of the second vein and of the cubital fork are as in the type. I give a name to this interesting variation, namely var. *elutum*, var. nov.

SPONGOSTYLUM INCISURALE, Macquart (1840).

A common and variable species, distinguished by having only 2 or 3 dark spots on the wings.

Numerous specimens of both sexes, varying in length between 7 and 12 mm. Namaqualand, Spektakel and Springbok (Cape), October and November, 1890 (R. M. Lightfoot). Bushmanland, Jackal's Water, and Matjesfontein (Cape), same collector; Hex River (Cape), December, 1884 (L. Péringuey); M'Fongosi, Zululand, December, 1914 (W. E. Jones); O'Okiep (Cape), November, 1885 (L. Péringuey); Inhambane, Mozambique (K. H. Barnard).

SPONGOSTYLUM PUNCTIPENNE, Wiedemann (1821).

A robust species, easily recognisable by having 4 or 5 dark spots on the wings and by the broad tufts of black scales on the sides of the abdomen.

A single male specimen from Hex River (Cape), December, 1884 (L. Péringuey), rightly determined as *Argyramoeba punctipennis* by Bigot.

SUBFAMILY EXOPROSOPINAE.

VILLA, Lioy (1864).

This genus is rather abundant in South Africa. The species can be easily recognised from those of the following genus, chiefly on account of the *spinulose* front tibiae. Those in the collection can be distinguished as follows:

- 1 (12). Wings without broad dark markings, even if a little darkened at base or along the fore border.
- 2 (11). Wings entirely hyaline, even at the fore border, sometimes with blackish or yellowish extreme base; species of medium or of small size.
- 3 (8). Abdomen without tufts of black scales on the sides of the middle segments; face without black hairs; wings with pale yellowish base and with mainly yellow veins.
- 4 (7). Abdomen without distinct black tufts at the sides near the end base of wings in the male with broad patagia-like, silvery organs.
- 5 (6). Legs with fulvous femora; abdomen clothed with short hairs, even on the sides *flavipes*, Loew.
- 6 (5). Legs with black femora; abdomen long-haired, chiefly on the sides. *albescens*, Loew.
- 7 (4). Abdomen with small tufts of black hairs at the sides of the 5th and 6th segments; wings of male destitute of silvery patagia; legs black, densely clothed with yellow scales *sexfasciata*, Wied.
- 8 (3). Abdomen with dense tufts of long black scales at the sides of the middle segments; face with more or less abundant black hairs; femora broadly yellow at the base; wings with blackish base and black veins, and in the male with silvery basal patagia.

- 9 (10). Abdomen with white, non-shining scales and provided at the end with alternating white and black tufts *vitripennis*, Lw.
10 (9). Abdomen with transverse bands of glittering silvery scales, and at the end entirely clothed with such scales *argentina*, sp. n.
11 (2). Wings darkened at the base and along the costal cell; legs yellow; species of great size *lasia*, Wied.
12 (1). Wings with a well-defined dark pattern, which fills up entirely the two basal cells; face white-haired; legs yellow *leucochila*, nom. nov.

VILLA FLAVIPES, Loew (1860).

A species of middle size with entirely hyaline wings, distinguished by the briefly haired abdomen and by the yellow femora. Female originally described from Caffraria, and not recorded subsequently. There is a male from Klipfontein, Namaqualand (Cape) (L. Péringuey). The hitherto undescribed male is like the female, but the frons at the vertex is only as broad as the ocellar tubercle; the eyes have the upper areolets a little enlarged; the wings have a broad silvery patagium and the basal comb is clothed with silvery scales.

VILLA ALBESCENS, Loew (1860).

Closely allied to the preceding, but at once distinguished by the black femora and by the long-haired abdomen.

Originally described from South Africa, but widely spread over the Ethiopian region. A male from Hex River (Cape), another male from Klipfontein, Namaqualand (Cape) (L. Péringuey).

VILLA SEXFASCIATA, Wiedemann (1821).

Allied to the preceding, but distinct owing to the small tufts of black hairs at the end of the abdomen and by the black legs, which, however, are densely clothed with yellow scales.

Described from South Africa and redescribed as *flavescens* by Loew; it is also widely spread. In the collection there is a female from Hex River (Cape), December, 1884 (L. Péringuey).

VILLA VITRIPENNIS, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 217, pl. ii, fig. 18.

Distinguished from all the preceding species by the large tufts of black scales on the middle segments of the abdomen, and by the vitreous wings, which have a blackish base and black veins. Described

from South Africa, but widely spread. A male specimen from Barberton, Transvaal, December, 1911 (H. Edwards); a female from Hex River (Cape), January, 1883 (L. Péringuey); Otjivarongo (Damaraland), January, 1920 (R. W. E. Tucker).

VILLA ARGENTINA, sp. nov., ♂.

A very peculiar, small species, distinguished by the glittering silvery bands on the abdomen and at its apex.

Type ♂, a single specimen from Hex River, December, 1884 (L. Péringuey).

Length of body 8.5 mm.; of wing 7.5 mm. Head black; occiput tolerably shining, with abundant white scales near the middle of the eyes, with short dark hairs above and with greyish central fringe; post-vertical furrow narrow and deep, the ovate, prominent ocellar tubercle being placed just in front of it. Eyes dark brown, with the upper areolet a little enlarged, the indentation less developed, but the bisecting line very long; frons a little shining, about as broad at vertex as the ocellar tubercle, clothed with erect black hairs, and with scarce greyish cells near the eyes and on the frontal sides. Face rounded, not prominent, densely clothed with short black hairs and with abundant greyish scales. Antennae entirely black; the two first joints very short, of equal length, the first with black hairs; third joint with the basal discoidal part not longer but broader than the second joint, and the styliform part very thin, long, filiform, about as long as one and a half times the remainder, ending in a minute bristle. Mouth-opening narrow; genae linear; proboscis black, short, thick. Thorax and scutellum entirely black, faintly shining, finely punctulate; they have very minute, scattered, yellow scales and rather long whitish hairs in front and on the sides, these last whiter and forming a not well-indicated stripe; all the bristles are of a pale yellowish colour, those of the scutellum being darker. Pleurae grey-dusted, with whitish hairs, even on the metapleura; squamae dirty yellowish, with a brown border and glittering silvery fringe; halteres dark yellowish, with paler knob. Abdomen like the thorax, but narrowly red on the sides of the two first segments; the long hairs on the middle of the tergites are scattered, whitish near the base and blackish at end; the hairs of the sides are long, whitish on the 1st and 2nd, black and scaly on the 3rd, quite snow-white on the 4th, black and scaly on the 5th and 6th segments; the 7th segment is entirely clothed with long, silvery, glittering scales directed outwardly. On the base of the 2nd segment there is a narrow, less distinct band of

white scales; the 3rd and 4th segments have at the base a narrow band of long, glittering or bright scales interrupted in the middle. Venter black, with white scales and scattered white hairs; genitalia rather large, pendulous, set on the left side, reddish and brown, pale and dark-haired. Legs black, the femora broadly reddish at the base, the 4 anterior tibiae dark reddish; the scales are white, the hairs whitish, the spines black; front tibiae with distinct apicules; middle femora with 2 rather long, hind femora with 2 very short spines; hind tibiae with a sparse fringe of dark scales outwardly; claws black. Wings as in *vitripennis*, with a silvery patagium, but with entirely black basal comb; terminal loop of the second longitudinal vein much less indicated than usually, almost indistinct, and in consequence the upper branch of the cubital fork is less curved in the middle; discoidal cell more narrow; second posterior cell narrow and long, half as broad as the third. Alula long, pale yellowish grey, with a brown border and a broad greyish fringe; axillary lobe very short and broad.

VILLA LASIA, Wiedemann (1824).

A short-haired species of great size, with the wings infuscated at the base and along the costal cells.

Described from the Cape and recorded from South Africa by Fargeau, Serville and Walker. I am referring with doubt to the present species a couple of gigantic specimens from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot), measuring 15.5–17 mm. in length of body and only 12–13 mm. in length of wing, while Wiedemann gives only 5 lines. Frons of male as broad as the ocellar tubercle, that of the female twice as broad. Clothing of thorax entirely yellow, paler on the pleurae, bristles yellow. On the abdomen there are 5 transverse bands of yellowish scaly tomentum—at least in the male. Legs reddish with yellowish scales; femora and tibiae blackened at end, the tarsi likewise. Wings with typical venation, no silvery patagia in the male; basal comb very large with yellow scales; first posterior cell narrowed at end.

VILLA LEUCOCHILA, nom. nov. (for *V. LEUCOSTOMA*, Wied.).

Loew's Dipteren-Fauna Süd-Afrikas, Pl. ii, fig. 19.

Very distinct owing to the broad, brown markings of the wings, which fill the whole of the two basal cells.

Described in 1821 by Wiedemann from the Cape under the name of *leucostoma*. I change this name, because it is pre-occupied by Meigen,

1820. The species seems to be an exclusively South African one. There is in the collection a single male specimen from Kalk Bay (Cape). (R. M. Lightfoot).

OESTRANTHRAX, Bezzi (1912).

This very interesting genus was described by me in my paper on the African Bombyliidae of the British Museum for the type *Anthrax obesus*, Loew. The main characters of the genus are to be found in the broad and long facial plate, in the reduced mouth parts and in the absence of thoracical macrochaetae.

OESTRANTHRAX OBESUS, Loew, 1863.

A specimen from Cape Town, 1880. The species was described from South Africa, and some allied forms occur in other parts of the Ethiopian region.

SYNTHESIA, gen. nov.

I have to make a new genus for a species which shows a very strange combination of characters, connecting the Lomatiinae with the Exoprosopinae; it is aberrant like *Chiasmella*, but is closely allied to the preceding genus *Oestranthrax* as well as to the genus *Hemipenthes*. It may be defined as an Exoprosopine with 2 submarginal cells, with spinulose front tibiae, with bluntly convex face, with no developed macrochaetae, and with the second longitudinal vein originating before the middle cross-vein. In this last character the new genus *Synthesia* is drawing near to the Lomatiinae, while in the general conformation it is receding from them. It may be characterised as follows:

Body of oval shape, briefly pilose, not bristly at all. Head a little narrower than the thorax; occiput bilobate above, with a deep central cavity, and depressed between the eyes; central fringe complete, dense and short. Eyes separated in both the sexes, but the frons of the female always about twice as broad as that of the male; they are broadly indented at the hind border, but the bisecting line is less distinct. Ocellar tubercle rather prominent, elongate, with 3 equidistant ocelli. Frons quickly broadening in front beyond the middle; face bluntly convex, but very prominent; in a front view the face is narrowed beneath, and thus its broader line is to be found just below the root of antennae. Antennae set very widely apart from each other at base and inserted above the middle of the eyes; the 2 basal joints are very short; the third joint is elongate conical,

gradually tapering into a long joint, with a very short and thin apical style. Mouth-opening narrow and elongate; proboscis not at all projecting, shorter than the oral cavity, with not broad terminal labella; palpi long and thin, not much shorter than the proboscis and pilose. Thorax broad, not much convex above, without bristles, but at fore border and on sides above with dense tufts of bristly hairs; metapleurae hairy, while the surrounding parts are bare. Scutellum broad and semicircular, without distinct bristles at hind border. Squamulae with short, scaly fringe. Abdomen of oval shape, as broad as the thorax at base, acute behind in the male, obtuse in the female; male genitalia small, directed to the left side; spines of the ovipositor long, thin, curved. Legs with the front pair distinctly abbreviated; front tibiae with distinct spicules inside; front tarsi not specially pubescent; middle femora with 2 spines on the fore side on the apical half; hind femora with 3-4 short spines below on the apical half; 4 posterior tibiae with numerous and long spicules; pulvilli about as long as the claws, which are simple and curved. Wings rather broad and long, distinctly broader in the female; membrane smooth and very iridescent; they have no developed pattern, being only yellowish-fuscous on the basal half. Basal hook very stout and curved; basal comb very short; 2nd longitudinal vein originating at right angle and before the middle cross-vein at a distance which is about as long as the cross-vein itself, deeply looped at end; 3rd vein placed on the same straight line with the praefurca, its upper branch strongly S-shaped and not retreating at base; 2 submarginal cells only present. Discoidal cell rather short, acute at base and obtuse at end; its terminal cross-vein short and only a little oblique outwardly; in the female it is broader than in the male; the middle cross-vein is placed near its middle, or a little before it. First posterior cell of about the same breadth throughout its whole length; second posterior cell rectangular, about as broad at end as the third, which is acute and prolonged basally; fourth posterior cell broader than all the others, its contact at base with the discoidal cell being longer than the inferior apical cross-vein of the second basal cell; anal cell broadly open at end. Axillary lobe broad; alula well developed and fringed with scales; ambient vein complete.

Type: The following new species.

SYNTHESIA FUCOIDES, sp. nov.

A yellowish pilose fly of a humble-bee appearance, not very different from some species of *Villa*, but at once distinguished from them on account of its well developed pulvilli.

Type ♂ and type ♀, a single couple of not well-preserved specimens from Namaqualand, Springbok, November, 1890 (R. M. Lightfoot).

♂, ♀. Length of the body 8·5–10 mm.; of the wing 8–9 mm. Head yellowish black at vertex and on the occiput; it is densely clothed with a short, yellowish, equal pubescence; on the sides of the occiput, near the eyes, the pubescence is more scaly and more yellow, and on frons and face it is more erect and of a more golden colour, chiefly on the lower part of the face. Antennae with the 2 basal joints red and the third black with a red base. Proboscis dark reddish above and black with yellowish hairs. Thorax black on the back, reddish on the humeral, calli, on the postalar calli and on the pleurae; it is densely clothed with a short, yellowish pubescence, which on the pleurae is longer and more erect, forming dense tufts on the propleurae, on the notopleural line, on the mesopleurae, and on the upper part of metapleurae. Scutellum reddish with a black base, clothed like the back of thorax. Halteres and squamulae whitish. Abdomen reddish, the segments from the 1st to the 4th with a broad, black, transverse basal band that does not reach the sides and decreases in size from the basal to the 4th segment; it is clothed with dense pale yellowish hairs which are longer and paler at the sides near the base; genitalia reddish yellow; spines of the ovipositor red; venter wholly reddish, with a narrow whitish hind border of the segments and with a short yellow pubescence. Legs entirely of a pale reddish-yellow colour from the coxae to the end of the tarsi, and clothed with a pale yellowish, scaly pubescence; spines and spicules black; pulvilli yellowish; claws red, with black tips. Wings hyaline, with the basal fore half infuscated to the end of the subcostal cell and to the base of the first submarginal, of the first posterior and of the discoidal cells; this infuscation is darker towards the middle, but is not sharply defined at the hind border. Veins reddish, with fuscous ends; ambient vein black; basal hook yellow; basal comb with black bristles, but clothed with a yellowish tomentum; axillary lobe hyaline; alula yellowish.

THYRIDANTHRAX, Osten Sacken (1886).

This genus is taken here in a wider sense for the reception of those species of *Anthrax* (*auctorum*) which have smooth front tibiae, rather long proboscis, conical and prominent third antennal joint and often a conical face. The wings have usually an extended pattern, but they may also be completely hyaline. The species are as follows:

- 1 (8). Apical cross-vein of the discoidal cell straight; head, antennae and palpi entirely black; discal cross-vein placed near the base of the discoidal cell, wings never fenestrate.
- 2 (5). Wings entirely hyaline, only narrowly yellowish or blackish at the base and in the subcostal cell.
- 3 (4). Wings with pale yellowish base; the attenuated part of the third antennal joint rather thick *leucoproctus*, Loew.
- 4 (3). Wings with blackish base and blackish subcostal cell; styliform part of the third antennal joint very thin *linea*, Loew.
- 5 (2). Wings with a rather extended brown or blackish pattern, filling out the base of the second basal cell and the base of the anal cell.
- 6 (7). First posterior cell distinctly narrowed at end; discal cross-vein placed near the middle of the discoidal cell; third posterior cell long and with an acute base *abruptus*, Loew.
- 7 (6). First posterior cell not narrowed at end; discal cross-vein near the base of the discoidal cell; third posterior cell shorter and with an obtuse base *lugens*, Loew.
- 8 (1). Apical cross-vein of the discoidal cell S-shaped; head, antennae and palpi mainly or wholly yellow; discal cross-vein on or after the middle of the discoidal cell; wings fenestrate, viz. with hyaline spots on cross-veins and bifurcations.
- 9 (10). Two submarginal cells only, as usual; wings very broadly yellowish at base, the brown fenestrate pattern being reduced to a less defined, not broad band on the middle of the wing; species of small size and of a paler colour *calochromatus*, sp. nov.
- 10 (9). Three submarginal cells; wings with more than the basal half filled with a brown extended pattern, and very narrowly or not at all yellowish at the base; species of large size and darker colour.
ternarius, Bezzi.

THYRIDANTHRAX FLAMMIGER, Walker (1849).

Distinct by the conical face, the short third posterior cell, the infuscated costal cell and the middle cross-vein margined with fuscous.

Of this West African species of the group *afer* there are 2 specimens from M'Fongosi, Zululand (W. E. Jones).

THYRIDANTHRAX LEUCOPROCTUS, Loew (1860).

A small species, distinct owing to its wholly hyaline wings, which are only a little pale yellowish near the base.

Originally described from the Cape, and not recorded subsequently.

A single female specimen from Klerksdorp, Transvaal, December, 1890.

In the first example the contact between the third posterior and the discoidal cell is rather straight and about twice as long as that

between the fourth posterior and the same cell; the first posterior cell is not narrowed at end.

Another example from Salisbury, S. Rhodesia.

THYRIDANTHRAX LINEA, Loew (1860).

Allied to the preceding species, but easily distinguished by the wings being blackish at the base and along the subcostal cell. Originally described from Caffraria, but, as it seems, widely spread over the Ethiopian region. There are in the collection two female specimens on the same pin, without precise locality, and another from East London, Cape (R. M. Lightfoot).

THYRIDANTHRAX ABRUPTUS, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 219, pl. ii, fig. 20.

A medium-sized species, distinguished by the broad blackish marking on the wings and by the different neurulation.

Rather widely spread over the Ethiopian region, and common in South Africa, from where it was originally described. In Northern Rhodesia this species has been bred from puparia of *Glossina morsitans*. There are numerous specimens of both sexes from M'Fongosi, Zululand, March, 1914 (W. E. Jones); from Hex River (Cape), January, 1886 (L. Péringuey); from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot); from Dunbrody, Uitenhage (Cape), March, 1912 (J. O'Neil); from O'Okiep, Namaqualand (Cape), October, 1895 (L. Péringuey).

In the present species the contact of the third posterior with the discoidal cell is strongly sinuous, and three or four times longer than that of the fourth in the same cell.

THYRIDANTHRAX TRANSIENS, Bezzi.

A small species closely allied to *abruptus*, but distinct by the more extended black pattern of wings, the base of the 4th posterior cell and more than the half of the anal cell being also blackened. Originally described in my work of the Bombylidae of the British Museum from Nyassaland, there is a specimen from Salisbury, S. Rhodesia, 1917.

THYRIDANTHRAX LUGENS, Loew (1860).

Closely allied to the preceding, but distinguished by its smaller size, less intensive and somewhat different wing pattern, and a different neuration, which agrees with that of *leucoproctus* and *linea*.

This South African species seems to be widely spread over the region; but can be easily mistaken for *abruptus* if attention is not given to the different venation; the distinctive character, the wing pattern, as established by Loew, is subject to some variation.

The species seems to be rarer than the preceding; in the collection there are only two specimens from the Hex River (Cape), November, 1882 (L. Péringuey), and from Klipfontein, Namaqualand (Cape), November, 1885, from the same collector.

The contact of the third posterior with the discoidal cell is almost straight and only a little longer than that of the fourth.

THYRIDANTHRAX CALOCHROMATUS, sp. nov., ♂.

An elegant species of the *fenestratus* group, distinguished by the very reduced dark markings of the wings and by the mainly yellow wing-veins.

Type ♂. A single specimen from the Cape, without precise locality, determined by Bigot as *Anthrax calochromatus* Big., but never published; the name is here retained. The species is closely allied to *T. macquarti*, Bezzi, but the wing pattern is more reduced, even more than in *T. elegans* or in *T. polyphemus*.

Length of body 9 mm.; of wing 9 mm.; of wing spread 20 mm. Head black, with the anterior part of the frons and the whole face of a yellowish red colour. Occiput moderately shiny, with scarce greyish hairs above and with white scales at the eye borders; central fringe pale yellowish; postvertical furrow less marked. Eyes with the upper areolets not distinctly enlarged, the indentation faintly pronounced and the bisecting line very short and less distinct. Frons at vertex twice and more as broad as the less prominent, brownish-coloured ocellar tubercle; it is clothed with black hairs, which become pale yellowish on the red part, and with whitish scales; face with white hairs on the sides and near the eyes and in the middle with whitish scales; it is rather conical in shape. Antennae with the two basal joints yellow, the first with whitish hairs and above with a few black ones; third joint wanting in the type. Genae rather broad, black in front, yellow behind like the mouth borders; proboscis black, as long as the mouth, with a yellow basal ring, palpi yellow- and whitish-haired. Thorax black, rather shining, with sparse yellow scales and with rather long yellowish hairs in front and on the sides; bristles

yellowish; pleurae black, grey-dusted, reddish along the sutures, with whitish hairs and with white scales; metapleural tuft whitish. Scutellum red, narrowly black at the base, with yellowish scales and yellow bristles at the hind border. Squamae yellowish with white fringe; halteres yellow with whitish knob. Abdomen red, with the first segment black and with a broad median black spot on the second, a smaller one on the 3rd and a very small one on the 4th; it is clothed with pale yellowish scales, but on the apical half of the 2nd and on the base of the 5th segment the scales are black; it seems that the *perspicillaris*-pattern is white and well developed; the hairs of the sides are whitish and long near the base, whitish and short on the remainder, but there are no black hairs. Venter red with black base, white scales and whitish hairs; genitalia red, small, asymmetrically placed. Legs black, with yellow trochanters, tibiae and base of tarsi; the femora are only narrowly yellow at end, their scales are whitish and the scarce hairs are whitish like those of the coxae; spines black, middle femora with one very long one, hind femora with six rather short; front tibiae smooth, the others with rather long and numerous spicules; front tarsi very short, slenderly pilose, with very small claws; claws black. Wings whitish hyaline, with a broad pale yellowish base and a brown, fenestrate, median band; the brown band is thus reduced to some dark spots on the sides of the three fenestrae and to an ovate spot near the middle of the anal cell; second basal cell almost entirely yellowish; veins yellow, only a little darkened at the end; basal comb with black bristles, but densely clothed with yellow scales; alula pale yellowish, with whitish fringe; axillary lobe short and broad, greyish hyaline. Second longitudinal vein very short, with a well-developed terminal loop; discal cross-vein long and oblique, placed at about the middle of the discoidal cell; first posterior cell narrowed at the end; discoidal cell narrow, very acute outwards, its apical cross-vein 5-shaped and placed parallel to the hind border of the wing; third posterior cell very long, its contact with the discoidal cell more than ten times as long as that of the fourth posterior with the same cell; strongly looped at the base; anal cell rather broadly open; second basal cell as long as the discoidal cell and at end broader than the cell. Upper branch of the cubital fork regularly curved in the middle, rather flat at the base and without appendix.

THYRIDANTHRAX TERNARIUS, Bezzi.

Distinguished from all its congeneric species here described by the regular presence of 3 submarginal cells, and by the very extended dark pattern of the wings.

This species is widely spread over all the Ethiopian region, and will be described by me in a paper on the Bombyliidae of the British Museum. Notwithstanding the 3 submarginal cells it cannot be placed in *Exoprosopa* owing to the different shape of the third antennal joint; in general pattern and colouring it is similar to the species of the *fenestratus*-group, to which it belongs undoubtedly. I suspect that the *Anthrax caffer* of Wiedemann, placed in *Exoprosopa* by the authors, may be the same as the present species.

A female specimen from Bushmanland, Jackal's Water (Cape) (R. M. Lightfoot); another female from Barberton, Transvaal, April, 1911 (H. Edwards); and a third female from Klipfontein, Namaqualand (Cape), November, 1885 (L. Péringuey), labelled by Bigot as *Anthrax pyrroproctus*—a name, however, which has never been published.

THYRIDANTHRAX LAETUS, Loew (1860).

Closely allied to *T. ternarius*, but distinguished by the wholly reddish legs and by the distinctly infuscated end of the discoidal cell. A female specimen from Damaraland, Narugas, January, 1919 (R. M. Lightfoot); Otjivarongo, January, 1920 (R. W. E. Tucker).

LITORRHYNCHUS, Macquart (1840).

Of this typical and very numerous Ethiopian genus there are in the collection only a few species, which may be distinguished as follows:

- 1 (2). Squamae black and black fringed; anal cell narrowly hyaline at end; species of large size, measuring 16-18 mm. in length. *maurus*, Thunb.
- 2 (1). Squamae pale brown or yellowish, with yellowish or white fringe; anal cell more broadly hyaline at end; species of smaller size, only 10-13 mm. in length.
- 3 (4). Marginal cell hyaline at end *tollini*, Loew.
- 4 (3). Marginal cell filled out with brown to the end, and even a little beyond *argyrolepis*, Bezzi.

LITORRHYNCHUS MAURUS, Thunberg.

Nov. Act. Ups., ix, p. 73, 1827, pl. i, fig. 11.

A species of great size, with a fringe of bright red hairs in front and on the sides of thorax.

Originally described from the Cape by Thunberg as *Tanyglossa*, it

was referred erroneously by Macquart to *Anthrax collaris*, Wied., which is an Indian species, and was described by Loew under the name of *Exoprosopa rostrata*. It seems to be exclusively a South African species, and not at all rare. It ranges from Cape Town to Rhodesia. There is a female specimen from the Transvaal, Barberton, April, 1911 (H. Edwards), in which the anal cell is more broadly hyaline than usual.

LITORRHYNCHUS TOLLINI, Loew (1863).

A species smaller and paler coloured than the preceding one, and usually with a hyaline spot in the middle of the first posterior cell. Dr. Péringuey has bred this species from the mud nest of the ubiquitous wasp *Scelifrons quartinae*, together with the large Ichneumon, *Osprynchotus capensis*, and a Mutillid, *Dolichomutilla sycorax*.

LITORRHYNCHUS ARGYROLEPIS, Bezzi (1912).

Easily distinguished on account of its characteristic wing pattern, with the middle dark band narrowed at end.

Originally described from Nyassaland, there is in the collection a specimen from Potchefstroom, Transvaal (T. Ayres), also from Salisbury (S. Rhodesia) (D. Dods.); Bulawayo (S. Rhodesia) (R. W. E. Tucker).

EXOPROSOPA, Macquart (1840).

This very large genus has been divided by me into a number of subgenera. Those represented in the South African Fauna may be distinguished as follows:

- 1 (4). Discoidal cell before the end below with a strong projecting angle and there provided with an appendage; its terminal vein more or less sinuous, and placed at an angle to the longitudinal axis of the wing.
- 2 (3). Five posterior cells, the fourth being closed and stalked. *Metapenta*, Bezzi, n.
- 3 (2). Only four posterior cells, all open as usual. *Acrodisca*, Bezzi, n.
- 4 (1). Discoidal cell without such a projecting angle; if sometimes dilated, the projection is a rounded one and destitute of appendage.
- 5 (6). The vein between the discoidal and the second posterior cell is long, strongly sinuous, and runs in the same direction as the longitudinal axis of the wing. *Deflippia*, Lioy.
- 6 (5). The above-named vein is short, straight or only slightly sinuous, and placed at an angle or even perpendicularly to the longitudinal axis of the wing. *Exoprosopa*, s. str.

SUBGEN. METAPENTA.

This group is an exclusively Ethiopian one, and the species it includes are chiefly confined to the South; in the present collection there are two species.

EXOPROSOPA (METAPENTA) PENTALA, Macquart (1840).

Closely allied to *reticulata*, Loew, but distinct by the red scutellum and the red legs.

A female specimen from Dunbrody, Uitenhage (Cape); (J. A. O'Neil), February, 1912. Macquart has described the female from the Cape, but the figure of the wing is very misleading; and the species has nothing to do with the Mediterranean *varinerius-pygmalion*, Fabr., which is the type of my new subgenus *Mesoclis*.

The species is very like *M. reticulata*, but is paler; the frons is entirely black, but the face and the first antennal joint are red; thorax with the pleura mostly yellow haired, the metapleural tuft with only a few black bristles; scutellum red with black base. Abdomen black, with the sides of the 2nd and 3rd segment more or less broadly red, or even red with median black spots. Legs entirely red, but tarsi darkened and femora partly black-scaled; front tibiae thin and smooth. Wing pattern and venation as in *reticulata*.

EXOPROSOPA (METAPENTA) CORVINA, Loew (1860).

Near *E. pentala*, but distinguished by the quite black legs and metapleural tuft, and by the almost entirely black wings.

A female specimen from Damaraland, Grootfontein, December, 1918 (R. M. Lightfoot); Otjivarongo. January, 1920 (R. W. E. Tucker).

SUBGEN. ACRODISCA, nov.

This subgenus is also an exclusively Ethiopian one, and the South African species belong nearly all to one of the two groups in which it is divided, viz. the group characterised by the very short or even rudimentary antennal style, and by the shape of the discoidal cell at end, which is almost equal to that noticeable in *Litorrhynchus*.

The species in the collection may be distinguished as follows:

- 1 (4). Wings uniformly infuscated, not broadly hyaline at the apex, never at the hind border.
- 2 (3). Metapleural tuft wholly or for the greater part black; antennal style rudimentary; species of smaller size *fimbriatella*, sp. nov.

- 3 (2). Metapleural tuft entirely yellowish; antennal style well developed, but short and stout; species of greater size . . . *offusata*, sp. nov.
- 4 (1). Wings with a dark base and a dark fore border, but hyaline in the remainder, with distinct spots or reticulation.
- 5 (6). The veins at the hind border of the wings are provided with fuscous confluent borders; anal cell entirely infuscated . . . *personata*, sp. nov.
- 6 (5). The veins of the hind border with isolated dark spots; anal cell hyaline at end, with a dark spot before the end . . . *angulata*, Loew.

EXOPROSOPA (ACRODISCA) FIMBRIATELLA, sp. nov., ♀.

A black species of small size, prevalently black-haired, with entirely fuscous wings and with rudimentary antennal style.

Type ♀, a single specimen from Potchefstroom, Transvaal (T. Ayres). The species seems to be closely allied to *umbrosa*, Loew, but is distinguished by the different antennae and by the different shape of the discoidal cell.

Length of body 8-8.5 mm.; of a wing 8.5-9 mm. Occiput black, with pale yellowish central fringe and yellowish scales at the eye borders; postvertical furrow narrow; eyes with faint indentation and a short bisecting line; ocellar tubercle flat and of brownish colour; frons entirely black, rather narrow, with black erect hairs and pale yellowish scales in front; face conical and much prominent, entirely black, clothed, like the frons, with a black tuft on the upper edge; mouth borders yellowish. Antennae with the first joint red, black-haired; the second half as long as the first and black; the third elongate, linear, black, obtuse at end, with a very minute, rudimentary style situated at its upper corner. Proboscis black, as long as the mouth; palpi black, with pale hairs. Thorax entirely black, with black hairs and black scales, and with a stripe of yellowish hairs on the sides; the collar is yellow above, black on the sides and below; the macrochaetae are well developed and black; pleura black-haired, with only a tuft of yellow hairs on upper border of the mesopleura; metapleural tuft entirely black; sternopleura reddish above. Squamae blackish brown, with a dark fringe; halteres black, with paler knob. Scutellum red, with black base, black scales and black bristles. Abdomen black, narrowly reddish on the sides of the 2nd and 3rd segment; it is clothed for the greater part by black scales, but the base of the second segment has a narrow complete band of white scales; sides of other segment with some white scales and with yellow scales at the hind border. First segment clothed with erect yellowish hairs, which form a characteristic complete fringe; all the sides,

except those of the first segment, with black short hairs and black scales; spines of ovipositor dark reddish; venter black, with yellow scales and black hairs. Legs entirely black, with black hairs and partly black, partly yellowish scales on the femora; front pair less abbreviated than in the allied species, with the tibiae rather slender and with minute, less distinct spicules; the tarsi rather long and with the usual pubescence; bristles black and long, 2 on middle femora and a complete row on hind femora; claws black, with acute tooth. Wings entirely and equally blackened, with black basal hook and black basal comb; the black clouds at the usual places are very faintly indicated; praediscoidal spot whitish, small; alula narrow, blackened, with a long, dark brown fringe, like the base of the axillary lobe. Venation typical for the group; discal cross-vein before the middle of the discoidal cell, the second longitudinal vein originating before it; first posterior cell a little broader than the anal cell; second posterior cell a little broader than the third, the vein between them bent forwards; third posterior cell a little shorter than the fourth. Apical cross-vein of the discoidal cell very strongly S-shaped, and placed horizontally, the discoidal cell being as in *Litorrhynchus* very narrow and elongate.

EXOPROSOPA (ACRODISCA) OFFUSCATA, sp. nov., ♂, ♀.

Allied to the preceding, but of greater size and with yellow legs and with entirely yellowish-haired metapleurae. Some specimens from Matjesfontein (Cape), November, 1910; Laingsburg (Cape), November, 1910; Springbok, November, 1890; Spektakel, Namaqualand (Cape), October, 1890 (R. M. Lightfoot); O'Okiep, Namaqualand (L. Péringuey), October, 1885, labelled by Bigot "*Exoprosopa melania*," Big.—a name which has never been published. Length of body 12–13 mm.; of a wing 14–16 mm.; of wing spread 31–35 mm. Occiput black, with whitish central fringe and yellowish scales which are whitish below the indentation at the eye borders; ocellar tubercle very small and flat, black; frons of about equal breadth in both sexes, shining black, red above the antennae, clothed with black erect hairs and with whitish scales; face conical, very prominent, red, with a more or less broad black spot in the middle underneath, clothed like the frons and with a dense black tuft at the upper mouth edge; mouth borders yellowish. Antennae with the first joint red and black-haired; second joint much shorter, globular, dark reddish; third joint black, elongate, conical, gradually tapering in a rather thin point with a very short and stout style. Proboscis black, as long as the mouth;

palpi black, dark haired. Thorax black, with reddish postalar calli; it is clothed on the back with black hairs and yellowish scales, and shows a stripe of whitish hairs on each side; the macrochaetae are well developed, black; collar with yellow hairs above and below, Pleurae grey-dusted, reddish below, with yellow hairs and some black ones on the middle of the mesopleura and a few black bristles on the pteropleura; metapleura entirely yellowish-haired; sternopleura with a patch of silvery scales. Scutellum red, with black and black-scaled base, with yellowish scales behind and on the sides, and with black bristles. Squamae brownish black, with yellowish or whitish fringe; plumula whitish; halteres black with paler knob. Abdomen elongate, with parallel sides, obtuse at the end, flattened, black, with less developed red spots on the sides of the 2nd and 3rd segment. The middle and the base of the segments are clothed with black scales, while those of the hind border are yellowish; in addition, on the base of 2nd segment and on sides of 3rd and 4th there are bands of whitish scales; the sides have short black hairs, only those of the 2 first segments being whitish. Male genitalia black, yellow-haired; spines of the ovipositor long, straight, black; venter either entirely red, or with more or less developed basal black bands on the segments, clothed with white scales, and with white hairs at base, black at end. Legs yellow, the tarsi and the hind tibiae being infuscate at apex; those of the front pair are much abbreviated, coxae with whitish hairs at the base and with black ones at the end, the tibiae are very thick and short, with well developed spicules, the tarsi are very short, with short black pubescence; femora with yellowish scales; spines black; on the front pair are some short ones, on the middle pair 3-4, on the hind pair a complete row; claws black, with long acute tooth. Wings long and broad, but narrow at base, the alula being small; the basal hook and the small comb are black; the latter is clothed with yellow scales. Wings wholly and equally blackened, with faint violaceous reflexions and less distinct pale spots in the centre of the discoidal, submarginal and posterior cells, which in some specimens are more distinct than in others, making the wings appear reticulate. There are no distinct darker clouds at the usual places. The alula is entirely black and with blackish long fringe, even on the base of the axillary lobe. Venation normal for the group; discal cross-vein placed before the middle of the discoidal cell; apical cross-vein of the discoidal cell very V-shaped and placed horizontally, the cell therefore shaped as in *Litorrhynchus*; first posterior cell a little broader than the anal cell, second only a little narrower than the third, third very long. Praediscoidal spot small and greyish.

EXOPROSOPA (ACRODISCA) PERSONATA, sp. nov., ♂, ♀.

A small black species allied to *angulata*, but distinguished by the more broadly infusate wings, which are reticulate and not spotted along the hind border.

Type ♂, and an additional specimen of the same sex from Bushmanland, Jackal's Water (Cape), October, 1911 (R. M. Lightfoot).

Type ♀, a single specimen from Tulbagh (Cape), November, 1910 (R. M. Lightfoot).

Length of body 7-9 mm.; of a wing 8-10 mm.; the ♀ is of greater size, measuring 11 and 12 mm. respectively.

Head as in the preceding species, but the frons and face is entirely black in the male and red in the female, with broad black base and spot; basal joints of the antennae blackish in the male and red in the female, the third joint black, conical, elongate, obtuse at apex, with a very short and stout style. Thorax entirely black, clothed like the preceding, but with the lateral hairs more white; scutellum black, with red hind border, broader in the female. Squamae and halteres as in the preceding. Abdomen entirely black or with very small red spots on the sides of 2nd segment in the female; it is clothed with black scales on the middle and base of the segments, and with yellowish ones on the sides and hind border. On the base of the 2nd segment there is a narrow transverse band of whitish scales and another abbreviated one on the sides of 3rd; the sides have whitish hairs on the two basal segments, black intermingled with black scales on the remainder. Male genitalia black; spines of the ovipositor black, thin and straight. Venter entirely black in the male, with broad, red hind borders on the segments in the female, clothed with white scales and with pale hairs. Legs dark reddish, with black hind tibiae and tarsi; front coxae with whitish hairs and femora with whitish scales; front pair very abbreviated, with the tibiae short and stout and with less developed spicules, and with the tarsi very short and thick, shortly pubescent; middle femora with 2-3, hind femora with 3-4 spines in the male and a complete row in the female; claws black, with long acute tooth. Wings as in the preceding species, with more developed clear spots in the cells, even in the discal; the apex is quite hyaline, but all the veins at hind border and the cross-vein of the discoidal cell have broad, partly confluent dark borders, making the wing appear as if reticulate; anal cell darkened to the end; praediscoidal spot small, whitish. The basal hook is black; the comb is small, black, with whitish or yellowish scales; alula black, with long, blackish fringe extended on the base of the axillary lobe. Venation as in the preceding, but the first posterior cell is usually a little more broadly open.

EXOPROSOPA (ACRODISCA) ANGULATA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 242, pl. ii, fig. 39.

Distinct from all the preceding species on account of the rounded dark spots before the ends of the veins along the hind border of the wings.

Originally described from the Cape from a female example, and subsequently recorded from Cape Town by Miss Ricardo, there is in the collection a male from Bushmanland, Een Riet (Cape), October, 1911 (R. M. Lightfoot).

The hitherto undescribed male is very like the female and has the frons of about the same breadth; the genitalia are red, yellowish-haired. In this species the claws are black, with reddish base, and have an acute tooth; the front legs are of the usual structure, the tibiae being provided with well-developed spicules and the tarsi being pubescent.

SUBGEN. DEFILIPPIA, Liow (1864).

The species of the present subgenus are rather numerous in the Ethiopian fauna; they are recognised chiefly on account of the shape of the discoidal cell and of its terminal vein, and have usually a much developed wing pattern; but the distinction from some species of *Exoprosopa* s. str. is not always easy. Of the various groups of species belonging here, only two seem to be represented in South Africa, viz. the *venosa*-group, which is the more important, and the *grandis*-group.

The species in the collection may be distinguished as follows:

- 1 (10). Second longitudinal vein with a double, deep, truncate loop; at end marginal cross-vein strongly curved, and much retreating; smaller species, with narrow, much variegated or wholly infuscated wings.
- 2 (3). Wings petiolate, equally darkened, without clearer parts at end or at hind border, but with distinct darker spots on cross-veins and bifurcations; fourth vein with some isolated, darker, rounded spots.
neurospila, sp. nov.
- 3 (2). Wings not distinctly petiolate, and with clear apex and clear hind margin, reticulate or spotted; fourth vein never with isolated dark spots in the centre.
- 4 (7). The veins at end and at hind margin of wings have broad fuscous borders (wings reticulate).
- 5 (6). Base of antennae, scutellum, sides of abdomen and legs reddish-yellow; pleura with predominant yellowish hairs; wings less darkened *venosa*, Wied.
- 6 (5). Antennae, scutellum, abdomen and legs entirely black; pleurae wholly black-haired; wings more blackened . . . *nigrovenosa*, Bezzi.

- 7 (4). Wings spotted, viz. at apex and at hind border with fuscous spots, which are sometimes partly confluent.
- 8 (9). Scutellum black; third antennal joint short, broad at base and quickly attenuated in a short styliform part, which bears a style as long as the joint itself; hind border of the veins with black spots before their ends *maculosa*, Wied.
- 9 (8). Scutellum red; third antennal joint elongate conical, with a very short terminal style; veins of the hind border in part destitute of spots *maculifera*, sp. nov.
- 10 (1). Second vein at end with simple, flat, acute loop; marginal cross-vein less curved and less retreating; species more robust, with broad-banded wings.
- 11 (12). Hind tibiae densely fringed on the outer side; occiput red; middle band of wings simple and reaching the hind border; apex of wing not spotted *strenua*, Loew.
- 12 (11). Hind tibiae with the usual row of spines; occiput black; middle band of wings divided into two parts posteriorly, but reaching the hind border; apex of wing spotted *hirtipes*, Loew.

EXOPROSOPA (DEFILIPPIA) NEUROSPILA, sp. nov., ♂.

A narrow, elongate species with long, equally infuscated, black-spotted wings bearing spots along the fourth longitudinal vein.

Type ♂, a single specimen from M'Fongosi, Zululand, February, 1914 (W. E. Jones).

Length of body 10 mm. Occiput black, with yellowish scales and whitish central fringe; postvertical furrow narrow and not broadened behind; eyes with deep indentation and long bisecting line; ocellar tubercle reddish brown; frons deep black, narrow at vertex but very broad at the insertion of the antennae, with rather long black erect hairs and yellowish scales; face conically prominent, red, with a black spot on each side, with pale yellowish scales, yellow hairs on sides, and a fringe of black hairs at the mouth borders, forming a dense tuft at the end; mouth borders pale yellowish. Antennae with the two basal joints red, black haired, the first more than twice as long as the globular second joint; third joint wanting in the type. Proboscis black, a little projecting; palpi dark yellowish, pale-haired. Thorax deep black, the postalar cells a little reddish, clothed with short black hairs and with golden yellow scales, with a narrow stripe of yellow hairs on each side and with well-developed black bristles; collar entirely yellow; pleurae black, grey-dusted, red along the sutures and behind, with wholly yellow hairs; metapleural tuft yellow; sternopleura with yellow hairs and yellow scales. Scutellum red with black base, clothed like the thorax. Squamae dirty yellowish, with whitish fringe; plumula yellow; halteres pale brownish, with a lighter knob.

Abdomen narrow and elongate, with parallel sides, red, the first segment and a broad middle longitudinal stripe black; it is clothed with black and yellow scales, and on the sides has short hairs which are pale yellowish on the first and the fore part of the second and third segments, black on the rest. Genitalia red and black, yellow-haired; venter pale red, with whitish scales and long pale yellowish hairs at the base and in the centre. Legs yellow, the coxae and tarsi black at tip; they are clothed with yellow and black scales, and have black bristles; coxae with yellow hairs; front pair less abbreviated, with smooth tibiae; middle femora with 1-2, hind femora with 4-5 spines; claws black, with a short tooth. Wings rather broad, uniformly but not intensively infuscated; the rounded dark spots are placed on the base of the upper branch of the cubital fork, on the discal cross-vein, on the base of second longitudinal vein, on the root of the fifth vein, on the fourth vein in the centre of the segment between the root of the fifth and discal cross-veins, on the upper exterior angle of the discoidal cell, before the apex of the fourth vein, on the extreme inner base of the 2nd and 3rd posterior cells and on the base of the 4th posterior cell. Hook black; comb narrow, reddish, with black bristles; veins dark red, darkened outwardly; alula short, transverse, rounded, with dark fringe. Second vein with very deep double loop at end; marginal cross-vein S-shaped and much retreating; upper branch of cubital fork much retreating; discal cross-vein placed on the middle of the long and very acute discoidal cell. First posterior cell broadly open, second long and narrower than the third at end, its basal vein strongly V-shaped, but shorter than the basal vein of the third cell, which is strongly bent basally; third posterior cell very long, but considerably shorter than the 4th at the base; anal cell broadly open; axillary lobe rather broad and long.

EXOPROSOPA (DEFILIPPIA) VENOSA, Wiedemann (1819).

Easily distinguishable by the wings being hyaline but strongly reticulate in their apical and posterior part.

This exclusively South African species is represented by a male specimen from Cape Town, December, 1884 (T. D. Butler).

EXOPROSOPA (DEFILIPPIA) NIGROVENOSA, Bezzi, sp. nov.

Allied to the preceding, but entirely black and with black-haired pleurae.

Described in my general work; there is a female from Durban, April, 1913 (W. Haygarth). The present species is possibly the same as *E. venosa*, Macquart, nec Wiedemann.

EXOPROSOPA (DEFILIPPIA) MACULOSA, Wiedemann (1819).

Distinguished by the very characteristic form of the third antennal joint, and by the numerous dark spots of the apical and posterior part of the wings. Likewise an exclusively South African form, of which there is a female from Cape Town, 1884, and a male from Tulbagh (Cape), November, 1910 (R. M. Lightfoot).

EXOPROSOPA (DEFILIPPIA) MACULIFERA, sp. nov., ♀.

Allied to the preceding, but distinguished by the elongate conical third antennal joint, and by the much less numerous dark spots on wings.

Type ♀, a single specimen from the Cape, without precise locality.

Length of body 10 mm.; of a wing 10 mm. Occiput black, grey-dusted, with whitish scales near the eyes; postvertical furrow narrow, not dilated behind; eyes with deep indentation; ocellar tubercle brownish; frons narrow, black, rather shining, with black erect hairs, and yellowish scales. Face much conically prominent, entirely red, clothed like the frons and with a dense black tuft at the upper edge of the mouth; mouth borders pale yellowish. Antennae with the first joint red, black-haired; the second brown, globular; the third black, narrow at base, almost linear, less acute at end, with a short style, which is much shorter than the half of the joint. Proboscis black, a little projecting; palpi thin, blackish, pale-haired. Thorax black, with the humeral and postalar knobs reddish, clothed with black hairs, yellow scales and yellowish hairs on each side; macrochaetae black; collar pale yellowish; pleurae grey-dusted, broadly reddish at the sutures, with yellowish hairs and some black ones in the centre of the mesopleura and black bristles on the pteropleura; metapleural tuft entirely yellow; sternopleura with white scales and yellow hairs.

Scutellum red, clothed like the thorax with black hairs at the hind border. Squamae yellowish, with whitish fringe; plumula white; halteres brown with whitish knob. Abdomen black, rather broadly red on the sides of all the segments, except the first; it is clothed with black and yellowish scales, which form some biarcuate bands, like those of *E. reticulata*, on the segments 2-6. Base of 2nd and sides of 3rd segment with broad, pale yellowish band; sides of first, fore border of 2nd and 3rd segment with whitish hairs, the rest with short black ones. Spines of ovipositor yellow. Venter entirely red, with whitish scales and whitish hairs. Legs entirely yellow, with

whitish scales, only the tarsi blackened at end; front pair with the coxae clothed with long whitish hairs and some black bristles; it is moderately abbreviated; the tibiae are thin and smooth and the tarsi minutely pubescent; spines of femora black, long, the middle pair with 2, the hind pair with 5; claws red, with black tip, and short but acute basal tooth. Wings with a black basal hook and narrow, reddish, black bristly comb; alula greyish, narrow, transverse, with dark fringe. The venation is the same as in *maculosa*, but the marginal cross-vein shows a stump in the first submarginal cell before its upper end.

The markings are the same, but much less dark and more restricted, the discoidal cell being almost entirely hyaline, and the spots at apex being narrower and more separated; moreover, along the hind margin the dark spots at the end of 4th and 5th vein are completely wanting, the one at the end of the vein between the 2nd and 3rd posterior cells is very faint, and even the spot at the end of the anal cell is less developed. The apical cross-vein of the discoidal cell is not entirely margined with fuscous, but has only two rounded spots at the two ends.

EXOPROSOPA (DEFILIPPIA) STRENUA, Loew (1860).

A beautiful species of great size, very distinct from any other here recorded on account of its red occiput and of the broad, oblique median dark band of the wings.

Originally described from a female example from the Cape and never recorded subsequently. Dunbrody, Uitenhage (Cape), 1899 (J. A. O'Neil).

To the good original description the following may be added: Postvertical furrow narrow, but bilobate behind; the indentation of eyes is flat but the bisecting line is long; vertex less separated from the occiput, with no distinct space or furrow; the borders of the occipital cavity are black; even the third antennal joint is reddish; proboscis black, little projecting; palpi dark yellowish, pale-haired. Mesopleura on middle with black, bristly hairs; sternopleura with yellow hairs; metapleural tuft entirely yellow. Squamae brownish red, with double fringe, blackish above and yellowish below. Spines of the ovipositor shining red. Front legs much abbreviated, the tibiae being short and thick, smooth, and the tarsi stout, finely pubescent; middle femora with 5-6, hind femora with a complete row of spines; hind tibiae with a dense outer fringe of short, black, bristly hairs among which the discal spines are concealed; claws black, with a short but acute tooth. Alula transverse but rounded,

yellowish, with dark fringe; basal hook black, long, gently curved; comb very broad, reddish, yellow-tomentose, with short black bristles. Marginal cross-vein less retreating; discoidal cell very acute outwardly, but its terminal vein considerably shorter than the vein at the base of the third posterior cell; second basal cell broader at end than the discoidal one; axillary lobe very broad and short; anal cell narrowly open.

EXOPROSOPA (DEFILIPPJA) HIRTIPES, Loew (1860).

Dipteren-Fauna Süd-Afrikas i, p. 233, pl. ii, fig. 32, 1860.

A very distinct species on account of its peculiar and rich wing pattern, and the only species here recorded having the second basal cell broadly hyaline.

Not rare in South Africa and found also northward on the East Coast. The ciliate front tarsi are present only in the female. There is a couple of specimens from Dunbrody, Uitenhage (Cape), March, 1903 (J. A. O'Neil).

SUBGEN. PTEROBATES, Bezzi.

This subgenus is easily recognised from all the other subgenera of *Exoprosopa*, s. lat., on account of its broadly feathered hind legs and of its very peculiar wing pattern.

EXOPROSOPA (PTEROBATES) APICALIS, Wiedemann (1821).

Of this old and well-known species there is a specimen from Dunbrody, Cape Colony, 1908 (J. A. O'Neil).

SUBGEN. EXOPROSOPA, sensu stricto.

The species of the present subgenus are very numerous, and not always easy to distinguish from those of the preceding one, especially those with an extended wing pattern. They may be divided in some groups, which at present must be considered as artificial ones, but help in the determination, as can be seen from the following table:

- 1 (40). Wings not wholly hyaline, but with a more or less extended and defined dark pattern.
- 2 (3). Wing-pattern filling up the entire black wing, only the extreme apex being whitish and hyaline (*nemesis*-group) *nemesis*, Fabr.

- 3 (2). Hyaline part of the wings extended as much as, or even more than, the darkened part.
- 4 (27). Wings typically dimidiate, viz. obliquely bordered with fuscous on the anterior half, the posterior one being hyaline with or without dark spots or abbreviated bands.
- 5 (14). Fore dark border of wings with abbreviated bands or projections departing from it and encroaching on the posterior hyaline part, but always without isolated dark spots or infuscations of cross-veins (*seniculus*-group).
- 6 (13). The middle fuscous band of wings is prolonged over the discoidal cell, reaching sometimes the hind border or nearly so.
- 7 (12). The vein between the discoidal and the second posterior cell is long, placed horizontally, nearly V-shaped as in *Defilippia*.
- 8 (11). Discoidal cell very much dilated at end and with a projecting stump; metapleural tuft mainly black; second posterior cell narrower than the third at end.
- 9 (10). Wing-markings black; middle band rather broad . . . *morosa*, Loew.
- 10 (9). Wing-markings pale brown; middle band very narrow. . . . *ignava*, Loew.
- 11 (8). Discoidal cell not, or less dilated at end and not appendiculate; metapleural tuft yellow; second posterior cell not narrowed at end. . . . *seniculus*, Wied.
- 12 (7). The above-named vein is short and almost straight; discoidal cell not or little dilated at end and not appendiculate; metapleural tuft yellow *elongata*, Bic.
- 13 (6). Middle band rudimentary, reduced to a short projection not reaching beyond the middle of the discoidal cell; this last cell narrow and truncate at end *argentifrons*, Macq.
- 14 (5). Fore dark border of the wings destitute of dark bands or projections proceeding from it; if abbreviated bands are present there are also isolated fuscous spots.
- 15 (22). Wings with distinct isolated dark spots on hind border of apex, even if existing only as a faint infuscation at the upper end of the discoidal cell or the inner end of the second posterior cell.
- 16 (17). Wings with some isolated brown spots in the hyaline apex; terminal vein of discoidal cell short and perpendicular; antennal style rudimentary (*capensis*-group) *capensis*, Wied.
- 17 (16). Wings without isolated dark spots on the hyaline apex, but with a spot on the hind hyaline part (wanting in *dux*); discoidal cell never dilated at end (*heros*-group).
- 18 (19). Legs entirely black *cluta*, Loew.
- 19 (18). Legs red, at least those of the front pair.
- 20 (21). Wings with a broad, distinct, greyish patch at the lower angle of discoidal cell *heros*, Wied.
- 21 (20). Wings without such a patch *dux*, Wied.
- 22 (15). Wings simply dimidiate, without isolated spots at the apex or at the hind border (*dimidiata*-group).
- 23 (24). The vein between the discoidal and the second posterior cell in a long and strongly V shape *sigmoidea*, Bezzi.

- 24 (23). The above-named vein short and straight.
- 25 (26). Metapleural tuft entirely reddish; discoidal cell not dilated at end; basal joints of antennae black; abdomen of male with silvery lateral patches *dimidiata*, Macq.
- 26 (25). Metapleural tuft entirely black; discoidal cell dilated at end and appendiculate; antennae red at base; abdomen not silvery.
dilatata, sp. nov.
- 27 (4). Wings not properly dimidiate, even if the costa is infuscated or striped.
- 28 (37). Abdomen of conical shape, pointed at end, very often red; terminal vein of discoidal cell short, straight, but placed obliquely, and therefore the upper angle of discoidal cell is an acute one (*punctulata*-group).
- 29 (30). Front tibiae distinctly spinulose; wings with a brown fore-border and with dark spots on cross-veins and bifurcations.
punctulata, Macq.
- 30 (29). Front tibiae smooth; wings without such a pattern.
- 31 (34). Wings with a broad brown fore border.
- 32 (33). Dark fore border less intensive and less defined, extending to the 2nd basal cell and on a part of the discoidal cell . . . *parvula*, nom. nov.
- 33 (32). Brown fore border well defined, not extending to the discoidal cell or 2nd basal cell *stannusi*, Bezzi.
- 34 (31). Wings with a narrow, yellowish, or brownish fore-border.
- 35 (36). Basal joints of antennae and legs entirely black; cross-veins infuscated, abdomen red on the sides *inaequalipes*, Loew.
- 36 (35). Basal joints of antennae and legs red; cross-veins less infuscated; abdomen broadly or wholly red *batrachoides*, Bezzi.
- 37 (28). Abdomen not conical and mainly black; terminal vein of discoidal cell straight and perpendicular, its upper angle therefore not acute, the cell being truncate outwardly.
- 38 (39). Wings with broad and well-defined black spots on cross-veins and bifurcations (*balioptera*-group) *balioptera*, Loew.
- 39 (38). Wings not punctate, or only with less defined shading on the cross-veins (*busiris*-group) *luteicosta*, Bezzi.
- 40 (1). Wings entirely hyaline, without any distinct dark pattern (*stupidata*-group) *parvicellula*, sp. nov.

A. GROUP PUSILLA.

This small group, which is made distinct by the presence of hyaline fenestrae in the dark part of the wings, included only the West African species *pusilla*, Macq., and *jacchoides*, Bezzi. A third South African species is now added to it.

EXOPROSOPA (EXOPROSOPA) FORMOSULA, sp. nov.

An elegant species very distinct from all the other South African species of the present subgenus on account of its hyaline fenestrae in the black part of the wings.

Type ♂, a single specimen from Hex River; December, 1884 (L. Péringuey).

♂. Length of the body 7 mm.; of the wing 7 mm.; of the wing-spread 16 mm. Head entirely shining black, but dark reddish brown on the face below and at the hind border of the occiput; the mouth borders are narrowly yellowish. The occiput is denuded in case of the type, but the central fringe is blackish, and at the borders of the eyes, chiefly near the indentation, there is a silvery, scaly tomentum. Frons at vertex as broad as the ocellar tubercle, but quickly broadening beyond the middle; it is clothed with black erect hairs and has short, scattered, silvery hairs on the front half. Face conically produced but blunt, clothed with black hairs and with some silvery, shorter ones. The two basal joints of the antennae are black, the first being clothed with black hairs; the third joint is dark reddish, shortly conical, about as long as the first joint, with a short terminal style. Proboscis as long as the mouth opening, dirty blackish; palpi thin, upturned, dark yellowish. Thorax entirely black, and (when denuded) rather shiny; humeral and post-alar callosities brownish like the greatest part of the pleurae; on the back of the mesonotum there are black hairs and brownish tomentum; the collar is black; the pleurae have black and dark yellowish hairs; all the macrochaetae are black. Scutellum dark brown with a black base, clothed like the back of mesonotum. Squamulae brown with white fringe; plumula white; halteres yellowish. Abdomen shining black, with the segments narrowly brown at hind border; it seems to be clothed with black hairs, and with brownish, scaly tomentum, but at the base, on each side of the two first segments, there is a spot of white scales, clothed with white hairs; the last two segments also seem to have silvery scales at the base. Venter black, with silvery scaly tomentum; genitalia reddish-brown. Legs black, with reddish brown tibiae and tarsi; front pair abbreviated, with smooth tibiae; spines black; claws simple, reddish yellow, with black tips. Wings proportionately short and broad, with a very distinct pattern. At base they are dark yellowish brown to the base of the discoidal cell; an elongate, deep black spot on the second basal cell is very striking, and is placed symmetrically across the basal portion of the fourth longitudinal vein. In the middle the wings are black, the edge going obliquely and sinuously from the end of the auxiliary vein to the end of the anal cell; the discoidal cell is filled up with black to the end, only its upper corner being narrowly hyaline; in the marginal cell the black ends rather obliquely and a little before the upper end of the marginal cross-vein. The apical part of the wings is hyaline and strongly

iridescent. The 2 whitish hyaline fenestrae are rounded and are placed one at the base of the 2nd longitudinal vein and one on the middle cross-vein; they are of about equal size; at the base of the 3rd and of the 4th posterior cell there are less-developed yellowish stripes; at the end of the anal cell there is in addition a rounded, yellowish spot. Basal hook and basal comb black, the latter with a dark greyish tomentum above; veins quite reddish yellow and paler on the hyaline parts of the wing; 2nd longitudinal vein less looped at end and not retreating, originating before the middle cross-vein; marginal cross-vein oblique; upper branch of the cubital fork S-shaped. First posterior cell dilated outwardly, as broad as the 2nd; 3rd broadly truncate at base; 4th broader than the 3rd at end; discoidal cell narrowed in the middle, with the middle cross-vein placed before the centre, and with the terminal cross-vein straight, but set obliquely; anal cell broadly open. Alula yellowish-brown, with a darkish fringe like the base of auxiliary lobe, which is black on its apical half only.

B. GROUP NEMESIS.

EXOPROSOPA (EXOPROSOPA) NEMESIS, Fabricius (1805).

Syst. Antl., 1805, p. 121.

A very distinct species, characterised by the entirely black wings, with a narrow whitish hyaline apex and some shining brownish spots at cross-veins and bifucations.

A specimen from M'Fongosi, Zululand, 1914 (W. E. Jones), and another from Barberton, Transvaal, December, 1911 (H. Edwards).

C. GROUP SENICULUS.

EXOPROSOPA (EXOPROSOPA) MOROSA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 332, pl. ii, fig. 30.

A very characteristic species of great size, distinguished by the abbreviated cross-band of the wings at the end of discoidal cell. Originally described from Caffraria, it is probable that *Littorhynchus hamatus*, Macquart, from the Cape is the present species, chiefly because the length of the proboscis seems to be variable, as observed by Miss Ricardo for the following species. There is a female specimen from Barberton, Transvaal, December, 1911 (H. Edwards).

EXOPROSOPA (EXOPROSOPA) IGNAVA, Loew.

Dipteren-Fauna Süd-Afrikas, p. 232, pl. ii, fig. 31.

Closely allied to the preceding, but distinguished on account of its much paler and less extended wing pattern.

Originally described from the Cape and recorded subsequently from the Transvaal; I have received a specimen from Grahamstown (Cape).

EXOPROSOPA (EXOPROSOPA) SENICULUS, Wiedemann (1828).

If I have interpreted exactly the present species it seems to be a common insect in South Africa, as previously stated by Macquart (who placed it in *Litorrhynchus*); it is easily distinguishable by the ascribed characters given in the table. Some specimens from Van Wyk's Vlei, Carnarvon (Cape) (E. G. Alston), and from Smithfield (Orange Free State) (D. R. Kannemeyer).

EXOPROSOPA (EXOPROSOPA) ELONGATA, Ricardo (1901).

A distinct, middle-sized species, closely allied to the preceding one, but easily recognised by the venation. Originally described from the Transvaal and Namaqualand (Cape), there are in the Museum collection specimens from Howick, Natal, and from M'Fongosi, Zululand, March, 1911 (W. E. Jones).

EXOPROSOPA (EXOPROSOPA) ARGENTIFRONS, Macquart (1855).

Dipt. Exot. Suppl., 5, p. 65, pl. iii, fig. 2.

A pretty species of small size; very distinct from all the others owing to the short, black projection of the fore border of the wings and by the silvery frontal patch.

Described from the Cape and subsequently recorded by me from Western Nyassa; there is a single male specimen from Cape Town (L. Péringuey).

D. GROUP CAPENSIS.

EXOPROSOPA (EXOPROSOPA) CAPENSIS, Wiedemann (1821).

A small-sized, rather aberrant species, distinguished by the rudimentary antennal style, by the spinulose front tibiae and by the characteristic wing pattern.

Wiedemann has described this species from the Cape ; it is recorded only by the oldest authors. The species described under the same name by Macquart seems to be a different one, as the antennal style is said to be distinct, but Wiedemann states that the third joint is thicker than usual.

There is in the collection a single specimen from O'Okiep, Namaqualand (Cape) (L. Péringuey), 1905.

Third antennal joint $1\frac{1}{2}$ times as long as the two preceding together, elongate conical, rather linear, not broadened at base and without distinct terminal style. Face conically produced, with dense pale yellowish scales ; proboscis not projecting. Thorax with black bristles ; pleurae with only yellowish hairs, even on the metapleura ; sternopleura with yellowish scales. Scutellum red, with black base and black bristles at the hind border. Squamae pale yellowish, with whitish fringe. Legs entirely yellowish, with whitish scales ; front pair much abbreviated, with the tibiae thick and short and beset with distinct spicules, the tarsi shortly pubescent ; claws thin, with reddish base and short but acute basal tooth. Wings with small, yellowish or whitish tomentose basal comb ; second vein originating at a considerable distance from the discal cross-vein, with not deep but duplicated terminal loop ; marginal cross-vein **V**-shaped, much retreating ; first posterior cell narrowed at end, only a little broader than the anal cell ; discal cross-vein placed in the middle of the discoidal cell, which is not dilated below at end and has a **V**-shaped terminal vein, which is, however, less obliquely set ; third posterior cell considerably shorter than the fourth at the base. Axillary lobe long and narrow ; alula infuscated, and with a darkish fringe.

E. GROUP HEROS.

The species of the present group are often confused, and seem to be peculiar to the South African Fauna ; they are closely allied in venation with some species of the following group, but have a much less defined and less dark wing pattern ; characteristic also of the group are the isolated dark spots on the hind half of the wing, which are rarely wanting.

EXOPROSOPA (EXOPROSOPA) INFUMATA, Bezzi.

Closely allied with *eluta*, but at once distinguished by its sharply defined wing-pattern and by the posterior half of the wing being distinctly smoky.

Originally described by me from N.W. Rhodesia in my paper on the Bombyliidae of the British Museum, there is a specimen from Salisbury, Arcturus, 1916 (Dr. Melle).

EXOPROSOPA (EXOPROSOPA) ELUTA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 227, pl. ii, fig. 5.

Very closely allied to the following one, but distinguished by the smaller size, by the black legs and by the faint infuscation on the cross-vein dividing the discoidal from the second basal cell.

Stellenbosch (Cape), 1888 (L. Péringuey); Ceres (Cape), Matroosberg, 5000 ft., January, 1917 (R. M. Lightfoot); another example 9 mm. in length from Zululand, M'Fongosi, December, 1914 (W. E. Jones).

EXOPROSOPA (EXOPROSOPA) HEROS, Wiedemann (1819).

A species of great or medium size, distinguished by the broad fuscous patch of the hind half of the wings.

I think that the form described by Loew (Dipt. Sudafrik. p. 334, pl. ii, fig. 33) answers to the variety mentioned by Wiedemann, and I have named it *loewiana*; I think, moreover, that *E. caffra*, Macquart (*nec* Wiedemann) is also the present species, which seems to be very common in South Africa.

There are numerous specimens, varying in length from 10 to 20 mm. Stellenbosch (Cape), 1887 (L. Péringuey); Berg River; Laingsburg, November, 1910 (R. M. Lightfoot); Hex River, January, 1885, named "*heros*" by Bigot; O'Okiep (Cape), 1885 (L. Péringuey); Barberton, Transvaal, November, 1911 (H. Edwards); Spektakel and Springbok, Namaqualand (Cape), November, 1890 (R. M. Lightfoot); M'Fongosi, Zululand, December, 1911 (W. E. Jones); Otjivarango, Damaraland, January, 1920 (R. W. E. Tucker).

EXOPROSOPA (EXOPROSOPA) DUX, Wiedemann (1828).

Probably only a variety of the preceding, distinguished by the want of the fuscous patch at the hind half of the wing.

Some specimens from Hex River (Cape), December, 1884 (L. Péringuey), and Bushmanland, Henkries (Cape), October, 1911 (R. M. Lightfoot).

F. GROUP DIMIDIATA.

EXOPROSOPA (EXOPROSOPA) SIGMOIDEA, Bezzi (1912).

This species has the venation of *heros*, but without the lower dilatation of the discoidal cell, and the wing pattern as in *dux*, but more intensive and more defined.

Originally described from Western Nyassaland. There are some specimens from Smithfield, 1910, Orange Free State (D. R. Kanne-meyer), and from Dunbrody, Uitenhage (Cape), March, 1912 (J. A. O'Neil).

EXOPROSOPA (EXOPROSOPA) DIMIDIATA, Macquart (1846).

Dipt. Exot. Suppl. i, p. 107, pl. ix, fig. 11.

A species very distinct on account of its wing pattern and of the silvery abdominal pubescence of the male.

Widely spread in South Africa. There are specimens from Natal, Pine Town, 1885 (J. H. Barber), named "*Anthrax dimidiatus*, Macq.," by Bigot; Bechuanaland, junction Crocodile-Marico Rivers, February, 1918 (R. W. E. Tucker); Otjituo, Damaraland, January, 1920 (R. W. E. Tucker).

EXOPROSOPA (EXOPROSOPA) DILATATA, sp. nov., ♂.

A species of large size, distinguished by the prevailing black colour of the thoracical hairs and by the dilatation of the discoidal cell.

This characteristic species seems to be common in South Africa; it is almost certain that the female described by Loew (*l. c.*, p. 226), and which I have previously referred with doubt to my *discriminata*, is the same species. There are in the collection numerous specimens from M'Fongosi, Zululand, February, 1912 (W. E. Jones); Barberton, Transvaal, December, 1911 (H. Edwards); Smithfield, Orange Free State (D. R. Kannemeyer); Dunbrody, Uitenhage (Cape), 1899 (J. A. O'Neil). I have also received it from Grahamstown.

Length of the body 14-16 mm.; of a wing 14-16 mm. Head black, dark reddish on fore half of frons and on the face, genae and mouth borders; occiput dark grey-dusted, with yellowish central fringe, yellowish ocular stripe, and a deep postvertical furrow; vertex separated from the occiput by a deep depression; eye indentation less pronounced, but bisecting line elongate; frons at vertex more than three times as broad as the dark brown ocellar tubercle, with short,

deep black erect hairs and with golden yellow scales on the reddish part; face conically prominent, with yellow scales and black oral fringe. Antennae with the first joint long, red, black-haired; the second joint globular, reddish brown; the third black, shortly conical, not longer than the first two joints taken together, not broadened at base, its terminal style longer than the half of the joint. Palpi and proboscis black, this last projecting for the length of the labelli. Thorax entirely black, with black hairs and golden yellow tomentum on dorsum; there are no distinct clear stripes on the sides; collar bright yellow above, black on sides and underneath. Notopleural tufts and bristles black; pleurae black-haired, with some golden hairs on upper border of mesopleura and pteropleura; metapleural tuft entirely black; sternopleurae without clear tomentum; scutellum dark reddish, with black base, yellowish hairs and black bristles at the hind border. Squamae dark brown or blackish, with blackish fringe; plumula white; halteres blackish. Abdomen black, narrowly reddish on the sides of the second segment; the dense but not long hairs of the sides are entirely black, except on the sides of the first segment, where they are pale yellowish; tergites clothed with black scales and with a complete band of quite white scales on the base of the 3rd segment, narrow in the middle and broadened towards the sides; on the 6th and 7th segments there is such a band, but it is broadly interrupted in the middle, thus forming 4 ovate spots; genitalia black and black-haired; venter entirely black, with black hairs and scarce scattered whitish scales. Legs with the coxae entirely dark reddish, only the tarsi being blackened; front pair less abbreviated, with smooth tibiae and shortly pubescent tarsi; middle femora with 2-3 hind femora with a complete row of spines; claws black, with a short and acute basal tooth. Wings purely hyaline, with a well-defined, blackish basal pattern; the limit goes regularly from end of the axillary vein, over discal and anal cross-veins, to the middle of the axillary lobe; praediscoidal spot of great size, rounded, greyish. The basal hook is black; the comb is black, broad and short, with reddish dust. Terminal loop of the second longitudinal vein less deep; marginal cross-vein retreating, but almost straight; first posterior cell less narrowed at end, second narrower than the third and the vein between them is curved forwards at end; third posterior cell less short than the fourth at base; discal cross-vein set a little before the middle of the discoidal cell; this cell rather short, broad; the vein dividing it from the third posterior cell is curved below and protrudes in this last cell; the vein between the discoidal and the second posterior cell rather Y-shaped and long; there is a stump in the discoidal cell near

the end of the vein dividing the second from the third posterior cell; axillary lobe short and broad; alula very darkened, with a blackish fringe which is continued on the basal part of the axillary lobe.

G. GROUP PUNCTULATA.

EXOPROSOPA (EXOPROSOPA) PUNCTULATA, Macquart (1840).

Dipt. Exot. II, p. 48, pl. xviii, fig. 2.

An eminently characteristic species, distinct from all its allies on account of the spinulose front tibiae.

Widely spread over the Ethiopian region. Dunbrody, Blue Cliff, Uitenhage (Cape), March 1st, 1912; Cape Town (R. M. Lightfoot), March, 1917; Klipfontein, Namaqualand (Cape), L. Péringuey; M'Fongosi (Zululand), W. E. Jones.

EXOPROSOPA (EXOPROSOPA) PERPULCHRA, Bezzi:

Distinct from the other species of the group on account of its rich wing pattern, consisting of 2 broad fuscous bands, crossing the wing at the two ends of the discoidal cell.

Originally described from Nyassaland, and not hitherto known from South Africa; there is a specimen from Salisbury, S. Rhodesia, January, 1915 (J. O'Neil).

EXOPROSOPA (EXOPROSOPA) PARVULA, Bez., nom. nov.

E. parva, Ricardo (1901), not *parva*, Loew (1869).

Evidently allied to the preceding species, but distinguished by the dark wing pattern, which is destitute of isolated spots, recalling that of the *dimidiata* group.

Originally described from the Transvaal, there is a specimen from Kimberley (Cape) 1892 (L. Péringuey).

A male specimen from Pretoria, Transvaal, November 10th, 1916 (G. A. H. Bedford), has the frons a little broader, the femora black, and the wing pattern more infuscated. In the right wing of this specimen the discoidal cell is exactly divided into two cells by a supernumerary cross-vein, placed in the middle.

EXOPROSOPA (EXOPROSOPA) STANNUSI, Bezzi (1912).

Easily distinguished by its well-defined dark fore border of wings, the second basal cell being, however, almost entirely hyaline. Origin-

ally described from Western Nyassa; female specimens from Bulawayo and Umaruma, S. Rhodesia, October 2nd, 1916 (J. A. O'Neil).

In my original description the scutellum is said to be black, while it is red. The hitherto undescribed female is very much like the male; the spines of the ovipositor are of a shining red colour.

EXOPROSOPA (EXOPROSOPA) INAEQUALIPES, Loew (1852).

A robust species of large size, distinguished from the one following by the entirely black antennae and legs, and by the broadly infuscated cross-veins.

Described by Loew from Mozambique, there is a female specimen also from Inhambane (Mozambique) December 7th, 1912 (K. H. Barnard).

This species is closely allied to *E. major*, Ricardo, from Nyassaland, but is distinguished by the redder abdomen. *E. costalis*, Macquart, belongs also to the present group of species very difficult to identify.

EXOPROSOPA (EXOPROSOPA) BATRACHOIDES, Bezzi (1912).

A species of great size, distinguished by the prevailing red colour of the legs and abdomen.

Originally described from Nyassaland, there are in the collection 2 specimens from Springvale, S. Rhodesia, October 6th, 1912, and also another from S. Rhodesia without exact locality (Oakley), 1910.

The present species seems to be hardly distinguishable from the West African *E. merope*, Wied.

H. GROUP BALIOPTERA.

EXOPROSOPA (EXOPROSOPA) BALIOPTERA, Loew (1860).

Dipteren-Fauna Süd-Afrikas, p. 238, pl. ii, fig. 36.

A black, rather small species, at once distinguishable from any other by its characteristic wing pattern.

Described from the Cape and Caffraria; two examples from the neighbourhood of Durban, Natal (H. W. Bell-Marley), and Durban (Natal), without precise locality.

I. GROUP INERMIS.

EXOPROSOPA (EXOPROSOPA) PEDIFORMIS, Bezzi.

Very distinct from all the other South African species on account of its reddish body, lacking all the macrochaetae, of its rounded face, of its non-spinous femora, and of its specially shaped discoidal cell in the yellowish grey wings.

Originally described from Nyassaland in my work on the Bombyliidae of the British Museum, there is a male specimen from M'Fongosi, Zululand, March, 1917 (W. E. Jones).

J. GROUP BUSIRIS.

EXOPROSOPA (EXOPROSOPA) LUTEICOSTA, Bezzi, sp. nov.

A species resembling in general facies *E. heros* or *dux*, but more allied to *major-batrachoides*, and having the venation of the present group, in which it may be provisionally placed.

A male from Ovamboland, 1890-91 (E. W. Eriksson), and 2 specimens from Grahamstown (Cape) in my collection; there are some other doubtful specimens from Touws River, Cape, and Potchefstroom, Transvaal (T. Ayres).

I described the present species from East Africa, and the South African specimens agree well with the types, but they are of larger size and have more extended and darker wing-pattern. *E. costalis*, Macquart, is perhaps allied, but it is said to have a venation like that of *E. Robertsi*.

Length of body 16-19 mm.; of wing 17-20 mm. Head black; the fore half of frons, the face and the mouth borders are of a pale reddish colour; occiput grey-dusted, with pale yellowish central fringe and whitish ocular stripe; postvertical furrow narrow; vertex depressed between the eyes; frons $\frac{1}{3}$ of the head at vertex and $\frac{1}{3}$ at the antennae, the upper half clothed with blackish erect hairs, the frontal half with dense yellowish scales and pale yellowish hairs; face bluntly convex, not much produced, the sides with shining white scales and whitish hairs at the mouth borders. Antennae with the first joint short, dark brown, yellowish-haired; third joint black, elongate, with a short terminal style; palpi and proboscis blackish, the latter a little projecting. Thorax black, with yellowish dust on the back, which shows 3 longitudinal stripes; collar entirely yellowish like the hairs on the sides; bristles black; pleurae entirely whitish-haired, even on the metapleura. Scutellum red, with a narrow black base, yellowish-dusted, and with numerous black bristles at the hind border. Squamae brownish yellow with a whitish fringe; halteres brownish, with paler knob. Abdomen broad and obtuse at end, entirely black; the hairs on the sides of the first segment whitish, those on the others alternately blackish and yellowish; the upper side is clothed with black scales and has cross-bands of white scales complete on the 2nd sides of the 3rd and 4th and also entire on the 6th and 7th; venter black, with white scales and hairs. Legs black, with yellowish scales on femora

and tibiae; front coxae yellowish-haired; front pair not much abbreviated, with smooth tibiae and short pubescent tarsi; claws black, with an acute basal tooth. Wings greyish hyaline with a narrowly luteous base, and a dark luteous fore border to the end of the axillary vein not extending below over the 4th longitudinal vein; cross-veins bordered with fuscous; basal hook reddish brown; basal comb reddish, with black bristles and yellowish dust. Second longitudinal vein with an almost indistinct terminal loop; marginal cross-vein straight and almost perpendicular; 1st posterior cell less narrowed at end, being more than twice as broad as the anal cell at end; 2nd much shorter and narrower than the third, this last considerably shorter than the 4th at the base. Discal cross-vein placed considerably before the middle of the discoidal cell; this last cell short and as broad at the base as at the end, very truncate outwardly, its terminal vein being perfectly straight, short and perpendicular, one third the length of the other vein. Alula yellowish, with greyish fringe; axillary lobe rather broad, but elongate.

L. GROUP STUPIDA.

EXOPROSOPA (EXOPROSOPA) PARVICELLULA, sp. nov., ♀.

A smallish species very like *stupida*, with metallic scales on head and body, but distinguishable by the wings being less vitreous and having a different venation.

Type ♀. A single not well-preserved specimen from Inhambane, Mozambique (K. H. Barnard).

Length of body 8 mm.; of a wing 7 mm. Head entirely shining black, with only the entire mouth borders and the genae yellow; occiput entirely clothed with metallic shining scales, which are denser near the rather deep indentation of eyes and on the lower part of the eye-borders; central fringe whitish; postvertical furrow deep, broadening behind; frons gently convex, $\frac{1}{3}$ of the head at the vertex, with black, erect hairs and metallic scales in front above the antennae. Face conically prominent, but convex above and obtuse at end, with dense metallic scales and short black hairs. Antennae entirely black; first joint short and black-haired; third broad at base, but quickly constricted into a long and thick styliform part without distinct style at end; palpi and proboscis black, this last a little projecting. Thorax entirely black; it seems to be clothed with metallic scales which are denser near the sides; collar entirely whitish, like the longer hairs of the sides; bristles black, pleurae with entirely white hairs, even the meta-pleural tuft; sternopleura densely clothed by broad white scales.

Scutellum wholly black, with metallic scales like the thorax. Squamae whitish, with white fringe; halteres yellow; plumula white. Abdomen elongate-conical, entirely black, only the hind borders of the segments being a little brownish; the sides are entirely bare, the first segment only having short white hairs, and the last segment dark scales on the hind border; at the base of the 2nd, 3rd and 4th segment there seem to be bands of white scales, which are broadly interrupted in the centre; spines of the ovipositor black. Venter black, with complete bands of white scales at the base; last sternite prominent, in the shape of a short keel. Legs black; front pair wanting in the type, but the front coxae are black, white-tomentose and white-pilose; middle femora without distinct spines, hind femora with 2-3 at the end, underneath; spicules of tibiae scarce and short; claws black, with a short but distinct basal tooth. Wings hyaline, iridescent, with a pale yellowish tint; basal comb narrow, yellowish; veins entirely yellow, darkened near the apex and the hind border; second vein deeply looped at end; marginal cross-vein straight, but placed much obliquely; upper branch of third vein strongly retreating at base; first posterior cell not narrowed at the end, 2nd and 3rd of the same breadth at the end, the vein between them long and almost straight; 3rd shorter than the 4th at the base. Discal cross-vein set much before the middle of the discoidal cell, which is narrow, long and acute outwardly, its terminal vein being oblique; the basal angle of the vein dividing it from the 3rd posterior cell is provided with a stump projecting into the discoidal cell. Anal cell very broadly open at end; alula hyaline, with a short white fringe; axillary lobe short, but not very broad.

HYPERALONIA, Rondani (1863).

For a long time it was believed that in South Africa there were no representative of this genus, as pointed out in 1886 by Osten Sacken, who, however, has overlooked the fact that *Exopr. nigripennis* Loew, from Mozambique, belongs to the present genus. In 1901 Miss G. Ricardo referred to this genus *Anthrax rufa*, of Wiedemann, a species, however, which, from the description, is more probably a *Lomatia*. The genus is certainly poorly represented in the South African fauna, and in the collection there are only 2 examples belonging to 2 species, both belonging to the group of *H. nigripennis*, as shown in the following table:

- 1 (4). Head black; basal joints of the antennae black and black-haired; wings equally infusate, with not distinctly infuscated cross-veins and with the discoidal cell acute at base.

- 2 (3). Antennal style about as long as the third antennal joint; hairs on the sides of the thorax and abdomen of a golden yellow colour; femora black, clothed with dense yellow scales. *nigripennis*, Loew.
- 3 (2). Antennal style very short, rudimentary; hairs of the sides of thorax and abdomen bright red; femora red like the tibiae.
coleoptrata, sp. nov.
- 4 (1). Head red; basal joints of antennae red and with reddish hairs below; wings dark-brownish, with distinctly infuscated cross-veins, and with the discoidal cell truncate at base *vittata*, Ric.

HYPERALONIA COLEOPTRATA, sp. nov., ♂.

A middle-sized species with wholly black wings, closely allied to *nigripennis*, but distinguishable by the different antennae and by the bright red hairs on the sides of body.

Type ♂, a single specimen from Stella Bay, Natal, January, 1915 (H. W. Bell-Marley). The present species cannot be considered as identical with *A. rufa*, Wiedemann, because this author states that the wing venation and the antennae are as in *Lomatia belsebut*, and because the species is not placed in the 'Erste Horde,' pl. iii, fig. 1, which contains the Hyperaloniae, a subfamily very well interpreted by this early writer. Length of body 11 mm.; of wing 11 mm. Head black, dark reddish-brown in the lower part; occiput with yellowish central fringe, with narrow and simple postvertical furrow and with yellowish tomentose postocular stripe; eyes with a broad but not deep indentation and with a long bisecting line; frons at vertex a little more than three times as broad as the short, rounded, reddish ocellar tubercle, and having short and dense erect, black hairs and reddish-yellow scales in front. Face distinctly conical but not much produced, with reddish scales, black short hairs in the centre at the upper mouth-edge and reddish hairs on the sides underneath. Antennae short, the first joint black with deep, black, short hairs; the second globular, red, black-haired; the third black, shortly conical, as long as the two first joints taken together, with a very short and stout terminal style; proboscis black, thick, shorter than the mouth; palpi yellow, pale-haired. Thorax elongate, rather narrow, entirely black, clothed on the upper side with dense black hairs and black scales, but with reddish hairs in front of the scutellum; collar and notopleural tuft entirely bright red; supra-alar stripe reddish; macrochaetae strong and long, black; pleurae grey-dusted, with scattered black hairs and reddish tomentum on the sternopleura; metapleural tuft bright red. Scutellum dark red, with a black, black-scaled base, clothed with reddish dust and bearing black bristles behind. Squamae reddish brown, with reddish yellow fringe; plumula reddish, halteres yellowish, with

whitish knob. Abdomen elongate-conical, not broader than the thorax, obtuse behind, black, with a red stripe on each side from the 2nd segment to the end, the 7th segment being red with a black basal median spot; on the back it is clothed with black scales, with reddish scales on the base of the 2nd and on the whole of the 6th and 7th segments, but on the red stripes the scales are also red; hairs of the sides long and red on the 1st and 2nd segments, shorter and with intermingled black hairs on the remainder. Male genitalia red and reddish-haired; venter entirely red, with reddish hairs and reddish dust. Legs red, with reddish scales and black spines; coxae, end of the front tibiae and all the tarsi, except at the base, blackish; front pair abbreviated, with smooth tibiae and with the tarsi rather bare above; front coxae with reddish hairs; middle femora with 2-3, hind femora with a complete row of bristles; claws black, with an indistinct basal tooth. Wings short and rather broad, entirely and equally infusate from the base to the end, and with a vivid metallic sheen; the hook and the small comb are of a deep black colour; praediscoidal spot almost indistinct. Veins black; the loop of the 2nd longitudinal vein is simple but deep; submarginal cross-vein very short, straight, perpendicular; the cell, characteristic of the genus *Hyperalonia*, is twice as long as broad; the first posterior cell is not much narrowed at end, the 2nd is narrower than the 3rd at the end, the vein between them being S-shaped and bent forwards at the end; third obtuse at the base, but only a little shorter than the 4th. Discoidal cell narrow, irregular, acute at both ends, its terminal vein horizontal, V-shaped, as long as the equally V-shaped preceding vein; discal cross-vein set in the centre of the discoidal cell, the upper vein after it, strongly curved outwardly; anal cell narrowly open; axillary lobe rather narrow; alula black, with dark fringe.

HYPERALONIA VITTATA, Ricardo (1901).

A mainly reddish species, very distinct on account of its reddish brown and dark spotted wings, which are beyond the discoidal cell strongly truncate at the base.

Originally described from Nyassaland and widely spread over East Africa, there is a single male specimen from Salisbury (S. Rhodesia) June, 1913. This example has all the general characters of this species, but differs in two points: (1) There is a black spot on the occiput, surrounding the postvertical furrow; (2) the 2nd posterior cell of the wings is rather constricted at end. Owing to these two characters the specimen makes a passage to the form which I have described from East Africa under the name of *H. paris*.

ADDITIONS.

I.

The following South African species of Bombycidae are from the South-West Protectorate (Damaraland), the dipterous fauna of which is as yet very little known.

SYSTOECHUS, Loew.

SYSTOECHUS CTENOPTERUS, Mikn.

A female specimen from S.W. Protectorate, Grootfontein, January, 1920 (R. W. E. Tucker).

EURYCARENUS, Loew.

The three South African species may be tabulated as follows :

- 1 (4). First posterior cell with a rather long stalk at end; abdominal segments destitute of silvery tomentum on hind border.
- 2 (3). Tarsi and tibiae yellowish, the hind tibiae with silvery scales; abdomen with a white longitudinal stripe in the middle; species of large size *laticeps*, Loew.
- 3 (2). Tarsi and tibiae quite black, those of the hind pair with black scales; abdomen without white middle stripe; species of smaller size
minimus, sp. nov.
- 4 (1). First posterior cell almost sessile at end; abdomen with narrow bands of silvery toment at hind border of segments, and clothed moreover with a white pubescence *sessilis*, Bez.

EURYCARENUS MINIMUS, sp. nov.

A species of smaller size like *sessilis*, but with the first posterior cell stalked as in *laticeps*, and differing from both in the abdominal pattern.

Type ♂, and an additional specimen of the same sex from S.W. Protectorate, Tsumeb, December, 1919 (R. W. E. Tucker).

♂. Length of the body 7-8 mm.; of the wing 6.5-7.5 mm. Head as in *laticeps*, but the eyes of male approaching only at a point, without being in contact; frons and face with long, erect black hairs on the middle with soft golden-yellow hairs beneath them, and on the sides with long silvery hairs; palpi black with reddish base; proboscis entirely black, 3-3.5 mm. long. Antennae entirely black; third joint linear, twice as long as the two first joints together. Thorax and scutellum entirely black; on the back they are clothed with a golden-yellow soft pubescence, while on the pleurae the pubescence is white; dorsal macrochaetae black, those of the pleurae white; halteres whitish, the knob infuscated at base; squamulae dirty whitish, with a dark border and with whitish fringe. Abdomen entirely black, with complete rows of strong, erect, black bristles at the hind border

of the segments; it is clothed with black and yellowish hairs, the segments 3-6 being covered by an appressed yellowish tomentum in the shape of broad transverse bands; of these bands that of the third segment is interrupted in the middle, while those of the following segments are interrupted at the sides, thus forming a peculiar pattern; the fourth to fifth segments are clothed with long, erect, black hairs on the black portions. Venter with white hairs and with white pubescence; genitalia with reddish-brown lamellae. Legs entirely black, even the tibiae and tarsi; the four anterior femora and tibiae are clothed with white scales, while the hind tibiae are black-scaled. Wings hyaline, with the same venation as in *laticeps*; the veins are blackish on the apical and yellowish on the basal half.

HYPERUSIA, Bez.

HYPERUSIA SOROR, sp. nov.

Closely allied to *Hyp. minor* from Zululand, but smaller and distinct by the closed anal cell, by the third antennal joint being entirely reddish to the end, and by the darker legs.

Type ♀, a single specimen from S.W. Protectorate, Otjitungo, January, 1920 (R. W. E. Tucker).

♀. Length of the body 3.2 mm.; of the wing 3 mm. Face quite black; third antennal joint clavate and entirely reddish-yellow, without a black end; proboscis a little less than 1 mm. in length. Thorax clothed on the back with whitish hairs, and destitute of golden-yellow tomentum. Abdomen as in *minor*, the golden tomentum being present even if scattered. Legs with darker tibiae, those of the hind pair being even blackish. Wings the same as in *minor*, but the anal cell is closed and briefly stalked like in the type-species of the genus.

GERON, Meig.

GERON HYBRIDUS, Meig.

A female specimen from S.W. Protectorate, Otjitungo, January, 1920 (R. W. E. Tucker).

TOXOPHORA, Meig.

TOXOPHORA EPARGYRA, Hermann.

Zeitschr. für System. Hymenopt. and Dipterol., 1907, p. 201.

A male specimen from S.W. Protectorate, Otjitungo, January, 1920 (R. W. E. Tucker).

Referred to the present species, lately described from the female sex, from Smyrna, Asia Minor, and not yet known from Africa. It differs

from all the other species in having the wings unspotted as in *maculata*, with the cross-vein between the discoidal and the second posterior cell not only angularly bent, but provided with a strong stump of vein directed outwardly into the second posterior cell. Such a character is known only for the North American species *amphites*, Walk. I assume therefore the present species to be the same as the Syrian one, notwithstanding the very different habitat.

Eyes touching in a line a little shorter than three times the small ocellar tubercle. The base of the antennae and the sides of the frontal triangle are provided with long white tufts; first antennal joint rather thin, with white scales on the outer side and below. Abdomen clothed on the back with white scales, but with the four rows of black spots not distinct. Legs black and white-scaled. Wings greyish-hyaline, slightly yellowish along the costal cell, on the base of the marginal and submarginal, and on the whole of the first basal cell.

PETROROSSIA.

PETROROSSIA HESPERUS TROPICALIS, subsp. n.

A female specimen from S.W. Protectorate, Otjituo, January, 1920 (R. W. E. Tucker).

The present subspecies is distinguished from the typical species by the white-haired face and first antennal joint, by the complete red stripe at the sides of the abdomen, by the mostly yellow femora, and by the upper branch of the cubital fork devoid of appendage.

Described originally from specimens from Nyassaland and other Central African localities.

ANTHRAX, Scop.

ANTHRAX FUSCIPENNIS, Ric.

A male specimen from S.W. Protectorate, Otjituo, January, 1920 (R. W. E. Tucker).

SPONGOSTYLUM, Macq.

SPONGOSTYLUM INCISURATA, Macq.

A female specimen from S.W. Protectorate, Windhoek, December, 1919 (R. W. E. Tucker).

THYRIDANTHRAX, Ost. Sack.

THYRIDANTHRAX LUGENS, Loew.

Some specimens from S.W. Protectorate, Grootfontein, January, 1920, and from Otjivarongo, February, 1920 (R. W. E. Tucker).

THYRIDANTHRAX TRANSIENS, Bezzi.

One specimen from S.W. Protectorate, Otjituo, January, 1920 (R. W. E. Tucker).

EXOPROSOPA, Macq.

EXOPROSOPA (EXOPROSOPA) FASTIDIOSA, sp. n.

Near *seniculus*, but distinct by the middle dark band of the wings being extended, through the apical half of the discoidal cell, to the hind border of the wing, or nearly so. The type is from the Nyasaland Protectorate; the abdomen shows transverse bands of white scales alone, while in the present specimen the fourth and fifth segments have yellowish bands like the second. Antennae entirely black.

One female specimen from S.W. Protectorate, Grootfontein, January, 1920 (R. W. E. Tucker).

EXOPROSOPA (EXOPROSOPA) HYPARGYRA, sp. nov.

Closely allied to *seniculus* and *fastidiosa*, but distinct from all the known species of their group on account of the broad patch of silvery scales on the sternopleura.

Type ♀, a single specimen from S.W. Protectorate, Tsumeb, December, 1919 (R. W. E. Tucker).

♀: Length of the body 12 mm.; of the wing 12 mm. Head as in *seniculus*, with not projecting proboscis; antennae entirely black, with the third joint elongate-conical as in *fastidiosa*. Thorax as in *seniculus*, but the sternopleurae are completely clothed with silvery scales, thus forming a broad triangular white spot, which is wanting in the allied species. Abdomen and legs as in *seniculus*; spines of the ovipositor black. Wings with the same nervation, but the small cell being very narrow at end and nearly closed (in *seniculus* and *fastidiosa* it is broadly open). The pattern is like that of *seniculus*, but the dark band of the fore border is shorter, ending into the marginal cell a little before the upper end of the marginal cross-vein (in the two other species it ends on or a little beyond the cross-vein); the middle cross-band is broad and long, crossing the discoidal cell on its apical third (but leaving its extreme external apex hyaline), filling up the whole base of the second posterior cell and entering into the upper part of the third posterior cell.

EXOPROSOPA (EXOPROSOPA) TUCKERI, sp. nov.

A species of the *dimidiata*-group and to be placed near it, distinct by the metapleural tuft being reddish yellow above and black below; by the apical cross-vein of the discoidal cell being short, straight, and placed obliquely; by the discoidal cell dilated at end at the upper

border alone. It is near *argyrophora*, Bezzi, from Nyassaland, but is distinct, the last abdominal segments being clothed with white scales.

Type ♂, a single specimen from S.W. Protectorate, Otjituo, January, 1920, collected by (R. W. E. Tucker), in whose honour it is named.

♂. Length of body 11 mm.; of wing 11 mm. Head deep black and black haired, with scattered yellowish scales on the frons; face conically produced; proboscis not at all projecting; antennae quite black, with the third joint briefly conical, as long as the two first joints together; style thin, as long as the third antennal joint. Thorax and scutellum entirely black, with black hairs and black bristles; on the back there are scattered yellowish hairs, which form a complete broad stripe on each side above the notopleural line; collar yellowish, pleuræ black haired, with a yellowish notopleural tuft; metapleural tuft yellowish above and black below; squamulae dark yellowish, with white fringe; halteres with yellow knob and dark stalk. Abdomen entirely black; first and second segment with dense white hairs on the sides, the rest of the sides with black hairs alone; on the back it is clothed with black and yellowish scales, the second and third segment and the sides of the sixth and seventh being clothed with silvery scales; venter black, black scaled and black haired. Legs quite black and black-scaled. Wings with black veins; terminal loop of second longitudinal vein double; first posterior cell not narrowed at end, about a half as broad as the second, which is as broadly open as the third; discoidal cell at end twice as broad as at base, its terminal cross-vein being short and straight; anal cell narrowed at end. The wings are typically dimidiate, black and hyaline; the limit between the two portions goes a little toothed from the end of the first longitudinal vein, over the base of the first submarginal and first posterior cells, across the basal third of the discoidal cell, over the base of the fourth posterior cell, over the two basal thirds of the anal cell to the basal half of the axillary lobe; praediscoidal spot broad and whitish.

EXOPROSOPA (EXOPROSOPA) PUNCTULATA, Macq.

A female from S.W. Protectorate, Tsumeb, December, 1919 (R. W. E. Tucker).

EXOPROSOPA (EXOPROSOPA) STANNUSI, Bezzi.

A female specimen from S.W. Protectorate, Otjivaronga, 1920.

EXOPROSOPA (EXOPROSOPA) LUTEICOSTA, Bezzi.

A female specimen from S.W. Protectorate, Tsumeb, December, 1919 (R. W. E. Tucker).

EXOPROSOPA (EXOPROSOPA) CERVINA, sp. nov.

Closely allied to *luteicosta* and perhaps only a variety of it, but distinct by the smaller size and by the more lightly coloured body, chiefly on the abdomen, which is clothed with whitish and yellowish scales and devoid of tufts of black hairs at the sides.

Type ♀, an additional female specimen and a male specimen without a head, from S.W. Protectorate, Otjivarongo, Otjituo and Tsumeb, December, 1919, to January, 1920 (R. W. E. Tucker).

♂ ♀. Length of body 11–11.5 mm.; of wing 12–12.5 mm. Head black, reddish on the sides of face below and peristome, with yellowish scales and clothed with erect black hairs on the frons; antennae entirely black, with the third joint elongate, longer than the two first joints together, with a very short and thick terminal style; face conically produced; proboscis very little projecting. Thorax black, with yellowish hairs and yellowish scales, without black hairs even on the pleurae; only the bristles are black. Scutellum reddish, with black base, clothed like the thorax. Halteres dark yellowish; squamulae whitish, with white fringe. Abdomen of oval shape, entirely black; it is clothed above, with scales, without black hairs; all the hairs of the sides are yellowish; the scales are yellowish, being white only at base of the second segment, where they form a complete band, and on the sides of the third and of the two terminal segments. Venter black, with a reddish hind border on each segment, with white scales and white hairs; spines of the ovipositor reddish. Legs black, but with yellowish scales; the front tibiae are smooth and reddish; hind claws with a long and acute tooth. Wings hyaline, with the venation like that of *luteicosta*; veins yellowish, black on the apical half; the pattern is very reduced, consisting only in a faint yellowish tinge of the costal and subcostal cells, and in a faintly infuscated patch on the middle of the fore half. Over the base of the second longitudinal vein, the discal cross-vein and the end of the first basal cell, besides the lower apical cross-vein of the second basal cell between this and the fourth posterior cell, and the upper corner of the cross-vein between the third posterior and discoidal cell, are faintly margined with fuscous; but in the male specimen there is no trace of this infuscation.

II.

SYSTROPUS, Macq.

SYSTROPUS SANGUINEUS, Bez.

Two examples bred from the pupa of an unidentified Notodont moth. Caledon. Cape (K. H. Barnard).

OESTRANTHRAX, Bez.

OESTRANTHRAX OBESUS, Loew.

An example from Durban, Natal, March 10th, 1919 (H. W. Bell-Marley) lacks the appendix projecting into the discoidal cell, but is typical in other respects.

The following note is appended to the specimen: "This fly came out of an old log containing Cossid larvae." Certain species of the related genus *Villa* are known to be parasitic upon larvae of nocturnal Lepidoptera.

THYRIDANTHRAX, Ö. Sack.

THYRIDANTHRAX VIDUATUS, Loew.

Dipteren-Fauna Süd-afrikas, p. 221, pl. ii, fig. 22.

Montagu, Cape, November, 1919 (R. M. Lightfoot).

Distinct from *T. lugens* and *T. transiens* in the long discoidal cell, in the first posterior cell distinctly narrowed at end, and in the lighter pattern of the base of the wing.

SYSTEMATIC ARRANGEMENT OF THE GENERA AND SPECIES.

BOMBYLIINAE.

BOMBYLIUS, L.

lateralis, Fab.
bombiformis, Bez.
haemorrhoidalis, Bez.
acroleucus, Bez.
mutilatus, Bez.
kilimandjaricus, Speis.
furiosus, Walk.
ornatus, Wied.
rufiventris, Macq.
mollis, Bez.
disjunctus, Bez.
eurhinatus, Bez.
brachyrrhynchus, Bez.
globulus, Bez.
impurus, Loew.
mundus, Loew.
sessilis, Bez.
xanthocerus, Bez.
marginellus, Bez.
paterculius, Walk.
ruficeps, Macq.

purpureus, Bez.
micans, Fabr.
hypoleucus, Wied.
hirtus, Loew.
servillei, Macq.
capensis, L.
megaspilus, Bez.
braunsi, Bez.
punctatellus, Bez.
punctifer, Bez.
pentaspilus, Bez.
obesus, Bez.
spinibarbus, Bez.
angulosus, Bez.
nigripecten, Bez.
peringueyi, Bez.
argentifer, Walk.
molitor, Wied.
hirticeps, Bez.

SYSTOECHUS, Loew.

scabrirostris, Bez.
ventricosus, Bez.
simplex, Loew.

- tumidifrons, Bez.
 albidus, Loew.
 nigripes, Loew.
 mixtus, Wied.
 stenopterus, Mik.
 spinithorax, Bez.
 fuliginus, Loew.
- ANASTOECHUS**, O. Sack.
 rubricosus, Wied.
 varipecten, Bez.
 cervinus, Loew.
 erinaceus, Bez.
 macrophthalmus, Bez.
 innocuus, Bez.
 leucosoma, Bez.
- EURYCARENUS**, Loew.
 laticeps, Loew.
 sessilis, Bez.
 minimus, Bez.
- DISCHISTUS**, Loew.
 capito, Loew.
 plumipalpis, Bez.
 rubicundus, Bez.
 niveus, Macq.
 ovatus, Bez.
 seriatus, Wied.
 vittipes, Bez.
 variegatus, Macq.
 tripunctatus, Macq.
 coracinus, Loew.
 pectoralis, Loew.
- SESYOMYIA**, Bez.
 carnata, Bez.
- CY THEREINAE.**
- ONIROMYA**, Bez.
 pachycerata, Big.
- USIINAE.**
- CORSOMYZA**, Wied.
 simplex, Wied.
 pennipes, Wied.
 nigripes, Wied.
 hirtipes, Macq.
 clavicornis, Wied.
 anceps, Bez.
 bicolor, Bez.
 ruficornis, Bez.
- CALLYNTHROPHORA**, Sch.
 marginifrons, Bez.
- GNUMYA**, Bez.
 brevirostris, Bez.
- HYPERUSIA**, Bez.
 minor, Bez.
 soror, Bez.
- MEGAPALPUS**, Macq.
 nitidus, Macq.
 fulviceps, Bez.
- PHTHIRIINAE.**
- GONARTHURUS**, Bez.
 leucophys, Big.
 xanthinus, Bez.
 cygnus, Big.
 chioneus, Bez.
 cylindricus, Bez.
- CROCIDIUM**, Loew.
 poecilopterum, Loew.
 nigri-facies, Bez.
- PSEUDEMPIS**, Bez.
 heteroptera, Wied.
- PHTHIRIA**, Meig.
 laeta, Bez.
 lanigera, Bez.
 pubescens, Bez.
- GERON**, Meig.
 hybridus, Meig.
 barbatus, Bez.
 luctuosus, Bez.
 leptocerus, Bez.
 dichromus, Big.
- APOLYSIS**, Loew.
 humilis, Loew.
- SYSTROPINAE.**
- SYSTROPUS**, Wied.
 leptogaster, Loew.
 sanguineus, Bez.
 snowi, Ad.
- TOXOPHORINAE.**
- TOXOPHORA**, Meig.
 maculata, Ross.
 punctipennis, Bez.
 epargyra, Herm.
 diploptera, Speis.
 caeruleiventris, Karsch.

CYLLENIINAE.

- NOMALONIA, Rond.
 afra, Macq.
 HENICA, Macq.
 longirostris, Wied.
 PERINGUEYIMYIA, Big.
 capensis, Big.

LOMATIINAE.

- LOMATIA, Meig.
 acutangula, Loew.
 longitudinalis, Loew.
 liturata, Loew.
 pictipennis, Wied.
 simplex, Wied.
 infuscata, Bez.
 conocephala, Macq.
 pulchriceps, Loew.
 latiuscula, Loew.
 tenera, Loew.

- PTERAULAX, Bez.
 flexicornis, Bez.

- PETROROSSIA, Bez.
 hesperus, Ross.
 vinula, Bez.
 fulvipes, Loew.
 tropicalis, Bez.

ANTHRACINAE.

- ANTHRAX, Scop.
 pithecius, Fabr.
 hessii, Wied.
 diffusus, Wied.
 aygulus, Fabr.
 trimaculatus, Wulp.
 pusillus, Wied.
 hemimelas, Speis.
 fuscipennis, Ric.

- SPONGOSTYLUM, Macq.
 muticum, Bez.
 incisurale, Macq.
 punctipenne, Wied.

EXOPROSOPINAE.

- VILLA Lioy.
 flavipes, Loew.
 albescens, Loew.
 sexfasciata, Wied.

- vitripennis, Loew.
 argentina, Bez.
 lasia, Wied.
 leucochila, Bez.

- OESTRANTHRAX, Bez.
 obesus, Loew.

- SYNTHESIA, Bez.
 fucoides, Bez.

- THYRIDANTHRAX, O. Sack.
 flammiger, Walk.
 leucoproctus, Loew.
 linea, Loew.
 abruptus, Loew.
 transiens, Bez.
 lugens, Loew.
 calochromatus, Bez.
 ternarius, Bez.
 laetus, Loew.
 viduatus, Loew.

- LITORRHYNCHUS, Macq.
 maurus, Thunb.
 tollini, Loew.
 argyrolepis, Bez.

- EXOPROSOPA (METAPENTA).
 pentala, Macq.
 corvina, Loew.

- (ACRODISCA).
 fimbriatella, Bez.
 offuscata, Bez.
 personata, Bez.
 angulata, Loew.

- (DEFILIPPIA).
 neurospila, Bez.
 venosa, Wied.
 nigrovenosa, Bez.
 maculosa, Wied.
 maculifera, Bez.
 strenua, Loew.
 hirtipes, Loew.

- (PTEROBATES).
 apicalis, Wied.

- (EXOPROSOPA).
 formosula, Bez.
 nemesis, Fabr.
 morosa, Loew.
 ignava, Loew.

seniculus, Wied.
elongata, Ric.
argentifrons, Macq.
capensis, Wied.
infumata, Bez.
eluta, Loew.
heros, Wied.
dux, Wied.
sigmoidea, Bez.
dimidiata, Macq.
dilatata, Bez.
punctulata, Macq.
perpulchra, Bez.
parvula, Bez.

stannusi, Bez.
inaequalipes, Loew.
batrachoides, Bez.
balioptera, Loew.
pediformis, Bez.
luteicosta, Bez.
parvicellula, Bez.
fastidiosa, Bez.
hypargyra, Bez.
tuckeri, Bez.
cervina, Bez.
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vittata, Ric.

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EXPLANATION OF PLATES.

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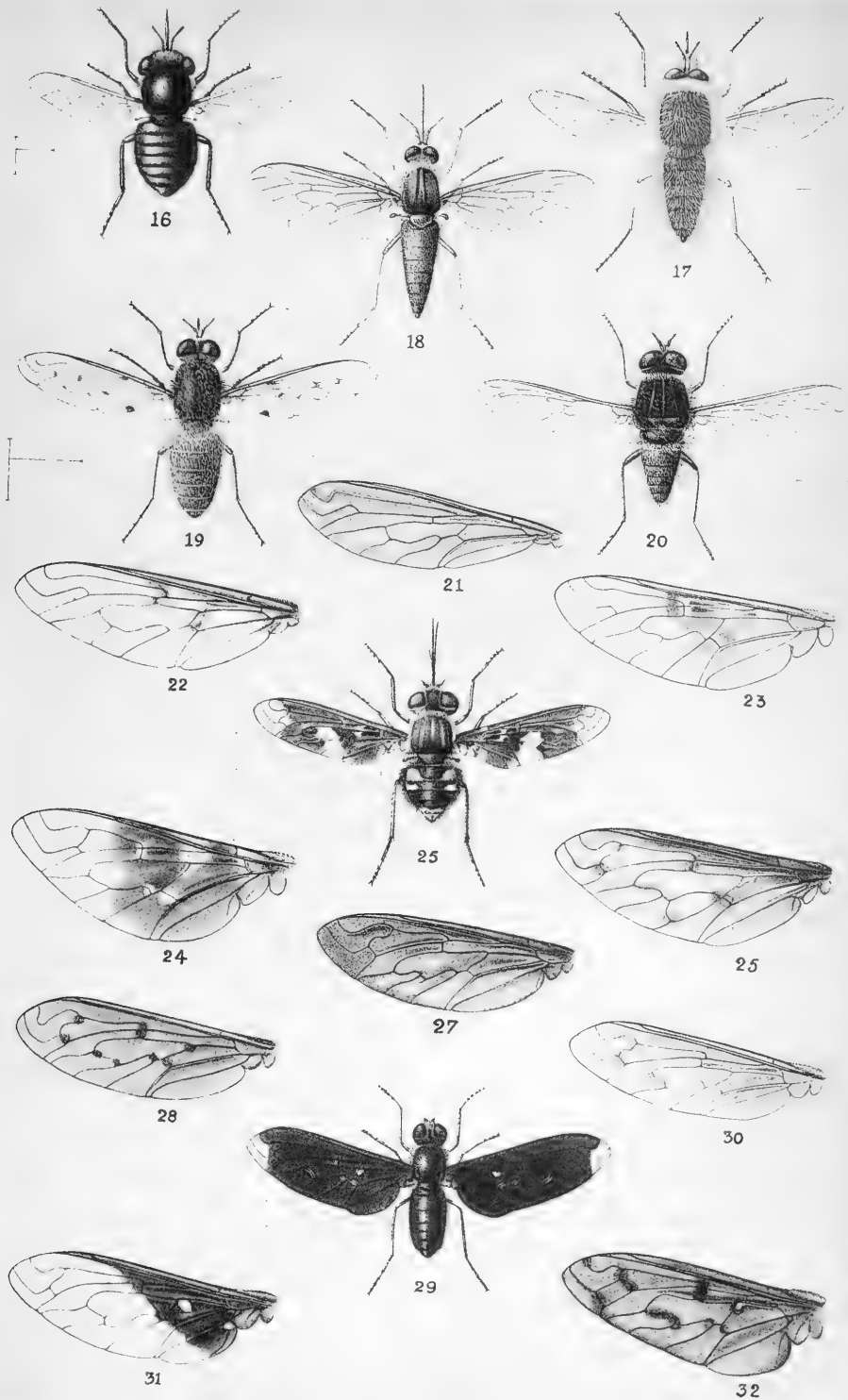
1. *Bombylius mutilatus*, n. sp. Wing.
2. „ *capensis*, Lin. Wing.
3. „ *megaspilus*, n. sp. Wing.
4. „ *punctatellus*, n. sp. Wing.
5. „ *pentaspilus*, n. sp. Wing.
6. „ *peringueyi*, n. sp. Whole insect.
7. „ *hirticeps*, n. sp. Head.
8. *Systoechus scabrostris*, n. sp. Whole insect.
9. *Anastoechus rubricosus*, Wied. Whole insect.
10. *Eurycarenum sessilis*, n. sp. Wing.
11. *Dischistus plumipalpis*, n. sp. Whole insect.
12. *Sosiomya comata*, n. sp. Whole insect and head magnified.
13. *Oniromya pachycerata*, Big. Whole insect.
14. *Corsomyza pennipes*, Wied. Whole insect.
15. *Callynthrophora magnifrons*, n. sp. Whole insect.

PLATE II.

FIG.

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17. *Gonarthrus cygnus*, Big. Whole insect.
18. *Pseudempis heteroptera*, Wied. Whole insect.
19. *Peringueyimyia capensis*, Big. Whole insect.
20. *Pteraulax flexicornis*, n. sp. Whole insect.
21. *Petrorossia vinula*, n. sp. Wing.
22. *Spongostylum muticum*, n. sp. Wing.
23. *Thyridanthrax calochromatus*, n. sp. Wing.
24. „ *ternarius*, Bez. Wing.
25. *Litorrhynchus maurus*, Thunb. Whole insect.
26. *Exoprosopa pentala*, Macq. Wing.
27. „ *offuscata*, n. sp. Wing.
28. „ *neurospila*, n. sp. Wing.
29. „ *nemesis*, Fabr. Whole insect.
30. „ *capensis*, Wied. Wing.
31. „ *dilatata*, n. sp. Wing.
32. *Hyperalonia coleoprata*, n. sp. Wing.





vol. 18 ; 1921

7.—*Additions to the Bombyliid Fauna of South Africa (Diptera), as represented in the South African Museum.*—By Prof. M. BEZZI.

THE Director of the South African Museum has sent me a small number of Bombyliidae from South-West Africa, obtained after the publication, on February 21st, 1921, of my memoir. These are now described. I have also added a few others, sent me by Dr. H. Brauns, that do not figure in my first list. Some of these will be more fully described in my forthcoming paper on the African Bombyliidae belonging to the Hungarian Museum at Budapest.

BOMBYLIIDAE.

BOMBYLIUS, Linn.

BOMBYLIUS PLAGIATUS, n. sp.

Closely allied to *B. acroleucus*, Bezzi, and belonging to the same group, but at once distinguishable by the more slender third antennal joint and by the wings having the discal cross-vein placed much beyond the middle of the discoidal cell, and having moreover a broad fuscous patch ending in a truncate form at the discal cross-vein.

Type ♀, one specimen from Delarey (W. Transvaal), January, 1917 (Dr. H. Brauns).

Length of body 9 mm.; of wing 10 mm.

Head and appendages exactly as in *B. acroleucus*; the third joint of the antennae is distinctly more slender at its broadest portion and not broader than the second joint. Thorax as in *B. acroleucus*, likewise with three equal longitudinal stripes of black hairs on the back; bristles entirely black. Scutellum, halteres and squamae as in *B. acroleucus*; abdomen of a like pattern, consisting of two broad round white spots on the sides of second and third segment and a smaller one in the middle; the terminal segments have the median spots more developed, being thus almost entirely white; the terminal bristles are black at base and white at end. Legs as in *B. acroleucus*; the wings have the same nervation, but are longer, and therefore the discoidal cell is elongate and the second and third posterior cells shorter; the discal cross-vein is placed on the terminal third of the discoidal cell. There is, moreover, a well-developed pattern, the extreme base to the basal cross-veins being black as in *B. acroleucus*; following is a yellowish patch extending from the costa to the whole of the second basal cell and filling up the whole of the costal cells; then a broad

fuscous patch of rectangular shape, extending from the face of the second longitudinal vein to the discal cross-vein and ending there in a straight line; this fuscous patch extends below a little into the upper part of the discoidal cell and into the apical part of the second basal cell and also along the fifth longitudinal vein.

SOSIOMYA, Bezzi.

Ann. S. Afr. Mus., 8, 1921, p. 67.

ADELIDEA (SOBARUS) AND SOSIOMYIA.

It seems that the species of this peculiar South African group are more numerous than was at present believed. There can be no doubt that *Adelidea fuscipennis*, Macquart, is the same insect as *Sobarus anomalus*, Wiedemann and Loew, and even as *Cyllenina longirostris*, Wiedemann; all three are one species. I have seen, however, two other species which are certainly different, and therefore I will give the following key for all the known species.

- 1 (2). Third antennal joint beset with long bristles above; antennae entirely black; femora black; tibiae with partly black spicules; wings with a rounded fuscous spot at end of the anal cell . . . *comata*, Bezzi, 1921.

ADELIDEA, Macq.

Bezzi, *loc. cit.*, p. 3.

- 2 (1). Third antennal joint quite bare above; legs entirely reddish with quite reddish spicules; no fuscous spot at end of anal cell.
- 3 (4). Basal joints of the antennae red; wings with the anterior half yellowish and with fuscous spots on cross-veins . . . *ruficornis*, n. sp.
- 4 (3). Antennae entirely black; wings with the anterior half infuscated or entirely fuscous.
- 5 (6). Wings with the anterior half infuscated and with fuscous spots on cross-veins; discoidal cell much longer than the second posterior cell . . . *anomala*, Wied.*
- 6 (5). Wings equally and intensively infuscated, not spotted; discoidal cell only a little longer than the second posterior cell . . . *braunsi*, n. sp.

ADELIDEA RUFICORNIS, n. sp.

Closely allied to *A. anomala* and possibly the unknown female of this species, but distinguished by the red basal joints of the antennae and by the not infuscated fore half of wings.

* Of this species I have seen only a rather old male specimen in the British Museum.

One female specimen from Willowmore (Cape), November, 1920 (Dr. H. Brauns).

♀. Length of body and wing 8 mm.

Head yellowish, clothed with greyish tomentum, which is darker on the occiput; ocellar tubercle blackish; frons about as broad as one eye, clothed with short pale yellowish hairs, and having 4-5 long yellowish bristles on each side; face with short whitish hairs, and with a long mystax of yellowish, bristle-like hairs at mouth border; peristome narrow and whitish; beard white; upper occipital hairs yellowish. Antennae with the 2 basal joints red; the first joint is slender and long, about three times as long as the second joint, clothed above with short and below with long yellowish hairs; third joint black, slender, more slender than the first, as long as the 2 first joints together, with a short, hair-like terminal style. Palpi blackish, short; proboscis black, 4 mm. long. Thorax black, clothed with golden tomentum on the back, and with whitish tomentum on the pleurae; humeri and notapleural region reddish; a short stripe of white hairs on the sides above the root of the wings; lateral bristles long, strong, rather numerous, of a reddish colour, but the postalar ones are in part blackish; mesopleura with long white hairs and with a row of yellowish bristles at the hind border; sternopleura with short white hairs; metapleura bare. Scutellum entirely black, clothed with golden tomentum, and having 2-3 rows of long blackish bristles at the hind border. Squamae and halteres whitish, the former with white fringe. Abdomen black, densely clothed with golden tomentum, the last segments reddish at hind border; the hairs are short, scarce and yellowish, but all the segments except the first have a row of erect blackish bristles at the hind border. Venter reddish, clothed with whitish tomentum and white hairs, which are denser towards the sides, forming a white longitudinal stripe on each side. Legs quite reddish, the last tarsal joint only black at end; coxae white tomentose, and white pilose; all the bristles of the femora and the spicules of tibiae are reddish or yellowish, the hind femora having a row of 4-5 below near the end, and another row of 2-3 on the outer side at end. Claws black and thin, little curved; pulvilli whitish and shorter than the claws. Wings yellowish at base and on middle of fore border, grey on the remainder; the dark spots are on the praefurca, on the discal cross-vein (the largest of all), on base of cubital fork and on the apical cross-vein of the second basal cell; 2 less developed spots are on the apical cross-vein of the discoidal cell and on the external inner angle of the third posterior cell; there is no trace of fuscous spot at end of the anal cell. Venation as in *A. anomala*, with the

discoidal cell much longer than the second posterior cell; discal cross-vein on the last third of the discoidal cell; first posterior cell narrowed at end, about as broad as the anal cell at end. Basal hook yellowish; basal comb small and clothed with yellowish hairs; alula rounded, yellowish, not fringed. Veins reddish at base, blackened at end.

ADELIDEA BRAUNSI, n. sp.

A small species, at once distinguished by the equally infuscated, not spotted wings, which have, moreover, a short discoidal cell.

Two ♀ specimens from Willowmore (Cape), April, 1920 (collected by Dr. H. Brauns, in whose honour the species is named).

The present species cannot be the *A. fuscipennis* of Macquart as one may conclude from the name, the wings being described as yellowish at base and dark spotted.

♀. Length of body 4-4.5 mm.; of wing 5-6 mm. Head black, densely clothed with dark grey dust; occiput with dense yellowish hairs; frons broader than one eye, with short black bristles on the sides. Antennae quite black, the first joint with scarce black hairs; third joint as long as the 2 first joints together, with a short black terminal style. Face rounded, convex, blackish brown, with short blackish hairs at sides and at mouth border. Palpi black, long; proboscis black, 3-3.5 mm. long; beard scarce and yellowish. Thorax entirely black, with reddish humeri; on the back it is clothed with yellowish tomentum, and has numerous yellowish bristles at sides, the supra-alar ones being darker; on the pleurae the tomentum is more grey, and there are yellowish hairs only on the meso- and sternopleura, the rest being bare. Squamae blackish, with scarce yellowish fringe; halteres whitish. Scutellum entirely black and rather shiny, clothed, like the back of the mesonotum, with several rows of blackish bristles at hind border. Abdomen entirely black, rather shiny and yellowish tomentose; first segment with dense white hairs at sides; a row of blackish thin bristles at hind border of the segments. Venter entirely black, yellowish tomentose, clothed with dark hairs. Legs reddish, with black coxae and black tarsi except at base; the femora are blackened near the base; all the bristles and spicules reddish or yellowish; hind femora below without bristles, but with a row of 5-6 at the outer side near the end. Claws reddish, with black tips; pulvilli short, yellowish. Wings equally and rather intensely infuscated, almost blackish, without darker spots on cross-veins, but with a broad whitish praediscoidal spot, which is very striking against the infuscation. Basal comb not distinct, alula rounded, blackish, without fringe. Venation as in two preceding species, but the first posterior

cell not narrowed at end, the discal cross-vein placed near the middle of the discoidal cell, this last cell not much longer than the second posterior cell, anal cell very broadly open. All the veins are black, except the first, which is yellowish.*

USIINAE.

CORSOMYZA, Wied.

CORSOMYZA SIMPLEX, Wiedemann, 1820.

A couple of specimens from Willowmore (Cape), September, 1920, Dr. H. Brauns. The female greatly resembles my *Megapalpus fulviceps* and may even be the same.

HYPERUSIA, Bezzi.

HYPERUSIA MINOR, Bezzi.

Ann. S. Afr. Mus., xviii, p. 84.

In the male specimen the anal cell is closed and shortly stalked, while in the female the same cell is broadly open. This makes the distinction of *H. soror*, Bezzi, 1921, very doubtful. Mafa (Ovambo Land), February, 1921 (K. H. Barnard).

PHTHIRIINAE.

GONARTHURUS, Bezzi.

Ann. S. Afr. Mus., xviii, p. 88.

GONARTHURUS CHIONEUS, Bezzi.

One specimen from Willowmore (Cape), Dr. H. Brauns.

Note.—In my paper, *loc cit.*, p. 4, in the key of genera the name *Pseudoamictus*, Big., is used, while on p. 94 I employed the name *Pseudempis*. The two names are synonyms, and that of Bigot must be used because it is a valid one (even if not described), its type-species having been indicated.

* The above described species have nothing to do with the recently erected genus *Conophorina*, Becker, 'Entom. Mitteil.', ix, 1920, pp. 181-184, figs. 1-3, the type species of which, *C. bicellaris*, Becker, was likewise collected near Willowmore (Cape), by Dr. H. Brauns; it has an incrassated first antennal joint and only 2 submarginal cells on the wings.

TOMOMYZA, Wied.

TOMOMYZA PICTIPENNIS, Bezzi, n. sp.

A very distinct species, resembling a small specimen of *Henica*, but belonging to the gen. *Tomomyza* in its true sense, as indicated in my key of the genera ('Ann. S. Afr. Mus.,' xviii, p. 5). The Mediterranean species, attributed wrongly to the present genus, must be removed to *Stomylymyia*, Big., and belongs to the *Lomatiinae*.

Several specimens from Willowmore (Cape), December and January, Dr. H. Brauns; the species will be more fully described in my paper on the Bombyliidae of the Hungarian Museum.

CYLLENIINAE.

PANTOSTOMUS, n. gen.

PANTOSTOMUS GIBBIVENTRIS, Bezzi, n. sp.

A species very distinct on account of its gibbose abdominal segments. Some specimens from Willowmore (Cape), December and January, Dr. H. Brauns. The new gen. *Pantostomus* of the *Cylleiniinae* agrees with *Tomomyza* in the absence of ocelli, in the hairy metapleura and in other characters; but it is at once distinguished by the face being practically wanting, the mouth-opening extending to the base of the antennae. Both the new genus and the new species will be fully described in my forthcoming paper on the Hungarian Museum material.

EXOPROSOPINAE.

THYRIDANTHRAX, O. Sack.

THYRIDANTHRAX LUTULENTUS, n. sp.

Near *T. leucoproctus*, but distinguished by the greater size, the dense tufts of yellow hairs on the sides of thorax and by the more yellowish base of the wings.

Type ♀, a single specimen from S.W. Protectorate, Otjiverongo, April, 1921 (J. S. Brown).

♀. Length of body 11 mm.; of wing 10 mm. Head entirely black; occiput with white scales at eye border, chiefly near the indentation. Frons clothed with short black hairs, more densely on the anterior half. Face bluntly convex, not much, yet distinctly prominent, with black hairs at mouth border and with yellowish ones at sides. Antennae quite black, with the third joint elongate conical.

Proboscis black, not projecting beyond the mouth. Thorax entirely black, clothed on the back with shining scales, which in certain lights are whitish, and seems to be disposed in front on three broad longitudinal stripes; the collar and the sides along the notopleural line bear long and dense tufts of golden-yellow hairs; pleurae black, with like tufts on pro-, meso- and metapleura. Scutellum black, clothed, like the back of mesonotum, with black bristles at hind border. Squamae brown, with white fringe; halteres whitish. Abdomen entirely black; the hairs of sides are white at base and black on the remainder; the third segment has a broad, complete, transverse band of white scales at the base, and similar bands are to be seen on the sixth and seventh segment, the remainder being clothed with black scales. Venter black; spines of the ovipositor reddish brown. Legs black, with smooth front tibiae; front tarsi with short thin hairs; hind femora with a complete row of bristles below; spicules of the 4 posterior tibiae black and long; hairs of coxae black like all the others; claws simple; no pulvilli. Wings proportionately long and broad; they are hyaline, iridescent, with yellowish base and with a faint but distinct yellowish tint along the costal cells and into the basal cells. The veins are yellow, blackened to the terminal half, but the costa is entirely black. Basal hook slender, long, curved, black; basal comb golden, with black bristles at border. Second longitudinal vein originating opposite to the discal cross-vein, with broad and flat loop at end; upper branch of the cubital fork much retreating at base; discal cross-vein placed before the middle of the discoidal cell; first posterior cell long and narrow and slightly but distinctly narrowed at end; second posterior cell at end three times broader than the preceding one and as broad as the following; fourth posterior cell as broad as the two preceding cells taken together, its basal contact with the discoidal cell short, being only a quarter of that of the preceding cell with the same cell; anal cell broadly open. Alula rounded, yellowish, with white fringe; axillary lobe broad, hyaline iridescent.

LITORRHYNCHUS, Macq.

LITORRHYNCHUS DILATATUS, Bezzi (1921).

Very like a small specimen of *L. maurus* and likewise with black and black-fringed squamae, but belonging to the section of the genus in which the second posterior cell at end is not or only a little more narrow than the third, the vein between them being less twisted.

One ♀ specimen from S.W. Protectorate, Otjiverongo, April, 1921 (J. S. Brown).

The species was described from Central Africa, but seems to be widely spread. In the present specimen the central hyaline spot of the discoidal cell is rather broad, and the anal cell is narrowly hyaline at end.

EXOPROSOPA, Macq.

EXOPROSOPA (EXOPROSOPA) ACRODISCOIDES, n. sp.

A species of the *seniculus* group, near *morosa* and *ignava*, but distinct from both on account of the more lightly coloured body and wings, and of the quite whitish metapleural tuft.

Type ♀ from Nomtele (Ovamboland), February, 1921, and a badly preserved male from Mafa (Ovamboland), February, 1921 (K. H. Barnard).

♂, ♀. Length of body 12–15 mm.; of wing 13–16 mm; spread 31–37 mm. Occiput black, whitish tomentose at border of eyes. Frons of the male only a little more broad than that of the female; it is black on distal half and red on anterior half above the antennae, but more broadly in the female than in the male. The face is likewise more broadly red in the female with a black median spot, while in the male it is black with a red spot on each side. Frons with black hairs on distal half and with yellowish tomentum in front, like the face, which has whitish hairs on the sides and is of conical shape; mouth borders pale yellowish. The basal joints of the antennae are reddish below and black above, and are darker in the male; third joint wanting in case of types. Proboscis black, not projecting. Thorax black, clothed with yellowish scaly tomentum on the back, and with tufts of whitish hairs on the sides; bristles black; pleurae reddish, black spotted, with whitish hairs even on the metapleurae. Scutellum reddish, with a narrow black base, clothed, like the back of the mesonotum, with black bristles at hind border. Squamae brown with whitish fringe; halteres yellowish. Abdomen black, with reddish sides and hind border of segments, in the male almost red, with black spots at base of each segment; the hairs of sides are white near the base, yellowish on the rest with a few black ones; it is clothed above with yellowish scales like those of the back of thorax, but at the base of the second segment and, as it seems, on the second to third terminal segments, there are transverse bands of whitish scales. Venter red, unspotted in the male, with broad black bands in the female, both with whitish tomentum. Spines of the ovipositor reddish. Legs black, but with a reddish-yellow appearance on account of the dense vestiture of scales; spines and spicules black; front tibiae long and smooth; front tarsi shiny

pilose; claws with long and acute basal tooth. Wings whitish hyaline; the fuscous pattern is faintly developed, but ends distinctly in a truncate form into the marginal cell opposite to the marginal cross-vein; the basal and the discoidal cell are less infuscated, and therefore there is a fuscous patch at the end of the discoidal cell which seems sometimes to be isolated as in the species of the *E. heros*-group. First posterior cell narrowed at end, being only a little broader than the anal cell at end; the terminal cross-vein of the discoidal cell is horizontal and somewhat S-shaped; moreover, the discoidal cell has a projection into the third posterior cell of a rather angular shape and appendiculate as in the subgenus *Acrodisca*, from which the present species is distinguished in having elongate and not spiculose front tibiae.

EXOPROSOPA (EXOPROSOPA) ATRINASIS, Speis (1910).

A species of proportionately greater size, very distinct on account of its large wings, which are infuscated along the fore border, and have the cross-vein edged with fuscous, but not in the shape of rounded spots as in the *balioptera*-group. In the key of the species ('Ann. S. Afr. Mus.,' xviii, p. 151) the present species should follow No. 39, being distinct from *luteicosta* owing to the more developed wing pattern.

1 ♀ from Pemba, N. Rhodesia (Father Cassett), and another female from Otjiverongo, S.W. Protectorate, February, 1921 (K. H. Barnard).

The species is known from East Africa and Abyssinia, but was also found in Nyassaland; it is pre-eminently a centro-oriental form.

ADDITIONS AND CORRECTIONS TO MONOGRAPH OF SOUTH AFRICAN BOMBYLIIDÆ (VOL. XVIII, PT. I, pp. 1—180).

P. 4, l. 37, and p. 178, l. 34, read *Pseudoamictus* instead of *Pseudoamictus* and *Pseudomictus*.

P. 5, l. 12, and p. 179, l. 6, read *Tomomyza* instead of *Tomomyza*.

P. 9, after *Bombylius bombiformis* add spec. nov.

P. 52, after *Anastoechus macrophthalmus* add spec. nov.

P. 69, l. 19, and p. 176, l. 17, read *comata* instead of *camata*.

P. 78, after *Corsonyza anceps* add spec. nov.

P. 88, after *Gonarthrus* add gen. nov.

P. 99, after *Geron barbatus* add spec. nov.

P. 105, after *Toxophora punctipennis* add spec. nov.

P. 130, after *Oestranthrax* delete (1912) and add gen. nov.

P. 134, after *Thyridanthrax transiens* add spec. nov.

P. 136, after *Thyridanthrax ternarius* add spec. nov.

P. 139, after *Metapenta* add sub. gen. nov.

P. 149, after *Pterobates* add sub. gen. nov.

P. 155, after *Exoprosopa infumata* add spec. nov.

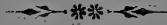
P. 159, after *Exoprosopa perpulchra* add spec. nov.

P. 160, after *Exoprosopa pediformis* add spec. nov.

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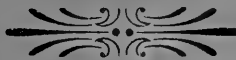
Enumeratio Bombyliidarum (Dipt.) quas ex Africa
meridionali Dr. H. Brauns misit



Ex Ephemeride BROTERIA

SÉRIE ZOOLOGICA, vol. XX, 1922, fasc. III

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BRAGA

1922

Enumeratio Bombyliidarum (Dipt.) quas ex Africa meridionali Dr. H. Brauns misit

AUCTORE PROF. M. BEZZI

Ab anno 1913, studium Bombyliidarum Regionis Aethiopicae incepti, quod illustratione collectionum a variis Museis acceptarum perficendum erat. Opus nunc jam diu a me absolutum, temporum calamitate duo tantum in lucem prodierunt memoriae, nempe:

1. Ditteri raccolti da Leonardo Fea durante il suo viaggio nell'Africa occidentale. Parte II: Bombyliidae. *Ann. del Mus. civ. di St. Nat. di Genova*, (3) IX, 1920, p. 98-114.
2. On the Bombyliid Fauna of South Africa (Diptera) as represented in the South African Museum. *Ann. of the S. Afr. Mus.*, XVIII, 1921, p. 1-180, 2 pl.

Sequentes vero typis adhuc tradendae desiderantur:

3. Voyage de Ch. Alluaud et R. Jeannel en Afrique Orientale (1911-1912) Insectes Diptères. Syrphidae et Bombyliidae.
4. Bombyliidae aethiopicae Musei nationalis Hungarici.
5. On the Ethiopian Bombyliid Fauna, based on material in the collection of the British Museum.

Dum publicationem harum partium expectamus, enumerationem Bombyliidarum quas praeclarus entomologus Doct. Hans Brauns e Willowmore in Africa australi collegit, ad opus meum complendum, hic offerre utile est. Praeter species et nuperrime et multis ab hinc annis a Dr. Brauns mihi missae, illae quoque enumerantur (34) quae in Museo Budapestinensi servantur et in opere meo supra citato n. 4 describendae sunt; et aliae non nullae quae in addendis ad opus meum supracitatum n. 2 mox descriptae erunt.

In opere meo s. c. n. 2, p. 3-6, clavis analytica generum adest, quae tamen non omnia ex Africa meridionali cognita genera amplectitur, sed tantum illa quae in collectione Musei obser-

vanda erant. Hic nunc tabulam completam omnium generum Africae australis, characteribus a me primum detectis atque faciliorem ad distinctionem adhibitis, proferre necesse est.

- 1 (64). Oculorum margo posticus omnino integer, rarissime vero late sinuosus, nunquam acute emarginatus; oculi linea bisectionis prorsus destituti, etsi aliquando in mare areolis superis majoribus ab inferis minoribus ex abrupto separatis; praefurca semper brevis, ac vena secunda longitudinalis semper angulo acuto oriens; ovipositor non, vel rarissime tantum, spinosus, (*Bombyliidae homocophthalmae*).
- 2 (55). Occiput prorsus complanatum vel vix prominulum, nunquam superne bilobatum neque profunde in medio excavatum, fimbria marginibus oculorum ipsis inhaerente; antennae solito basi approximatae.
- 3 (54). Prothorax non vel vix distinguendum, et macrochaetis validis incurvis destitutum.
- 4 (53). Metasternum parvum et non productum; abdomen nunquam pedunculatum; oculi magis distantes in foemina quam in mare.
- 5 (26). Tibiae spiculis in seriebus tribus dispositis praeditae; proboscis semper elongata; palpi uniarticulati; corpus macrochaetis distinctis, etsi aliquando satis exilibus.
- 6 (25). Abdomen plerumque latum, solito ovatum vel immo rotundatum, antennae basi approximatae. . . . (*Bombyliinae*)
- 7 (18). Cellula posterior prima extus clausa et pedunculata; alae pectine basali distincto ac solito magno; metapleurae saepissime pilosae.
- 8 (15). Cellulae posterioris primae pedunculus apicalis longus et a vena tertia fictus; alarum pecten basale magnum.
- 9 (12). Cellula basalis prima quam secunda multo longior.
- 10 (11). Cellulae submarginales tres. . . . **Triplasius**, Loew.
- 11 (10). Cellulae submarginales duae tantum. . . . **Bombylius**, L.
- 12 (9). Cellula basalis prima aequae longa ac secunda, vel vix longior.
- 13 (14). Facies infra producta, parum pilosa; cellula discoidalis extus acuta **Systoechus**, Loew.

- 14 (13). Facies rotundata, lata, dense villosa; cellula discoidalis extus truncata **Anastoechus**, O. S.
- 15 (8). Cellulae posterioris primae pedunculus apicalis brevis et a vena quarta fictus; alarum pecten basale parvum vel vix ullum.
- 16 (17). Oculorum margo posticus late sinuosus; facies opaca, pilosa; metapleurae hirtae **Eurycarenum**, Loew.
- 17 (16). Oculorum margo posticus integer; facies nitida, nuda; metapleurae nudae **Sisyrophanus**, Karsch.
- 18 (7). Cellula posterior prima extus aperta; alarum pecten basale nullum; metapleurae solito nudae.
- 19 (24). Antennarum articulus primus non inflatus et secundus brevis subglobosus.
- 20 (21). Cellulae submarginales duae tantum. **Dischistus**, Loew.
- 21 (20). Cellulae submarginales tres.
- 22 (23). Antennarum articulus tertius prorsus nudus superne. **Adelidea**, Macq.
- 23 (22). Antennarum articulus tertius setis validis superne ciliatus **Sosiomyia**, Bezzi
- 24 (29). Antennarum articulus primus inflatus et secundus valde elongatus **Conophorina**, Beek.
- 25 (6). Abdomen elongatum, subcylindricum; antennae solito basi distantes (*Cythereinae*); cellula posterior prima clausa et pedunculata; antennarum articulus primus incrassatus et infra tuberculatus **Oniromyia**, Bezzi
- 26 (5). Tibiae tantum pilosae vel nudiusculae, non distincte triseriatim spiculosae, vel si rarissime spiculosae tunc palpi biarticulati; corpus absque macrochaetis.
- 27 (36). Furca cubitalis late aperta, ramis divaricatis; caput solito latum; corpus breve et latum (**Uslinae**).
- 28 (33). Facies scopula circulari distincta praedita; squamae longe fimbriatae; corpus dense villosum.
- 29 (32). Proboscis elongata; antennarum articulus tertius magis vel minus extus dilatatus.
- 30 (31). Antennae ad marginem superum scopulae facialis insertae, articulo primo cylindrico elongato **Corsomyza**, Wied.

- 31 (30). Antennae in medio scopulae insertae, articulo primo valde inflato **Callynthrophora**, Schin.
- 32 (29). Proboscis brevis, in ore inclusa; antennarum articulus tertius apice non dilatatus **Gnumyia**, Bezzi
- 33 (28). Facies scopula circulari nulla; squamae nude vel brevissime fimbriatae; corpus prope nudum.
- 34 (35). Antennae inferae, prope marginem oris insertae, articulo ultimo crasso. **Hyperusia**, Bezzi
- 35 (34). Antennae superae, longe ab oris margine insertae, articulo ultimo subtili. **Megapalpus**, Macq.
- 36 (27). Furca cubitalis angusta, ramis non vel paulo divaricatis, vel si paulo lata, tunc corpus elongatum; vena secunda longitudinalis recta.
- 37 (40). Vena longitudinalis tertia simplex; cellula discoidalis aperta; palpi parvi, uniarticulati. (**Cyrtosinae**).
- 38 (39). Vena secunda longitudinalis distincta; costa secus marginem posticum alae quoque producta. **Cyrtosia**, Perris
- 39 (38). Vena secunda longitudinalis nulla; costa secus marginem posticum non continuata. . . . **Epidideicus**, Beck.
- 40 (37). Vena longitudinalis tertia furcata; vena longitudinalis secunda omnino recta. (**Phthiriinae**).
- 41 (48). Costa completa, id est immo secus marginem posticum usque ad alae radicem ducta.
- 42 (47). Cellulae posteriores 4; palpi biarticulati.
- 43 (44). Furca cubitalis satis lata; cellula analis aperta; tibiae distincte triseriatim spiculosae **Gonarthrus**, Bezzi
- 44 (43). Furca cubitalis angusta; cellula analis clausa; tibiae non distincte spiculosae.
- 45 (46). Facies pilosa; antennarum articulus tertius primo longior; maris oculi connexi **Crocidium**, Loew.
- 46 (45). Facies nuda; antennarum articulus tertius primo brevior; maris oculi distantes **Apatomyza**, Wied.
- 47 (42). Cellulae posteriores tres tantum; palpi uniarticulati; antennarum articulus primus tertio longior ⁽¹⁾
 **Pseudempis**, Bezzi

(1) Id est *Pseudoamictus*, Bigot, sin nomen istud validum est.

- 48 (41). Costa incompleta, seu ad finem nervi analis sistens.
- 49 (50). Cellulae posteriores 4; cellula discoidalis completa; facies nuda; palpi uniarticulati; antennarum articulus tertius apici obtusus, stylo sublaterali praeditus **Phthiria**, Meig.
- 50 (49). Cellulae posteriores tres tantum.
- 51 (52). Cellula discoidalis completa; palpi uniarticulati; antennarum articulus tertius apice acutus, stylo terminali praeditus. **Geron**, Meig.
- 52 (51). Cellula discoidalis aperta; antennarum articulus tertius apice obtusus et stylo laterali praeditus; palpi biarticulati **Apolysis**, Loew.
- 53 (4). Metasternum maximum; abdomen subtile ac pedunculatum; oculi in utroque sexu connexi vel fere; antennarum articulus primus elongatus; corpus nudum, absque macrochaetis; alae basi pedunculatae (**Systropimae**) **Systropus**, Wied.
- 54 (3). Prothorax magnum, ac macrochaetis validis incurvis praeditum; corpus angulatum, abdomine oblique thoraci inserto; antennarum articulus primus elongatus (**Toxophorinae**) **Toxophora**, Meig.
- 55 (2). Occiput productum, superne bilobatum, in medio excavatum, fimbria marginibus cavitatis hujus centralis inhaerente; vena longitudinalis secunda apice sinuosa vel immo recurrens; furca cubitalis lata; cellula analis aperta; costa completa usque ad radicem alarum; maris oculi separati (**Cylleniinae**).
- 56 (61). Ocelli distincti, in triangulo aequilaterali dispositi; metapleurae nuda.
- 57 (60). Vena longitudinalis secunda apice non recurrens et basi angulo recto oriens; praefurca elongata; cellula posterior prima aperta; cellulae submarginales tres; pulvilli nulli; maris oculi distantes.
- 58 (59). Cellula marginalis unica **Nomalonia**, Rond.
- 59 (58). Cellulae marginales tres **Henica**, Macq.
- 60 (57). Vena longitudinalis secunda apice recurrens et basi angulo acuto oriens; praefurca brevis; cellula posterior

- prima clausa; cellulae submarginales 2 tantum; pulvilli distincti, elongati; maris oculi satis approximati
- **Peringneyimyia**, Big.
- 61 (56). Ocelli nulli, aut anterior tantum vix distinguendus; metapleurae pilosae; vena longitudinalis secunda angulo acuto oriens, praefurca brevis; pulvilli elongati.
- 62 (63). Oris apertura usque ad antennarum basin superne producta, facies deinde nulla **Pantostomus**, Bezzi.
- 63 (62). Facies distincta et infra producta, os limitans
- **Tomomyza**, Wied.
- 64 (1). Oculorum margo posticus distincte prope medium emarginatus; oculi areolis aequalibus vel subaequalibus, sed linea bisectionis plus minusve elongata, ab emarginatione postica prodeunte, praediti; occiput productum, superne bilobatum, in medio profunde excavatum, fimbria marginibus cavitatis centralis inhaerente; antennae solito basi distantes; proboscis solito brevis; praefurca saepissime elongata; ovipositor solito spinosus (**Bombyliidae tomophthalmae**).
- 65 (72). Vena longitudinalis secunda ante venam transversam discoidalem ac solito angulo acuto oriens (**Lomatiinae**).
- 66 (67). Vena transversa discoidalis multo ultra cellulae discoidalis medium posita; cellulae submarginales duae
- **Lomatia**, Meig.
- 67 (66). Vena transversa prope medium vel ante medium cellulae discoidalis posita.
- 68 (69). Vena longitudinalis secunda angulo acuto oriens, praefurca brevissima; alarum membrana rugulosa; facies non producta; cellulae submarginales 3; cellula posterior prima clausa **Pteraulax**, Bezzi
- 69 (68). Vena longitudinalis secunda angulo obtuso vel subrecto oriens, praefurca magis elongata.
- 70 (71). Facies rotundata; antennarum articulus tertius apice penicillatus **Petrorossia**, Bezzi
- 71 (70). Facies infra producta; antennarum articulus tertius

apice non penicillatus; cellulae submarginales duae ⁽¹⁾ **Plesiocera**, Macq.

72 (65). Vena longitudinalis secunda contra nervum transversum discoidalem angulo recto oriens.

73 (76). Antennarum articulus primus brevis et tertius bisectatus atque apice penicillatus; metapleurae nudae; squamae et alula pilis tantum fimbriatae; maris genitalia symmetrica; ovipositor nunquam spinosus; pulvilli distincti; pedes antici elongati, tibiis apiculosis (**Anthracinae**).

74 (75). Antennarum articulus tertius secundo latior, margine prominenti, exsertus; maris abdomen apice argenteum; alae saepe dimidiatae **Anthrax**, Scop.

75 (74). Antennarum articulus tertius secundo angustior et in ejus cavitate insertus; maris abdomen apice non argenteum; alae non dimidiatae ⁽²⁾ **Spongortylum**, Macq.

76 (73). Antennarum articulus primus elongatus, tertius non bisectatus neque apice penicillatus; metapleurae pilosae; squamae et alula squamis fimbriatae; maris genitalia non symmetrica; ovipositor spinosus; pulvilli saepissime nulli (**Exoprosopinae**).

77 (84). Cellulae submarginales 2 tantum, rarissime tres; antennarum stylus a sutura non separatus; ocelli prope verticem positi; unci tarsorum solito non dentati, vel tantum tuberculo obtuso basali praediti.

78 (83). Tibiae anteriores spiculosae; proboscis in ore inclusa, labellis terminalibus crassis; cellula posterior tertia elongata.

79 (82). Facies rotundata, non producta; vena longitudinalis secunda contra transversam oriens; antennarum articulus

(¹) In subregione mediterranea faunae polaearticae genus hoc species *algira* Macq., *fornicata* Loew. et *inaequalis* Beck. amplectitur; species contra erronee gen. *Tomomyzae* adscriptae, nempe *europaea* et *terrella* Loew., cellulis submarginalibus tribus, in gen. *Stomylomyia* (a *Tomomyzis* genuinis valde recedens) locandae sunt.

(²) Genera duo ista species ab auctoribus sub *Argyramoeba* enumeratas continent; in *Spongostylo* vero species et duabus et tribus cellulis submarginalibus praeditae inveniuntur.

- tertius rotundatus, ex abrupto in stylum longum subtilem attenuatus.
- 80 (81). Oris apertura lata, proboscis distincta; facies brevior fronte; thoracis macrochaetae laterales distinctae; cellula basalis secunda non dilatata. **Villa**, Lioy
- 81 (80). Oris apertura angustissima, proboscis rudimentalis; facies latissima et fronti aequalonga; macrochaetae nullae; cellula basalis secunda brevis et dilatata.
. **Oestranthrax**, Bezzi
- 82 (79). Facies obtuse convexa et producta; vena longitudinalis secunda ante transversam oriens; antennarum articulus tertius sensim ac modice attenuatus. . . **Synthesisia**, Bezzi
- 83 (78). Tibiae anteriores prorsus anticae; pulvilli nulli; facies solito infra producta; proboscis satis elongata, ex ore prominens; antennarum articulus tertius conicus, apice parum attenuatus; cellula posterior tertia solito brevis
. **Thyridanthrax**, O. S.
- 84 (77). Cellulae submarginales semper tres vel immo quatuor; antennarum articulus tertius conice elongatus, stylo solito a sutura limitato; ocelli a vertice remoti; unci tarsorum solito basi dente acuto armati.
- 85 (88). Cellulae submarginales tres tantum; unci tarsorum dente basali longo et acuto.
- 86 (87). Facies rotundata, non producta; proboscis elongata; tibiae anteriores semper spiculosae; alae modo peculiari venosae ac pictae. **Litorrhynchus**, Macq.
- 87 (86). Facies solito conica, infra producta, rarissime rotundata; proboscis non aut vix ultra os producta; tibiae anticae solito muticae. **Exoprosopa**, Macq.
- 88 (85). Cellulae submarginales quatuor; unci tarsorum dente basali brevi et minus acuto **Hyperalonia**, Rond.

I. BOMBYLIIDAE HOMOEOPHTHALMAE

1. Bombyliinae

- I. **Bombylius acrolencus**, Bezzi 1921, p. 9. 1 ♀ in Museo

Budapestinensi e Willowmore; 1 ♀ in collectione mea etiam e Willowmore, 15 Nov. 1920.

2. **Bombylius plagiatus**, Bezzi, *adhuc ineditus*.

Praecedenti affinis et similis, differt alis plaga magna fusca in medio marginis antici exornata.

A me in additamentis ad opus meum n. 2 proxime describendus.

1 ♀ ex Delamay, Transvaal occid., 10 Jan. 1917, in collectione mea.

3. **Bombylius impurus**, Loew. 1863.

1 ♂ ex Willowmore, Jan. 1920, in collectione mea.

4. **Bombylius mundus**, Loew. 1863.

E Willowmore, in Museo Budapestinensi.

5. **Bombylius paterculus**, Walker 1852.

Exemplaria aliqua e Willowmore. Febr. 1905, in Museo Budapestinensi et in collectione mea.

6. **Bombylius fucatus**, Bezzi, *adhuc ineditus*, sed in op. n. 2, 1921. p. 9 in tabula distinctionis specierum inclusus.

In opere meo n. 4 de Bombyliidis aethiopicis Musei hungarici proxime describendus.

Exemplaria aliqua e Willowmore in Museo Budapestinensi et in collectione mea, Jan. 1907, et 1911 collecta.

7. **Bombylius ruficeps**, Macquart 1840.

1 ♀ e Willowmore, 10 Octob. 1916, in collectione mea.

8. **Bombylius hypolencus**, Wiedemann 1821.

1 ♂ in collectione mea e Willowmore; Aug. 1918.

9. **Bombylius Braunsi**, Bezzi, *adhuc ineditus*, sed in opere meo n. 2, 1921, p. 23 in tabula specierum inclusus.

In opere meo n. 4 proximè describendus.

Exemplaria nonnulla e Willowmore, Aug. et Sept., in Museo Budapestinensi et in collectione mea.

10. **Bombylius obesus**, Bezzi 1921, p. 29.

Exemplaria aliqua e Willowmore, Aug. et Octob., 1906-1911, in collectione mea.

11. **Systoechus Goliath**, sp. nov. ♀.

Species valida, in genere proprio maxima, pilis pallide flavicantibus undique tecta, macrochaetis omnibus flavidis, antennis proboscide pedibusque nigris his elongatis nigro-spinosis, alis ex griseo hyalinis basi et secus marginem anticum usque ad medium pallide fusco-lutescentibus.

1 ♀ e Willowmore 15 Apr. 1921, in collectione mea.

Long. corp. mm. 17; alae mm. 19; proboscidis mm. 13; expansio alarum mm. 45.

Caput nigrum, tomento cinereo indutum, oris lateribus lutescentibus. Pili occipitales breves et densi, omnes pallide lutescentes. Frons lata, tertiam latitudinis capitis partem adaequans, pilis lateralibus luteis adpressis, in medio et in tuberculo ocellari nigris erectis, secus lineam centram tamen nuda. Facies pilis brevibus lateralibus luteis, inferne pilis albidis sed nonnullis quoque nigris commixtis. Antennae omnino nigrae, articulo primo elongato pilis brevibus lutescentibus tecto, articulo tertio styliformi, acuto, duobus primis simul sumptis sesquilongiore. Palpi lutescentes, apice infuscati, pallidi pilosi; proboscis perlonga, horizontaliter porrecta, omnino nigra. Barba alba. Thorax omnino niger, pilis pallide lutescentibus densis et brevibus vestitus; macrochaetae laterales omnes luteae. Scutellum rufum, basi anguste nigra, pilis et setis ut in thorace. Halteres lutescentes, superne fuscii.

Abdomen omnino nigrum, pilis lutescentibus seriatim dispositis tectum, et macrochaetis luteis, pilis non longioribus, ad marginem posticum segmentorum praeditum. Pedes elongati, omnino nigri, coxis luteo-pilosis, spiculis et spinis omnibus nigris; femora infra albido tomentosa, postica serie completa setarum (10-12) armata; femora intermedia setis 2-3 in latere antico, et anteriora setis 2-3 brevioribus ibidem praedita; unguiculi tarsorum nigri,

pulvilli lutei. Alae griseo-hyalinae, nervis nigris in basi rufescentibus; pecten basale magnum, setis nigris sed pilis luteis; cellulae radicales, basis cellulae marginalis et submarginalis primae, et cellula prima basalis lutescentes. Nervi regulares.

12. **Systoechus mixtus**, Wiedemann 1821. Willowmore, 20 Oct. 1917, in collectione mea.

13. **Anastoechus rubricosus**, Wiedemann 1821. Willowmore, 23 Oct. 1920, in collectione mea.

14. **Anastoechus macropthalmus**, Bezzi, *adhuc ineditus*, sed in opere meo n. 2, 1921, p. 47, in specierum tabula inclusus.

Exemplaria aliqua utriusque sexus e Willowmore, Nov. et Febr. 1994-1905, in Museo Budapestinensi et in collectione mea.

Species parvula sed valde distincta, in opere meo n. 4 proxime describenda.

Foemina nondum visa a mare differt fronte latissima, fusca pilosa et setosa; facies contra alba setisque albis; alae ex griseo hyalinae, non fusco dimidiatae.

15. **Dischistus seriatus**, Wiedemann 1821. E Willowmore, 10 Febr. 1906, in Museo Budapestinensi.

16. **Adelidea anomala**, Wiedemann 1821, var. *immaculata*, var. nov. ♂.

1 ♂ in collectione D.^{ris} Brauns ex George, Cape Colony, 1 Oct. 1920.

Long. corp. mm. 10; proboscidis mm. 5-5; alae mm. 12.

Cum descriptione Loewii notis omnibus convenit, differt tantum alis prorsus immaculatis. Alae vero ad imam basin et secus marginem anticum usque ad finem nervi primi longitudinalis lutescentes, usque ad nervum quartum et in cellula basali prima leviter infusatae, sed maculis fuscis ad bifurcationes nervorum et ad nervos transversos omnino carent. Alae in mare costa in triente apicali distincte extus incurva atque prope finem nervi primi distincte incrassata gaudent; cellula marginalis ideo in parte apicali

valde dilatata est, quod etiam in specie typica (Mus. britann.) observatur.

Quum Dr. Brauns species aliquas novas gen. *Adelideae* in Africa australi invenerit, tabulam distinctionis hic profero.

- 1 (2). Antennarum articuli basales rufi; pedes omnino rufescentes; alae fusco-maculatae, cellula discoidali elongata, nervo transverso in triente apicali recipiente; statura media
 **ruficornis**, Bezzi
- 2 (1). Antennae omnino nigrae.
- 3 (6). Pedes omnino rufi; alae in dimidio antico fuscores quam in postico; cellula discoidalis elongata, quam secunda posteriori multo longior nervo transverso in quarta apicali parte recipiente; cellula posterior prima apice angustata; statura major.
- 4 (5). Alae distincte et regulariter fusco-maculatae
 **anomala**, Wied.
- 5 (4). Alae maculis fuscis prorsus nullis . **immaculata**, var. nov.
- 6 (3). Pedes femoribus basi tarsisque nigris; alae omnino et aequaliter infuscaetae, maculis fuscioribus non distinguendis; cellula discoidalis brevis, quam secunda posteriori parum longior, nervo transverso mox pone medium recipiente; cellula posterior prima apice non angustata; statura parva
 **Braunsi**, Bezzi

17. **Adelidea ruficornis**, Bezzi, *adhuc inedita*, in addendis ad op. meum n. 2 proxime describenda.

1 ♀ e Willowmore, Nov. 1920, in collectione mea.

Species *anomala*e affinis ac forsitan ejus foemina, quae adhuc ignota est.

18. **Adelidea Braunsi**, Bezzi, *adhuc inedita*, in addendis ad op. meum n. 2 proxime describenda.

Species insignis, ab aliis mox distinguenda statura minori atque alarum fuscedine aequali nec non nervatione singulari.

2 ♀ ex Willowmore, 10 Apr. 1920, in collectione mea.

19. **Conophorina bicellaris**, Becker, Entom. Mitteil. IX, 1920, p. 181-184, fig. 1-3.

Genus *Conophorina*, a cl. Becker nuperrime descriptum, a reliquis Bombyliinarum (in classificatione mea *Conophorinae* a *Bombyliinis* non distinguuntur) generibus statim distinguendum forma antennarum et praecipue articuli secundi elongatione.

Optimae descriptioni originali addere liceat: Oculi in mare connexi, areolis superis distincte majoribus et ab inferioribus linea abrupta separatis. Palpi subtiles, ut videtur, uniarticulati. Occiput non productum neque superne bilobatum, fimbria ad oculorum marginem sita. Metapleurae nudaе. Tibiae triseriatim spiculosae; femora postica subtus non spinosa; unguiculi simplices, pulvilli distincti. Alae pectine basali nullo, cellula discoidali parva et secunda posteriori non longiore, cellula posteriori prima apice non angustata. Alula rudimentalis; lobus axillaris fere triangularis.

Speciei typicae mas e Willowmore, 1 Octob. 1920, in collectione mea; foemina in coll. Hermann.

♂ Long. Corp. mm. 5; proboscidis mm. 1-5; alae mm. 4. Totus niger et nigro setosus. Pili in antennarum basi infra longissimi, intus aurei, extus nigri. Halteres nigri. Alae ex griseo-hyalinae, nervis nigris basi lutescentibus.

Gen. *Conophorina* a gen. *Prorachthes*, Loew., antennarum palporumque forma recedit; antennarum articulus tertius et palpi in gen. *Prorachthes* valde dilatati, nec non alae pictura peculiari exornatae sunt.

2. Usiinae

20. **Corsomyza simplex**, Wiedermann 1820. Exemplaria utriusque sexus e Willowmore, Sept. 1920, in collectione mea.

21. **Corsomyza hirtipes**, Macquart 1840. 1 ♂ e Willowmore, Sept. 1919, in collectione mea.

In hoc specimine pili inferi antennarum ac pili oris non nigri sed omnino albicantes sunt; antennarum articulus tertius autem apice paulo dilatatus.

22. **Megapalpus capensis**, Wiedemann 1828.

♀ ex Willowmore, Nov. Febr. 1906, in Museo Budapestinensi.
Species parva, quae cum *Usia versicolore*.

♀ magnam habet similitudinem, a cl. Wiedermann sub gen. *Phthiria* descripta, sed in hoc genere prope *nitidus*, Macq. locanda.

3. Phthiriinae

23. **Gonarthrus chioneus**, Bezzi, 1921, p. 91.

Exemplaria aliqua in collectione mea, ex Willowmore, 10 Febr. 1907.

24. **Gonarthrus cyenus**, Bigot 1892.

E Willowmore, 1 Jan. 1907, in collectione mea.

Gen. *Gonarthrus* species a me prius cum Bombyliinarum gen. *Dischistas* confusas continet, quae palpis biarticulatis in Phthirinis locandae sunt, quamvis tibias triseriatim spiculosas et furcam cubitalem satis latam praebent. Genus proprie adhuc ineditum atque in opere meo n. 5 describendum; sed jam anno 1921 in opere n. 2, p. 88, notis brevibus allatum.

25. **Crocidium poecilopterum**, Loew. 1860.

Species eximia ac pulcherrima, nunquam post Loevium visa, cujus mas in collectione mea ex Willowmore, 15 Jan. 1904, in opere meo n. 2, p. 93 breviter descriptus.

26. **Crocidium immaculatum**, Bezzi *adhuc ineditum*, in opere meo n. 4 proxime describendum.

Species insignis, alis omnino immaculatis statim dignoscenda.

Uterque sexus ex Willowmore, 10 Mart. 1906, in Museo Budapestinensi.

27. **Phthiria pubescens**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda, sed in op. n. 2, p. 98, jam invenienda.

♂ e Willowmore, in Museo Budapestinensi.

Cum specie *canescens*, Loew. notis omnibus conveniens, differt antennarum forma.

Species gen. *Phthiria* in Africa australi viventes, duabus novis adjectis, sic distinguendae.

- 1 (2). Corpus luteo-variegatum et pedes omnino rufescentes **laeta**, Bezzi
- 2 (1). Corpus et pedes omnino nigra.
- 3 (6). Corpus pilis brevibus tectum; antennarum articulus tertius brevis ac parum gibbosus superne; alae grisescentes.
- 4 (5). Antennarum articulus tertius superne pilosus; statura major. **pubescens**, Bezzi
- 5 (4). Antennarum articulus tertius pilis vix distinctis; statura minor. **pulla**, sp. nov.
- 6 (3). Corpus pilis longis, lanuginosis tectum, antennarum articulus tertius elongatus atque valde gibbosus superne, alae lacteo-albicantes **lanigera**, Bezzi

28: *Phthiria pulla*, n. sp., ♂.

Pubescenti affinis et similis, at multo minor et notis sequentibus distincta.

Long. corp. mm. 2-8; alae nim. 3.

1 ♂ ex Willöwmore in collectione mea.

Triangulum frontale albo-villosum, ut faciei latera. Antennarum articulus tertius apice quoque bifidus, sed superne convexus et pilis vix distinctis.

Thorax et scutellum pilis pallidis griseis; abdomen atrum, opacum, pilis rarioribus longis albis indutum. Squamae et halteres albi. Pedes validiores, geniculis latius luteis. Alae albido-hyalinae, nervis ut in *canescente* directis, id est ramo supero furcae breviori et cellula discoidali quam posteriores secunda et tertia longiore; cellula posterior tertia extus fere ut secunda lata.

29. *Geron barbatus*, Bezzi, *adhuc ineditus*, in opere meo n. 5 proxime describendus, sed in op. n. 2, p. 99, jam inclusus.

Species eximia, alis hyalinis furca cubitali angusta elongata genisque longe barbatis distinguenda.

Willöwmore, 21 Febr. 1905, in Museo Budapestinensi.

4. Toxophorinae

30. **Toxophora maculata**, Rossi 1790.
Willowmore, Nov. 1910, in collectione mea.

31. **Toxophora diploptera**, Speiser 1910.
Willowmore, 6 Jan. 1906, in Museo Budapestinensi.

5. Cylleniinae

32. **Nomalonia afra**, Macquart 1840.
Exemplaria aliqua in collectione mea ex Willowmore, et ex Avantnür, Promont. Bonae Spei, Jan. 1920.

33. **Henica longirostris**, Wiedemann 1819.
Stellenbosch, Promont. Bonae Spei, 15 Octob. 1914, in collectione mea.

34. **Pantostomus gibbiventris**, Bezzi, *genus et species adhuc inedita*, in opere meo n. 4 proxime describenda.

Exemplaria aliqua ex Willowmore, Octob. — Febr., in Museo Budapestinensi et in collectione mea.

Genus *Pantostomus*, *Tomomyzae* affinis, differit apertura oralis usque ad basin antennarum producta, facie ideo sub antennis prorsus nulla.

Species typica *P. gibbiventris* valde insignis, luteo-rufescens, ruguloso-punctulata, aureo-tomentosa, abdomine nigro-maculato segmentis omnibus in medio gibbosis.

Genus *Tomomyza* verum, speciebus palaearticis ad gen. *Stomylomyia* recte translatis, tantum in Africa australi vivit; Cl. Dr. Brauns speciem typicam Wiedemann invenire non valuit, sed species tres novas detexit, quae, ut sequitur, distingui possunt.

1 (4). Pedes omnino nigri; pleurae nigrae immaculatae.

2 (3). Alae infuscaetae, cellulis submarginalibus tribus. . . .

. **anthracoides**, Wied.

3 (2). Alae hyalinae, cellulis submarginalibus duabus tantum .

. **barbatula**, Bezzi

- 4 (1). Pedes toti aut partim rufolutescentes; pleurae partim rufescentes vel rufo-maculatae.
- 5 (6). Alae hyalinae, immaculatae, cellulis submarginalibus duabus tantum **pallipes**, Bezzi
- 6 (5). Alae fusco variegatae et maculatae, cellulis submarginalibus tribus **pictipennis**, Bezzi

35. **Tomomyza barbatula**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda.

Species valde distincta colore pedum et oris lateribus in parte supera pilis brevissimis densis nigris fimbriatis.

Exemplaria aliqua utriusque sexus ex Willowmore, Febr. 1906, in Museo Budapestinensi.

36. **Tomomyza pallipes**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda.

Praecedenti affinis at distincta pedibus rufis et faciei lateribus prorsus nudis.

Exemplaria nonnulla ex Willowmore, Nov. — Febr., 1906-1920, in Museo Budapestinensi et in collectione mea.

37. **Tomomyza pictipennis**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda.

Species eximia et distinctissima praecedentibus major, pedibus posticis nigro-annulatis et alis fusco-variegatis.

Exemplaria aliqua ex Willowmore, Jan. — Febr., 1906-1920, in Museo Budapestinensi et in collectione mea.

II. BOMBYLIIDAE TOMOPHTHALMAE

6. Lomatiinae

38. **Lomatia gigantea**, Bezzi 1912.

Species Africae centralis, cujus exemplar ex Bostron, Orangia, 11 Apr. 1919 (*Kruger*) Dr. Brauns misit, quod in collectione mea servatur.

39. **Lomatia liturata**, Loew, 1860.

Ex Willowmore, in Museo Budapestinensi.

40. **Lomatia pictipennis**, Wiedemann, 1828.

Ex Pretoria, Transvaal, Jan. 1919, in collectione mea.

41. **Lomatia mitis**, Loew, 1860.

Ex Willowmore, 1 Jan. 1907, in Museo Budapestinensi et in collectione Brauns.

42. **Pteraulax braunsi**, Bezzi, *species adhuc inedita*, in opere inedito n. 4 proxime describenda.

Cum specie typica *Pt. flexicornis*, Bezzi, 1921, p. 118, notis omnibus convenit, at distinguitur antennarum forma magis regulari.

1 ♀ ex Willowmore, 25 Febr. 1906, in Museo Budapestinensi.

43. **Petrorossia vinula**, Bezzi, 1921, p. 120.

Ex Willowmore, 20 Feb. 1906, in Museo Budapestinensi.

— Genus mediterraneum *Plesiocera*, Macquart, in Africa australi etiam invenitur, ejusque species a cl. D.^{re} Brauns detectae modo sequenti distinguuntur:

- 1 (2). Scutelli margo posticus omnino integer; pedes nigri, geniculis tantum anguste luteis; nervus transversus discoidalis ante medium cellulae discoidalis situs. **integra**, sp. nov.
- 2 (1). Scutelli margo posticus profunde bilobatus et in medio linea alba verticali exornatus; pedes anteriores tibiis tarsisque omnino luteis; nervus transversus in medio cellulae discoidalis **biumbonata**, Bezzi

44. **Plesiocera integra**, n. sp. ♂.

Omnino nigra, griseo-tomentosa et albido-pilosa, antennis pedibusque concoloribus, geniculis tamen segmentorumque abdominalium margine postico anguste luteis, scutelli margine postico nigro nitido integro, alis ex griseo-hyalinis, cellula discoidali magna irregulari nervo transverso ante medium recipiente.

Long. corp. mm. 9; alae mm. 7.

Typus ♂ in collectione nica, ex Willowmore, 10 Nov. 1915.

Caput omnino nigrum, dense griseo-tomentosum; frons in vertice tuberculo ocellari parum latior, versus partem anticam dilatata et ad antennarum basin triplo latior, albo-tomentosa, pilis in parte antica longiusculis ac pallide lutescentibus. Oculi margine postico quidem inciso, sed bisectionis linea vix distincta. Facies infra producta, rotundato-conica, griseo-tomentosa, in medio nigricans sed non nitida, lateribus et infra pilis albidis longiusculis tecta. Antennae omnino nigrae, basi approximatae, breves, articulo tertio conico elongato, parte styliformi satis crassa.

Proboscis nigricans, crassiuscula, ex ore non prominens. Thorax omnino niger, sed tomento griseo in dorso albido in pleuris indutus; dorsum non pictum, pilis validiusculis pallide lutescentibus setisque lateralibus griseo-lutescentibus hirtum; pleurae albedo-pilosae. Scutellum nigrum, lutescente-tomentosum ac pilosum, setis posterioribus luteis, margine postico nitido prorsus integro. Squamae et halteres pallide lutescentes. Abdomen elongatum, conico-cylindricum, apice obtusum, nigrum, opacum, marginibus posticis segmentorum, primo et ultimo exceptis, anguste luteis; lutescenti-tomentosum ac pilosum, pilis basalibus longioribus. Venter pilis longis albidis hirtus. Genitalia rotundata, nigricantia, non prominentia.

Pedes nigri, geniculis anguste luteis, tomento in femoribus albo in tibiis lutescente, spiculis omnibus nigris; femora postica subtus spinosa; tarsorum unguiculi incurvi, nigri, basi lutei; pulvilli albicantes, unguiculis aequilongi. Alae hyalinae, immaculatae, iridescentes, membrana rugulosa, nervis nigris basi lutescentibus, auxiliari et primo longitudinali omnino luteis ut costa usque ad exitum nervi primi. Nervus longitudinalis secundus apicem versus bis sinuosus; furcae cubitalis ramus superus in medio profunde flexus, basi angulo recto non vel vix appendiculato; cellula posterior prima apici angustata; cellula discoidalis longa, inferne sinuosa, nervo transverso ante medium recipiente nervo transverso apicali recto; cellulae posteriores secunda, tertia et quarta apici fere aequae latae, secunda tamen reliquis parum angustiore; cellula analis aperta, quam posteriori prima apici angustior. Alula parva, obliqua.

45. **Plesiocera biumbonata**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda.

Ex Willowmore, 20 Jan. 1907, in Museo Budapestinensi.

7. Anthracinae

46. **Anthrax pithecius**, Fabricius, 1805.

Transvaal, Zwartraggeno, Marico, 15 Jan. 1921, in collectione mea.

47. **Anthrax diffusus**, Wiedemann, 1824.

Ex Willowmore, 10 Sept. 1906, in Museo Budapestinensi.

48. **Anthrax fuscipennis**, Ricardo, 1903.

In collectione mea ex Windsorton, Griqualand, 20 December 1920.

49. **Spongostylum decipiens**, Bezzi, 1912.

Species e Rhodesia descripta, cujus in Museo Budapestinensi ex Willowmore extant exemplaria.

A specie mox sequenti distinguitur colore magis nigro totius corporis et etiam alarum venis basi nigris.

50. **Spongostylum incisurale**, Macquart, 1840.

Exemplaria aliqua ex Willowmore, Nov.-Febr. 1907-1919, in Museo Budapestinensi et in collectione mea.

51. **Spongostylum punctipenne**, Wiedemann, 1821.

In Museo Budapestinensi e Willowmore, 1 Jan. 1907.

8. Exoprosopinae

52. **Villa albescens**, Loew, 1860.

In Museo Budapestinensi ex Transvaal, Lichtenburg.

53. **Villa niphobleta**, Loew, 1869.

In collectione Brauns exemplar adest ex Willowmore, Febr. 1917.

Species distinctissima, ex Asia minori tantum nota, corpore niveo-piloso sed pilis nigris in fronte et in segmentorum abdominalium margine postico, alis hyalinis ima basi et cellulis costalibus ex luteo dilute subfuscis, basi tegula argentea praeditis.

In monographia generis *Villa* a cl. Becker anno 1916 conscripta species recte invenitur; et exemplar africanum cum altero ex Smyrna in collectione mea, a cl. D.^{re} Hermann olim mihi communicato, omnino convenit.

54. **Thyridanthrax subperspicillaris**, Bezzi, *species adhuc inedita*, in opere meo n. 5 proxime describenda.

Aternario, Bezzi, cui valde similis vitta alba completa in pleuris, statim dignoscendus cellulis submarginalibus duabus tantum.

Ex Africa orientali descriptus, exemplaria aliqua ex Willowmore, 10 Febr. 1906, in Museo Budapestinensi et in collectione mea extant.

55. **Litorrhynchus Tollini**, Loew, 1863.

Exemplaria aliqua e Willowmore, Nov.-Apr. 1918, in collectione mea.

Ab affini *mauro*, Thunbg., distinguitur alarum fuscedine basali magis ab apice cellulae analis distante, et non linea integra obliqua extus limitata, sed in medio ad basim cellulae posterioris quartae in dentem producta. Squamae bruneae, albo-fimbriatae, sed aegre inspiciendae.

56. **Metapenta pentala**, Macquart, 1840.

Ex Willowmore, 15 Apr. 1921, in collectione mea.

Exoprosopae subgenus *Metapenta*, adhuc ineditum, sed in opere n. 2, p. 138 jam inclusum, in opere meo n. 5 descriptum invenies.

57. **Aerodisca angulata**, Loew, 1860.

Ex Willowmore in Museo Budapestinensi.

Exoprosopa subgenus *Acrodisca* etiam ineditum, sed in opere n. 2, p. 139, jam distinctum, in opere n. 5 describendum est.

58. **Acrodisca spoliata**, Bezzi, *adhuc inedita*, in opere meo n. 5 proxime describenda.

Praecedenti similis et affinis, sed mox distinguenda venis alae posterioribus et cellula anali maculis fuscis terminalibus nullis.

Exemplaria aliqua ex Willowmore, in Museo Budapestinensi et in collectione mea, quorum unum cellula posteriori prima apici clausa gaudet.

59. **Defilippia venosa**, Wiedemann, 1819.

In collectione mea ex Avantus, Promon. Bonae Spei, November 1920.

60. **Defilippia maculifera**, Bezzi, 1921, p. 147.

A *maculosa* distinguitur forma articuli tertii antennarum, quia alarum pictura non diversa.

In collectione mea ex Willowmore, Mart. 1919.

61. **Defilippia strenua**, Loew, 1860.

Species pulcherrima ex Willowmore Jan. 1921, in collectione mea.

62. **Defilippia hirtipes**, Loew, 1860.

Ex Willowmore, 1 Jan. 1907, in Museo Budapestinensi.

63. **Pterobates apicalis**, Wiedemann, 1821.

Ex Willowmore in collectione Brauns.

Exoprosopae subgenus *Pterobates*, pedibus posticis pennatis distinguendum, adhuc ineditum et in opere meo n. 5 proxime describendum est; at in opere n. 2, p. 149, jam inclusum.

64. **Exoprosopa elongata**, Ricardo, 1901.

In collectione mea ex Piet Retif, Transvaal, 19 Mart. 1918.

65. **Exoprosopa argentifrons**, Macquart, 1855.

E Willowmore, 1 Dec. 1915, in collectione mea.

66. **Exoprosopa Loewiana**, Bezzi, *adhuc inedita*, in opere meo n. 4 proxime describenda, et in op. n. 2, p. 156, citata.

Sub nomine *herus*, Wied., a cl. Loew descripta et figurata, et a cl. Wiedemann ut varietatem *herois* suae jam allata.

E Willowmore in Museo Budapestinensi.

67. **Exoprosopa eluta**, Loew, 1860.

Ex Lagoa Bay in Museo Budapestinensi.

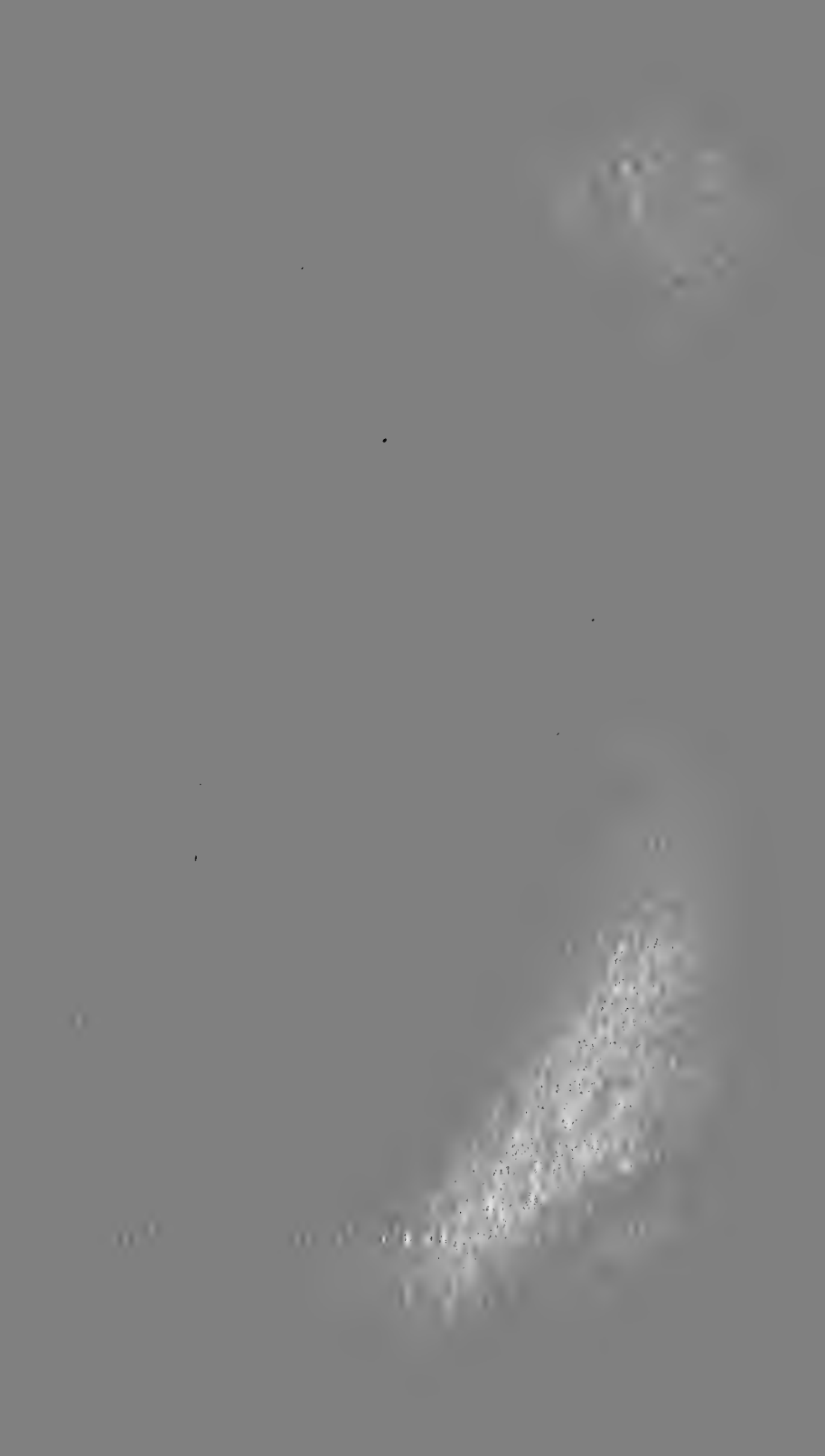
68. **Exoprosopa heros**, Wiedemann, 1819.

Ex Avantnur, Promon. Bonae Spei, Jan. 1920, in collectione mea.

69. **Exoprosopa punctulata**, Macquart, 1840.

Ex Avantnur, Promont. Bonae Spei, Jan. 1920, in collectione mea.





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BOMBYLIIDAE ET SYRPHIDAE

PAR

M. BEZZI

M. BEZZI, *Bombyliidae et Syrphidae*, in Voyage de Ch. Alluaud et R. Jeannel en Afrique orientale (1911-1912). Résultats scientifiques. *Diptera*, VI, pp. 315-351 (Paris, L. Lhomme, 15 avril 1923).



LE PORI DE SÉRENGHETI PRÈS DES MONTAGNES DE BURA. PLUSIEURS ESPÈCES NOUVELLES DE BOMBYLIIDES ONT ÉTÉ RECUEILLIES DANS CETTE STATION.

BOMBYLIIDAE ET SYRPHIDAE

PAR

LE D^r M. BEZZI

— — —

Les *Bombyliidae* constituent une des familles des Diptères les plus caractéristiques de la faune africaine; on en connaît environ 600 espèces dans la région éthiopienne, en comptant celles qui seront décrites prochainement dans une « Monographie des Bombyliides de la région éthiopienne du British Muséum ». Les collections de MM. ALLAUD et JEANNEL renferment 27 espèces de Bombyliides, dont 8 nouvelles et un genre nouveau; parmi les espèces déjà connues se trouvent des formes intéressantes au point de vue de la Systématique et de la Chorologie.

Quant aux *Syrphidae*, ils sont représentés par 24 espèces, dont une seulement était nouvelle.

Fam. **BOMBYLIIDAE**A. **Bombyliidae homoeophthalmae.**Subfam. **BOMBYLIINAE**Gen. **BOMBYLIUS** Linné.**Bombylius analis** Fabricius, 1794.

KENYA PROTECTORATE : Kijabé, dans le Kikuyu escarpment, alt. 2.100 m., st. n° 27, déc. 1911, 1 femelle; — forêt de Nairobi, alt. 1.700 m., st. n° 28, déc. 1911, 1 mâle; st. n° 59, févr. 1912, 1 femelle; — riv. Tchania, dans le pays Kikuyu, alt. 1.520 m., st. n° 29, janv. 1912, 1 femelle; — Rurunga, dans le pays Kikuyu, alt. 1.550 m., st. n° 31, janv. 1912, 1 mâle; — Bura, dans le pays Taïta, alt. 1.050 m., All., janv. 1904, 1 mâle; — Kisumu, sur la baie de Kavirondo, Victoria Nyanza, alt. 1.112 m., All., sept. 1903, 1 mâle.

Espèce commune et bien connue, constante dans ses caractères. Elle est répandue dans la sous-région méditerranéenne et dans toute l'Afrique, jusqu'au Cap.

Bombylius delicatus Wiedemann, 1830.

KENYA PROTECTORATE : Bura, dans le pays Taïta, alt. 1.050 m., st. n° 61, mars 1912, un mâle de grande taille (5 mm. de long.); All., mars 1904, un mâle,

TANGANYIKA TERRITORY : Kilimandjaro, riv. Himo, dans la zone inférieure, alt. 1.000 m., st. n° 66, mars 1912, une femelle.

Espèce bien distincte par le dessin de la base de l'aile. Elle n'était connue jusqu'à présent que de l'Afrique méridionale.

Bombylius ornatus Wiedemann, 1828.

KENYA PROTECTORATE : Kisumu, sur la baie de Kavirondo, Victoria Nyanza, alt. 1.112 m., All., sept. 1903, une femelle.

TANGANYIKA TERRITORY : Neu-Moschi, dans la zone inférieure

du Kilimandjaro; vers. sud-est, alt. 800 m., st. n° 72, mars 1912, un mâle.

Je ne comprends dans cette espèce que les individus dont les ailes ont la base noire et jaune et dont les côtés de l'abdomen présentent des touffes de longs poils d'un blanc argenté, chez les mâles. Ainsi restreinte, l'espèce est largement répandue dans le centre et le sud du continent africain.

Bombylius kilimandjaricus Speiser, 1910.

KENYA PROTECTORATE : Shimoni, sur la côte, au sud de Mombasa, st. n° 9, nov. 1911, un mâle; — Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, un mâle; — Tavéta, alt. 750 m., All., janv. 1904.

Cette espèce fait partie du groupe *B. ornatus* et n'est connue que de l'Afrique orientale. Il est probable qu'elle est identique au *B. elegans* Wiedemann, quoique LOEW déclare que cette dernière espèce fasse partie du groupe de *B. micans*.

Bombylius rufiventris Macquart, 1846.

KENYA PROTECTORATE : Ile de Lusinga, dans le Victoria Nyanza, All., oct. 1903, un mâle.

Espèce confondue jusqu'à présent avec le *B. ornatus* Wied. Elle se distingue cependant par la base des ailes entièrement jaune pâle, le corps couvert d'une tomentosité jaune dans les deux sexes et la partie antérieure du thorax hérissée de poils grisâtres chez le mâle. Elle paraît avoir la même distribution que *B. ornatus*.

Gen. **SYSTOECHUS** Loew.

Systoechus exilipes, n. sp.

KENYA PROTECTORATE : Port-Florence, sur la baie de Kavirondo, Victoria Nyanza, alt. 1.112 m., st. n° 22, déc. 1911, une femelle (*type*); — Kijabé, dans le Kikuyu escarpment, alt. 2.100 m., st. n° 27, déc. 1911, une femelle.

TANGANYIKA TERRITORY : zone des Bruyères du Kilimandjaro,

vers. sud-est, alt. 2.800 m. env., All., janv. 1904, un mâle (*type*).

Le British Muséum possède de nombreux exemplaires de l'Abyssinie méridionale et de l'Afrique orientale anglaise.

Mas et femina : *Niger, antennis concoloribus, scutello saltem in medio obscure rubido, pilis sat longis pallide flavescens, undique tecto nigris tamen in capite mystaceque sat numerosis, segmentis abdominalibus secus marginem posticum setis nigris longis et validis marginatis, pedibus luteis gracilibus parce spinosis, femoribus tarsisque plus minusve nigricantibus, alis ex griseo hyalinis, basi secus marginem anticum leviter infuscatis, pectine basali nigro. Long. corp. 7-9 mm.; exp. alarum 15-20 mm.*

Mas : *Oculis fere conniventibus, triangulo frontali parvo in medio distincte sulcato, genitalibus magnis nigris, femoribus late nigricantibus.*

Femina : *Oculis late remotis, frontis lateribus nigro-setosis, penicillo anali aureo-piloso setis nigris confertis marginato, femoribus fere totis luteis.*

Cette nouvelle espèce appartient au groupe du *S. ctenopterus* et se distingue aisément par ses pattes grêles et peu épineuses.

Tête noire, couverte d'une pruinosité cendrée obscure; occiput peu développé, couvert de poils jaunes très pâles, presque cendrés, assez longs; ces poils deviennent plus pâles en dessous de la tête, blancs sur le menton. Tubercule oculaire avec de longs poils noirs dressés. Front du mâle très étroit, les yeux étant séparés par un espace à peine aussi large que l'ocelle antérieur; triangle frontal petit, plat, avec un sillon longitudinal net, couvert de poils noirs dressés, très longs et peu nombreux sur toute sa surface, de poils blanchâtres couchés en avant et sur les côtés. Front de la femelle large, surtout en avant, avec de courts poils jaunâtres disséminés et des soies noires dressées, assez longues, sur les côtés. Face courte, mais saillante, toute couverte de poils serrés, formant une riche moustache dirigée en avant, où les poils noirs prédominent chez les mâles, les poils jaunâtres chez les femelles. Antennes entièrement noires, écartées; l'article I est allongé, hérissé de longs poils noirs, le III est linéaire, pas plus long que les deux premiers ensemble, légèrement renflé à la base, terminé par un

mince style noir. Trompe entièrement noire, longue de 4,5 5,5 mm.; palpes menus, courbés, noirs.

Thorax noir mat, couvert de poils assez longs, égaux, jaunâtres pâles, paraissant blanchâtres lorsqu'on les examine par devant; pas de poils noirs; toutes les soies sont jaunes, sauf parfois les mésopleurales. Touffe métapleurale blanchâtre, dense. Écusson rougeâtre obscur, la base et les côtés avec une bordure noire plus ou moins large; il est couvert de poils semblables à ceux du thorax et porte une rangée postérieure de soies jaunâtres, peu distinctes chez le mâle, mieux visibles chez la femelle. Calyptres d'un blanc sale, à bordure noire, frangée de jaune. Massue des balanciers blanche en dehors, brunâtre en dessus.

Abdomen entièrement noir, assez luisant, couvert de poils comme ceux du thorax et avec des séries complètes de longues soies noires sur le bord postérieur des segments; le ventre est noir, à pubescence un peu grisâtre et les soies noires. Pièces génitales du mâle assez grandes et noires; touffe anale de la femelle jaune d'or, entourée de soies noires.

Pattes plus grêles et moins épineuses que chez les espèces voisines. Les tibias des deux premières paires ont des spicules très minces et très courtes, les tibias postérieurs trois paires de spicules plus longues. Les cuisses antérieures sont inermes, les cuisses intermédiaires portent une seule épine, les postérieures trois ou quatre, rarement cinq. Chez le mâle, les pattes sont jaune pâle, sauf les cuisses et parfois les tibias antérieurs qui sont noirs; chez la femelle, les cuisses sont seulement tachées de noir à la base. Les écailles des pattes sont blanchâtres, ainsi que les poils; les spicules et les épines sont noires. Ongles noirs, pelotes blanchâtres, un peu plus courtes que les ongles.

Ailes légèrement grisâtres, avec la base et le bord antérieur jusqu'à la fin de la première nervure longitudinale un peu rembrunis; l'alule est à peine plus foncée et est frangée de jaunâtre. Le peigne basal est noir, long; il porte peu de soies et des poils blanchâtres à la base. Nervures rougeâtres, rembrunies en dehors. La cellule discoïdale est assez aiguë en dehors; sa nervure terminale est bien plus courte que la transversale discoïdale; elle est aussi assez courte, et les deuxième et troisième cellules postérieures sont par conséquent assez longues.

Gen. **EURYCARENUS** Loew.**Eurycarenum laticeps** Loew, 1852.

TANGANYIKA TERRITORY : Neu-Moschi, dans la zone inférieure du Kilimandjaro, vers. sud-est, alt. 800 m., st. n° 72, mars 1912, une femelle de grande taille (14 mm. de long.) avec le dessin caractéristique de l'abdomen bien développé.

Espèce mal connue, spéciale à l'Afrique orientale.

Eurycarenum dichopticus Bezzi.

KENYA PROTECTORATE : bords de la rivière Ramisi, sur la côte, au sud de Mombasa, st. n° 8, nov. 1911, une femelle.

Cette espèce sera décrite dans la « Monographie des Bombyliides de la région éthiopienne du British Museum », d'après des exemplaires du Kenya protectorate, du Nyassaland et de Nigeria. Elle est bien caractérisée chez le mâle par le large écartement des yeux et par le duvet jaune d'or qui couvre le front dans sa partie antérieure.

Gen. **DISCHISTUS** Loew.**Dischistus vitripennis** Loew, 1855.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, un mâle; — marais de Tiwi, près Mombasa, All., juill. 1903.

Espèce décrite de Massaoua et n'ayant jamais été signalée depuis. Elle est voisine de *D. minimus*, espèce européenne.

L'extrémité apicale des cuisses, les tibias et la base des tarsi sont jaunes; les cuisses postérieures portent cinq épines en dessous. Le troisième article des antennes est étroit, long, linéaire, sans renflement.

Dischistus gibbicornis, n. sp.

KENYA PROTECTORATE : Kisumu, sur la baie de Kavirondo, Victoria Nyanza, alt. 1.112 m., st. n° 23, déc. 1911, un mâle; All., sept. 1904, un mâle (*type*).

Il paraît commun dans le Protectorat, car les collections du British Museum en renferment beaucoup d'exemplaires.

Ex affinibus D. *minimi*, *totus niger, fulvo-pilosus sed pilis in capite et abdominis basi lateribusque maxima parte nigris, femoribus totis tibiisque posticis fere totis nigris, alis basi et margine antico obscure fuscis.*

Mas : *Oculis longe connexis areolis superis majoribus, antenarum articulo tertio superne mox pone medium distincte gibboso.*

Long. corp. 5—6,5 mm.; alae 5,5—7,5 mm.

Cette espèce ressemble au *D. vitripennis*, mais s'en distingue au premier abord par sa coloration plus sombre, surtout sur les ailes et les pattes.

Tête noire; occiput plat avec des poils fauves assez longs et une rangée marginale de poils noirs. Tubercule oculaire hérissé de poils noirs. Yeux très gros, contigus sur le front suivant une ligne plus longue que le triangle ocellaire. Triangle frontal élargi en avant, court, d'un noir très sombre, avec quelques poils noirs en avant. Face large, bien plus large que haute, d'un noir profond sur les côtés, cendrée sur le milieu. Elle est recouverte par la moustache, dense, formée de poils souples et jaunâtres au milieu, plus longs, rigides et noirs sur le pourtour. Barbe d'un gris cendré. Antennes noires, à article I hérissé de longs poils noirs; article III deux fois aussi long que les deux premiers articles ensemble, étroit, linéaire, avec un renflement caractéristique après le milieu. Trompe noire, longue de 3 à 4 mm.; palpes noirs, brièvement villex.

Thorax et scutellum noir velouté, couverts, même sur les flancs, de poils jaunes assez longs; les soies latérales et postérieures seules sont noires. Touffe métapleurale longue. Calyptres brunâtres, frangés de poils jaunes; balanciers jaunâtres, avec la massue blanchâtre.

Abdomen d'un noir sombre, mais le bord postérieur de

chaque segment assez luisant. Segments couverts d'une tomentosité jaune avec de longs poils noirs sur les côtés des segments II à IV, jaunâtres ailleurs; le bord postérieur de chaque segment porte un rang de soies noires. Ventre noir, à pubescence noire; pièces génitales noires.

Pattes noires, à tomentosité jaunâtre, avec l'extrémité des cuisses, les quatre tibias antérieurs jaunes, la moitié basale des tibias postérieurs jaunâtre. Poils des cuisses d'un gris foncé. Cuisses postérieures avec 6 à 8 épines noires; spicules noires; ongles forts, courbés, noirs avec la base étroitement rougeâtre; pelotes grisâtres, un peu plus courtes que les ongles.

Ailes longues, grisâtres, obscurcies à la base et le long du bord antérieur; base de la côte noire; alule brunâtre à frange jaune. Nervures noires sauf la première qui est jaune. La nervure transverse discoïdale est au milieu de la cellule discoïdale, qui est deux fois aussi longue que large, très aiguë en dehors; branche supérieure de la fourche cubitale presque droite, parallèle au bord postérieur de l'aile; première cellule postérieure à peine rétrécie au sommet; deuxième cellule postérieure triangulaire.

Subfam. *PHTHIRIINAE*.

Gen. *GONARTHUS* Bezzi.

Gonarthrus cylindricus Bezzi, 1906.

KENYA PROTECTORATE : riv. Tchania, dans le pays Kikuyu, alt. 1.520 m., st. n° 29, janv. 1912, plusieurs exemplaires des deux sexes.

Cette espèce est répandue dans l'Afrique orientale et centrale, depuis l'Erythrée jusqu'au Natal.

Elle a été décrite par moi de l'Erythrée, comme *Dischistus* et j'ai fondé récemment pour elle un nouveau genre *Gonarthrus*, différant de *Dischistus* par plusieurs caractères dont deux surtout empêchent de le laisser dans la sous-famille *Bombyliinae* : les métapleures sont nues et les palpes maxillaires géniculés et formés de deux articles. Ces deux caractères rapprochent *Gonarthrus* de *Phthiria* et des genres voisins.

B. Bombyliidae tomophthalmae.Subfam. *ANTHRACINAE*.Gen. *ANTHRAX* Scopoli.***Anthrax pithecius* Fabricius, 1805.**

KENYA PROTECTORATE : Kisumu, sur la baie de Kavirondo, Victoria Nyanza, All., sept. 1903, un mâle; — Nyangnori, dans le Nandi escarpment, All., oct. 1903, une femelle.

Espèce répandue dans toute la région éthiopienne.

***Anthrax nigerrimus* Bezzi.**

KENYA PROTECTORATE : Kibwézi, dans le pays des Wa-Kamba, All., déc. 1903, mâle et femelle.

Cette espèce sera décrite dans la Monographie des Bombyliides du British Museum, d'après des exemplaires des forêts du Kenya. Les exemplaires de Kibwézi sont un peu plus petits que les types; les tibias et les pièces génitales mâles sont rougeâtre sombre.

Subfam. *EXOPROSOPINAE*.Gen. *VILLA* Lioy.***Villa vitripennis* Loew, 1860.**

KENYA PROTECTORATE : Kijabé, dans le Kikuyu escarpment, alt. 2.100 m., st. n° 27, déc. 1911, un mâle; — riv. Amboni, vallée boisée de la zone inférieure du Kénya, versant ouest, alt. 1.800 m., st. n° 35 et st. n° 51, janv.-févr. 1912, mâles et femelles.

Espèce connue d'Afrique méridionale et occidentale.

***Villa validicornis* Bezzi.**

TANGANYIKA TERRITORY : Neu Moschi, dans la zone inférieure

du Kilimandjaro, vers. sud-est, alt. 800 m., st.n° 72, mars 1912, un mâle frotté.

Espèce qui sera décrite dans la Monographie des Bombyliides du British Museum, sur des exemplaires recueillis par S. A. NEAVE au mount Mlanje, Nyassaland.

Gen. **OESTRANTHRAX**, nov.

TYPE : *Anthrax obesa* Loew, du Transvaal.

Ce genre nouveau possède les principaux caractères du genre *Villa*, auxquels s'ajoutent les particularités très importantes suivantes :

Tête grande, globuleuse, avec la face très développée, en forme de plaque arrondie et convexe, à peu près aussi longue que le front et séparée des joues par un sillon profond; la distance entre la bouche et l'insertion des antennes est aussi longue que le front (chez *Villa* elle est plus courte que l'espace séparant l'insertion des antennes du vertex).

L'ouverture buccale est très petite et la trompe rudimentaire; aussi les joues sont-elles très larges au lieu d'être linéaires comme chez *Villa*.

Les macrochètes présuturales et supraalaires, très développées chez *Villa*, font défaut chez *Oestranthrax*, dont la pubescence est d'ailleurs très réduite.

Les ailes sont plus courtes que le corps; leurs nervures sont très épaisses.

La nervure transverse discoïdale est placée vers le milieu de la cellule discoïdale; la deuxième cellule basilaire est très large, aussi développée que la discoïdale; la troisième cellule postérieure est plus courte.

Les cuisses sont à peu près inermes, seules les cuisses postérieures présentent de très courtes épines.

Chez *Oestranthrax* la réduction des pièces buccales est très importante et semble résulter d'une spécialisation parasitaire très avancée; elle peut se comparer à celle des *Adersia* parmi les Tabanides ou même à celle de beaucoup de genres de Myiodaires supérieurs.

MM. ALLUAUD et JEANNEL ont recueilli une espèce nouvelle d'*Oestranthrax*, nettement différente de l'*Oe. obesa* Loew. C'est très probablement l'espèce de *Villa* indéterminée citée du mont Meru par le Dr SPEISER (Sjöstedts Kilim. Mer. Exp., 10, *Diptera*, p. 79) et je lui donne le nom de ce savant qui a beaucoup contribué à la connaissance des Diptères de l'Afrique orientale.

Oestranthrax Speiserianus, n. sp.

KENYA PROTECTORATE : Tavéta, alt. 750 m., st. n° 65, mars 1912, un mâle (*type*),

Badius, pedibus concoloribus, fronte superne thoracis dorso abdominisque basi nigricantibus, antennis nigris articulo primo rufo, alis hyalinis basi et margine antico fuscis, cellula discoidali brevi et non appendiculata. Long. corp. 12 mm.; alae 9 mm.

Voisin d'*Oe. obesus* Loew, mais bien distinct par sa taille plus petite, ses antennes noires à premier article seul rougeâtre, sa nervation alaire.

Occiput noir au milieu, rougeâtre près des yeux où se trouvent, au milieu, quelques écailles blanchâtres; sillon postvertical bien développé, bordé de quelques poils noirs et courts. Yeux à facettes supérieures non élargies, à sinuosité latérale peu prononcée, à ligne de bissection assez longue. Front un peu moins large au sommet que deux fois le tubercule ocellaire, noir avec le tiers antérieur rougeâtre, les poils noirs, sauf quelques-uns blanchâtres, en avant; tubercule arrondi, noir. Face rougeâtre, comme les joues, couverte de poils blanchâtres. Antennes courtes; leur article I rouge, avec des poils noirs en dessus, blanchâtres en dessous; article II de moitié plus court, noir, avec la base étroitement rougeâtre; article III noir, avec sa partie renflée plus étroite et plus longue que l'article II, sa partie styloïde peu grêle, non filiforme, un peu plus courte que le reste de l'antenne, obtuse au sommet et sans soie terminale. Rudiments de la trompe et palpes très courts, rougeâtres.

Thorax noir sur le dos, rougeâtre sur les côtés et les flancs. Les poils sont courts et blanchâtres; pas de soies ni de poils noirs; la touffe métapleurale est riche et blanchâtre. Écusson rougeâtre étroitement marginé de noir à la base, couvert d'une tomentosité

noire sur la base, blanchâtre ailleurs. Cuillerons d'un brun noirâtre avec frange jaunâtre. Balanciers jaunâtres avec la massue noirâtre en dessus.

Abdomen rougeâtre, les trois premiers segments chacun avec une large tache basale noire; les poils des côtés de la base sont assez longs et blancs, les autres courts et blanchâtres. La tomentosité semble noire sur les parties noires, jaunâtre sur le reste de la face dorsale. Ventre rougeâtre, à tomentosité blanchâtre. Pièces génitales mâles rougeâtres, de taille moyenne, tournées à gauche.

Pattes, même les hanches, rougeâtres, avec seulement les tibias postérieurs et l'extrémité des tarses noirs. Hanches couvertes de poils blanchâtres; cuisses avec des écailles blanchâtres disséminées, sans épines, sauf deux ou trois très courtes sur l'extrémité des cuisses postérieures. Spicules des tibias noires, courtes, celles de la première paire mieux distinctes. Ongles noirs à base rougeâtre; pas de pelotes.

Ailes grisâtres, hyalines, à nervures épaisses, noires, jaunâtres près de la base. Crochet basal fort, jaune; peigne basal assez grand, noir, couvert d'une tomentosité jaunâtre. Bord antérieur des ailes brunâtres; cette coloration s'étend sur les cellules costales, la moitié basale de la cellule marginale, la première cellule basale et la base de la première sous-marginale. Seconde nervure longitudinale prenant naissance contre la transverse discoïdale, courte, droite, infléchié à l'extrémité. Branche supérieure de la fourche cubitale en angle arrondi, légèrement courbée au milieu, sans appendice. Nervure transverse discoïdale courte, placée sur le milieu de la cellule discoïdale. Première cellule postérieure de moitié plus étroite à la base qu'à l'extrémité, non rétrécie en dehors. Cellule discoïdale courte et large, aussi longue que la deuxième cellule postérieure; troisième cellule postérieure courte, son contact avec la discoïdale très sinueux, sans appendice, deux fois plus long que le contact avec la quatrième postérieure. Nervure apicale de la cellule discoïdale, courte, droite, presque verticalement située, la cellule discoïdale étant obtuse en dehors. Deuxième cellule basale très large en dehors, presque aussi développée que la discoïdale. Cellule anale très rétrécie au sommet. Lobe axillaire large. Alule arrondie, jaunâtre pâle, avec une courte frange jaunâtre.

Gen. **THYRIDANTHRAX** Osten-Sacken.**Thyridanthrax laetus** Loew, 1860.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, un mâle.

Jolie et élégante espèce dont la femelle a été décrite comme *Exoprosopa*, de la Cafrerie, par LOEW en 1860 et depuis citée par moi du Nyassaland, dans le même genre en 1912 (Trans. entom. Soc. London, 1911, p. 645). Elle possède, en effet, trois cellules sous-marginales comme *Exoprosopa*, mais ses antennes sans style et ses ongles sans dent basale sont ceux des *Thyridanthrax*. De plus le facies et le dessin du corps et des ailes rappellent parfaitement ceux des espèces du groupe de *Th. fenestratus* Fall., groupe dans lequel j'ai d'ailleurs décrit une espèce de l'Afrique centrale et australe, possédant aussi trois cellules sous-marginales.

Le mâle était jusqu'à présent inconnu. Il est semblable à la femelle; son front est assez large, deux fois aussi large que le tubercule ocellaire; les pièces génitales sont de taille moyenne, tournées à gauche, entièrement fauves avec la pubescence jaunâtre.

Gen. **LITORRHYNCHUS** Macquart.**Litorrhynchus erythraeus**, subsp. **allothyris**, nov.

KENYA PROTECTORATE : riv. Tchania, dans le pays Kikuyu, alt. 1.520 m., st. n° 29, janv. 1912, deux femelles.

C'est la forme que le Dr SPEISER (Sjösteds Kilim. Meru Exp., 10, *Diptera*, p. 80) a citée comme *L. erythraeus* Bezzi, 1906, et qu'il est d'ailleurs d'avis maintenant de séparer comme sous-espèce. Elle se distingue de la forme typique par le dessin des ailes.

La bande basale brunâtre des ailes est convexe en dehors et laisse libre une plus grande partie de la cellule anale et du lobe axillaire. La partie hyaline de la cellule discoïdale est plus grande,

cette partie hyaline occupant à peu près la moitié de la longueur de la cellule. La dent interne de la bande médiane brunâtre est plus courte et ne dépasse en général pas la base de la deuxième cellule postérieure.

Gen. **EXOPROSOPA** Macquart.

Exoprosopa (Metapenta) clathrata, n. sp.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, un mâle (*type*).

Rufescens, antennis pedibusque maxima ex parte concoloribus, fronte occipite thoracis dorso abdominisque vitta longitudinali nigris, metapleuris rufopilosis, alis basi et extus fuscis, ad apicem et marginem posticum limbis fuscis nervorum reticulatis. Long. corp. 13 mm.; alae 15 mm.

Cette espèce est très voisine de *E. pentala* Macq. et se rattache comme lui au nouveau sous-genre *Metapenta* caractérisé par la forme de la cellule discoïdale et par la présence de cinq cellules postérieures, dont la quatrième est fermée et pétiolée. Les *Metapenta* n'étaient jusqu'à présent connus que de l'Afrique australe; la découverte d'une espèce de ce groupe en Afrique orientale est donc intéressante.

Occiput noir avec des écailles jaunâtres le long des yeux et une frange de poils jaunâtres sur le bord de la cavité centrale; sillon postcervical étroit et profond. Yeux noirs avec les facettes égales, l'échancrure latérale peu profonde, la ligne de contact courte. Vertex un peu déprimé, séparé de l'occiput par un sillon transverse. Tubercule ocellaire petit, noir, assez saillant. Front étroit, élargi en avant, noir rougeâtre près des antennes, avec des poils dressés noirs et des écailles jaunâtres. Face conique, rougeâtre avec des poils noirs et des écailles jaunâtres. Antennes rougeâtres, le dernier article noirâtre en dessous près de l'extrémité; article I avec des poils noirs; article III conique, allongé, régulier, aussi long que les deux premiers articles réunis; style terminal jaunâtre aussi long que la moitié de l'article III. Joues étroites; bords de la bouche jaunâtres; trompe noire, aussi longue que la bouche; palpes jaunâtres, revêtus de poils pâles.

Thorax noir sur le dos, avec les bords latéraux et les angles

postérieurs rougeâtres, couvert de poils noirs et d'écaillés jaunâtres et avec une bande longitudinale de poils blanchâtres de chaque côté; les macrochètes bien développés et noirs. Flancs noirs, rougeâtres le long des sutures, avec des poils jaune vif et d'autres noirs sur la ligne notopleurale, sur les mésopleures et sur les ptéropleures; les poils métapleuraux sont jaunes. Ecusson rouge à base noire, avec des écaillés jaunâtres et des macrochètes noirs. Cuillerons jaunâtres à frange pâle; balanciers jaunes avec la massue blanche.

Abdomen assez convexe, obtusément conique, rouge, avec une large bande longitudinale formée de taches carrées noires, séparées par la bordure postérieure rouge des segments et devenant plus petites sur les segments postérieurs. Premier segment noir avec seulement les angles postérieurs rouges et garnis de poils jaunâtres; sur les autres segments les poils sont noirs sauf à la base des côtés du deuxième où ils sont jaunâtre pâle. Tout le dos porte des écaillés jaunâtres sur les côtés, noires au milieu; le ventre est rouge, avec des poils jaunâtres; les pièces génitales sont pâles.

Pattes rougeâtres, les tarsi noirs; écaillés jaunâtres, poils des hanches antérieures jaunes, épines noires. La première paire est relativement longue, avec les tibias robustes, sans spicules, les tarsi assez longs, villeux; deux épines sur les cuisses intermédiaires, une rangée d'épines complète sur les cuisses postérieures. Crochets noirs à base rougeâtre et dent basale courte, mais aiguë.

Ailes étroites avec un hameçon basal fort et recourbé, un peigne large, noir, à écaillés jaunâtres. Les ailes sont rembrunies à la base et le long du bord antérieur, hyalines dans la partie apicale et postérieure, mais elles ont un aspect réticulé à cause des larges bordures brunes des nervures, entourant des espaces hyalins constitués par le milieu des cellules. Les plus grands de ces espaces hyalins sont ceux des 2^e et 3^e sous-marginales et de la discoïdale; les plus petits ceux des 1^{re}, 4^e et 5^e postérieures. Quelques taches arrondies noirâtres se voient à la base de la 2^e nervure longitudinale, de la transverse discoïdale, à la base des deux dernières cellules postérieures et dans l'angle supéro-externe de la cellule discoïdale. Alule, lobe axillaire et cellule anale foncés, comme la frange basale. Tache prédiscoï-

dale grisâtre, opaque, arrondie. Les nervures présentent la disposition typique du groupe : la transverse discoïdale est un peu avant le milieu de la cellule discoïdale ; la 1^{re} cellule postérieure est aussi large à l'extrémité que la cellule anale ; la 2^e cellule postérieure est un peu plus large que la moitié de la 3^e et la 5^e est un peu moins large que la 3^e ; le pétiole de la 4^e postérieure est plus court que la nervure terminale de cette cellule.

Exoprosopa (Acrodisca) suffusipennis, n. sp.

KENYA PROTECTORATE : Mwataté, dans le pays Taïta, All., avr. 1904, une femelle (*type*).

Nigra et maxima ex parte nigro-pilosa, pedibus nigris tarsi anlicis breviter pilosulis, scutello testaceo basi nigro, alis longis aequaliter infuscatis, cellularum nucleis tamen pallidioribus maculisque nigricantibus solitis minus distinctis. Long. corp. 12,5 mm.; alae 16 mm.

Cette espèce a un peu l'aspect d'un *Exoprosopa (Gladodisca) suffusa* Klug, mais elle possède tous les caractères du sous-genre *Acrodisca*, c'est-à-dire la première paire de pattes courte avec des spicules sur les tibias, la 1^{re} cellule postérieure ouverte et la nervure apicale de la cellule discoïdale courte, presque droite et perpendiculaire.

Occiput noir, avec des écailles jaunâtres près des yeux et une frange de longs poils noirs sur le bord interne ; sillon postvertical étroit et profond. Yeux brun noirâtre, à facettes égales, à échancrure peu profonde et ligne de contact longue. Tubercule ocellaire noir, éloigné du vertex, très peu saillant. Front assez étroit, noir, avec une bande rougeâtre se prolongeant sur les côtés de la face ; celle-ci conique, assez saillante, noire et jaunâtre sur les côtés de la bouche ; poils noirs dressés et écailles jaunâtres sur le front et la face ; une touffe de poils noirs serrés à l'angle supérieur de la bouche. Antennes à deux premiers articles jaunâtres (le troisième est brisé) avec des poils noirs ; l'article I deux fois aussi long que le II. Pipette noire, aussi longue que la tête ; palpes noirâtres avec les poils sombres.

Thorax noir avec les angles postérieurs testacés ; écailles noires et jaunâtres, poils noirs et de chaque côté une bande longitudinale de poils jaunâtres ; macrochètes noirs, bien déve-

loppés. Les flancs sont noirs avec les sutures rougeâtres ; les poils y sont noirs, quelques-uns jaunes sur les mésopleures, une touffe jaune d'or sur la ligne notopleurale, les soies métapleurales noires et les poils collaires jaunes au milieu, noirs sur les côtés et en dessous. Écusson testacé à base noire, revêtu de soies noires. Cuillerons noir brunâtre avec frange noirâtre ; plumule blanche ; balanciers noirs à massue pâle en dessous.

Abdomen noir ; les poils et écailles des côtés sont jaunâtres pâles sur le premier segment, noirs sur les autres. Le dos paraît être couvert d'écailles noires ou blanches, ces dernières formant des bandes transverses, complètes sur la base du deuxième segment, écourtées sur les autres. Ventre noir à poils sombres et écailles noires ou pâles. Pièces génitales noires.

Pattes noires, mais paraissant jaunâtres à cause du revêtement d'écailles existant sur les tibias et le dessous des cuisses. Première paire assez courte, ses tibias avec de fins spicules, ses tarses assez allongés, à villosité courte ; trois ou quatre épines sur les cuisses intermédiaires, une rangée complète sur les postérieures. Ongles noirs à dent basale longue et aiguë.

Ailes longues, assez larges, avec un hameçon basal recourbé noir, un peigne basal d'un noir profond. Elles sont uniformément rembrunies, mais la cellule discoïdale et les cellules contiguës au sommet et au bord postérieur ont un noyau central hyalin, peu tranché ; les taches et bordures obscures se trouvent aux places normales, mais très peu distinctes. Tache prédiscoïdale très petite, grisâtre, peu marquée. Alule noirâtre, à frange noire ; base du lobe axillaire noirâtre. Nervation normale du groupe : la nervure transverse discoïdale se trouve avant le milieu de la cellule discoïdale et la deuxième nervure longitudinale se détache en avant d'elle ; la cellule discoïdale est tronquée en dehors, sa nervure terminale est courte, presque droite et perpendiculaire. La première cellule postérieure est plus large que l'anale au sommet ; la deuxième postérieure presque aussi large que la troisième ; la troisième un peu plus courte à la base que la quatrième ; la nervure séparant la troisième de la deuxième est presque droite.

Exoprosopa (Defilippia) senegalensis Macquart, 1840.

KENYA PROTECTORATE : Voï, dans le pays Taïta, alt. 600 m., st. n° 60, mars 1912, une femelle.

Cette belle espèce n'était citée que du Sénégal; j'en ai vu des exemplaires de l'Abyssinie et du Tanganyika territory.

Exoprosopa (s. str.) hyalodisca, n. sp.

KENYA PROTECTORATE : forêt de Nairobi, alt. 1.700 m., st. n° 11, nov. 1911, un mâle (*type*); — Bura, dans les monts Taïta, alt. 1.050 m., All., mars 1904, un mâle de petite taille.

Nigra, nigro luteoque pilosa et aureo tomentosa antennis pedibusque concoloribus, metapleuris nigro-pilosis pilis aliquibus rufis infra commixtis, abdomine utrinque maculis quatuor albis rotundato-ovatis, alis hyalinis basi et extus sat anguste nigris, cellula discoïdali fere tota hyalina, extus truncata et ante apicem vix dilatata. Long. corp. 10-15 mm.; alae 11-16 mm.

Cette espèce appartient au groupe nombreux et difficile d'*E.* (s. str.) *dimidiata* et se distingue de toutes les autres espèces du groupe par sa nervure transverse apicale de la cellule discoïdale courte et droite, la cellule discoïdale peu dilatée au sommet, la touffe métapleurale en majeure partie noire, le dessin des ailes très réduit et les taches blanches de l'abdomen disposées d'une façon caractéristique.

Tête noire; occiput avec des écailles jaunâtres sur le bord postérieur des yeux; front d'un noir velouté, trois fois plus large au sommet que le tubercule ocellaire, hérissé de poils sombres et avec des écailles dorées en avant; face courte, obtuse, avec la même coloration et la même pubescence que le front. Antennes noires, l'article 1 avec des poils noirs, l'article III un peu plus long que I et II réunis, étroit, conique, avec un style très court. Palpes et trompe noirs, cette dernière plus courte que la bouche.

Thorax noir, à pubescence noire et tomentosité jaunâtre sur le dos; les poils du collier et ceux des côtés sont jaunes; macrochètes noirs. Flancs noirs à pubescence noire, sauf sur la

partie supérieure des métapleures où elle est jaune; sternopleures avec une tomentosité dorée; touffe métapleurale noire avec quelques soies jaunes en dessous. Écusson testacé à base noire; macrochètes noirs; écailles noires sur la base, jaunâtres à la partie apicale. Cuillerons jaunâtres à frange jaune; plumule blanche; balanciers noirâtres à massue pâle.

Abdomen large, ovale, noir, couvert d'écailles noires et soyeuses sur le dos et d'écailles blanches groupées en taches ovales très nettes sur les côtés des segments III, IV, VI et VII; les poils latéraux sont blanchâtres à la base, noirs ailleurs. Ventre noir avec quelques écailles dorées. Pièces génitales noires à villosité noire.

Pattes noires; les antérieures assez longues, avec leurs hanches hérissées de poils noirs et jaunes, leurs tibias mutiques, leurs tarsi brièvement velus; deux épines noires sur les cuisses intermédiaires, une série complète sur les postérieures. Crochets noirs à dent basale courte.

Ailes hyalines; la partie noire très réduite n'occupe que l'extrême base de la première cellule sous-marginale, de la première postérieure, de la discoïdale, de l'anale et du lobe axillaire, toute la quatrième postérieure est hyaline. Nervures rougeâtres à la base, noires dans le reste de l'aile; le hameçon basal et le petit peigne sont noirs. La deuxième nervure longitudinale décrit une profonde sinuosité terminale et est tronquée en dehors; la nervure transverse marginale est oblique et sinueuse. Première cellule postérieure peu rétrécie au sommet; deuxième postérieure bien plus courte et un peu plus étroite que la troisième; celle-ci plus courte que la quatrième à la base. Nervure transverse discoïdale située près du milieu de la cellule discoïdale, celle-ci plus large avant le sommet qu'à la base, mais peu dilatée au sommet, avec sa nervure terminale courte, droite, presque perpendiculaire. Lobe axillaire large; alule foncée, à frange brunâtre.

Exoprosopa (s. str.) *acrospila*, n. sp.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, une femelle (*type*).

Nigricans et partim obscure rufescens, luteo-albido-pilosa,

antennarum basi pedibusque rufis, alis hyalinis, basi et cellula costali lutescentibus, duabus fasciis abbreviatis fuscis in medio, cellula secunda et discoidali maxima ex parte hyalinis, maculis duabus distinctis obscure fuscis una in basi rami superi nervi tertii longitudinalis, altera in apice supero nervi transversa marginalis. Long. corp. 18 mm., alae 18 mm.

Jolie espèce de grande taille appartenant au groupe d'*E.* (s. str.) *punctulata* et voisine des *E. tricolor* Macq. et *E. Robertii* Macq.; elle se distingue par ses pattes rouges et les taches obscures qu'elle présente sur la partie apicale hyaline des ailes.

Tête à partie postérieure et sommet du front d'un noir mat cendré, avec le reste du front et la face rougeâtre. Occiput avec la frange médiane blanchâtre et une bande d'écailles blanchâtres luisantes le long du bord postérieur des yeux; sillon post-vertical étroit, à peu près sur le même plan que le vertex. Yeux à échancrure peu profonde, à ligne de contact assez longue. Front quatre fois plus large au sommet que le tubercule ocellaire qui est arrondi, peu saillant, brun noirâtre, hérissé de soies noires et pourvu d'étroites écailles jaunâtres sur sa partie antérieure. Face convexe, assez saillante, mais non conique, couverte d'écailles jaunâtres assez nombreuses et de poils blanchâtres clairsemés, plus nombreux sur les côtés; joues jaunâtre pâle. Antennes à premier article assez long, rouge avec des poils jaunâtres en dessous, noirâtres en dessus; article II noir, globuleux; article III noir, conique, assez allongé et peu aminci au sommet, avec un style noir un peu plus long que la moitié de l'article. Palpes brun noirâtre, à sommet jaunâtre, avec de longs poils pâles. Pipette noire non saillante.

Thorax noir grisâtre, mais entièrement revêtu de duvet jaunâtre sombre; les poils du collier et des touffes notopleurales sont jaunes; macrochètes noirs; une ligne latérale de poils courts clairs sur la racine des ailes. Flancs cendrés, rougeâtres en dessus, les poils sont tous clairs, jaunâtres pâles en dessus, blanchâtres sur les sternopleures et les métapleures. Écusson testacé à tomentosité jaunâtre; des soies noires sur le bord postérieur. Cuillerons brunâtres à frange jaunâtre; balanciers jaune brunâtre.

Abdomen conique, noir, avec le bord postérieur de chaque segment, une large tache sur les côtés des segments II à IV et le dernier segment presque en entier rougeâtre. Sur leur face dorsale

les segments II à IV sont couverts d'écaillés noires sur la partie noire basale, jaunâtres sur la partie apicale où elles forment des bandes postérieures bien distinctes surtout sur les segments II et III. Les poils latéraux sont longs et blanchâtres vers la base, courts et jaunâtres avec quelques poils noirs en arrière. Dernier segment à frange postérieure noire en dessus, jaune en dessous; épines longues, rougeâtre luisant. Ventre jaunâtre pâle avec des écaillés et des poils blancs.

Pattes rouges, même les hanches (la première paire est brisée); tarsi noirs à base rougeâtre. Cuisses et tibiaux à écaillés blanchâtres et épines noires. Crochets noirs, à dent basale longue et aiguë.

Ailes hyalines avec l'extrême base rouge jaunâtre, la cellule costale jaunâtre pâle. Le dessin brun est bien développé, net, semblable à celui de l'*E. Robertii*: le milieu de la cellule marginale et la base de la première sous-marginale et de la première postérieure sont rembrunis et forment une tache très bien distincte de laquelle se détachent deux bandes écourtées, séparées par la partie médiane hyaline de la cellule discoïdale.

L'une, basale, couvre la base de la cellule discoïdale, celle des troisième et quatrième postérieures et le sommet de la deuxième basale jusqu'à la fin de l'anale où elle se termine sans toucher le lobe axillaire; en dedans elle est bien limitée par la deuxième cellule basale et l'anale qui sont hyalines.

La deuxième bande, externe, est plus courte et plus étroite et forme un bord noirâtre à la partie apicale de la cellule discoïdale sans pénétrer dans la troisième postérieure. Les deux taches obscures apicales sont petites; la tache supérieure est arrondie, plus foncée, située au sommet de la nervure transverse marginale; l'autre est plus pâle, allongée et borde le rameau supérieur de la troisième nervure longitudinale.

Hameçon basal noir, recourbé; peigne basal assez grand, noir, couvert de duvet jaunâtre. Nervures rougeâtres dans la moitié basale, brunâtres dans la moitié apicale. Sinuosité apicale de la deuxième nervure longitudinale peu marquée; nervure transversale marginale oblique; première cellule postérieure assez rétrécie à l'extrémité mais plus large que l'anale; deuxième postérieure courte, plus étroite que la troisième, elle-même plus courte que la quatrième à la base. Cellule discoïdale assez dilatée avant l'extré-

mité, sa nervure terminale droite, peu oblique; nervure transverse antérieure placée avant le milieu de la cellule discoïdale. Lobe axillaire large et court; alule jaune rougeâtre, à frange blanchâtre longue.

Exoprosopa (s. str.) atrinasis Speiser, 1910.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, mâles; — Mwataté, dans le pays Taïta, All., avril 1904; — Mbuyuni, dans le Pori de Sérenghéti, alt. 1.100 m., st. n° 63, mars 1912, un mâle.

TANGANYIKA TERRITORY : Kiléma, dans la zone des cultures du Kilimandjaro, vers. est, alt. 1.400 m., st. n° 67, mars 1912, mâles; — Neu-Moschi, dans la zone inférieure du Kilimandjaro, alt. 800 m., st. n° 72, avril 1912, mâles et femelles.

Nombreux exemplaires de cette espèce originairement décrite du Kilimandjaro et commune dans toute l'Afrique orientale.

Le mâle provenant de Mbuyuni est plus petit (10 mm.) et diffère par les nervures inférieure et apicale de la cellule discoïdale sans la bordure obscure qui est bien développée chez les autres exemplaires; chez ceux-ci, même la base du rameau supérieur de la fourche cubitale est parfois bordée de brunâtre.

Gen. **HYPERALONIA** Rondani.

Hyperalonia nigripennis Loew, 1852.

KENYA PROTECTORATE : rivière Ramisi, sur la côte, au sud de Mombasa, st. n° 8. nov. 1911, un mâle.

La détermination de cet exemplaire, en très mauvais état, reste douteuse. *H. nigripennis* est décrit du Mozambique et semble répandu sur toute la côte de l'Afrique orientale; mais il existe aussi plusieurs espèces très voisines avec lesquelles il peut être confondu.

Hyperalonia Paris Bezzi.

KENYA PROTECTORATE : Voï, dans le pays Taïta, alt. 600 m., st. n° 60, mars 1912, un mâle.

Espèce très répandue en Afrique orientale et qui sera décrite

ultérieurement. Elle est très voisine de l'*H. vittata* Ric., dont elle diffère par son occiput noir en dessus et par sa cellule discoïdale non coupée droit en dehors.

Hyperalonia Venus Karsch, 1887.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912.

TANGANYIKA TERRITORY : Neu-Moschi, dans la zone inférieure du Kilimandjaro, alt. 800 m., st. n° 72, avril 1912, mâle et femelle.

Les deux sexes de cette magnifique espèce diffèrent par la coloration de l'extrémité des ailes. Les exemplaires recueillis sont conformes à la description nouvelle du Dr SPEISER (1907) et sont de très grande taille (55 mm. d'envergure alaire chez la femelle).

L'espèce est exclusivement orientale, comme d'ailleurs toutes les espèces du groupe. Elle est connue de Zanzibar, de l'Usambara et des environs de Mombasa.

Fam. **SYRPHIDAE**

Subfam. **SYRPHINAE**

Gen. **MELANOSTOMA** Schiner.

Melanostoma alticola Speiser, 1910.

KENYA PROTECTORATE : Kijabé, dans le Kikuyu escarpment, alt. 2.100 m., st. n° 27, déc. 1911, une femelle; — mont Kinangop, dans la chaîne de l'Aberdare, alt. 3.000 m., st. n° 55, févr. 1912, 2 mâles; — forêts de bambous du versant ouest de l'Aberdare, alt. 2.700-3.000 m., st. n° 56, févr. 1912, une femelle; — lisière inférieure de la forêt de l'Aberdare, versant ouest, alt. 2.700 m., st. n° 57, févr. 1912, une femelle; — Londiani, dans le Mau escarpment, alt. 2.500 m., All., oct. 1903, 2 mâles.

TANGANYIKA TERRITORY : zone des cultures du Kilimandjaro, alt. env. 1.000 m., All., janv. 1904, un mâle.

L'espèce est décrite des forêts au-dessus de Kibonoto (alt. 3.000 m.) et n'était encore connue que du Kilimandjaro.

L'abdomen des mâles cités ci-dessus présente nettement la forme spatulée caractéristique. Les taches des segments III et IV sont très sombres, avec reflets métalliques; celles du segment II sont entièrement métalliques. Les tibias et les tarsi des deux paires antérieures des mâles sont en grande partie jaunes; les cuisses postérieures des femelles sont inermes et aussi en grande partie jaunes.

L'espèce est remarquable par ses antennes courtes et noires dans les deux sexes.

Melanostoma scalare Fabricius, 1794.

KENYA PROTECTORATE : Naivasha, dans le Rift Valley, alt. 1.900 m., st. n° 14, déc. 1911, une femelle.

Espèce européenne, déjà citée du Kilimandjaro par le Dr SPEISER et de la Rhodésie méridionale par moi-même.

Melanostoma annulipes Macquart, 1842.

KENYA PROTECTORATE : Nairobi, alt. 1.700 m., All., sept. 1903, un mâle.

ZANZIBAR : riv. Mwéra, All., juin 1904.

Espèce répandue sur le continent africain et dans les îles Mascareignes. Elle paraît faire défaut en Afrique australe.

Gèn. **ASARCINA** Macquart.

Asarcina ericetorum africana Bezzi, 1908.

KENYA PROTECTORATE : Kibwézi, dans les Wakamba, All., déc. 1904, un mâle.

TANGANYIKA TERRITORY : Neu-Moschi, dans la zone inférieure du Kilimandjaro, alt. 800 m., st. n° 72, avril 1912, une femelle.

Espèce connue de l'Afrique orientale et aussi de Durban.

***Asarcina ericetorum albifacies* Bezzi, 1915.**

KENYA PROTECTORATE : Naivasha, dans le Rift Valley, alt. 1.900 m., All., déc. 1903, un mâle.

Cette forme a été décrite de l'Uganda sur une unique femelle. Chez le mâle, le front est assez saillant, de couleur jaune sombre luisant, sauf l'angle supérieur du triangle qui est noir: tout le front est couvert de poils noirs; pas de tache surantennale obscure. Triangle ocellaire noir. Les côtés de la face sont largement blanc nacré, couverts de longs poils blancs; les joues sont noires. Les yeux sont contigus sur une longueur d'un millimètre environ. Les poils de l'écusson sont noirs. Les bandes noires de l'abdomen sont étroites; la première bande jaune est un peu rétrécie au milieu, mais non interrompue. Les bords latéraux de l'abdomen sont jaunes, sans ligne noire.

***Asarcina amoena* Austen, 1909.**

KENYA PROTECTORATE : forêt de Nairobi, alt. 1.700 m., All., août 1903, une femelle.

Espèce décrite du Ruwenzori et citée également du mont Kénya et du Kilimandjaro.

***Asarcina Fiorii* Bezzi, 1903.**

KENYA PROTECTORATE : forêt de Nairobi, alt. 1.700 m., All., août 1903, un mâle; — Kisumu, sur la baie de Kavirondo, Victoria Nyanza, alt. 1.112 m., All., sept. 1903, une femelle.

TANGANYIKA TERRITORY : prairies alpines du Kilimandjaro, auprès du Bismarckhügel, alt. 2.800 m., st. n° 70, avril 1912, une femelle.

C'est certainement l'espèce que j'ai décrite d'Italie. Les exemplaires africains sont cependant de taille un peu plus grande (11,5 à 12,5 mm.). Le mâle ne porte que deux bandes noires sur les 2^e et 3^e segments abdominaux.

Cette espèce se trouve aussi au Transvaal.

Gen. **SYRPHUS** Fabricius.**Syrphus cinctifacies** Speiser, 1910.

KENYA PROTECTORATE : forêts moyennes du mont Kénya (bambous), versant ouest, alt. 2.800 à 3.000 m., st. n° 41, janv. 1912, mâle et femelle; — forêts inférieures du mont Kinangop, versant est, dans la chaîne de l'Aberdare, alt. 2.400 m., st. n° 53, février 1912.

Cette petite espèce, très brillante, ressemble à un petit *Sphaerophoria* ou à un *Xanthogramma*, mais elle doit être laissée dans le genre *Syrphus*. Elle est remarquable par son écusson marginé de noir et par la large bande d'un noir intense qui traverse la face.

Le mâle correspond bien à la description de SPEISER; il porte une petite tache jaune sur le thorax et une autre sur la région humérale, mais il en existe une troisième sur la partie supérieure de la sternopleure, dont SPEISER ne parle pas.

La femelle n'est pas encore décrite. Elle est d'ailleurs très semblable au mâle. Son large front est d'un noir brillant, avec, sur les côtés, un petit triangle jaune confluent à la tache jaune de la face. La bande noire de la face est nette, très noire, très luisante, à côtés parallèles; elle est plus ou moins large, mais toujours plus large que le tubercule facial. Antennes à dernier article brunâtre, taché de jaune en dessous. Thorax semblable à celui du mâle, avec les taches jaunes humérales et sternopleurales encore plus développées et une large tache notopleurale arrondie qui manque presque entièrement chez le mâle. L'écusson et l'abdomen ont le même dessin que chez le mâle; les taches du deuxième segment sont souvent très petites. Ventre d'un noir luisant avec le dernier segment jaunâtre. Pattes moins foncées que celles du mâle; les hanches antérieures sont en partie jaunâtres avec le reste jaune clair; l'extrémité des tibias postérieurs et tous les tarses noirs.

Ailes comme chez le mâle. L'avant-dernière portion de la troisième nervure longitudinale est rigoureusement droite.

Cette espèce n'était connue que du Kilimandjaro, où elle a été

découverte vers 3.000 m. d'altitude, au-dessus de Kiboscho. Je l'ai vue aussi d'Abyssinie.

Syrphus hypoxanthus, n. sp.

KENYA PROTECTORATE : forêts inférieures du mont Kénya (*Podocarpus*) versant ouest, alt. 2.400 m., st. n° 39, janv. 1912, une seule femelle (*type*).

Cette espèce est voisine de la précédente par sa coloration et le dessin de la face et du thorax, mais elle se distingue nettement par sa taille plus grande, son abdomen plus large et moins parallèle, son écusson jaune immarginé, son ventre en entier jaunâtre. Elle a aussi quelque affinité avec le *S. Feae* Bezzi de l'Afrique occidentale, dont cependant la forme générale est plus étroite, la bande faciale réduite, le troisième article des antennes moins allongé.

Elle se rapproche aussi du genre *Xanthogramma* et particulièrement des *X. calopus* et *X. rotundicornis*, mais la bande jaune des côtés du prothorax est incomplète, peu nette et n'atteint guère que la suture.

Femelle. — Long. 8 mm. Noir très luisant, à reflets verdâtres sur le dos du thorax, un peu moins luisant sur l'abdomen. Tête, thorax et abdomen tachés d'un beau jaune vif. Front bien plus étroit que chez *S. cinctifacies*, de même forme que *X. calopus* et *S. Feae*; les ocelles se trouvent disposés en triangle équilatéral, tout près du vertex. Le front est couvert de poils noirs dressés assez longs et est d'un noir très luisant, mais les parties jaunes antérieures sont plus développées que chez *S. cinctifacies*, de façon que le front paraît porter une bande noire longitudinale, moins bien délimitée toutefois que chez *X. calopus*. Vu de profil, le front est assez saillant, surtout en avant où il porte un tubercule aplati au-dessus des antennes. Face jaune, avec quelques poils obscurs et une large bande longitudinale médiane noire complète, nette, couvrant le tubercule facial qui est de grande taille, arrondi et saillant. Joues jaunes avec des poils blancs en arrière. Occiput noir avec le bord des yeux gris tomenteux et des poils argentés en arrière. Trompe courte, noire, avec les lèvres jaunâtres; palpes petits, jaunes, avec un long poil terminal. Yeux nus, réniformes. Antennes courtes, ne dépassant pas

la base du tubercule facial; les deux premiers articles égaux et brunâtres, le troisième disciforme, d'un brun noirâtre en dessus, jaune en dessous; soie antennaire noirâtre, grêle, aussi longue que l'antenne.

Thorax noir brillant à reflets verdâtres, hérissé de poils obscurs courts sur le dos, un peu plus longs sur les côtés, plus pâles sur les flancs. Pas de bandes dorsales médianes, mais sur les côtés une bande d'un jaune mat, assez large, allant de la saillie humérale jusqu'à la suture transversale où elle cesse brusquement, et une autre jaunâtre plus étroite et peu distincte, prolongée jusqu'à l'écusson. Les flancs portent des taches jaunes: une petite tache propleurale inférieure arrondie et peu nette, une grande tache mésopleurale en forme de bande verticale, une autre assez grande en forme de bande horizontale, sur la partie supérieure des sternopleures, une tache métopleurale peu distincte, triangulaire. Métanotum et poitrine d'un noir luisant. Ecusson d'un jaune clair mat, couvert de longs poils dressés noirs, avec une large tache foncée mal limitée sur le milieu. Cuillerons blanchâtres, bordés de noir, avec une longue frange sombre; balanciers jaunâtres.

Abdomen assez étroit, ovale, un peu plus large au milieu que le thorax. Il est noir un peu bleuâtre, bien moins luisant que le thorax et porte des poils très courts et noirs, sauf sur les côtés de la base où il sont longs et pâles. Premier segment avec une tache arrondie d'un jaune blanchâtre sur les côtés; segments II à IV avec chacun deux taches jaunes ovales, obliques, écartées de la marge extérieure; cinquième segment avec deux petites taches triangulaires à la marge antérieure. Ventre en entier d'un jaune sale, translucide à la base.

Pattes noirâtres avec les quatre fémurs et les deux tibias antérieures jaunes, les genoux postérieurs jaunâtres. Poils des fémurs longs et pâles.

Ailes hyalines à nervures noires. Tache stigmatique brunâtre foncé, très allongée. L'avant-dernière portion de la troisième nervure longitudinale est légèrement courbée.

Cette espèce nouvelle forme avec *S. cinctifacies* et *S. nummularius* un petit groupe très caractéristique par sa coloration noir luisant, la forme générale étroite du corps, les bandes et les taches des flancs; ce groupe fait passage avec les *Xantho-*

gramma et paraît localisé sur les hautes montagnes de l'Afrique orientale et d'Abyssinie. Les trois espèces se distinguent ainsi :

- 1 (2). Petite taille (6 mm.). Front de la femelle large ; bande faciale très large et nettement tranchée ; bande jaune latérale du thorax très petite et n'arrivant pas à la suture ; écusson marginé de noir sur les côtés et en dessous ; taches abdominales confluentes, formant une bande transverse unique, plus ou moins interrompue au milieu ; ventre d'un noir luisant ; ailes aussi longues ou à peine plus longues que l'abdomen [Abyssinie, Aberdare, Kilimandjaro].....
 **cinctifacies** Speiser.
- 2 (1). Taille plus grande (8 à 10 mm.) ; bande jaune latérale du thorax prolongée jusqu'à la suture ; écusson jaune sans marge noire ; taches abdominales très courtes ; ventre jaunâtre ; ailes nettement plus longues que l'abdomen.
- 3 (4). Bande noire faciale complète, large et nettement tranchée ; écusson avec une tache sombre sur le milieu ; taches jaunes abdominales ovales, très allongées, presque linéaires. Long. 8 mm. [Kénya]..... **hypoxanthus**, n. sp.
- 4 (3). Bande noire faciale limitée au tubercule médian, parfois indistincte ; écusson sans tache ; taches abdominales grandes et arrondies. Long. 10 mm. [Kilimandjaro].....
 **nummularius** Bezzi. 1

Gen. **XANTHOGRAMMA** Schiner.

Xanthogramma (Ischiodon) aegyptium Wiedemann, 1830.

KENYA PROTECTORATE : Nairobi, août 1904, Ch. All., un mâle. Espèce bien connue de toute la région éthiopienne.

Subf. **MERODONTINAE**

Gen. **PROTYLOCERA** Bezzi.

Protylocera haemorrhoea Gerstaecker, 1871.

KENYA PROTECTORATE : Mombasa, Ch. All., juillet 1903, une femelle.

En comparant cet exemplaire, provenant de la localité typique,

1. Voir *Broteria*, série « Zoologica », XVIII, 1920, p. 137.

avec un *P. griseifacies* de l'Afrique occidentale, je ne trouve comme différences que la coloration un peu plus pâle chez *P. haemorrhoea*, la cellule costale noirâtre chez celui-ci, hyaline chez *griseifacies*, le deuxième segment abdominal noir chez le premier, comme d'ailleurs l'indique la figure donnée par GERS-TAECKER.

P. griseifacies doit donc être considéré comme la forme occidentale de la même espèce.

Protylocera aesacus Walker, 1849.

TANGANYIKA TERRITORY : Moschi, dans la zone des cultures du Kilimandjaro, Ch. All., mars 1904, une femelle.

Cette femelle a l'abdomen entièrement grisâtre, avec d'étroites bandes latérales noires près du bord postérieur de chaque segment.

Protylocera Ellioti Austen, 1909.

TANGANYIKA TERRITORY : Kiléma, dans la zone des cultures du Kilimandjaro, st. n° 67, mars 1912, un mâle et une femelle.

KENYA PROTECTORATE : Nairobi, Ch. All., août 1903, 2 femelles. Comme le précédent, déjà cité du Kilimandjaro par SPEISER.

Protylocera dibaphus Walker, 1849.

KENYA PROTECTORATE : Nyangnori, dans le Nandi escarpment, Ch. All., oct. 1903, une femelle.

Cet exemplaire correspond à la forme décrite du Kilimandjaro par le D^r SPEISER, sous le nom de *gypseisquama*.

Protylocera dibaphus sulphurata Speiser, 1911.

KENYA PROTECTORATE : Bura, dans les monts Taïta, alt. 1.050 m., st. n° 61, mars 1912, une femelle.

C'est une simple variété du *P. dibaphus*, caractérisée par a couleur un peu plus jaunâtre des cuillerons.

Gen. **PHYTOMIA** Guérin-Ménéville.

Phytomia (Megaspis) curta Loew, 1858.

KENYA PROTECTORATE : Nairobi, alt. 1660 m., st. n° 10, nov. 1911, une femelle.

Espèce bien distincte de *P. natalensis* et la remplaçant en Afrique orientale et centrale.

Phytomia (Megaspis) incisa Wiedemann, 1830.

KENYA PROTECTORATE : Nairobi, alt. 1.660 m., st. n° 10, nov. 1911, 2 mâles et 2 femelles; — riv. Tchania, alt. 1.520 m., st. n° 29, janv. 1912, 1 femelle; — Bura, dans les monts Taïta, Ch. All., mars 1904.

TANGANYIKA TERRITORY : prairies alpines près du Bismarckhügel, alt. 2.700 m., st. n° 70, mars 1912, une femelle.

Espèce très répandue, déjà citée du Kilimandjaro.

Gen. **LATHYROPHTHALMUS** Mik.

Lathyrrophthalmus euzonus Andersoni Bezzi, 1915.

KENYA PROTECTORATE : Nairobi, Ch. All., août 1913, un mâle. Déjà connu des monts Kénya et Aberdare.

Gen. **ERISTALODES** Mik.

Eristalodes Barclayi Bezzi, 1915.

KENYA PROTECTORATE : Nakuro, dans le Rift Valley, Ch. All., déc. 1903, un mâle.

Espèce très voisine d'*E. plurivittata* Macquart, mais bien distincte par son tubercule facial jaune, ses yeux avec cinq bandes noires, ses cuisses jaunes, les bandes noires du thorax

non marginées de noir, la coloration jaune plus étendue sur l'abdomen, les facettes supérieures des yeux très dilatées chez le mâle.

Elle n'était encore connue que du Nyassaland.

Gen. **MESEMBRIUS** Rondani.

Mesembrius minor Bezzi, 1915.

KENYA PROTECTORATE : Nairobi, alt. 1.660 m., st. n° 10, nov. 1911, une femelle.

J'ai décrit cette espèce du Kénya et du Nyassaland. Je lui rapporte cet exemplaire femelle avec doute.

Subfam. **XYLOTINAE**

Gen. **SYRITTA** Saint-Fargeau et Serville.

Syritta fasciata Wiedemann, 1830.

KENYA PROTECTORATE : Voï, alt. 600 m., st. n° 60, mars 1912, une femelle.

Cette espèce représente notre *S. pipiens* d'Europe dans toute la région éthiopienne.

Gen. **EUMERUS** Meigen.

Eumerus Paulae Hervé-Bazin, 1913.

KENYA PROTECTORATE : riv. Athi, dans le pays Kikuyu, Ch. All., oct. 1908, un mâle.

Jolie espèce répandue en Afrique centrale et dans le Sud jusqu'au Natal.

Eumerus obliquus Fabricius, 1805.

KENYA PROTECTORATE : Voï, Ch. All., avr. 1904, un mâle.
Espèce répandue dans toute la région éthiopienne.

Subfam. **MICRODONTINAE**Gen. **MICRODON** Meigen.**Microdon rugosus** (Bezzi, 1915) **concolor**, n. subsp.

KENYA PROTECTORATE : Nyangnori, dans le Nandi escarpment, Ch. All., oct. 1903, un mâle.

Cet exemplaire appartient certainement à l'espèce que j'ai décrite du Kénya, mais il en diffère par plusieurs caractères permettant de définir une sous-espèce distincte, qui fait son apparition dans une autre saison que la forme typique. Les types du *M. rugosus* ont en effet été recueillis en février.

Long. 10 mm., donc sensiblement plus grand que la forme typique. La tête, au-dessus de la ligne transverse unissant les yeux dans leur partie saillante, et la région verticale ne sont pas rouges, mais noires; les yeux sont un peu plus écartés. Les deux derniers articles des antennes sont nettement plus longs et le troisième est moins ovale. Ecusson plus long et entièrement noir. Abdomen varié de noir et de rouge, proportionnellement plus long; les 3^e et 4^e segments plus allongés, plus cylindriques, plus complètement soudés, de façon que leur suture n'est plus visible sur les côtés. Hanches rougeâtres et non noires. Ailes avec les mêmes taches foncées et la même pubescence sur le bord antérieur, près de l'extrémité; l'angle externe de la cellule subapicale est arrondi, mais présente sur le milieu de sa courbure un petit appendice qui manque totalement chez le type.

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Quelques notes
sur les Bombyliides (DIPT.) d'Égypte,
avec description d'espèces nouvelles

par le Prof. M. BEZZI, Turin

Je remercie beaucoup le Dr. H. C. Efflatoun Bey de m'avoir communiqué pour l'étude une riche collection de Bombyliides d'Égypte, qui fait l'objet du présent travail. La plupart de ces espèces ont été recoltées par lui même, tandis que d'autres proviennent de la Collection du Ministère d'Agriculture.

Je me borne à donner les descriptions abrégées des nombreuses nouveautés, car M. Efflatoun publiera plus tard des descriptions complètes, accompagnées de belles planches pareilles à celles que nous avons déjà admiré dans sa Monographie des Syrphides d'Égypte.

C'est avec beaucoup d'intérêt que j'ai vu les nombreux matériaux d'Égypte communiqués, car c'est un fait certain que les Bombyliides sont très bien représentés dans les pays méditerranéens; ainsi dans une collection de diptères de Syrie et d'Égypte, j'ai constaté que les Bombyliides formaient le 21,6 % du total, et dans un lot de la Cyrenaïque et de la Tripolitaine ils formaient le 16,5 %. La collection communiquée par M. Efflatoun compte 126 espèces, tandis que les Syrphides égyptiens ne comptent que 22 espèces.

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Des treize sous-familles de ma classification, onze sont représentées en Égypte, à savoir : Bombyliinae 23 espèces, Cythereinae 10, Usiinae 5, Heterotropinae 3, Cyrtosiinae 2, Phthiriinae 9, Toxophorinae 2, Cylleniinae 3, Lomatiinae 18, Anthraciinae 14, Exoprosopinae 37. Il manque les Mariobezziinae, dont Becker a décrit récemment une espèce du Soudan et Nurse une espèce de l'Inde, et les Systropinae qui n'ont jamais été recoltés dans l'Afrique du Nord.

Les espèces et variétés nouvelles décrites dans ce travail sont au nombre de 36. J'ai dû aussi fonder 5 coupes génériques nouvelles. En outre il est très important d'avoir constaté la présence en Égypte de certaines formes de types éthiopiens, comme un nouveau *Dischistus (trigonus)*, un nouveau *Crocidium (aegyptiacum)*, l'*Argyromoeba incisuralis* Macquart, l'*Anthrax fuscipennis* Ricardo, et mon *Thyridanthrax ternarius* qui est très répandu dans toute la Région Ethio-pienne.

Assez nombreuses sont les espèces de Grèce et d'Asie Mineure (par exemple *Bomb. androgynus*, *Anast. niveus*, *Anast. albopectinatus*, *Gloss. aurea*, *Usia forcipata*, *Plat. melleus*, *Tox. epargyra*, *Am. setosus*, *Am. validus*, *Arg. niphias*, *Villa senecio*, *Villa haesitans*, *Thyr. misellus*, *Thyr. obliteratus*); d'autres de Cyrénaïque, de Tripolitaine, de Tunisie, d'Algérie, du Maroc ou d'Espagne (p.e. *Bomb. numida*, *Anast. bahirae*, *Disch. multisetosus*, *Chale. argyrocephalus*, *Gloss. delicata*, *Gloss. discipes*, *Gloss. barbara*, *Aphoeb. escheri*, *Chiasm. sabulonis*, *Def. vesperugo*, *Exopr. zannoni*); et d'autres de Sicile et d'Italie (p.e. *Chion. nivea*, *Villa ventruosa*, *Exopr. stupida*).

Très nombreuses sont les espèces endémiques (p.e. *Bomb. flavipes*, *Bomb. modestus*, *Gloss. alexandrina*, *Anis. ruficornis*, *Ant. suavissima*, *Arg. anthracina*, *Arg. hippolyta*, *Arg. lucida*, *Villa micrargyra*, *Thyrid. angustoculatus*, *Thyrid. unicolor*, *Thyrid. circe*, *Thyrid. stigmula*, *Thyr. griseolus*, *Exopr. rivulosâ*), auxquelles il faudra ajouter la majeure partie des espèces décrites ici comme nouvelles.

En conclusion on peut dire que la faune des Bombyliides d'Égypte est caractérisée par le grand nombre d'espèces endémiques (surtout dans le groupe des Tomophthalmes), et par la présence de certaines espèces éthiopiennes, qui manquent dans le reste de la côte septentrionale d'Afrique

I. BOMBYLIIDAE HOMOEOPHTHALMAE.

1. Bombyliinae.

Genre *Bombylius* L.

Les espèces de ce genre ne sont pas nombreuses en Égypte; la collection Efflatoun ne renferme que les 9 espèces qui suivent; en outre j'ai jugé nécessaire de créer un nouveau genre (*Acanthogeron*) pour les espèces du groupe *senex*.

- 1 (18). Cuisses de la dernière paire avec des épines en dessous; tibias avec des spicules espacées; antennes rapprochées à la base, avec le premier article simple; petite nervure transversale placée près du milieu, ou même avant le milieu de la cellule discoidale; ta-

rière de la femelle sans épines; yeux du mâle réunis ensemble.

- 2 (3). Tous les poils du corps noirs *ater* Scop.
- 3 (2). Poils du corps tous ou en majeure partie foncés.
- 4 (7). Ailes avec un dessin noir bien défini.
- 5 (6). Ailes ponctuées de noir . . *pictipennis* Loew
- 6 (5). Ailes marginées de noir . . *basilinea* Loew
- 7 (4). Ailes dépourvues de dessin bien défini, au plus un peu rembrunies à la base.
- 8 (13). Cuisses noires.
- 9 (10). Pas de soies noires sur l'abdomen
. *numida* Macq.
- 10 (9). Des soies noires sur l'abdomen.
- 11 (12). Dos du thorax sans bandes longitudinales de poils noirs *cinerascens* Mikn.
- 12 (11). Dos du thorax avec 4 bandes longitudinales de poils noirs *sp. indet.*
- 13 (8). Cuisses jaunes, ou noires seulement près de la base.
- 14 (17.) Petite nervure près du milieu de la cellule discoidale; antennes noires; front sans poils argentés.
- 15 (16). Yeux du mâle se touchant; poils du corps jaune d'or; dos du thorax avec 3 lignes de duvet *flavipes* Wied.
- 16 (15). Yeux du mâle séparés; poils jaunâtre-sale; pas de lignes sur le dos *androgynus* Loew
- 17 (12). Petite nervure beaucoup avant le milieu; antennes de la femelle à base rougeâtre; des poils argentés sur le front . . *modestus* Loew
- 18 (1). Cuisses sans épines; tibias avec des spicules

serrées; antennes assez distantes à la base, avec le premier article renflé; petite nervure beaucoup au-delà du milieu de la cellule discoïdale; tarière avec des épines; yeux du mâle séparés *Acanthogeron* nov. gen.

1. *Bombylius ater* Scopoli 1763. Le Caire en Mars, très commun.

2. *Bombylius pictipennis* Loew 1855 (nec Macquart 1849) : comme il faut un autre nom, je propose ici celui de *poecilopterus* nov. nom. Mariout en Février-Mars.

3. *Bombylius basilinea* Loew 1855. Mariout en Février.

4. *Bombylius numida* Macquart 1849; Becker. Mariout et Ezbet Nakhl, Février-Mars.

5. *Bombylius cinerascens* Mikán 1796. Deux mâles de très petite taille; Wadi Hoff, Février-Mars.

6. *Bombylius* sp. indet. Une ♀ de Ezbet Nakhl en Février, de cette espèce qui m'est inconnue.

7. *Bombylius flavipes* Wiedemann 1828. Espèce endémique. Mariout, Shoubra, Biahmo; Février-Mars.

Dans la collection Loew à Berlin il y a un couple formé par 1 ♂ de *modestus* et une ♀ de *flavipes*, nommé *pygargus* in litt. par Loew; les spécimens avaient été récoltés en Egypte par Frauenfeld et la description n'a jamais été publiée.

8. *Bombylius androgynus* Loew 1855. Wadi

Hoff en Mars; espèce de Syrie, qui se rapporte à mon groupe *disjunctus*.

9. *Bombylius modestus* Loew 1873. Très commun en Égypte : Mariout, Shoubra, Ezbet Nakhl, Wadi Hoff, Alexandrie; Mai-Juillet.

Je ne connais pas le *B. pallidulus* Walk., que Becker cite d'Égypte en 1902.

Acanthogeron GEN. NOV.

Le *Bombylius senex* Meig., déjà indiqué par Becker et par moi dans Ann. South Afric. Museum, XVIII, 1921, p. 35 est le type de ce nouveau genre; la présence d'épines sur la tarière, caractère unique chez les Bombyliines suffit pour le caractériser. Les espèces connues sont celles qui suivent :

- 1 (4). Yeux du mâle très rapprochés, leur distance pas plus grande qu'un ocelle; yeux de la femelle moins largement séparés, le front ayant la largeur d'un œil; trompe longue.
- 2 (3). Thorax et abdomen dépourvus de poils noirs *senex* Meig.
- 3 (2). Thorax avec poils noirs dans la région humérale et au-dessus de la base des ailes; abdomen avec poils noirs sur le bord postérieur des segments *biroi* Beck.
- 4 (1). Yeux du mâle plus distants, leur distance aussi large que le tubercule ocellaire; front de la femelle plus large que l'œil; trompe plus courte.
- 5 (8). Ongles beaucoup plus longs que les pelotes.

- 6 (7). Tous les poils du corps blancs, sauf quelques poils noirs sur la base des antennes, sur le front et sur l'abdomen de la femelle; pattes plus claires; abdomen de la femelle avec des bandes de poils *perniveus* sp. nov.
- 7 (6). Thorax avec poils noirs, surtout en dessous et sur la poitrine; pattes plus foncées; abdomen de la femelle non bandé
..... *separatus* Beck.
- 8 (5). Ongles pas plus longs que les pelotes; tête hérissée de poils raides très-longs; pas d'appendice à la branche supérieure de la fourche cubitale *hirticeps* Bezzi

Acanthogeron perniveus n. sp. ♂ ♀. Mariout en Mars.

♂ ♀. Longueur du corps 11—12 mm.; de l'aile 10—11 mm.; de la trompe 5.5—6 mm.

Espèce robuste, semblable à *separatus*, mais distincte par le manque absolu de poils noirs sur la poitrine. Les pattes sont plus claires. Tandis que chez le mâle l'abdomen est couvert de poils blancs, très fins et souples, égaux partout; chez la femelle chaque segment porte des poils noirs sur le milieu, et une rangée de poils blancs le long du bord postérieur; l'abdomen paraît ainsi distinctement bandé, ce qui ne se voit pas chez les femelles des autres espèces du genre.

Genre *Systoechus* Loew

Ce genre ne renferme en réalité qu'une seule espèce, car *acuticornis* de Macquart paraît se rapporter au genre suivant.

Systoechus gradatus Meigen 1820, var. *validus* var. nov. ♂ ♀. Wadi Hoff en Avril.

Longueur du corps 12—13 mm., avec environs 30 mm. d'envergure. Il présente tous les caractères de *gradatus*, mais il est de taille beaucoup plus grande; il rappelle le *S. robustus* Bezzi, qui a le front du mâle plus large, le troisième article des antennes rougeâtre à l'extrémité et les pattes entièrement rouges.

Genre *Anastoechus* Osten-Sacken

Nombreuses sont les formes comprises dans ce genre; Becker les distingue comme suit :

- 1 (6). Peigne alaire avec des soies noires.
- 2 (3). Fourrure du corps blanche; yeux du mâle bien rapprochés; cuisses largement noires; ailes toujours hyalines .. *exalbidus* Wied.
- 3 (2). Fourrure jaunâtre; yeux plus écartés; cuisses presque entièrement jaunes; ailes du mâle rembrunies.
- 4 (5). Longueur 8—12 mm. .. *stramineus* Wied.
- 5 (4). Longueur 4—7 mm. *flaveolus* Beck.
- 6 (1). Peigne avec des soies jaunes ou blanches.
- 7 (10). Troisième article des antennes linéaire; fourrure blanche, pas de soies sur l'abdomen.
- 8 (9). Ailes avec une bande brune sur le milieu, troisième article des antennes pas renflé dans le milieu *niveus* Herm.
- 9 (8). Ailes complètement hyalines; troisième article un peu renflé dans le milieu
..... *albopectinatus* Beck.
- 10 (7). Troisième article des antennes distinctement

renflé à la base; fourrure jaunâtre, avec des soies bien distinctes sur l'abdomen.

- 11 (14). Petite espèce, avec la branche inférieure de la fourche cubitale simple; yeux du mâle rapprochés.
- 12 (13). Ailes hyalines; une ligne blanche le long du milieu de l'abdomen ♀ *bahirae* Beck.
- 13 (12). Ailes rembrunies sur le milieu; pas de ligne blanche sur l'abdomen
. ♂ *fuscipennis* Beck.
- 14 (11). Grande espèce avec la fourche appendiculée; yeux du mâle plus distants; base des antennes rougeâtre; une ligne de duvet blanc le long du milieu de l'abdomen
. *retrogradus* Beck.

1. *Anastoechus exalbidus* Meigen 1820. Wadi Hoff et Wadi Garawi, Mars-Avril.

2. *Anastoechus stramineus* Meigen 1820. Mariout en Mars-Avril; *acuticornis* Macquart 1840 est certainement synonyme.

3. id., var. *flaveolus* Becker 1916, décrit d'Alexandrie, est seulement une variété plus petite; Mariout en Avril-Mai.

4. *Anastoechus niveus* Hermann 1909. Décrit du Sinaï, j'ai vu un mâle de Suez, Octobre.

5. *Anastoechus albopectinatus* Becker 1913. Décrit de la Perse, je l'ai vu de Wadi Hoff, Juin.

6. *Anastoechus bahirae* Becker 1915 et *fuscipennis* Becker 1915 (= *fuscipennis* 1916) : ne sont que

les deux sexes de la même espèce; Mariout et Wadi Garawi, Avril-Mai.

7. *Anastoechus retrogradus* Becker 1902. Mariout et Wadi Hoff, Avril-Mai. En 1916 Becker disait qu'il s'agit seulement d'une variété de *tresignatus* Portschinsky 1881, du Caucase.

Genre *Dischistus* Loew

Parmi les espèces de ce genre il y en a une que je considère comme formant un nouveau genre (*Efflataunia*).

- 1 (6). Marge postérieure des yeux absolument simple, métapleures avec des poils; pelotes distinctes; pas de dent sur les ongles.
- 2 (3). Petite espèce avec cellule discoidale triangulaire et première cellule postérieure très largement ouverte *trigonus* n.sp.
- 3 (2). Grande espèce avec cellule discoidale allongée et première cellule postérieure rétrécie au sommet.
- 4 (5). Flancs et poitrine avec tous les poils grisâtres; abdomen du mâle sans poils noirs à l'extrémité *eximius* Beck.
- 5 (4). Des poils noirs sur les flancs et sur la poitrine; abdomen du mâle avec touffe terminale de poils noirs; moitié terminale de l'abdomen de la femelle d'un noir luisant, avec des poils noirs *giganteus* Villen.
- 6 (1). Marge postérieure des yeux avec une échancrure arrondie, plus étroite que celle du

genre *Eurycarenum*; métapleures nues; pas de pelotes, ongles avec une forte dent sur le milieu; première cellule postérieure très rétrécie au sommet
 *Efflatounia* n.g. *aegyptiaca* n.sp.

1. *Dischistus trigonus* n.sp. ♂ ♀.

Petite espèce ayant le faciès des espèces éthiopiennes du groupe *seriatus* Wied. et se rapprochant de *B. tripunctatus* Macq.; mais chez le mâle les yeux se touchent et la petite nervure transversale est placée après le milieu de la cellule discoïdale. *D. latescens* Loew de Syrie paraît s'en rapprocher. Dachor en Avril; Abou Zaabal à la fin de Mars; un mâle du Mariout n'est pas typique, avec poils jaunâtres sur l'occiput et sur le thorax, et les ailes sans taches obscures.

♂ ♀. Longueur du corps, 4—6 mm.; de l'aile, 5—7 mm.

Tous les poils de la tête sont blancs, excepté ceux du sommet du front qui sont jaunâtres. Antennes noires avec le troisième article long et linéaire. Trompe courte et épaisse. Poils occipitaux longs et blancs chez la femelle; front de la femelle plus large que l'œil; yeux du mâle en contact entr'eux. Thorax et abdomen avec poils jaunâtres ou grisâtres; métapleures avec poils; balanciers blancs. Abdomen avec duvet doré sur le dos; soies blanches ou jaunes, peu distinctes. Cuisses noires, tibias et tarses jaunes; spicules jaunâtres; cuisses de la dernière paire avec 3—4 soies en dessous. Ailes hyalines, avec base jaunâtre et trois taches obscures, à l'origine de la troisième nervure, sur la petite nervure transversale et sur la nervure

basale de la quatrième cellule postérieure; ces taches sont parfois peu distinctes, surtout chez la femelle. Première cellule postérieure aussi large au sommet qu'à la base; petite nervure transversale après le milieu de la cellule discoïdale, qui est triangulaire.

2. *Dischistus eximius* Becker 1906 et *giganteus* Villeneuve 1920.

Ne sont que deux variétés de la même espèce, que je crois en outre identique à *D. multisetosus* Loew, Stett. ent. Zeit., XVIII, 1857, p. 17, de l'Espagne. Loew a déjà mis en évidence les caractères qu'ils ont de commun avec les *Bombylius* du groupe *senex*; mais ils ne peuvent pas rentrer dans mon genre *Acanthogeron*, car la tarière ne présente pas d'épines; il faudra fonder un genre nouveau pour ces formes, avec le type *multisetosus*. Dans la collection de M. Efflatoun la forme *eximius* ♂ ♀ provient du Wadi Hoff, Mars-Avril; et la forme *giganteus* ♂ ♀ du Mariout et du Wadi Rishrash en Mars.

Efflatounia NOV. GEN.

Très proche des *Dischistus* du groupe *multisetosus* Loew et avec la même nervure alaire; la forme du corps est comme dans le genre *Acanthogeron*; mais les yeux présentent une échancrure au bord postérieur et bien que plus étroite que chez *Eurycarenum*, elle est toujours bien distincte; de ce dernier genre il diffère par les métapleures nus et par la première cellule postérieure des ailes ouverte au sommet, bien que très rétrécie en dehors. Les palpes sont linéaires, uni-arti-

cullés; les tarse n'ont pas de pelotes et ont les ongles dentés; la femelle présente une touffe anale de poils, mais pas d'épines à la tarière.

Type : l'espèce nouvelle qui suit.

Ejflatounia aegyptiaca n.sp. ♂ ♀.

Espèce caractéristique, semblable par le port à *senex*, mais avec les ailes comme chez *multisetosus*.

Wadi Hoff en Mars-Avril; Wadi Um Biar (Kosseir), en Février.

♂ ♀. Longueur du corps, 10—11 mm.; de l'aile 10—11 mm.; de la trompe 6—7 mm.

Entièrement d'un noir opaque, avec la face testacée, surtout chez la femelle; deux lignes blanchâtres le long du milieu du dos du thorax. Yeux du mâle se touchant entr'eux; front de la femelle plus large que l'œil. Poils de la tête noirs, assez courts, peu nombreux; palpes et trompe noirs; antennes noires, rapprochées à la base; premier article pas renflé; troisième linéaire, aussi long que les deux premiers ensemble. Echancreure des yeux étroite mais profonde; pas de ligne de bisection. Tous les poils chez le mâle sont blanchâtres; chez la femelle il y a des poils raides noirs sur l'écusson et au bord postérieur des segments de l'abdomen. Balanciers blancs. Pattes testacées, avec les cuisses plus ou moins noires; spicules des tibias longues et noires, disposées sur 3 rangées; cuisses de la dernière paire avec une rangée d'épines noires en-dessous. Ailes grisâtres, un peu obscurcies près de la base chez le mâle; pas de peigne basal; nervures fortes, identiquement disposées comme chez *multisetosus*.

Genre *Prorachthes* Loew*Prorachthes longirostris* n.sp. ♂.

Un mâle du Mariout en mars.

♂. Longueur du corps 6.5 mm. Très proche de *ledereri* Loew, dont il diffère par la trompe plus longue que la tête, par les palpes plus courts que la trompe, par les yeux du mâle plus rapprochés, par la cellule anale des ailes ouverte. Le troisième article des antennes porte des poils le long de la marge supérieure, ce dont Loew ne parle pas dans sa description originale, mais qui sont signalés par Becker (*Gen. Bombyl.*, p. 479) pour une espèce inédite de la Hongrie. Le dessin des ailes semble être variable. Chez des femelles d'Algérie, qui semblent se rapporter à cette même espèce, les palpes sont très dilatés, presque autant que le troisième article des antennes.

Par la présence des spicules aux tibias, le genre *Prorachthes* doit se ranger dans les Bombyliinae ; mais par ses palpes bi-articulés (Loew) il se rapproche des Phthiriinae, dont néanmoins il s'éloigne par la fourche cubitale large. Les métapleures ne portent pas de poils, mais chez le mâle le corps est bien plus velu que chez la femelle.

Genre *Conophorus* Meigen 1803.*Conophorus aegyptiacus* n.sp. ♂.

Très voisin de *Con. bellus* Becker 1906 de la Tunisie, mais plus petit et plus étroit, et différent par le manque des touffes de poils jaunâtres au-dessous du troisième article des antennes, par le manque des

lignes blanches du dos du thorax et par le dessin des ailes plus simple.

Mariout en Février.

♂. Longueur du corps 5 mm.; de l'aile 4 mm.

Tête noire, couverte de toment très obscur, sauf sur le petit triangle frontal du mâle où il est blanc. Antennes noires, mais couvertes de toment grisâtre sur les deux premiers articles; premier article renflé, avec tous les poils noirs, même au-dessous; troisième article aminci, linéaire, distinctement plus court que chez *bellus*. Yeux du mâle en contact, avec les ommatidies égaux. Les poils du dessous de la tête, des côtés de la face (exceptés ceux de la partie supérieure qui sont noirs) et de l'occiput sont blancs. Trompe noire, aussi longue que les antennes; palpes très minces, noirs, aussi longs que la moitié de la trompe. Thorax noir, couvert de toment obscur sur le dos, beaucoup plus grisâtre sur les côtés du dos et sur les flancs; le dos n'a pas de dessin distinct, et est complètement dépourvu des lignes blanches qui se trouvent chez *bellus*; il est couvert de poils noirs et très longs sur le dos, plus courts et en partie blancs sur les flancs. Ecusson d'un noir très brillant, avec quelque peu de toment grisâtre près de la base, et avec poils noirs érigés. Cuillerons blancs, avec longs poils blancs sur le bord; balanciers noirâtres. Abdomen beaucoup plus étroit que chez *bellus*, noir, couvert de toment obscur et de poils noirs, sauf sur les côtés de la base où ils sont blanchâtres; il n'y a pas de touffes alternées de poils blanchâtres et noirs sur les côtés, ou bien, ils sont beaucoup moins distincts que chez *bellus*. Pattes noires, couvertes de toment obscur et de poils noirs;

spicules noires. Ailes distinctement plus étroites que chez *bellus*, avec la même nervation, sauf que la première cellule postérieure n'est pas élargie en dehors et la cellule discoidale n'est pas aussi régulièrement triangulaire. Le dessin foncé est moins riche que chez *bellus*, car les taches arrondies à l'extrémité des nervures le long du bord postérieur de l'aile ne sont pas aussi développées, ou manquent complètement.

2. *Cythereinae*.

Genre *Cytherea* s. l.

Ce groupe, autrement appelé *Mulio*, semble être richement représenté en Egypte. Les différences entre les 3 genres *Cytherea*, *Glossista* et *Chalcochiton* n'étant pas toujours bien marquées, je les laisse ici tous les trois ensemble, mais il faut remarquer que jusqu'à présent on n'a pas retrouvé en Egypte des espèces avec 3 cellules sousmarginales.

(*Cytherea* s.str.).

- 1 (2). Métapleures nus ; trompe pas plus longue que la bouche ; pelotes assez développées....
..... *Chalcochiton argyrocephalus* Macq.
- 2 (1). Métapleures avec touffe de poils ; trompe plus longue que la bouche ; pelotes presque nulles (*Glossista*).
- 3 (6). Trompe assez courte, sa partie découverte toujours plus courte que les tibias du devant.
- 4 (5). Antennes et pattes, y compris les cuisses, entièrement testacées *Gl. aurea* Fabr.

- 5 (4). Antennes noires; pattes noires avec les tibias testacés *Gl. albolineata* n.sp.
- 6 (3). Trompe plus longue, aussi longue ou plus longue que les tibias du devant.
- 7 (12). Tous les tibias et la base des tarses bien distinctement testacés.
- 8 (9). Ailes avec des taches obscures dans le centre des cellules de la partie médiane et postérieure; soies abdominales noires
..... *Gl. nucleorum* Beck.
- 9 (8). Pas de taches semblables; soies abdominales toujours jaunes.
- 10 (11). Dos du thorax avec deux lignes blanches bien distinctes; ailes avec des taches dans la partie obscure *Gl. delicata* Beck.
- 11 (10). Dos sans lignes blanches ou avec des lignes peu distinctes; ailes dépourvues de taches..
..... *Gl. alexandrina* Beck.
- 12 (7). Tibias noirs ou peu distinctement testacés.
- 13 (16). Bord postérieur de l'écusson d'un noir très luisant.
- 14 (15). Front entièrement d'un noir opaque.....
..... *Gl. nitidapex* n.sp.
- 15 (14). Front d'un noir luisant .. *Gl. discipes* Beck.
- 16 (13). Bord postérieur de l'écusson pas luisant.
- 17 (18). Très grande espèce, sans fenêtre jaunâtre dans la partie obscure de l'aile
..... *Gl. barbara* Sack
- 18 (17). Espèce plus petite, avec une fenêtre jaunâtre dans le milieu de l'aile
..... *Gl. thyridophora* n.sp.

1. *Chalcochilton argyrocephalus* Macquart 1840. Mariout en Mars; déjà signalé d'Égypte par Becker. Ces individus sont bien semblables à mon *bisalbifrons* de Cyrenaïque, qui se distingue seulement par les poils du dos du thorax plus foncés et par le dessin des ailes moins tranché. La cellule discoïdale ne présente pas d'appendice.

2. *Glossista aurea* Fabricius 1794. Mariout en Mars-Avril.

3. *Glossista albolineata* n.sp. ♂ ♀.

Semblable à *dispar* Loew des pays transcaspiens, (mais cité aussi d'Algérie par Becker en 1915), ayant aussi les ailes différemment colorées dans les deux sexes et la trompe très courte; mais il se distingue par plusieurs caractères et par la ligne blanche le long du milieu de l'abdomen. Plusieurs exemplaires de Wadi Hoff en Avril et de Mariout en Mai.

♂ ♀. Longueur du corps, 7—10 mm.; de l'aile 6—10 mm.

Front de la femelle double en largeur de celui du mâle, d'un noir opaque, avec des poils noirs ou obscurs sur la partie basale, blancs en avant comme ceux de la face; antennes noires; trompe aussi longue que la bouche ou un peu plus longue. Dos du thorax sans dessin, avec des poils obscurs; flancs avec poils blancs; écusson noir; balanciers blancs. Abdomen tout couvert de poils blancs, avec une bande de duvet blanc le long du milieu; les soies du bord postérieur des segments sont blanches ou jaunâtres. Cuisses noires, tibias testacés. Ailes du mâle avec la moitié

basale d'un brunâtre uniforme, mais pas bien tranchant; ailes de la femelle presque entièrement hyalines; cellule discoïdale usuellement dépourvue d'appendice; première cellule postérieure rétrécie en dehors; petite nervure transversale un peu avant le milieu de la cellule discoïdale.

4. *Glossista nucleorum* Becker 1902. Mariout en Avril.

5. *Glossista delicata* Becker 1906.

Mariout et Wadi Hoff, Avril-Juin. Exemplaires de taille plus grande (jusqu'à 11 mm. de longueur), tandis que Becker donne 7—8 mm. seulement pour ceux d'Algérie et de Tunisie.

6. *Glossista alexandrina* Becker 1902.

Mariout en Avril-Mai; commune; endémique.

7. *Glossista nitidapex* n.sp. ♂ ♀.

Très proche de la précédente, mais distincte pour avoir la moitié postérieure de l'écusson d'un noir très luisant et les tibias plus noirs. Longueur du corps, 6—7 mm.; de l'aile, 6—8 mm.

Wadi Hoff et Wadi Garoui en Avril.

Elle paraît être semblable au *maroccana* Becker, mais elle en diffère par le front entièrement opaque dans les deux sexes.

8. *Glossista discipes* Becker 1915.

Espèce de Tunisie, qui présente la partie postérieure de l'écusson luisante comme chez l'espèce précédente, mais avec le front de la femelle entièrement

d'un noir luisant; chez *maroccana* il est luisant seulement sur les côtés.

Une femelle de Wadi Garawi en Avril, qui ne peut pas appartenir à l'espèce précédente.

9. *Glossista barbara* Sack 1906.

Mariout et Rafa en Mai. C'est la plus grande espèce parmi celles de ce genre qui vivent en Égypte; elle est déjà signalée du Mariout dans mon travail de 1909 dans « Broteria » sous le nom erroné de *maroccana*. La première cellule postérieure des ailes est rétrécie en dehors.

10. *Glossista thyridophora* n.sp. ♂ ♀.

Proche de *fenestrulata* Loew du Turkestan, mais avec les soies abdominales jaunes, et de *fenestrata* Loew aussi du Turkestan, qui a toutefois la trompe beaucoup plus longue. Mariout en Avril-Mai.

♂ ♀. Longueur du corps et de l'aile 7—8 mm.

Front de la femelle double de celui du mâle; poils noirs, blancs sur le devant et sur la face; chez la femelle les poils du front sont moins foncés. Antennes noires; trompe assez courte. Dos du thorax sans dessin, avec poils obscurs; flancs avec poils jaunâtres. Ecusson noir; balanciers à massue blanche. Abdomen avec poils blancs ou jaunâtres, et avec soies jaunâtres. Pattes entièrement noires. Ailes avec la première cellule postérieure pas rétrécie en dehors; cellule discoïdale usuellement sans appendice; petite nervure un peu après le milieu de la cellule discoïdale. La fenêtre jaunâtre dans le milieu de la partie obscure de l'aile est très distincte et prolongée jusqu'à la base de la cellule discoïdale; chez la femelle cette fenêtre est moins

distincte, car la partie obscure de l'aile est moins foncée.

Il paraît que cette espèce soit répandue dans l'Afrique du Nord, car je la possède aussi de l'île de Djerba; il est curieux qu'elle est demeurée inconnue à Becker, qui a trouvé 10 espèces : *maroccana*, *nucleorum*, *argyrocephala*, *alexandrina*, *delicata*, *trifaria*, *holosericea*, *barbara*, *dispar* et *discipes*.

3. Usiinae.

Becker avait trouvé en Egypte une seule espèce de ce groupe; dans la collection Efflatoun il y en a 4; mais elles doivent être sans doute plus nombreuses.

- 1 (8). Trois cellules postérieures aux ailes; cellule anale fermée et avec un court pédoncule (genre *Usia*).
- 2 (5). Pubescence du corps pâle, blanchâtre ou jaunâtre.
- 3 (4) Pattes et corps presque entièrement jaunâtres
..... *U. lutescens* n.sp.
- 4 (3). Pattes et corps noirs; abdomen avec des bandes jaunes au bord postérieur des segments.
..... *U. aurata* Fabr.
- 5 (2). Tous les poils du corps noirs; hypopyge très développé.
- 6 (7). Ailes rembrunies; abdomen ponctué
..... *U. forcipata* Brull.
- 7 (6). Ailes presque hyalines; abdomen sans ponctuation distincte *U. ignorata* Beck.

8 (1). Quatre cellules postérieures ; cellule anale ouverte au sommet
 *Psiatholaius fascipennis* n.sp.

1. *Usia lutescens* n.sp. ♀.

Espèce très distincte de toutes celles connues jusqu'à ce jour en raison de son corps jaunâtre, de ses pattes entièrement jaunes et de son corps presque entièrement nu.

Une femelle de Kerdacé en Juin.

♀. Longueur du corps 4 mm. ; de l'aile 3.5 mm.

Tête extérieurement jaunâtre, avec une petite tache ocellaire noire et avec deux lignes noires sur le milieu de l'occiput, de chaque côté du col. Front plus étroit que l'œil, presque nu. Antennes et trompe entièrement jaunes, cette dernière deux fois aussi longue que la tête. Thorax entièrement jaunâtre; le dos avec courte pubescence d'un jaunâtre pâle et avec 3 lignes longitudinales d'un brun rougeâtre, dont les deux latérales réduites à deux taches séparées et raccourcies en avant. Ecusson jaunâtre, immaculé; balanciers jaunâtres. Abdomen entièrement jaunâtre, à pubescence jaunâtre très courte; les segments moyens sont un peu brunâtres à la base, mais sans former des bandes distinctes. Pattes entièrement nues et jaunes, seulement les tarsi un peu obscurcis à l'extrémité. Ailes hyalines, immaculées, à nervures jaunes; fourche cubitale à base large, placée après l'extrémité de la cellule discoïdale; petite nervure avant le milieu de la cellule discoïdale; pédoncule de la cellule anale assez long.

2. *Usia aurata* Fabricius 1794.

Mariout en Février-Mars; exemplaires de petites dimensions.

3. *Usia forcipata* Brullé 1832.

Signalée d'Égypte par Becker, qui l'a vue à Berlin, récoltée par Waltl.

4. *Usia ignorata* Becker 1906.

Mariout en Mars.

5. *Psiatholaius fascipennis* n.sp. ♂ ♀.

Près de *Ps. bombyliiformis* Beck. de la Tunisie, dont il diffère par la forme différente des antennes et par la coloration des ailes.

Le mâle de Mazghouna en Mai, la femelle de Kerdacé en Mai.

♂ ♀. Longueur du corps, 6.5—7 mm.; de l'aile, 6—7 mm.; de la trompe, 4.5—5 mm. Espèce robuste, large de corps, surtout chez la femelle. Tête noire, densément couverte de toment cendré, immaculée, avec des poils peu nombreux, très courts et blanchâtres; tubercule ocellaire très élevé; front presque nu, chez la femelle un peu plus large que chez le mâle, aussi large que l'œil. Antennes noires, avec le premier article du double plus long que le second; troisième article allongé, linéaire, graduellement aminci, aigu à l'extrémité, où il ne porte pas plus que 1—2 cils. Trompe noire, longue. Thorax cendré, opaque, couvert de courts mais épais poils blanchâtres; sur le dos il y a trois lignes longitudinales obscures, l'intermédiaire partagée en deux par une ligne blanchâtre, plus brève en arrière, tandis que les latérales sont plus

brèves en avant. Flancs immaculés, un peu jaunâtres le long de la suture notopleurale; métapleures nus. Ecusson cendré et pubescent comme le dos; balanciers blancs, avec massue jaune-sombre. Abdomen cendré et pubescent comme le dos; chaque segment avec une large bande jaune le long du bord postérieur, complète et égale, prolongée sur le ventre. Lamelle sous-génitale du mâle rougeâtre. Pieds testacés, avec hanches et trochanters noirâtres; ils sont presque nus, les tibias sans spicules. Ailes avec la même nervure que chez *bombyliiformis*, mais avec la deuxième et troisième cellules postérieures plus longues; elles sont hyalines, avec une bande brunâtre sur le milieu, étendue de la base de la première cellule sousmarginale jusqu'à la base de la cellule discoïdale et de la quatrième cellule postérieure.

4. *Heterotropinae.*

Cette singulière tribu, qui comprend un seul genre, fut l'objet de ma petite étude publiée en 1915 dans les Annales du Musée de Gênes. Elle est bien représentée en Égypte, car la collection Efflatoun compte trois espèces, toutes nouvelles, l'une formant même une coupe générique nouvelle. Je donne ici une table de distinction de toutes les espèces connues, dont *albipennis* et *glaucus* sont de l'Orient, *indicus* et *pallens* de l'Inde (décrits en 1922 d'après les deux sexes), *trolleri* de Tripolitaine et *sudanensis* Becker 1922 du Soudan.

1 (16). Côte complète, c'est-à-dire contournant toute l'aile; cellule discoïdale obtuse en

- dehors, la deuxième cellule postérieure ayant la base large et sessile; cellule anale beaucoup plus longue que la deuxième cellule basale; yeux de la femelle très largement séparés, le front étant plus large que l'œil.
- 2 (11). Mâles; yeux unis et bisectés; trompe courte, pas plus longue que la tête; troisième article des antennes presque entièrement jaune.
- 3 (6). Abdomen sans taches ni bandes noires; trompe et pattes jaunes ou verdâtres.
- 4 (5). Bord de la bouche peu élevé
..... *albidipennis* Loew
- 5 (4). Bord de la bouche très élevé .. *pallens* Nurse
- 6 (3). Abdomen avec taches ou bandes noires.
- 7 (8). Abdomen avec taches noires; trompe jaune; pattes entièrement verdâtres .. *indicus* Nurse
- 8 (7). Abdomen avec bandes noires; trompe noire.
- 9 (10). Cuisses postérieures noires; troisième article des antennes noir à l'extrémité; dos du thorax verdâtre avec trois bandes noires longitudinales *glaucus* Beck.
- 10 (9). Pattes entièrement jaunes, comme le troisième article des antennes; dos du thorax d'un noir cendré uniforme
..... *bisglaucus* n.sp.
- 11 (2). Femelles; yeux largement séparés et simples; trompe plus longue.
- 12 (13). Premier article des antennes pas plus long que le deuxième, troisième article jaune; tibias de la dernière paire jaunes jusqu'à l'extrémité.
- a (b). Tarses en partie jaunes

- *albidipennis* Loew
 b (a). Tarses entièrement noirs
- *sudanensis* Beck.
- 13 (12). Premier article plus long que le deuxième, troisième noir; tibias postérieurs à extrémité noire.
- 14 (15). Trompe un peu plus longue que la tête; abdomen jaune, avec des petites taches noires à la base des segments *trotteri* Bezzi
- 15 (14). Trompe beaucoup plus longue que la tête; abdomen noir, avec deux rangées de taches jaunes arrondies *maculiventris* n.sp.
- 16 (1). Pas de côte le long du bord postérieur de l'aile; cellule discoïdale aigüe en dehors, la deuxième cellule postérieure pédonculée à la base; cellule anale pas plus longue que la deuxième basale; front de la femelle beaucoup plus étroit que l'œil; trompe du mâle plus courte que la tête, celle de la femelle plus longue que la tête
- *Alloxytropus* n.g. *anomalus* n.sp.

1. *Heterotropus bisglaucus* n.sp. ♂.

Voisin de *glaucus* Beck., mais distinct par sa coloration bien différente.

Un mâle de Meadi en Mars, coll. du Min. d'Agric.

♂. Longueur du corps, 4 mm.; de l'aile, 3.5 mm.; de la trompe, 0.8 mm. Occiput noir, mais avec une tache jaune inférieurement de chaque côté près des yeux; triangle ocellaire noir; face très petite, jaune comme le péristome qui est linéaire. Antennes entièrement jaunes. Trompe noire, avec les lèvres

jaunes, pas plus longue que la tête. Thorax noir, cendré, sans dessin sur le dos; il y a une large bande jaune le long de la suture notopleurale, étendue sur les cotés et sur la partie supérieure des flancs. Pubescence du dos blanchâtre, bien développée. Ecusson jaune, immaculé. Balanciers blancs. Abdomen couvert de long poils blanchâtres; il est jaune, mais chaque segment présente une large bande basale noire qui le fait paraître noir avec des bordures postérieures jaunes sur chaque segment; l'extrémité de l'abdomen et le gros hypopyge sont complètement jaunes. Ventre d'un jaune grisâtre uniforme. Pattes entièrement jaunes, même les hanches, assez longuement velues; les 2-3 derniers articles des tarsi sont noirâtres. Ailes hyalines, un peu blanchâtres, avec les nervures très pales, disposées comme dans la figure de Becker.

2. *Heterotropus maculiventris* n.sp. ♀.

Comme chez les femelles de ce genre la trompe est toujours plus longue que chez les mâles, on pourrait croire que celle-ci soit la femelle de l'espèce précédente; mais cela ne paraît pas possible, vue la coloration trop différente.

Une femelle du Wadi Hoff.

♀. Longueur du corps et de l'aile, 3.5 mm.; de la trompe, 2.5 mm. Tête jaune, presque nue; occiput avec une large tache noire de chaque côté et une autre plus petite en dehors; front avec le triangle ocellaire, une ligne longitudinale dans le milieu et une étroite bande sur la base des antennes, noirs. Antennes avec les 2 premiers articles jaunes, tandis que le dernier

est entièrement noir. La longue et grosse trompe est noire. Dos du thorax noir-grisâtre, avec 3 bandes plus obscures peu distinctes, celle du milieu partagée par une mince ligne longitudinale plus claire; une tache humérale et une bande notopleurale jaunes; deux taches jaunâtres triangulaires en avant de l'écusson; flancs jaunes, tachés de noir en dessous. Pubescence du dos blanchâtre. Ecusson jaune, avec une petite tache obscure sur le milieu. Balanciers blanchâtres. Abdomen noir, presque nu, avec deux rangées de taches jaunes arrondies, placées en contact avec le bord postérieur de chaque segment; ventre jaune immaculé. Hanches et pattes jaunes; extrémité des tibias de la dernière paire, et extrémité de chaque article des tarsi, noirs. Ailes exactement comme chez l'espèce précédente.

Alloxytropus NOV. GEN.

Très voisin du genre *Heterotropus*, mais bien différent par les nervures des ailes et par le front de la femelle bien plus étroit.

Tête, corps et pieds absolument nus. Yeux sans échancrure postérieure; ceux du mâle sont bisectés et longuement noirs; ceux de la femelle sont simples et séparés, mais le front est beaucoup plus étroit que l'œil. Antennes avec les deux premiers segments courts; le troisième est linéaire, du double plus long que les deux premiers ensemble. La trompe chez le mâle est plus courte que la tête; chez la femelle elle est bien plus longue, presque aussi longue que la tête et le thorax ensemble. Ecusson petit, avec deux soies

apicales bien distinctes. Abdomen allongé, hypopyge petit. Pattes faibles, nues; tibias sans spicules. Ailes très caractéristiques; fourche cubitale étroite; cellule discoïdale très petite, aigue en dehors, placée dans le milieu de l'aile; deuxième cellule postérieure rétrécie à la base et pedonculée; cellule anale très courte (caractère aberrant!); côte s'arrêtant à l'extrémité de la troisième nervure longitudinale; lobe axillaire long et proéminent; alule distincte, arrondie.

Type : l'espèce nouvelle suivante.

3. *Alloxytropus anomalus* n.sp. ♂ ♀.

Petite espèce jaune, grêle, très distincte par son aberrante nervation alaire, et avec le facies d'un *Scenopinus*.

Deux mâles de Qena en Juin, une femelle du Wadi Hoff en Juin.

♂ ♀. Longueur du corps, 3—3.5 mm.; de l'aile, 2.5—3 mm.; de la trompe ♂, 0.2 mm.; de la trompe ♀, 1 mm.

Entièrement d'un jaune-testacé. Tête avec l'occiput et le triangle ocellaire fauves chez le mâle, cendrés chez la femelle. Antennes et trompe jaunâtres. Thorax jaunâtre uniforme chez le mâle, avec deux bandes obscures parallèles sur le milieu du dos chez la femelle; écusson jaunâtre; balanciers jaunes. Abdomen uniformément testacé, sans aucun dessin. Pattes testacées, nues, les tibias et les tarses blanchâtres chez le mâle. Ailes hyalines, irisées avec les nervures très pâles, presque évanouissantes le long du bord postérieur.

5. *Cyrtosiinae.*

Empidideicus nubilus n.sp. ♂ ♀.

Très voisin de *serenus* Beck. 1915 de Tunisie, mais différent pour avoir thorax et écusson de couleur cendré opaque, la face noire et les bandes jaunes de l'abdomen moins développées. Comme les autres espèces qui ont la deuxième et troisième nervures longitudinales distinctes (*perfectus* et *serenus* de Becker, *indicus* de Brunetti), il est bien difficile de séparer du genre *Cyrtosia*.

Wadi Hoff en Mars.

♂ ♀. Longueur du corps, 1.5—2 mm.; de l'aile, 1.7—2.2 mm. Tête entièrement noire, avec toment gris. Antennes noires; style sans soie terminale, comme chez l'espèce type; trompe noire, épaisse, verticale, un peu plus longue que la tête. Yeux, d'après ce qu'il paraît, séparés chez les deux sexes. Thorax et écusson entièrement noirs, mais opaques, car ils sont couverts d'un dense toment gris-obscur; le dos ne présente pas de dessin distinct. Balanciers avec grosse massue jaune. Abdomen entièrement noir, opaque, cendré, avec les bandes jaunes des bords postérieurs des segments très étroites ou même indistinctes, et visibles seulement sur les derniers segments. Pattes noires, avec les genoux et la base des prétarses assez largement jaunes, comme chez *serenus*. Ailes hyalines, avec les nervures jaunâtres à la base, disposées comme chez *serenus*, c'est-à-dire avec la deuxième et la troisième cellule basale notablement plus courte que la première; fourche de la quatrième nervure considérablement plus longue que son pédoncule.

Platypygus melleus Loew 1856.

1 ♀ du Wadi Hoff en Avril.

Espèce décrite d'abord d'Égypte et ensuite trouvée en Grèce, distincte par sa coloration, par sa longue trompe et par les premiers articles des antennes jaunes.

6. Phthiriinae.

Genre *Phthiria* Meigen.

De ce genre on ne connaît d'Égypte que l'espèce *minuta* Fabr. citée par Walker; Becker cite de l'Afrique du Nord les espèces *gaedi*, *notata*, *pulicaria* et *incisa*, et Loew donne pour la Syrie *conspicua*, *vagans*, *subnitens* et *rustica*. Je constate cependant que toutes les espèces de la coll. Efflatoun sont nouvelles; et il est intéressant de constater qu'une d'entre elles appartient au genre *Crocidium*.

- 1 (6). Côte non prolongée jusqu'à la racine de l'aile, mais finissant à l'extrémité de la nervure anale; yeux du mâle unis sur une ligne longue; premier article des antennes presque aussi long que le second; cellule anale assez longuement pédonculée à l'extrémité; ailes sans taches obscures.
- 2 (5). Style des antennes allongé et très distinct; pattes en partie ou entièrement jaunes.
- 3 (4). Hanches et cuisses noires; troisième cellule postérieure rétrécie en dehors.....
..... *tricolor* n.sp.
- 4 (3). Hanches et cuisses jaunes; troisième cellule pas rétrécie en dehors *unicolor* n.sp.

- 5 (2). Style des antennes pas distinct; pattes entièrement noires *xanthaspis* n.sp.
- 6 (1). Côte complète, étendue même le long du lobe axillaire; yeux du mâle rapprochés seulement près du sommet; premier article des antennes beaucoup plus long que le second; cellule anale sessile à l'extrémité; ailes avec des taches obscures
..... *Crocidium aegyptiacum* n.sp.

1. *Phthiria tricolor* n.sp. ♂.

Espèce du groupe *gaedi*, voisine de *conspicua* Loew, distincte par la coloration des pattes et de l'abdomen, et par les ailes hyalines.

Wadi Hoff en Mai.

♂. Longueur du corps et de l'aile, 6 mm.; de la trompe, 4.5 mm. Tête entièrement noire, avec toment blanchâtre sur l'occiput; bord de la bouche brunâtre; face presque nue, avec quelques courts poils blancs. Antennes noires, avec le deuxième article un peu jaunâtre; style bien développé comme chez *gaedi* ou chez *notata*. Trompe noire, très longue; palpes noirs, plus courts et plus épais que chez les deux espèces citées. Thorax noir, mais tout couvert de toment opaque, de couleur cendré-bleuâtre; le dos porte trois bandes longitudinales distinctes plus obscures mais peu marquées, celle du milieu partagée par une mince ligne claire; ligne notopleurale, callosités humérales et postalaires étroitement jaunes; poils blancs. Écusson entièrement jaunâtre foncé, immaculé, avec des poils blanchâtres. Balanciers blancs. Abdomen entièrement rougeâtre, plus pâle sur la moitié basale,

plus foncé sur la moitié terminale; il n'y a pas de taches obscures, mais le bord postérieur de chaque segment est assez largement jaune; ventre noirâtre, avec bordures jaunes; poils longs et blancs; la lamelle génitale supérieure est noire, avec deux appendices latéraux en forme de pince. Hanches noires, avec poils blancs; cuisses noires, avec extrémités jaunes; tibias jaunes; tarses noirs avec base jaune, ceux des deux premières paires plus largement colorés. Ailes hyalines; nervures pâles, obscurcies en dehors, disposées comme chez *gaedi*, mais avec la troisième cellule postérieure plus courte et beaucoup plus rétrécie au dehors.

2. *Phthiria unicolor* n.sp. ♀.

Voisine de *subnitens* Loew, pourrait aussi être la femelle de l'espèce précédente, mais présente les pattes entièrement jaunes.

Wadi T. Rachid en Avril, Coll. du Min. Agric.

♀. Longueur du corps, 5.5 mm.; de la trompe, 4.5 mm. Tête entièrement jaune; une bande noire verticale de chaque côté sur le milieu de l'occiput; tache ocellaire noire; une petite tache obscure sur le milieu de la partie antérieure du front; une petite tache obscure de chaque côté du prolongement antennifère, tout près des yeux. Antennes jaunes, avec le troisième article noirâtre, qui porte un style distinct, comme chez l'espèce précédente. Trompe et palpes noirs. Thorax jaune, avec le dos noir-cendré dans le milieu; flancs tachés de noir; poils blancs. Ecusson entièrement jaune pâle, immaculé; balanciers blancs. Abdomen entièrement jaune, avec poils blancs; seule-

ment le deuxième et le troisième segment présentant des traces de taches obscures; ventre jaune. Pattes entièrement jaunes, y compris les hanches; les trochanters portent une petite tache noire en dessus; tarsi noirs, à base jaune. Ailes hyalines, à nervures pâles, disposées comme chez *gaedi*.

3. *Phthiria xanthaspis* n.sp. ♂ ♀.

Petite espèce du groupe *pulicaria*, très-voisine de *canescens*, mais avec les balanciers blancs; elle est aussi semblable à *minuta* et à *vagans*, ayant aussi l'écusson jaune chez la femelle comme dans cette dernière, mais avec les ailes complètement hyalines dans les deux sexes.

Mariout en Avril.

♂ ♀. Longueur du corps, 2.5—3 mm.; chez un autre couple 4.5—5 mm. Tête du mâle noire, avec toment blanc qui devient d'argent sur le front; tête de la femelle jaunâtre, avec tache occipitale noire et prolongement antennifère noir; face couverte de longs et nombreux poils blancs chez les deux sexes. Antennes noires, faites comme chez *pulicaria*, dépourvues de style; palpes et trompe noirs, cette dernière très longue. Thorax et écusson chez le mâle entièrement noirs, avec toment cendré opaque et longs et nombreux poils blancs, sans dessin sur le dos; chez la femelle le toment est jaunâtre, les poils sont plus courts, les callosités humérales et postales, la ligne notopleurale et tout l'écusson sont jaunes. Balanciers blancs chez les deux sexes. Abdomen entièrement noir-cendré opaque, avec des longs poils blancs chez le mâle; chez la femelle le toment est jaunâtre, les poils sont moins

nombreux et le premier segment porte sur le bord postérieur une bande jaune, élargie sur les cotés. Hanches et pattes entièrement noires; les trochanters de la première paire sont jaunâtres chez la femelle. Ailes hyalines, blanchâtres, chez les deux sexes; nervures obscures, à base jaune, disposées comme chez *pulicaria*.

4. *Crocidium aegyptiacum* n.sp. ♂ ♀.

C'est une bien importante découverte que de trouver ce genre éthiopien en Egypte; il est distinct du genre *Phthiria* surtout pour avoir la côte alaire complète et par le premier article des antennes plus long. Cette nouvelle espèce n'est pourtant pas typique, car elle diffère de *poecilopterus* par les yeux du mâle plus écartés; sa face est comme chez *nigrifacies* du Cap, qui a les ailes immaculées.

Un couple du Mariout en Avril.

♂ ♀. Longueur du corps, 3.5—4 mm. ; de la trompe 2 mm. Tête entièrement noire, mais couverte de toment cendré sur l'occiput, blanc d'argent sur le front du mâle, jaunâtre sur le front de la femelle, avec une mince ligne blanche près des yeux. Le front du mâle est très étroit, les yeux se rapprochent graduellement en arrière sans se toucher, bien que très rapprochés entr'eux en avant du tubercule ocellaire; front de la femelle très large, presque carré, même plus large que l'œil, avec une touffe de poils argentés de chaque coté sur le devant. Face coniforme, assez proéminente; chez la femelle elle est nue et d'un noir luisant, le péristome est blanc-jaunâtre avec de longs poils blancs; chez le mâle la partie noire centrale est

bien plus réduite et reste cachée sous les longs poils blancs. Antennes longues, entièrement noires, premier article bien plus long que le deuxième, qui est très petit; troisième article linéaire, un peu plus long que les deux premiers ensemble, sans style terminal. Trompe noire, épaisse, assez longue; palpes pas visibles. Thorax et écusson noirs chez les deux sexes, mais différents par la couleur du toment; chez le mâle le dos est cendré, avec des lignes obscures peu distinctes et est couvert de longs poils blanchâtres, les flancs sont couverts de toment blanc comme les côtés du dos; chez la femelle le toment et les poils sont jaunâtres sur le dos, blanc d'argent sur les côtés et sur les flancs. Balanciers blancs chez les deux sexes. Abdomne noir chez les deux sexes, avec d'étroites bandes jaunâtres ou blanchâtres au bord postérieur des segments; chez le mâle le toment est cendré et les poils sont longs et blancs; chez la femelle le toment est jaunâtre et les poils sont courts et jaunâtres. Pattes entièrement noires, mais couvertes de toment blanc, qui est même plus épais chez la femelle. Ailes hyalines, blanchâtres, avec 4 taches obscures, une à la base de la fourche cubitale, une sur la petite nervure transversale, une sur l'extrémité de la cellule discoïdale et une sur la nervure basale de la quatrième cellule postérieure; en outre il y a une tache plus petite à l'origine de la deuxième nervure longitudinale. Nervures noires, à base jaunâtre; elles sont bien différentes de celles typiques du genre *Phthiria*; la première nervure longitudinale est de beaucoup moins longue et est très proche de l'auxiliaire; la fourche cubitale est plus courte et plus triangulaire, car ses deux

branches sont divergentes; les trois premières cellules postérieures ont la même largeur au bord de l'aile; la cellule anale est fermée au bord même de l'aile; la petite nervure transversale est très proche de l'extrémité de la cellule discoïdale.

Genre *G e r o n* Meigen.

Il est bien curieux qu'une seule espèce de ce genre soit connue de l'Afrique du Nord. J'ai décrit plusieurs espèces éthiopiennes, mais je crois qu'on peut distinguer aussi plusieurs espèces méditerranéennes en surplus de mon *G. mystacinus* de Syrie, comme suit :

- 1 (4). Face entièrement couverte de poils, aussi sur le milieu; cuisses noires; nervures des ailes noires.
- 2 (3). Les poils sur le milieu de la face et ceux en dessous du premier article des antennes sont noirs; le troisième article des antennes présente la partie basale large et ovale et celle terminale subtile et styliforme
mystacinus Bezzi.
- 3 (2). Tous les dits poils sont blancs et nombreux; le troisième article est linéaire; nervures des ailes très épaisses *intonsus* n.sp.
- 4 (1). Face largement nue sur le milieu; troisième article des antennes linéaire; nervures pâles.
- 5 (8). Cuisses entièrement noires chez les deux sexes; thorax et abdomen couverts de poils blancs.
- 6 (7). Petite espèce avec les pattes entièrement noi-

- res, ou au plus les tibias jaunâtres chez la femelle; les poils sur les cotés de la face sont courts *halteralis* Meig.
- 7 : (6). Espèce plus grande, avec les tibias jaunes chez les deux sexes et avec les poils latéraux de la face plus longs *gibbosus* Ol.
- 8 (5). Cuisses testacées chez les deux sexes; poils du corps jaunâtres *erythropus* n.var.

1. *Geron mystacinus* Bezzi 1924.

Espèce de Syrie, qui paraît voisine de *argentifrons* Brun. de l'Inde; très distincte par la forme des antennes et par les poils noirs de la face et de la base des antennes.

2. *Geron intonsus* n.sp. ♂ ♀.

Très-distinct par sa face toute couverte de longs poils blancs chez les deux sexes, mais avec les antennes comme chez *gibbosus*.

Mariout en Avril.

♂ ♀. Longueur du corps, 5.5—6 mm.; de l'aile, 5—5.5 mm

Entièrement noir opaque, tout couvert de longs poils blancs. Yeux du mâle longuement unis; front de la femelle aussi large que l'œil; avec des longs poils argentés sur les cotés. Antennes avec le troisième article linéaire, et le premier article avec des poils blancs. La face, au lieu d'être nue sur le milieu, est toute couverte de longs poils blancs, qui sont un peu plus longs chez le mâle. Trompe noire, longue comme la tête et le thorax ensemble. Le dos du thorax présente le long du milieu une ligne cendrée assez large, et

une autre de chaque côté sur la suture notopleurale; les poils chez la femelle sont plus courts et un peu jaunâtres. Ecusson noir; balanciers blancs. Abdomen noir mat, avec des bordures grisâtres à la marge postérieure de chaque segment; les poils chez la femelle sont plus courts et plus jaunâtres. Pattes entièrement noires, mais couvertes de toment blanc. Ailes laiteuses, avec d'épaisses nervures noires, sauf la base où elles sont jaunâtres; les nervures sont disposées comme chez *gibbosus*.

3. *Geron gibbosus* Olivier 1789 (= *hybridus* Mgn. = *olivierii* Macq. = *capensis* Walk.).

C'est l'espèce typique, pour laquelle il faut adopter le nom proposé par Olivier.

Wadi Hoff en Avril-Juin.

4. *Geron gibbosus* var. *halteralis* Meigen 1820.

C'est la petite forme à pattes plus obscures.

Shoubra en Mai; Ramleh en Juin; Alexandrie; Suez en Juillet.

5. *Geron gibbosus* var. *erythropus* n.var.

C'est une forme de grandes dimensions, couverte de poils jaunâtres et avec les pattes entièrement testacées; *G. albescens* Brun. de l'Inde paraît semblable.

7. Toxophorinae.

1. *Toxophora maculata* Rossi 1790.

Wadi Hoff en Avril; Marg en Mai.

2. *Toxophora epargyra* Hermann 1907.

Wadi Hoff en Juin.

Cette petite espèce curieuse est répandue sur toute l'Afrique.

8. *Cylleniinae*.

Genre *Amictus* Wiedemann.

L'Afrique du Nord compte des nombreuses espèces de ce genre, à savoir : *pictus* Loew, *variegatus* Meig., *strigilatus* Loew, *zinzamoninus* Beck., *pulchellus* Macq., *tener* Beck., *oblongus* Fabr., *castaneus* Macq., *compressus* Fabr., *heteropterus* Macq.

La collection Efflatoun renferme les espèces suivantes :

- 1 (4). Première cellule postérieure ouverte en dehors, bien que quelquefois très rétrécie au sommet; antennes noires, au moins sur le troisième article; abdomen avec les bandes blanches peu développées.
- 2 (3). Première cellule postérieure largement ouverte; antennes à base jaune; dos du thorax orné de deux lignes blanches .. *tener* Beck.
- 3 (2). Première cellule rétrécie en dehors; antennes entièrement noires; dos du thorax dépourvu de lignes blanches *setosus* Loew
- 4 (1). Première cellule longuement pédonculée; antennes entièrement jaunes; abdomen avec bandes blanches basales bien développées; deux lignes blanches sur le dos du thorax...
..... *validus* Loew

1. *Amictus tener* Becker 1906.
Sakkara en Mars; Mariout en Avril.

2. *Amictus setosus* Loew 1869.
Mariout et Ezbet El Nakhl en Avril; espèce d'Asie Mineure, comme la suivante.

3. *Amictus validus* Loew 1869.
Ezbet el Nakhl en Avril; Suez en Mai.

II. BOMBYLIIDAE TOMOPHTHALMAE.

9. Lomatiinae.

Anisotamia ruficornis Macquart 1840.

Un exemplaire du Mex (Alexandrie) en Mai, coll. Alfieri.

C'est l'unique espèce connue de ce genre, car les autres, citées dans les catalogues comme américaines, sont des *Oncodocera*. On peut dire qu'*Anisotamia* n'est autre chose qu'une *Lomatia* à première cellule postérieure longuement pédonculée. Echancrure et bisection des yeux bien développées; les antennes et les pattes entièrement fauves sont très caractéristiques. La coloration des ailes rappelle un peu celle du *Lom. pictipennis* Wied, qui avait été placée dans le même genre par Macquart (sous le nom de *Ancentralis*); mais la figure XIV. 2. de Macquart est bien la *ruficornis*. Le rameau supérieur de la fourche cubitale est souvent appendiculé à la base.

Antonia suavissima Loew 1856.

M. Efflatoun a bien voulu me donner un exem-

plaire de cette magnifique espèce endémique, capturé au Wadi Hoff en Mars.

Genre *Stomylomyia* Bigot 1887.

Ce genre présente beaucoup d'affinités avec le précédent (*Antonia*); le nom de Bigot doit être employé au lieu de celui de *Tomomyza*, car ce dernier comprend seulement des espèces de l'Afrique du Sud, qui sont bien différentes et appartiennent même à une autre tribu, celle des *Cylleniinae*.

Le genre *Stomylomyia* est distinct de *Plesiocera* Macq. surtout par la présence de trois cellules sous-marginales aux ailes.

M. Efllatoun n'a pas trouvé des *Plesiocera* en Égypte, mais plusieurs formes de *Stomylomyia*, qui peuvent se distinguer comme suit, avec inclusion de *tenella*, qui est propre à l'Espagne et à l'Algérie, et de *europaea* que Becker dit avoir recoltée à Alexandrie.

- 1 (6). Proéminence de la face entièrement jaune comme le bord de la bouche.
- 2 (5). Troisième article des antennes assez allongé et distinctement concave en dessous; thorax et écusson avec soies noires.
- 3 (4). Pattes fauves, avec la base de toutes les cuisses largement noire; écusson avec plusieurs rangées de soies .. *aegyptiaca* n.var.
- 4 (3). Pattes fauves, avec des étroites bandes noires sur les cuisses..... *europaea* Loew
- 5 (2). Troisième article des antennes très court et plus régulièrement conique; les 4 pattes du

devant entièrement fauves; thorax et écusson avec soies jaunes, celles de l'écusson disposées sur une rangée unique *pusilla* n. sp.

- 6 (1). Proéminence faciale entièrement noire, seulement le bord de la bouche étroitement jaune; troisième article des antennes allongé; cuisses largement noires à la base.
- 7 (8). Dos du thorax avec deux bandes longitudinales blanchâtres; une bande transversale blanchâtre avant l'écusson et une autre sur le premier segment de l'abdomen; écusson avec deux rangées de soies *tenella* Loew
- 8 (7). Pas de bandes blanches distinctes et une seule rangée de soies sur l'écusson
..... *nigrirostris* n. var.

1. *Stomylomyia europaea* var. *aegyptiaca* nov. var. ♀.

C'est peut-être la forme que Becker cite d'Alexandrie sous le nom de *europaea*.

Plusieurs femelles du Mariout en Avril-Mai; un mâle de la même localité paraît aussi se rapporter ici, bien qu'il ait la proéminence faciale noire sur le milieu, et les soies du thorax et de l'écusson fauves.

♀. Longueur du corps, 6.5—8 mm.; de l'aile, 5—6.5 mm. C'est la forme plus grande des trois espèces recoltées par M. Efflatoun et qui correspond bien à la description de Loew, dont elle se distingue par la coloration des cuisses, qui sont noires à la base, celles de la première paire sont même entièrement noires avec l'extrémité jaunâtre. Un caractère impor-

tant, dont Loew ne parle pas, est celui des soies de l'écusson disposées sur plusieurs rangées.

2. *Stomylomyia europaea* var. *nigrirostris* nov. var. ♂ ♀. Un mâle du Mariout en Mai; une femelle du Wadi Hoff en Avril; c'est la taille moyenne des trois espèces.

♂ ♀. Longueur du corps, 5—6 mm.; de l'aile, 4—5 mm. Distincte par la face entièrement noire, seulement un étroit bord de la bouche jaune; par ce caractère elle se rapproche de *tenella*, dont elle diffère par le manque des bandes blanches. Les poils du front sont entièrement blancs chez le mâle, noirs en dessus chez la femelle; toutes les cuisses sont noires à extrémité fauve; l'écusson porte une seule rangée de soies.

3. *Stomylomyia pusilla* n. sp. ♂ ♀.

C'est la plus petite des trois, et paraît être une bonne espèce par la forme du troisième article des antennes, par les soies fauves et par les pattes très pâles.

Mazghouna en Avril; Dahchor en Avril; Giza Pyramids en Avril (coll. Min. Agric.).

♂ ♀. Longueur du corps, 3—4.5 mm.; de l'aile, 2.5—4 mm. Occiput et front noirs avec toment gris; face et bord de la bouche entièrement jaunâtre très pâle; tous les poils blancs, même chez la femelle. Antennes avec les deux premiers articles petits et jaunâtres; troisième article noir, beaucoup plus court que chez les deux formes précédentes et régulièrement conique. Trompe noire. Thorax et écusson entièrement

noirs, mais densément couverts de toment cendré ; tous les poils et les soies sont jaunes; une seule rangée de soies sur l'écusson, dont le bord postérieur est rougeâtre chez la femelle; pas de dessin distinct sur le dos. Balanciers blancs. Abdomen de la couleur du thorax, avec les bords postérieurs des segments étroitement testacés; tous les poils sont blanchâtres. Pattes grêles, les 4 premières entièrement fauves y compris les hanches, les cuisses postérieures noires avec extrémité fauve; tarsi à extrémité noire, ceux de la dernière paire presque entièrement noirs; spicules des tibias peu nombreuses et petites, noires, un peu plus développées chez la femelle. Ailes comme chez *europaea*.

Genre *Aphoebantus* Loew.

Les espèces de ce genre présentent souvent une grande similitude avec certaines espèces de *Thyridanthrax* à ailes hyalines; mais elles s'en distinguent, outre le caractère de la base longue et aiguë de la première cellule sousmarginale et par la forme arrondie (pas proéminente) de la face, par les tibias de la première paire toujours pourvus de spicules distinctes, tandis que ces tibias sont parfaitement mutiques chez *Thyridanthrax*.

Les espèces d'*Aphoebantus* sont assez nombreuses dans les pays méditerranéens; y compris les *Cononedys* de Hermnan et de Becker, celles connues jusqu'à présent sont les suivantes :

- 1 (4). Première cellule postérieure fermée et pédonculée (*Cononedys*).

- 2 (3). Antennes et écusson noirs; pas de pelotes aux tarsi *stenurus* Loew.
- 3 (2). Antennes et écusson testacés; pelotes bien développées *erythraspis* Herm.
- 4 (1). Première cellule postérieure largement ouverte; pas de pelotes.
- 5 (12). Ailes avec le rameau supérieur de la fourche cubitale appendiculé à la base; elles sont aussi tachées de noir plus ou moins distinctement.
- 6 (9). Écusson avec deux grands tubercules d'un noir luisant.
- 7 (8). Troisième article des antennes fauve.
 *bituberculatus* Beck.
- 8 (7). Troisième article entièrement noir
 *bilobatus* Bezzi (*)
- 9 (6). Écusson avec le bord postérieur tout entier d'un noir luisant; troisième article des antennes noir.
- 10 (11). Tarsi entièrement noirs; taches des ailes peu distinctes et limitées aux nervures transversales *scutellatus* Meig.
- 11 (10). Tarsi testacés; taches plus marquées, et présentes même sur la base de la fourche cubitale et à l'extrémité de la cellule discoïdale.
 *escheri* Bezzi
- 12 (5). Ailes dépourvues d'appendice et de taches.
- 13 (14). Grande espèce noire, à écusson entièrement d'un noir luisant; pattes entièrement noires, celles de la dernière paire avec spicules

(*) Espèce d'Abyssinie, citée pour comparaison.

- noires *efflatouni* n. sp.
- 14 (13). Espèces plus petites et plus pâles; écusson avec seulement le bord postérieur luisant; tibias et tarses testacés, avec spicules blancs châtres.
- 15 (16). Troisième article des antennes large à la base et ensuite styliforme; dos du thorax pas rayé; tibias fauves, avec extrémités distinctement noires *dichromatopus* n. sp.
- 16 (15). Troisième article de forme conique régulière; dos rayé de pâle et de noirâtre; tibias uniformement foncées *wadensis* n. sp.

1. *Aphoebantus escheri* Bezzi 1908.

Mariout en Mars-Avril. Ces exemplaires diffèrent de mes types d'Algérie seulement par leur coloration beaucoup plus foncée, le toment jaunâtre étant bien plus restreint et plus pâle; seule la base de l'écusson porte un toment jaune semblable. Hypopyge et ailes, comme nervures et comme dessin, sont bien les mêmes.

2. *Aphoebantus efflatouni* n. sp. ♂ ♀.

Grande et robuste espèce, que j'ai le plaisir de dédier à mon collègue M. Efflatoun, qui a fait tant de découvertes intéressantes sur les Diptères de son pays.

Wadi Hoff en Mars-Avril; Mariout en Mars-Avril; Wadi Rishrash en Mars.

♂ ♀. Longueur du corps, 8—10 mm.; de l'aile 7—9 mm.; un couple mesure seulement 5.5 et 4.5 millimètres.

Tête entièrement noire, même au bord de la bouche, mais toute couverte de toment cendré; les yeux du mâle sont très rapprochés avant les ocelles mais sans se toucher, tandis que ceux de la femelle sont assez largement séparés; front du mâle avec des poils blancs; front de la femelle luisant sur la moitié supérieure et couvert de poils noirs, avec toment jaunâtre au dessus des antennes. Face arrondie, nue sous les antennes, avec une touffe de poils au-dessus du bord de la bouche, blanchâtres chez le mâle, jaunâtres ou noirs chez la femelle. Antennes entièrement noires, avec le troisième article aminci sur la moitié terminale, portant un style égal au tiers de sa longueur; poils de la base noirs. Trompe noire, épaisse, plus longue que la bouche; palpes noirs. Thorax entièrement noir, assez luisant; poils grisâtres ou jaunâtres; soies jaunâtres ou noires; touffe mésopleurale plus pâle. Ecusson entièrement d'un noir luisant, sans toment, avec les soies, jaunâtres ou plus rarement noires, placées sur plusieurs rangées. Balanciers jaunâtres, à pédoncule plus foncé; cuillerons d'un blanc sale, à bord nu. Abdomen comme le dos du thorax ou un peu moins luisant; des touffes de poils blancs sur les côtés de la base; toment blanchâtre ou jaunâtre; les poils raides au bord postérieur des segments sont noirs. Ventre du mâle avec de longs poils blancs, un peu plus courts chez la femelle; hypopyge très développé, noir, avec les crochets du forceps supérieur rougeâtres; dernier segment de l'abdomen chez la femelle bordé d'une brosse noire; épines de la tarière jaunâtres. Pattes entièrement noires, même sur les tarsi; spicules des 4 tibias antérieurs jaunes, celles

des tibias postérieurs noires et plus nombreuses; ongles petits; pas de pelotes. Ailes hyalines, immaculées; première cellule postérieure un peu rétrécie en dehors; petite nervure transversale sur le milieu ou un peu avant le milieu de la cellule discoïdale; deuxième nervure longitudinale avec une double sinuosité terminale. Les nervures sont noires, sauf la côte qui est jaune jusqu'à la fin de la première nervure, qui est aussi jaune, comme la base de toutes les autres nervures. Pas d'appendice à la base de la fourche cubitale.

3. *Aphoebantus dichromatopus* n. sp. ♂ ♀.

Espèce très distincte par sa couleur pâle et ses tibias fauves à extrémité noirâtre

Mariout en Mars-Avril.

♂ ♀. Longueur du corps et de l'aile, 4—5 mm. Tête conformée et colorée comme chez le précédent, mais avec tous les poils blancs ou jaunâtre-pâles, même ceux de la face; le front de la femelle est assez luisant près des ocelles, et porte quelquefois des poils en partie noirs. Antennes noires, avec le troisième article très aminci dans sa partie styliforme, conformé comme chez le genre *Villa*. Thorax noir opaque, sans dessin distinct sur le dos; poils, toment et soies jaunâtre-pâles ou blanchâtres. Ecusson noir luisant sur la moitié terminale, couvert de toment jaunâtre sur la moitié basale, avec soies jaunâtres. Balanciers blancs; cuillerons blancs, nus sur le bord. Abdomen comme le dos du thorax, mais couvert de dense toment jaunâtre pâle ou blanchâtre; les poils raides érigés du bord postérieur de chaque segment sont noirs;

poils du ventre blancs. Hypopyge typique et assez développé; brosse de la femelle jaunâtre, tarière à épines testacées. Pattes avec les hanches et les cuisses noires, à toment cendré; tibias fauves, avec l'extrémité largement noirâtre; tarses testacés à extrémité noire; spicules des tibias faibles, toutes blanchâtres, même celles de la dernière paire; cuisses presque nues avec peu de poils blancs, tandis que chez le précédent elles sont couvertes de longues poils noirs; ongles très petits, pas de pelotes. Ailes typiques, hyalines, immaculées, sans appendice; nervures plus pâles et plus largement jaunes à la base; petite nervure transversale placée plus avant du milieu de la cellule discoïdale.

4. *Aphoebantus wadensis* n. sp. ♂ ♀.

Peut-être une variété du précédent, mais distinct par la forme bien diverse du troisième article des antennes.

Wadi Hoff et Wadi Rishrash en Mars.

♂ ♀. Longueur du corps et de l'aile, 5—6 mm. Tête comme chez le précédent, mais les yeux du mâle sont distinctement plus écartés; poils du front et de la face d'un blanc d'argent chez le mâle, jaunâtres chez la femelle; front de la femelle luisant dans sa moitié supérieure. Antennes noires; troisième article en forme de cône régulier, sans partie amincie styliforme. Dos du thorax avec dessin distinct, consistant en trois bandes longitudinales obscures, dont celle du milieu partagée par une ligne claire. Ecusson comme chez le précédent; toutes les soies jaunes. Abdomen comme chez le précédent, mais avec les soies blanches comme les poils; pièces génitales ♂ ♀ les

mêmes. Pattes comme chez le précédent, mais les tibias plus foncés, sans partie terminale plus obscure. Ailes comme chez le précédent.

Genre *Petrorossia* Bezzi.

Il n'est pas toujours facile de séparer ce genre de *Chionamoeba* Sack et de *Chiasmella* Bezzi; je laisse donc unis ici ces trois genres et j'ajoute une nouvelle coupe générique très intéressante. Ils se distinguent de *Aphoebantus* par les yeux du mâle plus éloignés, et surtout par l'origine de la deuxième nervure longitudinale plus rapprochée de la petite nervure transversale et parfois même opposée, la première cellule sous-marginale étant obtuse à sa base au lieu d'être aiguë. Ces caractères dénotent une affinité avec les *Anthrax* proprement dits; la tarière de la femelle est toujours sans épines.

Les espèces sont nombreuses; j'en ai distingué 9 pour la Région Ethiopienne et il y en a plusieurs dans la Région Orientale; M. Efflatoun en a trouvé un bon nombre en Égypte, comme on peut le voir ci-dessous :

- 1 (16). Origine de la deuxième nervure longitudinale placée avant la petite nervure transversale.
- 2 (13). Tête proportionnellement peu dilatée, avec le front de largeur normale; antennes insérées au milieu des yeux ou bien un peu en dessus.
- 3 (4). Yeux chez les deux sexes très rapprochés entr'eux; petite nervure près du milieu de la cellule discoïdale; corps étroit, cylindrique,

- couvert d'écaïlles; alule et cuïllérons très réduits
 *Pipunculopsis* n.gen. *bivittata* n. sp.
- 4 (3). Petite nervure beaucoup avant le milieu de la cellule discoïdale; corps plus large, dépourvu d'écaïlles, avec l'abdomen conique assez dilaté à la base; alule et cuïllérons bien développés (*Pérorossia* s. str.).
- 5 (12). Cellule discoïdale aiguë à la base; aïles longues et étroites.
- 6 (9). Front du mâle très étroit, pas plus large que le tubercule ocellaire, avec tous les poils blancs; abdomen souvent rouge, ou moins sur les cotés; aïles hyalines.
- 7 (8). Espèce de 5—6 mm. de longueur
 *letho* Wied.
- 8 (7). Plus petite, ne dépassant pas 3—4 mm....
 *liliputiana* n. var.
- 9 (6). Front du mâle plus large que le tubercule ocellaire; abdomen noir; aïles plus ou moins obscures.
- 10 (11). Front couvert de poils noirs chez les deux sexes; aïles souvent appendiculées; deuxième nervure avec double courbure près de l'extrémité *hesperus* Rossi.
- 11 (10). Front avec des poils blancs et distinctement plus large; aïles dépourvues d'appendice, obscures sur la moitié basale; deuxième nervure avec courbure simple.. *latifrons* n. sp.
- 12 (5). Cellule discoïdale coupée droite à la base; aïles un peu plus larges, et complètement hyalines *albifacies* Macq.

- 13 (2). Tête plus large, avec le front distinctement dilaté chez les deux sexes; abdomen conique; corps couvert d'écailles; antennes insérées au dessous du milieu des yeux; ailes larges, avec la cellule discoïdale coupée droite à la base (*Chionamoeba*).
- 14 (15). Cuisses et base des antennes fauves.....
..... *frontalis* Wied.
- 15 (14). Cuisses et base des antennes noires
..... *nivea* Rossi
- 16 (1). Origine de la deuxième nervure opposée à la petite nervure transversale (*Chiasmella*).
- 17 (18). Ailes hyalines, immaculées
..... *laevipennis* Bezzi (*)
- 18 (17). Ailes distinctement tachées de brunâtre près des nervures transversales.
- 19 (20). Abdomen noir, base des antennes de couleur rougeâtre obscur *sabulonis* Beck.
- 20 (19). Abdomen plus ou moins largement rouge; base des antennes très pâle
....., *rubicunda* n. var.

A. *Pipunculopsis* nov. gen.

Ce genre est fondé pour un insecte singulier, au corps étroit et cylindrique, tout couvert d'écailles blanches et avec les nervures des ailes différentes des autres de ce groupe.

Tête arrondie, globulaire mais pas renflée; occiput bilobé supérieurement, avec une courte frange centrale. Yeux très rapprochés chez les deux sexes, le

(*) Espèce d'Arabie, citée pour comparaison!

front du mâle plus étroit que le tubercule ocellaire et celui de la femelle aussi large que le même tubercule; ils sont pourvus d'une échancrure petite mais profonde, n'ont pas de ligne de bisection et ont les ommatidies égaux; ocelles distincts, placés sur un petit tubercule. Antennes insérées au milieu des yeux, courtes, assez rapprochées à la base; troisième article arrondi à la base, avec la portion styliforme non bisectée et avec un poil à l'extrémité. Face courte, pas proéminente; trompe cachée dans la hanche, à lèvres grosses. Thorax et écusson avec les soies peu développées; métapleures nues. Cuillerons rudimentaires. Abdomen cylindrique, beaucoup plus étroit que le thorax, dépourvu de soies; hypopyge petit; femelle avec une touffe terminale. Pattes assez grêles; les 4 cuisses postérieures avec des soies en dessous; tous les tibias avec spicules, même ceux du devant; pelotes étroites et longues. Ailes courtes et assez étroites, avec la côte complète et avec alule très petite, nue. Deuxième nervure longitudinale avec double courbure à l'extrémité, naissante à angle droit un peu avant la petite nervure transversale, qui est placée près du milieu de la cellule discoïdale; première cellule sous-marginale obtuse à la base; première cellule postérieure ouverte en dehors; cellule discoïdale assez courte, coupée droit à la base et en dehors; cellule anale largement ouverte.

Type : l'espèce nouvelle qui suit.

1. *Pipunculopsis bivittata* n. sp. ♂ ♀.

Espèce élégante, avec deux lignes obscures le long de l'abdomen.

Wadi Hoff en Juin; Kerdacé en Mai; Suez en Juillet.

♂ ♀. Longueur du corps, 5.5—8 mm.; de l'aile, 4—5 mm. Tête noire, mais toute couverte de toment grisâtre et avec des courts poils blancs; face et front avec des écailles blanches. Antennes le plus souvent noires, mais parfois rougeâtres; trompe noire, à lèvres jaunes. Thorax et écusson noirs, à toment grisâtre; le dos porte 3 bandes longitudinales obscures, toutes de la même largeur; les courts poils du dos sont blanchâtres; sur les cotés du dos et sur les mésopleures et sternopleures il y a des écailles blanches, qui manquent sur la partie postérieure des flancs. Balanciers blancs. Abdomen coloré comme le dos du thorax et avec de pareilles écailles; il porte deux lignes obscures longitudinales, souvent divisées en taches isolées; le ventre est jaune, comme quelquefois le bord postérieur de chaque segment, surtout sur les cotés; sternites d'un noir grisâtre; hypopyge rougeâtre; touffe de la femelle jaunâtre. Pattes jaunâtres, mais les hanches, la base des 4 cuisses antérieures et les cuisses postérieures presque entièrement sont d'un noir grisâtre, couvertes de toment blanc; spicules et soies noires; dernier article des tarsi noir; ongles jaunâtre foncé, pelotes blanchâtres. Ailes hyalines, irisées, immaculées; nervures jaunes à la base, noirâtres en dehors; rameau supérieur de la fourche cubitale dépourvu d'appendice.

B. *Petrorossia*, Bezzi.

Les espèces de cette coupe présentent le port typique de *P. hesperus* et sa nervation alaire caractéristique.

téristique; les cuillerons sont assez développés et pourvus de franges plus ou moins longues; la petite nervure transversale est sur le premier tiers de la cellule discoïdale.

2. *Petrorossia letho* Wiedemann 1828 = *longitarsis* Becker 1902.

Distincte de *hesperus* non seulement par le front absolument dépourvu de poils noirs chez les deux sexes, mais surtout par le front bien plus étroit chez les deux sexes. Les ailes ne portent jamais d'appendice, mais peuvent être aussi obscurcies que chez *hesperus*, bien que plus rarement; l'abdomen est le plus souvent rougeâtre, au moins en partie.

Barrage en Septembre; Maadi en Août; Marg en Mai; Ezbet El Nakhl en Avril; Alexandrie en Juillet.

3. *Petrorossia letho* var. *lilipuliana* n. var. ♂ ♀. Très proche de la précédente, mais toujours de la moitié plus petite.

Ezbet El Nakhl en Avril-Mai; Mex en Juin; Suez en Juillet; Sakkara en Mars; Fayoum en Mai. Je la connais aussi de la Tunisie.

Les pattes peuvent être presque entièrement rougeâtres, ou avec celles de la dernière paire noires même sur les tibias; le plus souvent les cuisses sont noires. Les ailes ne sont jamais obscurcies.

4. *Petrorossia hesperus* Rossi 1790.

Ezbet El Nakhl en Avril, Siala (Fayoum) en Avril.

5. *Petrorossia latifrons* n. sp. ♂.

Petite espèce distincte par le front du mâle très large, par le singulier hypopyge et par la coloration des ailes.

Type ♂ unique de Suez, 30 Juillet.

♂. Longueur du corps et de l'aile, 4 mm. Tête noire, toute couverte de toment grisâtre; front du double plus large que le tubercule ocellaire, entièrement couvert de poils blancs, comme la face. Antennes petites, entièrement noires, avec le troisième article renflé à la base. Yeux avec échancrure large et profonde et avec une longue ligne de bisection. Thorax et écusson noirs, assez luisants, avec un peu de toment grisâtre et des poils blanchâtres. Balanciers blancs; cuillerons blancs, bien développés, presque nus sur le bord. Abdomen court, obtusement conique, noir, couvert de dense toment grisâtre et de poils blancs; bord postérieur des segments testacé, avec des étroites bandes d'écailles blanchâtres; hypopyge très développé, compliqué, rougeâtre. Hanches et cuisses noires, avec toment blanchâtre, les cuisses de la dernière paire à extrémité fauve et dépourvues de soies en dessous; tibias fauves avec des spicules très minces, même peu distinctes sur ceux du devant; tarsi noirs à base fauve, ongles et pelotes très petites. Ailes larges et courtes, hyalines sur la moitié terminale, obscurcies sur la moitié basale et le long de la cellule costale, mais pas de division bien tranchée; deuxième nervure avec son origine un peu avant la petite transversale et en angle droit, avec simple courbure à l'extrémité; pas d'appendice; petite nervure transversale sur le premier tiers de la cellule discoïdale; première cellule postérieure largement ouverte en dehors; cellule dis-

coïdale aiguë à la base; cellule anale ouverte.

6. *Petrorossia ? albifacies* Macquart 1840.

Wadi Hoff en Avril, Mazghouna en Mai, Kerdacé en Juin, Suez en Juillet.

Je ne suis pas sûr de cette dénomination par suite des différentes interprétations de Becker, qui en 1906 a décrit cette espèce sous le nom de *Anthrax rufipes* Macq. (espèce de l'Afrique du Sud); en 1913 (Persische Dipteren, p. 557) il la place dans *Hémipenthes* tout en reconnaissant sa parenté avec *Petrorossia*; et enfin en 1916 il la met dans le genre *Villa*. L'espèce, par la forme de la nervation alaire, se rapproche du genre *Chionamoeba*. Le front du mâle est aussi large que le tubercule ocellaire, celui de la femelle est du triple plus large, bien que toujours plus étroit que chez *nivea*. L'abdomen porte des distinctes, bien que très étroites, bandes de poils blancs au bord postérieur de chaque segment, dont Becker ne parle pas; toutes les cuisses sont assez largement noires à la base.

C. *Chionamoeba* Sack 1909.

7. *Chionamoeba nivea* Rossi 1790.

Ezbet El Nakhl en Avril-Juillet, Marg en Mai. Malheureusement je ne possède pas d'exemplaires italiens de cette espèce, que Sack cite aussi de l'Afrique du Nord; il est impossible même d'établir ses différences avec *frontalis* Wied., qui appartient probablement à la même espèce. Les exemplaires égyptiens varient en dimensions, de 6 à 10 mm, de longueur,

D. *Chiasmella* Bezzi 1924.

Ce groupe, établi par moi sur une espèce d'Arabie (*laevipennis*), se rapproche déjà des *Anthrax* (*Argyramoeba*), où Becker avait placé son espèce.

8. *Chiasmella sabulonis* Becker 1906.

Nouzha en Juin-Juillet; Suez en Septembre; seulement des femelles.

Sack avait placé cette espèce dans *Chionamoeba*, dont elle diffère beaucoup par son port général.

9. *Chiasmella sabulonis*, var. *rubicunda* n. var.
♂ ♀. Ezbet El Nakhl en Juin; Meadi en Juin; Marg en Mai; Wadi Hoff en Juin; Suez en Juillet, Barrage en Septembre.

Je pense que nous avons à faire seulement avec une forme de l'espèce précédente, car les nervures et les taches des ailes sont les mêmes; mais l'abdomen entier chez le mâle est rougeâtre, tandis que chez la femelle il est un peu noirâtre à la base dans le milieu, en outre la base des antennes est beaucoup plus pâle.

10. **Anthracinae.**

Genre *Anthrax* (*Argyramoeba*) s.l.

Les espèces de ce groupe se distinguent toujours de celles de *Petrorossia* s.l. par la présence d'appendices au coude basal de la deuxième nervure longitudinale et à la branche supérieure de la fourche cubitale, et par le style des antennes bisecté et pourvu de pinceau de poils à l'extrémité. J'inclus ici, sous le nom

d'*Anthrax*, plusieurs genres ou sous-genres, dont un est nouveau (*Prothaplocnemis*).

- 1 (2). Tibias de la première paire sans spicules; ailes dépourvues d'appendices, avec la première cellule postérieure élargie en dehors et avec la cellule anale fermée, corps d'un noir de jais très brillant
..... *Prothaplocnemis anthracina* Beck.
- 2 (1). Tous les tibias avec spicules très développées; ailes avec appendices (exception : *bis-niphas*) et avec la première cellule postérieure rétrécie en dehors; corps non ou très peu brillant.
- 3 (22). Ailes presque entièrement hyalines jusqu'à la base, avec ou sans taches obscures isolées.
- 4 (7). Ailes avec trois cellules sousmarginales bien limitées (*Spongostylum* s. str.).
- 5 (6). Face, flancs et base de l'abdomen avec des touffes de poils blancs *ocyale* Wied.
- 6 (5). Poils de la face et de la base de l'abdomen entièrement noirs *antiopa* n. sp.
- 7 (4). Deux cellules sousmarginales seulement (*Argyramoeba*).
- 8 (13). Tous les tibias entièrement noirs.
- 9 (10). Ailes sans taches, avec l'origine de la deuxième nervure longitudinale un peu en avant de la petite transversale; abdomen cylindrique, avec tous les poils noirs, même sur les côtés de la base; tarsi antérieurs chez la femelle non dilatés *melanista* n. sp.
- 10 (9). Ailes avec des taches obscures distinctes, et

avec l'origine de la deuxième nervure exactement contre la petite transversale; abdomen avec des poils blancs à la base.

- 11 (12). Ailes hyalines, avec 3 taches obscures; dos du thorax couvert de poils noirs; tarsi antérieurs de la femelle dilatés.....
 *tripunctata* Wied.
- 12 (11). Ailes obscurcies et rayées; dos avec poils jaunâtres; tarsi non dilatés
 *hippolyta* Wied.
- 13 (8). Tibias jaunes ou jaunâtres, au moins les 4 du devant.
- 14 (17). Ailes avec des taches obscures distinctes.
- 15 (16). Grande espèce avec des touffes de poils blancs et noirs alternés sur les côtés de l'abdomen; front à poils noirs; soies abdominales noires
 *incisuralis* Macq.
- 16 (15). Espèce plus petite, avec les poils sur les côtés de l'abdomen tous blancs *isis* Meig.
- 17 (14). Ailes complètement hyalines, sans taches; soies abdominales blanches.
- 18 (19). Front couvert de poils noirs
 *subnotata* Walk.
- 19 (18). Tous les poils du front blancs.
- 20 (21). Ailes avec appendices *niphias* Herm.
- 21 (20). Pas d'appendices *bisniphias* n. sp.
- 22 (3). Ailes dimidiées, c'est-à-dire avec la moitié basale noire (*Anthrax* s. str.).
- 23 (24). Une tache noire isolée à l'extrémité de la cellule discoïdale; abdomen avec l'extrémité toute couverte d'écaillés d'argent, première cellule postérieure peu retrécie en dehors.....

- *aethiops* Fabr.
 24 (23). Pas de tache isolée; pas d'écaillés d'argent; première cellule assez retrécie.
 25 (26). La partie noire des ailes est bien limitée en dehors et présente une dent noire proéminente, souvent isolée en forme de tache sur la petite transversale; corps noir mat
 *fuscipennis* Ric.
 26 (25). Cette partie pas bien limitée et sans proéminence; corp noir assez luisant .. *lucida* Beck.

A. *Prothaplocnemis* nov. gen.

Cette coupe générique est créée pour le type *Argyramoeba anthracina* Becker, d'autant plus que son auteur et le Dr. Sack déclarent qu'elle doit former un groupe spécial.

Ce groupe fait passage aux *Aphoebantus* et aux *Petrorossia* car il n'y a pas d'appendices aux ailes : même les antennes, très petites, semblent avoir le style pas distinctement bisecté. Très caractéristiques sont les tibias du devant qui ne portent pas de spicules; même sur les autres tibias les spicules sont moins nombreuses que chez les espèces affines. La cellule discoïdale est considérablement plus courte que chez les autres espèces, plus large et plus obtuse, la nervure qui la sépare de la troisième cellule postérieure étant moins sinueuse; la troisième cellule postérieure est courte, la cellule anale est fermée au bord de l'aile.

1. *Prothaplocnemis anthracina* Becker 1902.
 Très distincte par son corps d'un noir de jais brillant et par ses ailes absolument hyalines, sans taches.

Wadi Hoff et Wadi Garawi en Avril; espèce en démi-que.

Le mâle, inconnu à Becker et à Sack, est en tout comme la femelle, avec le front de moitié plus étroit; hypopyge bien développé, de couleur brun rougeâtre. de la forme usuelle.

B. *Spongostylum* (Macquart) Loew, s. str.

Ce nom est employé bien improprement par Loew et par Sack pour les espèces qui ont 3 cellules sous-marginales aux ailes; mais elles sont congénériques avec les espèces de *Psamatamoeba* de Sack, pour lesquelles il faut employer le nom *Argyramoeba* de Schiner, bien que j'ai moi-même employé pour toutes le nom de *Spongostylum* s. l.

2. *Spongostylum ocyale* Wiedemann 1828.

Grande espèce très distincte.

Alexandrie en Juillet; Maadi en Août.

3. *Spongostylum antiopa* sp. nov. ♂.

Un mâle, type, de Amrieh en Juillet, Coll. Min. Agr. Mêmes dimensions et mêmes ailes que chez l'espèce précédente, dont il diffère pour avoir tous les poils de la face noirs, comme aussi tous les poils du thorax et des flancs noirs ou très obscurs; même les touffes de poils à la base de l'abdomen sont complètement noires; le dos de l'abdomen paraît dépourvu de poils et d'écaillés pâles. Les 4 tibias antérieurs sont rougeâtres.

C. *Argyramoeba* (Schiner) s. str.

4. *Argyramoeba melanista* n. sp. ♂ ♀.

Espèce cylindrique à ailes immaculées, différente de toutes les autres par les tibias noirs et par tous les poils de l'abdomen noirs.

Wadi Hoff en Mars-Avril; Wadi Rishrash en Mai.

♂ ♀. Longueur du corps, 4—6 mm.; le l'aile, 5—7 mm. Le corps est d'un noir presque aussi luisant que chez *anthracina*. Tous les poils du front et de la face sont noirs; antennes noires, petites mais typiques, avec pinceau terminal bien développé. Thorax avec tous les poils noirs, même sur les flancs et sur l'écusson. Cuillerons blancs; balanciers avec pédoncule obscur, massue jaunâtre. Abdomen avec tous les poils et les soies noirs; chez le mâle, les 3 derniers segments sont couverts d'écaillés blanchâtres ou jaunâtres, jamais argentines; hypopyge brun rougeâtre, avec crochets noirs. Pattes entièrement noires; tibias avec spicules longues et fixes, bien développées même sur celles de la première paire. Ailes hyalines, immaculées, à nervures noires; origine de la deuxième nervure longitudinale toujours un peu avant la petite transversale; appendices bien développés; première cellule postérieure assez rétrécie en dehors; cellule discoïdale de forme usuelle; cellule anale étroitement ouverte.

5. *Argyramoeba tripunctata* Meigen 1820.

Wadi Hoff en Avril; Sennûres, Coll. Min. Agr.

6. *Argyramoeba hippolyta* Wiedemann 1828.

Je n'ai pas encore vu cette espèce endémique, qui paraît très proche de *ocycle* Wied.

7. *Argyramoeba incisuralis* Macquart 1840.

Espèce commune dans la Région Ethiopienne, où elle s'étend jusqu'en abyssinie; il est intéressant de la trouver aussi en Egypte.

Ezbet El Nakhl en Avril; Alexandrie en Juillet; Kerdacé en Mai; Ramleh en Juin; Maadi en Août.

8. *Argyramoeba isis* Meigen 1820.

Giza Pyramids en Août; Ezbet El Nakhl en Avril; Wadi Hoff en Juin.

9. *Argyramoeba subnotata* (Walker) Sack 1909.

Wadi Hoff en Avril; probablement une forme de la précédente.

10. *Argyramoeba niphas* Hermann 1907.

Wadi Garawi en Avril, des très petits exemplaires (5—6 mm en longueur); douteuse.

11. *Argyramoeba bisniphas* n. sp. ♂ ♀.

Semblable à la précédente, mais distincte par le manque d'appendices aux ailes; très proche aux espèces du genre *Villa*, mais distincte par la partie styliforme bisectée des antennes et avec pinceau terminal.

Wadi Hoff et Wadi Garawi en Avril.

♂ ♀. Longueur du corps et de l'aile, 8—9 mm. Tête noire, avec léger toment gris; front de la femelle du double plus large que celui du mâle, où il est le double du tubercule ocellaire; poils du front blancs sur la moitié antérieure, noirs sur la moitié postérieure; face avec poils blancs. Antennes typiques,

noires. Trompe plus courte que la bouche. Thorax noir, avec tous les poils blancs, formant des touffes sur les cotés du dos en avant et sur les mésopleures; soies en partie noires, même celles sur le bord postérieur de l'écusson, qui est tout noir. Cuillerons blancs, avec frange courte; balanciers blancs. Abdomen noir, avec tous les poils blancs, formant des touffes sur les côtés de la base; chaque segment avec d'étroites bandes de poils écailleux blancs au bord postérieur; soies blanches chez le mâle, noires chez la femelle; hypopyge testacé, de forme habituelle. Hanches et cuisses noires, couvertes d'écailles blanches; extrémité des cuisses et tibias d'un fauve pâle; spicules noires, bien développées même sur celles de la première paire; tibias de la dernière paire plus obscurs; tarses noirs; griffes noires; pelotes minces, plus courtes que les griffes. Ailes complètement hyalines, irisées, immaculées; nervures jaunes à la base. Deuxième nervure naissant contre la petite transversale, qui est placée près de la base de la cellule discoïdale; pas d'appendices; première cellule postérieure retrécie en dehors, anale ouverte.

D. *Anthrax* (Scopoli) s. str.

12. *Anthrax* (*Leucamocba*) *aethiops* Fabricius
1781.

Mariout en Mai; un mâle en Avril, parasite de *Osmia pallicornis*; L'*Anthrax volitans* Wiedemann 1818, cité d'Égypte, pourrait être cette même espèce.

13. *Anthrax fuscipennis* Ricardo 1903 = *musca-*

rius Klug 1832 nec Wiedemann 1818 = *dentatus* Becker 1906 et Sack 1909.

Espèce commune en Egypte et très variable en dimensions; une ♀ mesure seulement 3.5 mm. de longueur.

Wadi Hoff en Juin; Wadi Garawi en Avril; Le Caire en Mai; Meadi en Novembre; Shoubra en Mai; Ezbet El Nakhl en Mai; Barrage en Septembre.

14. *Anthrax lucidus* Becker 1902, Sack 1909. Découvert par Becker près du désert à Siala; je ne l'ai jamais vu d'Egypte.

11. Exoprosopinae.

Genre *Villa* Lioy 1864.

Les espèces de ce genre se distinguent par leur face arrondie, par le troisième article des antennes avec son court renflement basal et sa longue et mince partie styliforme, et par les tibiae de la première paire pourvus de spicules.

- 1 (2). Front d'un noir luisant, chez le mâle plus large que le tubercule ocellaire; abdomen sans bandes de toment .. *micrargyra* Walk.
- 2 (1). Front d'un noir mat, chez le mâle beaucoup plus étroit.
- 3 (4). Abdomen avec les bandes peu distinctes et couvert de poils blancs comme chez le précédent; poils du thorax et des flancs blanc de neige; ailes à base laiteuse et à nervures jaunâtres *senecio* Loew

- 4 (3). Abdomen distinctement bandé; base des ailes et nervures plus obscures; poils des flancs moins blancs ou même jaunâtres.
- 5 (8). Grandes espèces avec des bandes de toment sur les segments 2—6 de l'abdomen; peigne basal des ailes et écaille suralairo jaunâtres ou blanchâtres.
- 6 (7). Des touffes de poils noirs sur les côtés des segments 5 et 6 de l'abdomen; base des ailes plus obscure *quinquefasciata* Meig.
- 7 (6). Pas de touffes de poils noirs; base des ailes plus pâle *ventruosa* Loew
- 8 (5). Petite espèce, avec des bandes seulement sur les segments 2 et 4; peigne basal et écaille suralairo noirs *haesitans* Beck.

1. *Villa micrargyra* (Walker 1871) Becker 1902 et 1916. Espèce endémique, très distincte par son front brillant et plus large que chez toutes les autres espèces. Mariout en Avril-Mai.

2. *Villa senecio* Loew 1869, Becker 1902 et 1916. Semblable au précédent; Alexandrie en Juillet; Suez en Juin-Juillet.

3. *Villa haesitans* Becker 1916.

Espèce très distincte, décrite de Grèce et d'Asie-Mineure. Ezbet El Nakhl en Mai; Barrage en Septembre; Marg en Avril. Ces exemplaires mesurent seulement 5—8 mm. en longueur. Ils sont peut-être différents par les écailles soyeuses et bronzées qui couvrent le corps.

4. *Villa quinquefasciata* Meigen 1820.

Mariout en Mai.

5. *Villa ventruosa* Loew 1869, Becker 1916. Ezbet El Nakhl en Avril-Mai; Ramleh en Juillet. Espèce de Sicile, très proche de *niphobleta* Loew d'Asie Mineure; je crois que l'*Anthrax aegyptiaca* Macquart 1840 est cette même espèce.

Genre *Thyridanthrax* (Osten Sacken) s.l.

Ce genre embrasse les espèces qui ont *les tibias de la première paire sans spicules* et la face plus ou moins proéminente. Il comprend donc aussi les *Exhyalanthrax* Becker 1916 à ailes complètement hyalines qui forment seulement un groupe artificiel.

- 1 (26). Ailes complètement hyalines, ou avec le dessin obscur borné aux cellules costales et basales, et toujours dépourvues de fenêtres hyalines; nervure terminale de la cellule discoïdale le plus souvent courte, droite et perpendiculaire.
- 2 (17). Ailes complètement hyalines (*Exhyalanthrax* Beck.).
- 3 (10). Front avec poils blancs, ou seulement avec quelques poils noirs près du sommet.
- 4 (5). Grande espèce à cellule discoïdale assez aiguë en dehors, première cellule postérieure un peu rétrécie en dehors et cellule anale ouverte; pattes rougeâtres anus Wied.
- 5 (4). Petites espèces avec cellule discoïdale obtuse ou tranchée droit, première cellule posté-

- rieure pas rétrécie et cellule anale habituellement fermée et même pédonculée ; pattes noires ou presque entièrement noires.
- 6 (7). Corps tout couvert de toment jaunâtre; tibias noirs; petite nervure transversale avant le milieu de la cellule discoïdale.....
..... *angustoculatus* Beck.
- 7 (6). Corps couvert de toment blanc ou d'écaillés argentines; tibias testacés; petite nervure près du milieu.
- 8 (9). Corps couvert d'écaillés argentines.....
..... *latona* Wied.
- 9 (8). Corps couvert de toment blanc farineux, sans écaillés argentines *chionophorus* n. sp.
- 10 (3). Front couvert de poils noirs jusqu'aux antennes.
- 11 (14). Thorax et abdomen dépourvus de bandes blanches.
- 12 (13). Très petite espèce d'un noir mat, toute couverte de toment jaunâtre .. *unicolor* Beck.
- 13 (12). Espèce plus grande, d'un noir assez luisant, dépourvue de toment jaunâtre
..... *tabaninus* n. sp.
- 14 (11). Thorax et abdomen avec bandes blanches.
- 15 (16). Thorax avec une bande blanche transversale en avant de la racine des ailes, prolongée du dos aux flancs *lotus* Loew
- 16 (15). Thorax avec une bande blanche longitudinale de chaque côté du dos .. *vagans* Loew
- 17 (2). Ailes avec un petit dessin obscur, mais toujours sans fenêtres hyalines.
- 18 (19). Le dessin obscur est formé seulement par

- une infuscation de la base extrême de l'aile et de la cellule costale *circe* Klug
- 19 (18). Le dessin est un peu plus étendu, ou bien il y a des petites taches obscures isolées.
- 20 (25). Le dessin obscur intéresse seulement les cellules basales, sans toucher à la cellule discoïdale.
- 21 (22). Les cellules costales et basales et la base de la cellule anale sont noirâtres, mais il n'y a pas de taches obscures isolées; thorax avec des bandes blanches sur les côtés du dos.....
..... *afer* Fabr.
- 22 (21). Les dites cellules sont jaunâtres ou brunâtres, et il y a des taches plus foncées sur les nervures transversales.
- 23 (24). Base des ailes jaunâtre; pas d'appendices aux ailes *stigmula* Klug
- 24 (23). Ailes avec base brunâtre et avec des appendices bien développés *irrorellus* Klug
- 25 (20). Le dessin obscur arrive jusqu'au milieu de la cellule discoïdale, bien que pas beaucoup foncé ni bien tranché *misellus* Loew
- 26 (1). Ailes avec un dessin plus étendu et avec des fenêtres hyalines bien distinctes; cellule discoïdale aigue en dehors, avec sa nervure terminale longue, oblique et sinueuse.
- 27 (34). Le dessin obscur est peu foncé, la base de l'aile étant largement jaunâtre ou presque hyaline.
- 28 (31). Front couvert de poils blancs; le dessin obscur n'arrive pas jusqu'au milieu de l'aile,

- la cellule discoïdale étant obscurcie seulement tout près de la base.
- 29 (30). Le dessin est réduit à des taches obscures isolées près des nervures transversales *griseolus* Klug
- 30 (29). Le dessin est plus complet, bien que toujours plus réduit que chez *elegans*. *obliteratus* Loew
- 31 (28). Poils du front presque entièrement noirs; le dessin arrive jusqu'au milieu de la cellule discoïdale.
- 32 (33). Espèce plus petite *elegans* Meig.
- 33 (32.) Espèce beaucoup plus grande *incanus* Klug
- 34 (27). Le dessin est bien plus foncé et les ailes sont noirâtres jusqu'à la base.
- 35 (36.) Ailes avec 2 cellules sousmarginales, et avec les cellules marginale et discoïdale étroitement hyalines en dehors; pas de bande de poils blancs sur les flancs; pattes rougeâtres *fenestratus* Fall.
- 36 (35). Ailes avec 3 cellules sousmarginales et avec les dites cellules largement hyalines en dehors; une bande complète de poils blancs sur les flancs; pattes entièrement noires. *ternarius* Bezzi

1. *Thyridanthrax anus* Wiedemann 1828.

Un mâle de Suez en Juillet.

Grande espèce du groupe *elegans*, avec la cellule discoïdale comme chez *fenestratus*; tous les poils de la tête et du thorax sont blancs; le rameau supérieur de

la fourche cubitale est appendiculé à la base; la première cellule postérieure est rétrécie en dehors. Cette espèce est très improprement placée parmi les *Exoprosopa* dans les catalogues, car Wiedemann l'a décrite dans sa cinquième section.

2. *Thyridanthrax angustoculatus* Becker 1902.

Espèce endémique. Une petite femelle du Mariout en Avril.

3. *Thyridanthrax latona* Wiedemann 1828.

Suez en Octobre.

Petite espèce noire, à cellule discoïdale courte et obtuse en dehors, avec tous les poils blancs et chez le mâle avec des écailles argentines; chez la femelle le toment est un peu jaunâtre. Placé par erreur parmi les *Exoprosopa* dans les catalogues.

4. *Thyridanthrax chionophorus* n. sp. ♂.

Petite espèce avec tous les poils et le toment blancs, mais sans écailles argentines.

Kerdacé et Wadi Hoff en Juin.

♂. Longueur du corps, 6—7 mm.; de l'aile, 5.5—6 mm. Tête toute couverte d'écailles blanches; front couvert de courts poils blancs, aussi large que le tubercule ocellaire près du sommet, mais très élargi en avant. Antennes entièrement noires, avec le troisième article en forme de cône allongé. Yeux étroits, face assez proéminente; trompe pas plus longue que la bouche. Thorax et écusson d'un noir mat, avec tous les poils et le toment blancs; pas de soies distinctes. Cuillerons et balanciers blancs. Abdomen conique,

densément couvert de toment blanc et avec poils blancs. Pattes noires, couvertes de toment blanc; genoux et tibias rougeâtres; griffes petites; pas de pelotes. Ailes hyalines, immaculées, blanchâtres, avec les nervures fauves à la base. Deuxième nervure longitudinale naissant un peu après la petite transversale et courbée à l'extrémité; petite nervure transversale sur le milieu de la cellule discoïdale; pas d'appendices; première cellule postérieure non, ou très peu rétrécie en dehors; cellule discoïdale courte, placée dans le milieu de l'aile, obtuse en dehors, avec sa nervure terminale droite et perpendiculaire; cellule anale très rétrécie au sommet, ou même fermée et pédonculée.

5. *Thyridanthrax unicolor* Becker 1902.

Mariout en Avril-Mai; Wadi Garawi en Avril; espèce endémique.

Petite espèce couverte de toment jaunâtre, avec tous les poils et les soies noirs; nervure terminale de la cellule discoïdale droite et perpendiculaire; cellule anale très élargie en dehors.

6. *Thyridanthrax tabaninus* n. sp. ♂.

Espèce d'un noir luisant, avec poils blancs et noirs, mais absolument dépourvue de bandes blanches sur le thorax et sur l'abdomen.

Type ♂, un exemplaire du Wadi Rishrash, Mars

♂. Longueur du corps, 7.5 mm. ; de l'aile, 6.5 mm. Tête d'un noir luisant, avec quelques écailles jaunâtres et avec tous les poils du front et de la face noirs. Antennes entièrement noires, avec le troisième article conique, assez court. Face proéminente; trompe

noire, plus longue que la bouche. Thorax et écusson d'un noir luisant, avec poils d'un blanchâtre sale, plus nombreux en avant et sur les côtés, et noirâtres sur le dos; soies minces, jaunâtres. Cuillerons brunâtres, à marge blanche, balanciers blancs. Abdomen noir luisant, distinctement rougeâtre sur les côtés du 2^m et 3^m segments; il y a quelques écailles jaunâtres parsemées, sans former de dessin distinct; poils longs, blancs sur les côtés de la base, en partie noirs sur le reste. Pattes noires et avec poils noirs, presque dépourvues d'écailles; tibias obscurément rougeâtres; pas de pelotes. Ailes hyalines, immaculées, seulement l'extrême base jaunâtre; nervures noires. à base jaune; origine de la deuxième longitudinale contre la petite transversale, il y a aussi une courbure terminale; pas d'appendices; première cellule postérieure assez rétrécie en dehors; petite transversale avant le milieu de la cellule discoïdale, qui est longue et étroite, avec sa nervure terminale droite mais placée obliquement; cellule anale rétrécie au sommet.

7. *Thyridanthrax lotus* Loew 1869.

Wadi Garawi en Avril; Wadi Hoff en Mai; Mariout en Août. Ces exemplaires ne sont pas tous typiques.

8. *Thyridanthrax vagans* Loew 1862.

Wadi Hoff en Avril; Barrage en Septembre; Suez en Juillet-Août.

9. *Thyridanthrax circe* Klug 1832.

Bien distinct par la bande noirâtre costale des

ailes, et par le manque de bandes blanches sur les cotés du dos.

Wadi Hoff en Avril; Mariout en Avril et Mai; espèce endémique.

10. *Thyridanthrax afer* Fabricius 1794.

Suez en Octobre; commun partout. Becker dit qu'il est commun à Alexandrie.

11. *Thyridanthrax stigmula* Klug 1832. Il ne se trouve pas dans la collection Efflatoun, mais c'est une espèce endémique.

12. *Thyridanthrax irrorellus* Klug 1832.

Mariout en Avril; Mazghouna en Avril; Dahshor en Avril.

Placé par erreur parmi *Spongostylum* dans les catalogues; il se trouve aussi en Syrie.

13. *Thyridanthrax misellus* Loew 1869.

Mariout en Septembre. C'est une espèce de Grèce et d'Asie Mineure.

14. *Thyridanthrax griseolus* Klug 1832.

Dahshor en Avril; Wadi Hoff en Juin; Ezbet el Nakhl en Juin; Marg en Août. Espèce endémique.

15. *Thyridanthrax obliteratedus* Loew 1862.

Ezbet el Nakhl en Mai; Wadi Hoff en Juin; Rameleh en Juillet; Alexandrie en Juillet.

Espèce de Grèce. Elle est variable en dimensions, comme la suivante. Loew dans sa description dit que

Le dessin des ailes est comme chez *griseolus*, tandis que chez ces exemplaires il est plus semblable à celui de *elegans*, dont il paraît être seulement une variété; mais le caractère de la cellule discoïdale obscurcie seulement à la base est constant.

16. *Thyridanthrax elegans* Meigen 1820.
Mariout en Avril-Mai; Wadi Hoff en Avril.

17. *Thyridanthrax incanus* Klug 1832.
Aboukir en Mai; Alexandrie en Juillet.

18. *Thyridanthrax fenestratus* Fallen 1814.
Suez en Juillet-October.

Il est bien intéressant de trouver en Afrique cette espèce qui manque en Italie et dans l'Europe méridionale, mais qui se retrouve en Orient. Elle est distincte des autres (*perspicillaris*, *gallus*, *hispanus*, etc.) par la couleur des pattes, par la touffe blanche des flancs limitée à la partie supérieure et par la cellule discoïdale des ailes obscurcie jusque presque le sommet. J'ai décrit une espèce *incipiens* de l'Afrique orientale anglaise, qui est très semblable, mais porte des appendices aux ailes.

19. *Thyridanthrax ternarius* Bezzi 1924.
Wadi Hoff en Juin-October.

Espèce éthiopienne, qui se trouve jusqu'en Abyssinie; il paraît qu'elle se trouve aussi dans l'Inde, voir C. G. Nurse, Journ. Bombay Nat. Hist. Soc., XXVIII, 1922, p. 631. Par ses 3 cellules sousmarginales elle pourrait être prise pour une *Exoprosopa*, mais elle

présente tous les caractères typiques du groupe *fenestratus*.

Genre *Exoprosopa* Macquart.

Les espèces de ce genre paraissent peu nombreuses en Égypte; elles appartiennent presque toutes à mon sous-genre *Exoprosopa* s. str.; mais je pense qu'on doit trouver aussi des espèces des sous-genres *Cladodisca*, *Mesoclis*, *Argyrospila*, et peut-être *Pterobates*.

- 1 (2). Première cellule postérieure divisée en deux par une nervure transversale surnuméraire; tibias de la première paire pourvus de spicules (*Exoptata*) *singularis* Macq.
- 2 (1). Première cellule simple; tibias du devant sans spicules.
- 3 (6). La nervure transversale qui divise la cellule discoïdale de la deuxième postérieure est très longue sinueuse et placée horizontalement (*Defilippia*).
- 4 (5). Ailes noires, avec seulement l'extrémité hyaline *mayeti* Big.
- 5 (4). Ailes avec l'extrémité et le bord postérieur assez largement hyalins .. *vesperugo* A. Costa
- 6 (3). La dite nervure est plus courte, droite ou très peu sinueuse, placée obliquement ou presque perpendiculaire (*Exoprosopa* s. str.).
- 7 (22). Style des antennes assez long et bien distinct; yeux du mâle séparés; ailes avec un dessin obscur plus ou moins développé.
- 8 (13). Première cellule postérieure fermée ou très rétrécie en dehors.

- 9 (12). Troisième article des antennes en forme de cône plus ou moins allongé; grandes espèces à pattes fauves.
- 10 (11). Front, base des antennes et abdomen testacés; ailes avec des taches obscures peu développées *olivierii* Macq.
- 11 (10). Front, base des antennes et abdomen noirs, ce dernier au moins en majeure partie; taches des ailes plus développées et formant une bande oblique assez distincte
..... *tephroleuca* Loew
- 12 (9). Troisième article linéaire, à côtés parallèles; petite espèce à pattes noires; ailes avec taches obscures isolées *rivulosa* Beck.
- 13 (8). Première cellule postérieure toujours ouverte ou très peu rétrécie en dehors.
- 14 (15). Cellule anale dilatée en dehors; ailes avec de nombreuses taches noires, même au bord postérieur; abdomen avec des touffes de poils noirs sur les côtés *zaroni* Bezzi
- 15 (14). Cellule anale plus ou moins rétrécie en dehors; pas de taches noires aussi nombreuses sur les ailes, et pas de touffes noires sur l'abdomen.
- 16 (17). Ailes obscurcies, avec des fenêtres hyalines; grande espèce de couleur testacé
..... *aegina* Wied.
- 17 (16). Ailes hyalines, avec le dessin réduit à une infuscation de la partie basale ou antérieure, sans fenêtres, ou même presque entièrement dépourvues de dessin.

- 18 (21). Ailes obscurcies le long du bord antérieur, antennes et cuisses noires.
- 19 (20). Troisième article des antennes en forme de cône allongé; dos du thorax dépourvu de lignes blanches; abdomen avec des bandes blanches transversales *minos* Meig.
- 20 (19). Troisième article court avec une partie styli-forme; dos avec trois lignes blanches longitudinales; abdomen sans bandes blanches *efflatouni* n. sp.
- 21 (18). Ailes hyalines, avec la seule cellule costale un peu jaunâtre; base des antennes et cuisses testacés; pas de bandes blanches sur le thorax ou sur l'abdomen . . *decrepita* Wied.
- 22 (7). Style pas distinct; yeux très rapprochés chez les deux sexes, ceux du mâle même en contact entr'eux; ailes parfaitement cristallines, immaculées *stipida* Rossi.

A. *Exoptata* Coquillet 1887.

1. *Exoptata singularis* Macquart 1840.

Signalée d'Égypte par Becker; je ne l'ai pas vue; elle paraît très proche d'*algira* Fabr.

B. *Defilippia* Liroy 1864.

2. *Defilippia mayeti* Bigot 1888

Ezbet el Nakhl en Mai.

Signalée par Becker sous le nom de *consanguinea* Macquart; mais j'ai démontré ailleurs que ce nom doit être employé seulement pour l'espèce éthiopienne, qui ne se trouve pas dans l'Afrique du Nord.

3. *Defilippia vesperugo* A. Costa 1893.

Aboukir en Juillet; Mariout en Mai.

Ces exemplaires varient en dimensions de 6 à 14 mm. de longueur. J'ai démontré ailleurs comment cette espèce doit se distinguer des autres affines (*me-gerlei*, *consanguinea* et *mayeti*).

C. *Exoprosopa* s. str.

4. *Exoprosopa olivierii* Macquart 1840.

Ezbet El Nakhl en Mai; Marg en Mai.

Becker signale aussi d'Egypte la *suavipennis* Macquart, qui est décrite des îles du Cap Vert.

5. *Exoprosopa tephroleuca* Loew 1856.

Ezbet El Nakhl en Avril; Giza Pyramids en Avril.

Probablement une variété de l'espèce précédente

6. *Exoprosopa rivulosa* Becker 1902.

Abu Zaabal en Mars; Wadi Garawi en Avril; Mazghouma en Avril. Espèce endémique.

7. *Exoprosopa aegina* Wiedemann 1828 = *borei* Macquart 1840 = *ferruginea* Klug 1832.

Massara en Août, coll. Alfieri; Ghizeh en Août. Se trouve aussi en Syrie.

8. *Exoprosopa zanoni* Bezzi 1922, Mem. Soc. Entom. Ital., I, p. 143, fig. 1.

Une femelle du Mariout en Mars.

Espèce très caractéristique, décrite tout à fait récemment de la Cyrénaïque.

9. *Exoprosopa minos* Meigen 1804 = *senilis* Klug 1832.

Ezbet El Nakhl en Avril-Mai; Marg en Mai.

10. *Exoprosopa efflatouni* n. sp. ♂.

Voisine de la précédente, mais très distincte par le dessin du thorax.

Marg en Mai; Wadi Hoff en Juillet, Min. Agric.

♂. Longueur du corps, 8—1¼ mm.; de l'aile, 7—12 mm. Tête noire, toute couverte d'écailles blanches, jaunâtres près du sommet et sur la partie supérieure de l'occiput. Poils du front blancs. Antennes entièrement noires; troisième article en forme de cône court, avec portion styliforme amincie et avec le style assez long, distinctement séparé de la partie styliforme. Yeux étroits; front près du sommet 3 fois plus large que le tubercule ocellaire; face bien proéminente; trompe un peu plus longue que la bouche. Dos du thorax noir, mais tout couvert de toment jaunâtre et avec 3 lignes longitudinales d'écailles blanches, une le long du milieu, les autres sur les côtés le long de la ligne notopleurale; flancs et poitrine avec écailles et poils d'un blanc de neige; soies jaunâtres. Écusson noir, couvert de toment jaunâtre, mais avec du toment blanc le long du bord postérieur; soies marginales nombreuses, jaunâtres. Cuillerons brunâtres, marginés de blanc; balanciers jaunâtres. Abdomen noir sur le milieu, plus ou moins largement rougeâtre sur les côtés, tout couvert de toment jaunâtre, sans bandes blanches; les poils de la base et des côtés sont blancs, le dos est nu; ventre en partie noir, avec des écailles

blanches. Pattes entièrement noires, à écailles blanches; spicules des 4 tibias postérieurs longues et noires; cuisses avec 1—2 soies noires en dessous; griffes noires, simples; pas de pelotes. Peigne et hameçon basal des ailes jaunâtres; nervures noires, à base jaune; petite transversale sur le milieu de la cellule discoïdale, première cellule postérieure rétrécie en dehors; la nervure transversale entre la cellule discoïdale et la deuxième cellule postérieure est courte, droite, placée obliquement; cellule anale rétrécie en dehors. Les ailes sont grisâtre-hyalines, jaunâtres à la base et le long des cellules costales, un peu obscurcies à la base de la cellule marginale et de la première basale, bien que moins que chez *minos*.

11. *Exoprosopa decrepita* Wiedemann 1828.

Une femelle du Barrage en Septembre. C'est une espèce du groupe *minos*, mais avec les ailes complètement hyalines. Petite nervure transversale avant le milieu de la cellule discoïdale; première cellule postérieure pas beaucoup rétrécie en dehors; cellule anale plus rétrécie au sommet que la première postérieure; nervure terminale de la cellule discoïdale droite, placée obliquement.

12. *Exoprosopa stupida* Rossi 1790.

Marg en Août; Shoubra en Septembre.

C'est peut-être une forme différente de l'espèce italienne typique; mais il faudrait avoir beaucoup de matériaux pour décider.

Genre *Hyperalonia* Rondani

Je n'ai pas vu d'exemplaires égyptiens appartenant à ce genre; mais Becker cite d'Égypte l'espèce éthiopienne *helena* Loew, que j'ai vue seulement de l'Erythrée et d'Abyssinie. Je n'ai jamais vu des *Hyperalonia* de l'Afrique du Nord.

\mathbb{R}^n is a vector space over \mathbb{R} with the usual addition and scalar multiplication. The norm $\|\cdot\|$ is defined by

$$\|x\| = \sqrt{x_1^2 + x_2^2 + \dots + x_n^2}.$$

Let $\mathcal{L}(\mathbb{R}^n, \mathbb{R}^m)$ denote the space of linear transformations from \mathbb{R}^n to \mathbb{R}^m . The norm $\|\cdot\|$ on $\mathcal{L}(\mathbb{R}^n, \mathbb{R}^m)$ is defined by

$$\|T\| = \sqrt{\lambda_1^2 + \lambda_2^2 + \dots + \lambda_n^2},$$

where $\lambda_1, \lambda_2, \dots, \lambda_n$ are the singular values of T . The norm $\|\cdot\|$ is a norm on $\mathcal{L}(\mathbb{R}^n, \mathbb{R}^m)$.

Notes additionnelles sur les Bombyliides d'Egypte.

par le Prof. Mario Bezzi, Turin.

Monsieur H.C. Effiatoun Bey a bien voulu me communiquer un second lot de Bombyliides d'Egypte, parmi lequel j'ai retrouvé beaucoup des espèces citées ou décrites dans mon premier travail (voir ce Bulletin, Année 1924 (publié en 1925) pp. 159-242), et en ou-

tre un bon nombre de nouveautés ou de formes intéressantes. Cet envoi fait l'objet des notes qui vont suivre, parfois complétées d'observations générales, ainsi que d'une table de toutes les espèces de *Cyrtosinae* connues jusqu'ici de l'Ancien Monde.

1. Gythereinae.

1. *Glossista barbara* Sack.

L'écusson est souvent d'un noir luisant sur le bord postérieur, surtout chez des exemplaires vieux et frottés; mais l'espèce est toujours reconnaissable par sa grande taille.

2. Heterotropinae.

Bien remarquable est la découverte de deux espèces nouvelles pour cette intéressante sous-famille. Les femelles présentent souvent une coloration très différente de celle de leurs mâles. Il existe même des mâles dont la trompe est aussi longue que chez leurs femelles et à extrémité amincie.

Mr. S. J. Paramonow vient tout récemment de décrire (*Konowia*, IV, 1925, p. 110) une espèce transcaspienne sous le nom de *Heterotropus kazanowskyi*, dont le mâle rappelle le *glaucus* de Beck., mais distinct par les flancs dépourvus de taches noires, par les cuisses jaunes et par les yeux très singulièrement conformés : ils ont les facettes dilatées limitées, même supérieurement, par une zone de petites facettes (*).

(*) Dans la description du genre *Alloxytropus*, Mémoire précédent, page 186, ligne 8 à partir d'en bas.

La femelle présente le premier article des antennes aussi long que le second, les tarsi jaunes annelés de noir; en outre elle diffère de toutes celles connues par la présence sur le front de deux callosités d'un noir luisant.

Il semble que les *Heterotropinae* sont aussi bien représentés dans la Région Ethiopienne; en plus de *sudanicus* Beck., j'ai vu une espèce nouvelle de l'Afrique du Sud, dont je crois utile de donner ici la description.

Heterotropus munroi n.sp. ♀.

Très voisin du *H. trotteri* Bezzi, mais bien différent par la présence de taches noires sur le front et les flancs et de larges bandes basales noires sur chaque segment de l'abdomen.

Une femelle de Hope-Town, province du Cap, Février 1917, dans la collection de Mr. H. K. Munro, East London, Transvaal.

♀. Longueur du corps 5 mm.; de l'aile 3.5 mm.; de la trompe 1 mm.

Occiput jaune, assez luisant, avec deux lignes noires perpendiculaires sur le milieu, et une petite tache noire arrondie post-verticale. Front aussi large que l'œil au vertex, s'élargissant graduellement en avant; il est jaune, avec une large tache ocellaire d'un noir luisant, et une petite tache noire en forme de croissant de chaque côté près des yeux; entre ces deux taches il y en a une troisième en dessus de la racine

s'est glissée une erreur: au lieu de *longuement noirs*, il faut lire *longuement unis*.

des antennes. Face entièrement jaune, très proéminente en dessous, avec une petite tache noire de chaque côté près des yeux. Yeux arrondis, nus, avec petites facettes égales. Trompe longue et grosse, plus longue que la bouche, avec lèvres larges; elle est entièrement jaune (tandis que chez *trotteri* elle est noire). Thorax jaune, avec le dos presque entièrement couvert de trois larges bandes longitudinales d'un noir mat, rétrécies en arrière, surtout celle du milieu; il y a encore une petite tache ovale noire de chaque côté près de la racine des ailes. Flancs d'un jaune assez luisant, avec une petite tache noire près du bord inférieur des mésopleures, et une large tache brunâtre sur le dessous des sternopleures. Ecusson arrondi, entièrement jaune immaculé, presque nu, comme le dos du thorax (tandis que chez *trotteri* il y a une villosité pâle assez longue). Cuillerons et balanciers blanchâtres. Abdomen jaune, chaque segment avec une large bande basale d'un noir mat, échancrée postérieurement dans le milieu et n'atteignant pas le bord sur les côtés; ventre entièrement jaune immaculé, nu, comme le dos. Pattes entièrement jaunes, y compris les hanches; tibias de la dernière paire à extrémité noire; tous les tarses annelés de noir avec extrémité entièrement noire. Ailes hyalines, avec nervures d'un jaune pâle, disposées comme chez *trotteri*; cellule anale avec pédoncule court.

On peut distinguer comme suit les 4 espèces de *Heterotropus* connues d'Égypte :

1 (2). Trompe courte, pas plus longue que la

- tête; antennes et pattes entièrement jaunes
 *bisglaucus* Bezzi.
- 2 (1). Trompe grosse et longue, beaucoup plus
 longue que la tête; antennes et pattes en
 partie noires.
- 3 (4). Les deux premiers articles des antennes
 jaunes; écusson jaune avec tache obscure;
 hanches jaunes *maculiventris* Bezzi.
- 4 (3). Antennes entièrement noires; écusson tout
 d'un noir luisant, ou bien, chez les femel-
 les, avec une étroite bande jaune à la base;
 hanches noires.
- 5 (6). Aile avec une tache stigmatique noire; tête
 et cuisses hérissées de longs poils blancs;
 cuisses noires avec extrémité jaune; yeux
 du mâle unis *stigmaticus* n.sp.
- 6 (5). Pas de tache stigmatique aux ailes; tête et
 cuisses presque nues; cuisses entièrement
 noires; yeux du mâle rapprochés, mais pas
 unis *magnirostris* n.sp.

2. *Heterotropus stigmaticus* n.sp. ♂.

Très distinct par la trompe longue et grosse chez les deux sexes, par le corps d'un noir luisant avec le dessin jaune plus développé chez la femelle, par la longue villosité blanche et par la petite tache stigmatique noire; il est tout de même très voisin de *maculiventris*.

Un couple étiqueté : « Second Tower, Suez Road, 14 Mars 1924, Coll. du Min. d'Agriculture »; 1 ♂ de Mazghouna, 31 Mars 1924, id.; ce dernier exemplaire

présente le deuxième article des antennes un peu jaunâtre.

♂ ♀. Longueur du corps 3.5 - 4.5 mm.; de l'aile 3 - 4 mm.; de la trompe 2 - 2.5 mm.

Tête du mâle entièrement d'un noir luisant, même sur l'occiput et sur le péristome, mais jaunâtre à la base des antennes. Yeux très développés, nus, unis sur une ligne aussi longue que les deux premiers articles des antennes; ils sont bisectés, les facettes supérieures plus grandes, nettement séparées des inférieures plus petites, ces dernières occupant à peu près un tiers de l'œil; triangle ocellaire plus grand que le triangle frontal, qui est jaunâtre; une ligne jaunâtre au-dessous de l'insertion des antennes. Tête de la femelle d'un noir luisant, mais avec dessin jaune, consistant en deux taches sur la partie supérieure de l'occiput, unies avec deux autres plus grandes sur les côtés du triangle ocellaire (qui est noir) et unies entr'elles en avant des ocelles; une bande transversale à l'insertion des antennes, étendue d'un œil à l'autre; péristome d'un blanc jaunâtre, mais la partie inférieure de la tête noire; front large, presque carré, plus large que l'œil; yeux beaucoup plus petits que chez le mâle, simples. Antennes entièrement noires dans les deux sexes; premier article un peu plus long que le deuxième; troisième article un peu plus court du double des deux premiers réunis, étroit, linéaire, légèrement aminci à l'extrémité; style assez gros, aussi long que le deuxième article de l'antenne. Face courte mais bien proéminente. Occiput, face et partie inférieure de la tête couverts de longs poils blancs chez les deux sexes. Trompe longue et grosse chez les

deux sexes, entièrement noire; palpes très petits, noirs. Thorax et écusson chez le mâle entièrement d'un noir très luisant, avec taches humérales et ligne notopleurale d'un rougeâtre sale, et une petite tache jaune ou blanchâtre en plus de l'humérale; flancs, poitrine et mésophragma comme le dos, ce dernier avec une ligne opaque grisâtre de chaque côté; dos et écusson avec longs poils blancs. Chez la femelle le thorax et l'écusson sont aussi d'un noir luisant, mais sont couverts de poils plus courts et présentent un dessin jaune; sur le dos, deux étroites lignes jaunes, étendues de la tache antérieure intrahumérale jusqu'aux côtés de l'écusson; pas de tache humérale, mais une ligne jaune le long de la suture notopleurale; une large tache jaune post suturale supra alaire de chaque côté du dos avec une tache noire arrondie dans le milieu; flancs, poitrine et mésophragma entièrement d'un noir luisant; écusson avec étroite bande jaune basale. Cuillerons blancs et ciliés de blanc; balanciers avec grosse massue blanche. Abdomen noir luisant, avec longs poils blancs chez le mâle, bien plus courts chez la femelle. Chez le mâle le premier segment est noir; le second est blanchâtre, avec les côtés noirs; les autres segments sont noirs avec une bande jaunâtre ou blanchâtre, plus large sur les derniers segments, amincie dans le milieu et élargie sur les côtés; en forme de deux taches médianes, bien développées, sur les derniers segments. Chez la femelle tous les segments, à partir du troisième, portent deux grandes taches jaunâtres, triangulaires, disposées sur deux rangées. Ventre entièrement noir. Toutes les hanches noires, avec poils blancs; cuisses noires à extrémité large-

ment jaunâtre, couvertes de poils blancs, plus longs et riches chez le mâle; tibias jaunes à extrémité noire, presque nus, sans spicules; premier article des tarses jaune à extrémité noire, les autres articles noirs, seulement le deuxième quelquefois jaunâtre à la base; ongles longs, minces, jaunâtres, ainsi que les pelotes qui sont petites et étroites.

Ailes hyalines, avec les nervures normales; fourche cubitale un peu plus longue que son pédoncule; cellule discoïdale large et courte, hexagonale, avec la petite nervure transversale située un peu après le milieu; pédoncule de la cellule anale assez long. Les nervures sont pâles à la base, foncées en dehors; base de la côte et première longitudinale jaunes, cette dernière avec une tache stigmatique noire bien tranchée; remarquable est aussi la côte, mais celle-ci ne s'étend pas dans la cellule marginale.

3. *Heterotropus magnirostris* n.sp. ♂.

Très voisin de l'espèce précédente mais très distinct par l'absence de la tache stigmatique aux ailes, et par la coloration différente de l'abdomen et des pattes. Il pourrait être le mâle du *H. maculiventris*, qui ne présente pas de tache stigmatique et dont seulement la femelle est connue; mais cela paraît peu probable.

Type ♂, un seul exemplaire de Mazghouna, 31 mars 1924, coll. Min. Agric.

♂. Longueurs du corps et de l'aile 3.5 mm.; de la trompe 2 mm.

Tête, yeux, antennes et trompe comme chez le précédent, mais avec ces différences: il n'y a pas de

longs poils, la face est nue et le dessous de la tête présente seulement quelques poils clairsemés ; les yeux sont très rapprochés, mais il existe entre eux une bande noire distincte qui les sépare; le style terminal des antennes est beaucoup plus mince et plus court que le deuxième article des antennes; le triangle frontal est noir, seulement un peu jaunâtre sur les côtés. Thorax et écusson entièrement d'un noir luisant, mais avec les poils plus courts et plus clairsemés; il y a une ligne notopleurale rougeâtre, mais il n'y a pas de taches intrahumérales. Cuillerons et balanciers comme chez le précédent. Abdomen tout noir luisant, avec des poils blancs assez longs; les derniers segments présentent seulement une ligne jaune très étroite au bord postérieur, pas toujours visible. Pattes comme chez le précédent, mais bien moins villeuses, avec les cuisses entièrement noires jusqu'à l'extrémité; tibias blanchâtres, à extrémité noire plus étroite; tarses noirs, à base blanchâtre. Ailes comme chez l'espèce précédente, mais distinctement plus courtes et plus blanchâtres; nervures plus pâles; pas de tache stigmatique noire.

3. *Cyrtosiinae*.

Mr. Efflatoun vient de découvrir encore des formes nouvelles de ce groupe aberrant qui comprend des espèces très petites et fort curieuses, qui ont été placées autrefois dans différentes familles, à savoir : Rhagdonidae, Oncodidae et Empididae. Il paraîtrait qu'on les capture seulement sur ou dans les fleurs, et même en grand nombre, comme le disent Fedtchenko et Thalhammer; ils vivent sous tous les climats

de la Lapponie et de l'Amérique du Nord, au Cap de Bonne Espérance, aux Indes, en Australie et à la Tasmanie. Ils sont bien aberrants parmi les Bombyliides, en plus de l'extrême petitesse du corps, par la grande réduction des nervures alaires. En outre toutes les larves des Bombyliides connues jusqu'à présent sont parasites ou prédatrices et la plus grande partie nettement xérophiles; tandis que la puppe de *Pachyneres* (Greene, 1924) a été trouvée dans le bois pourri (*).

On connaît seulement un petit nombre de ces curieux insectes; pour cataloguer les 4 espèces égyptiennes trouvées par Mr. Efflatoun, je donne ici un tableau qui servira pour la détermination de toutes les espèces connues jusqu'à ce jour de l'Ancien Monde. On remarquera ma nouvelle interprétation du genre *Empidideicus*, car les caractères de la direction de la trompe et de la forme des antennes ne suffisent pas à le distinguer de *Cyrtosia*. Je place dans le genre *Empidideicus* les espèces qui présentent la plus grande réduction des nervures alaires, c'est-à-dire qui manquent complètement de la deuxième nervure longitudinale et de la côte le long du bord postérieur de l'aile; les autres espèces, avec nervation plus complète, je les laisse dans le genre *Cyrtosia*, où devra se placer mon *Empidideicus nubilus* du travail précédent, p. 188.

- 1 (10). Pas de deuxième nervure longitudinale; côte ne s'étendant pas le long du bord postérieur

(*) Il n'est pas encore établi si sa larve est saprophage, ou seulement parasite de quelque insecte saprophage.

- de l'aile, mais s'arrêtant à la fin de la troisième nervure longitudinale; première cellule basale aussi longue ou plus longue que la deuxième (*Empidideicus*).
- 2 (9). Pas de cellule discoidale; deuxième cellule basale complète.
- 3 (8). Trompe longue, plus longue que la tête, et dirigée en dessous; corps jaune et noir.
- 4 (5). Cuisses largement noires à la base; dos du thorax noirâtre mat avec deux bandes longitudinales plus obscures
..... *Emp. carthaginiensis* Becker 1907.
- 5 (4). Cuisses entièrement jaunes.
- 6 (7). Dos du thorax jaune avec trois bandes longitudinales noires
..... *Emp. hungaricus* Thalh. 1911.
- 7 (6). Dos du thorax d'un noir très luisant, sans dessin, avec des taches jaunes sur les côtés.
..... *Emp. beckeri* Bezzi 1908.
- 8 (3). Trompe plus courte que la tête et dirigée en avant; corps entièrement jaune, sans taches noires *Emp. melleus* Bezzi 1908 (*)
- 9 (2). Cellule discoidale complète, et même séparée de la deuxième basale; corps d'un jaune pâle, taché de noir; antennes et trompe noires; pattes jaunes
..... *Emp. completus* Bezzi n.sp. (**)

(*) Cette espèce de l'Afrique du Sud fut décrite et placée par moi dans le genre *Glbellula*, mais elle se trouvera mieux ici, malgré sa trompe courte.

(**) Espèce d'Assab, appartenant au Musée de Budapest, à décrire dans un travail prochain.

- 10 (1). Deuxième nervure longitudinale développée, bien que quelquefois très courte; côte complète, bien que quelquefois très amincie le long du bord postérieur de l'aile.
- 11 (20). Deuxième nervure très courte et disposée presque perpendiculairement, aboutissant dans la première nervure en guise d'une nervure transversale.
- 12 (19). Pas de cellule discoïdale, ou bien cette cellule réunie avec la deuxième basale ne formant ainsi qu'une cellule unique; ainsi la deuxième cellule basale est plus longue que la première.
- 13 (18). Troisième article des antennes assez allongé et étroit, lanceolé (*Glabellula*).
- 14 (17). Trompe plus courte que la tête.
- 15 (16). Thorax noir avec ligne notopleurale blanche; pattes noires, avec les genoux jaunâtres *Glab. arctica* Zett. 1838.
- 16 (15). Thorax jaune pâle, avec trois bandes ferrugineuses; pattes jaunes, avec cuisses noirâtres *Glab. femorata* Loew 1873.
- 17 (14). Trompe plus longue que la tête ; thorax noir, avec taches humérales jaunes; cuisses noires *Glab. indica* Brun. 1917 (*).
- 18 (13). Troisième article des antennes court et large, arrondi; trompe plus courte que la tête (*Pachyneres*). Noir, taché de jaune; troisième article des antennes aminci à l'ex-

(*) Cette espèce de l'Inde est décrite comme *Empidideicus*.

- trémité, dépourvu de style
- *Pach. australis* Malloch 1924 (*).
- 19 (12). Cellule discoïdale complète et séparée de la deuxième basale (*Mythicomyia*) (**).
- 20 (11). Deuxième nervure longitudinale normale, longue, aboutissant à la côte à demi distance entre les extrémités de la première et de la troisième; deuxième cellule basale toujours bien plus courte que la première.
- 21 (54). Pas de cellule discoïdale.
- 22 (23). Trompe plus courte que la tête. (*Cyrtomorpha*). Espèce jaune et noire, de Tasmanie. *Cyrtom. paganica* White 1916.
- 23 (22). Trompe bien plus longue que la tête (*Cyrtosia*).
- 24 (39). Dos du thorax entièrement noir ou grisâtre, avec ou sans des taches humérales jaunes ou blanchâtres; pattes avec les hanches noires ou noirâtres.
- 25 (34). Écusson entièrement noir ou grisâtre.
- 26 (33). Dos du thorax et écusson complètement opaques.
- 27 (30). Dos du thorax sans dessin obscur distinct.
- 28 (29). Pattes jaunâtres, avec seulement la base des cuisses et l'extrémité des tarsi noirâtres. *Cyrt. cinerascens* Loew 1873.
- 29 (28). Pattes noirâtres, avec seulement les genoux

(*) Il paraît presque impossible de distinguer *Pachyneres* de *Glbellula*; il suffit de comparer les figures de l'aile données par Becker et par Malloch.

(**) Ce genre embrasse six espèces de l'Amérique du Nord.

- jaunâtres *Cyrt. nubila* Bezzi 1925 (*).
- 30 (27). Dos du thorax avec des bandes longitudinales plus obscures bien distinctes.
- 31 (32). Dos du thorax avec deux bandes obscures; ailes hyalines *Cyrt. pusilla* Loew 1873.
- 32 (31). Dos du thorax avec 4 bandes obscures; ailes assez grisâtres .. *Cyrt. tetragramma* n.sp.
- 33 (26). Dos du thorax et écusson assez luisants; pattes noirâtres avec les genoux jaunes
..... *Cyrt. obscuripes* Loew 1855.
- 34 (25). Écusson entièrement ou en majeure partie jaune.
- 35 (38). Écusson avec seulement le bord postérieur jaune; dos du thorax opaque; abdomen noir, avec des bandes jaunâtres.
- 36 (37). Écusson largement bordé de jaune; dos du thorax noirâtre avec deux bandes longitudinales grisâtres
..... *Cyrt. marginata* Perris 1839 (**).
- 37 (36). Écusson avec bordure jaune postérieure très étroite; dos du thorax opaque, avec 4 bandes noirâtres longitudinales
..... *Cyrt. tetragramma* n.sp. (**).

(*) Dans ma description de cette espèce (premier Mémoire, p. 188) à la ligne 4 à partir d'en bas, il faut lire : *c'est-à-dire avec la deuxième nervure et avec la deuxième cellule basale notablement plus courtes que les premières.*

(**) Je n'ai pas réussi à placer dans le tableau la *Cyrt. cinerea* Perris 1839, car je ne possède pas sa description.

(***) Répétée encore ici pour attirer l'attention sur le bord jaune de l'écusson qui, étant très étroit et visible seulement d'en dessous, pourrait échapper à la vue.

- 38 (35). Ecusson entièrement jaune; dos du thorax noir très luisant, sans dessin; abdomen rougeâtre avec des bandes jaunâtres; trompe assez courte *Cyrt. luteiventris* n.sp.
- 39 (24). Dos du thorax jaune avec dessin noir, ou noir avec des taches jaunes très larges sur les cotés et en avant; pattes toujours avec les hanches jaunes.
- 40 (47). Ecusson entièrement noir, ou avec le bord jaune postérieur assez étroit.
- 41 (46). Ecusson entièrement noir.
- 42 (43). Cuisses largement noires; dos du thorax grisâtre opaque
. *Cyrt. occidentalis* Rond. 1863.
- 43 (42). Pattes entièrement jaunâtres; dos du thorax noir très luisant.
- 44 (45). Tête avec la face jaune et avec deux taches jaunes sur le front. *Cyrt. nitens* Loew 1846
- 45 (44). Tête entièrement noire
. *Cyrt. pallipes* A Costa 1885.
- 46 (41). Ecusson noir à bord postérieur jaune; dos du thorax noirâtre opaque; pattes jaunâtres
. *Cyrt. opaca* Loew 1846.
- 47 (40). Ecusson entièrement jaune, ou avec seulement une petite tache noire à la base; pattes toujours entièrement jaunes.
- 48 (51). Thorax en majeure partie noir, avec larges taches jaunes sur les cotés; abdomen noir, bandé de jaune.
- 40 (50). Dos du thorax d'un noir très luisant sur le milieu, sans bandes obscures distinctes; abdomen d'un noir luisant, à bandes jaunes

- très étroites
- *Cyrt. scutellaris* Bezzi n.sp. (*)
- 50 (49). Dos du thorax d'un noir grisâtre dans le milieu, avec trois bandes longitudinales d'un noir mat; abdomen noir opaque, avec des bandes jaunes étroites sur les trois premiers segments.. *Cyrt. perfecta* Beck, 1910.
- 51 (48). Thorax en majeure partie jaune, même sur le dos, avec des bandes longitudinales noires ou brunâtres; abdomen jaune, avec des bandes noires sur la base des segments.
- 52 (53). Ecusson sans tache noire; bandes de l'abdomen noires
- *Cyrt. meridionalis* Rond. 1863.
- 53 (52). Ecusson avec tache noire basale; bandes de l'abdomen rougeâtres.
- *Cyrt. flavorufa* Strobl, 1909.
- 54 (21). Cellule discoïdale complète, séparée aussi de la deuxième basale (*Platypygus*).
- 55 (62). Antennes entièrement noires, même à la base.
- 56 (57). Thorax entièrement jaunâtre, sans aucun dessin noir, même sur le dos; abdomen rougeâtre, avec le bord postérieur des segments jaune *Plat. ridibundus* A. Costa 1863.
- 57 (56). Thorax et abdomen avec dessin noir.
- 58 (59). Assez grande espèce (5 à 6 mm.) à abdomen large et plat; dos du thorax noir, avec deux bandes jaunes le long du milieu; ab-

(*) Nouvelle espèce du Transvaal, dans la collection du Musée de Budapest, à décrire dans un travail prochain.

- domen noir, bandé de jaune; ailes assez obscures ... *Plat. chrysanthemi* Loew 1844.
- 59 (58). Espèces bien plus petites (1 - 3 mm.) à abdomen étroit et cylindrique; dos du thorax entièrement noir dans le milieu; derniers segments de l'abdomen entièrement jaunes; ailes hyalines.
- 60 (61). Cellule discoïdale longue; bande noire médiane du dos du thorax complète, les bandes latérales raccourcies en avant et en arrière *Plat. bellus* Loew 1869.
- 61 (60). Cellule discoïdale courte; bande médiane raccourcie en arrière, les latérales raccourcies en avant ... *Plat. pumilio* Loew 1873.
- 62 (55). Antennes plus ou moins largement jaunes à la base.
- 63 (66). Seulement le premier article des antennes est jaune, au moins à sa base.
- 64 (65). Dos du thorax entièrement noir dans le milieu, les trois bandes étant en contact l'une avec l'autre; abdomen large et plat, chaque segment bordé de jaune postérieurement *Plat. lativentris* Loew 1873.
- 65 (64). Dos jaunâtre, avec les trois bandes noires longitudinales séparées; abdomen assez étroit et cylindrique, à base bandée de noir, à extrémité entièrement jaune *Plat. melinoproctus* Loew 1873.
- 66 (63). Les deux premiers articles des antennes entièrement jaunes.
- 67 (68). Dos du thorax avec trois bandes longitudinales rougeâtres; abdomen entièrement

rougeâtre *Plat. melleus* Loew 1856.
 68 (67). Bandes du thorax noires; abdomen jaune
 avec des rangées de taches noires
 *Plat. maculiventris* Loew 1874.

4. *Cyrtosia nubila* Bezzi 1925 (*Empidideicus*).

Quelques exemplaires du Wadi Um Elek, 21 mars 1924 (Coll. Min. Agric.); ils sont distinctement plus petits et présentent les pattes moins foncées; la distinction de *cinerascens* Loew paraît ainsi bien difficile à établir en se basant seulement sur la description.

5. *Cyrtosia tetragramma* n.sp. ♀.

Espèce relativement robuste, à ailes assez obscures, distincte de toutes celles connues jusqu'à présent par les 4 bandes obscures longitudinales du dos du thorax.

Type ♀, un seul exemplaire du Mariout, 2 Mars 1921, Coll. Efflatoun Bey.

♀. Longueur du corps 2.5 mm.; de l'aile 2.8 mm.; de la trompe, presque 1 mm.

Tête entièrement noire, couverte de toment gris obscur, plus pâle sur la face et sur les côtés de la bouche; occiput assez convexe, avec ligne blanchâtre orbitale. Front assez large, avec bande longitudinale d'un noir mat. Antennes entièrement noires, courtes; troisième article étroit, linéaire, avec un style massif, mais sans soie terminale; face assez proéminente; trompe noire, épaisse, verticale, presque deux fois aussi longue que la tête. Yeux nus. Thorax entièrement noir, avec une tache humérale jaune-pâle; sur

le dos il est couvert de toment gris-brunâtre opaque, et présente 4 bandes longitudinales noirâtres, les deux médianes très rapprochées entre elles et réduites en arrière, les 2 latérales plus larges, réduites en avant et en arrière et interrompues à la suture; cotés, flancs et poitrine avec toment gris-pâle opaque. Ecusson noir, avec toment brunâtre opaque sur le dos, avec le bord postérieur étroitement jaunâtre et visible seulement en arrière; mésophragma peu développé, noirâtre. Cuillerons petits, blancs; balanciers courts, avec grosse massue blanche. Abdomen épais, convexe, plus large que le thorax, avec des courts poils blancs, tandis que le reste du corps est nu; il est entièrement noir, couvert de toment gris-brunâtre opaque, avec le bord postérieur de chaque segment étroitement blanchâtre, plus distinctement sur les derniers segments; ventre gris pâle. Pattes noires, même sur les hanches; genoux assez largement jaunâtres; base des tibias et base des tarse plus ou moins jaunâtres. Ailes grisâtres, assez obscures, avec les nervures noires à l'extrémité et jaunâtres à la base, la troisième et les deux dernières très épaisses; deuxième nervure longue; fourche cubitale doublement plus longue que son pédoncule, avec les branches divergentes en dehors; deuxième cellule basale notablement plus courte que la première; cellule anale étroite au sommet, mais ouverte. Lobe axillaire étroit, mais arrondi; point d'alule.

6. *Cyrtosia luteiventris* n.sp. ♂.

Petite espèce, très semblable à certaines femelles de *Simulium*, comme jadis Loew le remarqua pour la

description d'autres espèces de ce groupe. Elle est affine à *nubila* mais bien distincte par la trompe courte et horizontale, par le dos du thorax d'un noir luisant, par l'écusson entièrement jaune et par l'abdomen rougeâtre.

Type ♂, Wadi um Elek, 21 Mars 1924, et deux autres exemplaires. Coll. Min. Agric.

♂. Longueur du corps 2 mm.; de l'aile 2.3 mm.; de la trompe 0.5 mm.

Tête noire, nue, très luisante sur l'occiput mais opaque sur le front, plus pâle sur la face et avec le bord de la bouche jaune. Yeux arrondis, nus, assez largement séparés chez le mâle. Antennes entièrement noires; troisième article long, linéaire, avec style assez mince, sans soie terminale. Bouche peu proéminente; trompe noire, épaisse, un peu plus courte que la tête, dirigée horizontalement en avant. Thorax nu, d'un noir luisant sur le dos et sur les flancs; taches jaunes humérales larges; une ligne jaune notopleurale subtile; écusson entièrement jaune; mésophragma noir luisant. Cuillerons brunâtre clairs, bordés de blanc; balanciers avec la massue jaunâtre. Abdomen cylindrique, pas plus large que le thorax, obtus à l'extrémité; il est entièrement d'un rougeâtre assez luisant, avec le bord postérieur de chaque segment jaunâtre-pâle, plus largement sur les derniers segments; hypopyge petit, brunâtre, caché; ventre comme le dos. Villosité très courte, blanche. Pattes jaunes, avec les hanches, la base des cuisses et les deux derniers articles des tarsi, noirs. Ailes hyalines, à nervures pâles, obscurées vers l'extrémité. Nervures disposées comme chez l'espèce précédente, mais avec

la fourche cubitale un peu plus courte, bien que toujours plus longue que son pédoncule, et avec les branches moins divergentes, presque parallèles. Cellule anale assez largement ouverte; lobe axillaire sensiblement plus large.

Observation. — Un exemplaire présente les parties rougeâtres de l'abdomen bien plus foncées, presque brunâtres; il ressemble beaucoup à *nubila*, avec laquelle il fut capturé; mais il se distingue toujours par la trompe bien plus courte et horizontale, et par la couleur du thorax et de l'écusson.

4. *Lomatiinae.*

7. *Petronossia letho* Wied.

Cette espèce est très variable dans les dimensions et dans la coloration rouge de l'abdomen plus ou moins étendue. Un mâle de El Mansouriah mesure presque 9 mm. de longueur; un autre mâle de Kafr Hakim a l'abdomen entièrement rouge, sauf la tache basale noire; tous les deux ont les ailes hyalines, tandis qu'un mâle de Kerdacé présente les ailes obscurées dans la moitié basale.

8. *Chiasmella sabulonis* Beck.

Un mâle de Nouzha, Alexandrie, présente les ailes largement obscurées près des taches habituelles des nervures transversales; une femelle de la même localité présente le corps couvert de tomentosité plus dense.

5. *Anthracinae.*

9. *Spongostylum antiopa* Bezzi.

Un mâle de Nouzha, Alexandrie, capturé *in co-*

pula avec une femelle typique de *Sp. ocyale*; elle paraît donc être seulement une variété du mâle.

10. *Argyramoeba hippolyta* Wied.

Une femelle de Moweilleh (N.E. Sinaï), 15 Septembre 1924, Coll. Min. Agric.—Mêmes dimensions et même *facies* que *Sp. ocyale*; mais distinct, outre la présence de seulement deux cellules sous marginales, par la coloration différente de l'abdomen (qui manque de bandes blanchâtres) et des ailes, qui ne sont pas obscurées le long de la marge antérieure et près de la base. Les tibias sont quelquefois d'un rougeâtre foncé.

Cette espèce n'est pas endémique, car je la possède de Tunisie (Djerba) et d'Algérie; *Arg. croisi* Villen. est une espèce semblable, mais bien distincte.

11. *Argyramoeba chionanthrax* n.sp. ♂ ♀.

Espèce très distincte par son thorax et son écusson d'un noir très luisant et par l'abdomen tout couvert de poils blancs. En se servant de la Monographie du prof. Sack elle s'identifie avec *Psamatamoeba subnotata* Walk., dont elle diffère par les poils de la face noirs, et par la couleur noire luisante du thorax. D'après ma Tabelle de 1925, le mâle serait *melanista* Bezzi, mais il en est très distinct par le corps plus large et de dimensions plus grandes, et par l'abdomen entièrement couvert de longs poils blancs. De *lucida* Beck. il diffère par les ailes hyalines et par l'abdomen blanc.

Type ♂, un seul exemplaire du Wadi Um Biar, (près de Kosseir), 17 Février 1924, Coll. Min. Agric.

♂. Longueur du corps 6.5 mm.; de l'aile 6 mm.

Tête entièrement noire, assez luisante sur les côtés de l'occiput et sur la face, opaque sur le restant; il y a quelques écailles blanches parsemées sur le bord de l'occiput près des yeux; front et face avec tous les poils noirs; front du double plus large que le tubercule ocellaire; antennes très courtes, entièrement noires. Dos du thorax et écusson d'un noir très luisant; il y a de longs poils blanchâtres sur le cou et sur les flancs; sur le dos il y a des courts poils grisâtres et des écailles jaunâtres parsemées. Cuillerons blancs; balanciers blancs avec pédoncule jaunâtre. Abdomen entièrement noir mais peu luisant, les deux premiers segments avec des écailles jaunâtres, les autres à écailles blanches, tous les segments couverts de longs poils d'un blanc de neige; pas de soies noires. Pattes entièrement noires; tous les tibias avec spicules noires assez longues; ongles très minces, pelotes très petites. Ailes hyalines, avec la base et les cellules costales jaunâtres. Les deux appendices sont très petits; l'origine de la deuxième nervure longitudinale est placée un peu en avant de la nervure transversale; deuxième nervure simplement courbée à l'extrémité; première cellule postérieure largement ouverte en dehors; petite transversale placée beaucoup avant le milieu de la cellule discoidale qui est courte et large, assez obtuse à la base; cellule anale étroitement ouverte en dehors.

La femelle est plus petite, et d'après ma Tablette serait *subnotata*, dont elle paraît différente par le thorax d'un noir luisant. Deux exemplaires du 5th Tower, Suez Road, 28 Mars 1924.

♀. Longueur du corps 5 - 6 mm. Front pas

beaucoup plus large que chez le mâle, avec les poils en grande partie noirs, mais avec des écailles grisâtres; tous les poils de la face sont blanchâtres. Thorax et abdomen comme chez le mâle, les poils blancs de l'abdomen moins nombreux; il n'y a pas de soies noires. Tibias distinctement rougeâtres. Ailes complètement hyalines, avec les parties jaunâtres de la base et de la marge antérieure bien plus faibles que chez le mâle; caractéristique est la tache noire à l'extrême racine de l'aile, comme d'ailleurs chez le mâle.

6. *Exoprosopinae.*

12. *Thyridanthrax angusteoculatus* Beck.

Cette espèce paraît être très rare. Une femelle de Kafr Hakim, 20 Juin 1924, avec les caractéristiques bandes noirâtres au bord postérieur du deuxième segment et au bord antérieur du cinquième segment de l'abdomen.

13. *Thyridanthrax latona* Wied.

Suez Road, 22 Avril; Kafr Hakim, 22 Septembre; Abu Rouash, 12 Août; El Mansouria 30 Août; Borgash 30 Juillet; Wadi Hoff 5 Mai. La détermination de cette espèce demeure douteuse, car Wiedemann dit que le troisième article des antennes est *zwiebelförmig*, et ainsi elle pourrait être une *Argyromoeba*.

14. *Thyridanthrax autumnalis* Becker 1916.

Une femelle de Wadi Hoff, 8 Mai 1924, se rapporte à cette espèce d'Asie Mineure et nouvelle pour l'Egypte; elle se distingue par le troisième article des

antennes qui est linéaire et très allongé, et par la face rougeâtre.

15. *Thyridanthrax pauper* Becker 1916, var. *triradiatus* var. nov.

Un couple de la 5ème Tour, Route de Suez, 13-18 Août 1922.

♂ ♀. Mêmes caractères que chez *pauper* Beck. de Biskra, c'est-à-dire front couvert de poils blancs, troisième article des antennes court et régulièrement conique, soies du thorax et de l'écusson jaunes, front argenté surtout chez le mâle, une ligne de toment argenté de chaque côté du dos du thorax, etc. Mais il diffère par la présence d'une troisième bande de toment argenté le long du milieu du dos, s'étendant du col jusqu'au scutellum.

16. *Thyridanthrax tabaninus* Bezzi.

Un mâle du Wadi Um Elek, 11 Mars 1924, et deux femelles de Ikingi Mariout, 27 Juillet 1924, et Kafr Hakim, 10 Juin 1924. La femelle diffère du mâle par le front plus large et par la face rougeâtre; quelques fois les premiers articles des antennes sont rougeâtres.

17. *Thyridanthrax irrorellus* Klug.

Un mâle de Mazghouna en Avril. Très souvent il n'y a pas d'appendices aux ailes.

Zygodipla Gen. nov.

Espèce typique *Anthrax algira* Fabr. 1794.

Dans ma Monographie des Bombyliides Ethiopiens

(London, British Museum, 1924, p. 244-245) j'ai décrit ce sous-genre de *Exoprosopa* sous le nom de *Exoptata* Coquillett 1887. Actuellement, grâce à l'obligeance de Monsieur Painter, j'ai reçu un exemplaire de l'espèce typique du genre *Exoptata* (à savoir *divisa* Coquillett), et j'ai pu constater qu'elle ne présente pas de spicules aux tibias du devant; elle est donc une *Exoprosopa sensu stricto*, malgré la division de la première cellule postérieure, division qui n'est pas toujours présente. Pour *algira* et ses alliés il faudra adopter le nom *Zygodiola*, que je viens d'employer dans ma collection. Je n'ai pas encore vu des espèces égyptiennes de ce sous-genre, bien que *Zygodiola singularis* Macquart soit indiquée de l'Égypte.

18. *Exoprosopa (Pterobates) chrysogaster* n.sp. ♀.

Superbe espèce nouvelle du sous-genre *Pterobates* du genre *Exoprosopa*, la quatrième connue jusqu'à ce jour (voir ma Monographie de 1924, p. 274). Elle est voisine de *Pter. chabybaea* var. Röder, de Syrie, mais se distingue par l'abdomen entièrement couvert d'écaillés couleur d'or et par les pattes d'un rouge plus vif.

Type ♂ (un seul exemplaire) du Wadi Digla, Ier Août 1924, Coll. Min. Agric.

♀. Longueur du corps 16 mm.; de l'aile 16 mm.; envergure 36 mm.

Tête entièrement d'un rouge assez luisant, avec des courts poils fauves sur le front et sur la face; une bande d'écaillés métalliques le long du bord de l'occiput près des yeux. Antennes entièrement rouges; troisième article deux fois plus long que les deux pre-

miers ensemble, régulièrement conique et aminci dans une partie styliforme très longue, sans style terminal distinct (chez *chalybaea* la partie styliforme est plus courte, tandis que le style est assez long). Face arrondie, mais assez proéminente; trompe noire. Thorax et écusson noirs, un peu rougeâtres sur les flancs et sur le milieu de l'écusson; dos tout couvert d'écaillés de couleur bleue et avec des courts poils noirs; poils du col longs et d'un rouge vif; flancs avec poils noirs, sauf une petite touffe blanche à la partie supérieure des mésopleures; poitrine à poils noirs; toutes les soies noires. Cuillerons noirs, frangés de noir; balanciers noirs. Abdomen de la même forme conique aplatie que chez *chalybaea*; il est noir, mais tout couvert d'écaillés couleur d'or; il y a une touffe de poils jaunes-orange sur les côtés du premier segment, et quelques poils noirs sur les côtés des autres segments, mais sur le milieu et à l'extrémité les poils sont fauves (chez *chalybaea* tous les poils sont noirs). Ventre avec une bande d'écaillés dorées le long du milieu; spines de la tarière de couleur rouge luisant. Pattes entièrement d'un rouge assez vif, surtout celles du devant, ainsi que tous les tarses; hanches noirâtres; tibias de la dernière paire avec longue et dense frange d'écaillés noires. Ailes avec la même disposition de nervures et de même coloration que chez *chalybaea* (voir Bezzi, *Brotéria*, VIII, 1909, tab. IX, fig. 31); la partie hyaline apicale est un peu plus étroite, la deuxième cellule postérieure étant toute noire à la marge, sauf une petite tache hyaline au bord supérieur.

19. *Exoprosopa (Exoprosopa) spiloneura* n.sp. ♂.

Petite espèce à ailes tachées de noir et avec la première cellule postérieure fermée au sommet comme chez *rivulosa*, mais avec le troisième article des antennes très différent et les pattes entièrement rouges. Elle rappelle *punctinervis* Becker 1913 de la Perse qui a des taches semblables aux ailes, mais présente les pattes noires et fut placée par moi (probablement à tort) dans le sous-genre *Cladodisca*. Elle appartient au groupe *balsoptera*, près de *guttipennis* Bezzi (*punctipennis* Ricardo) de Sokotra et de *cosmoptera* Bezzi du pays des Nyasa, mais se distingue par ses pattes rouges et par la picture des ailes.

Type ♂, un exemplaire unique d'Assiout, 31 Mars 1917, Coll. Min Agric.

♂. Longueur du corps et de l'aile 6 mm. Tête noire, assez luisante sur l'occiput, avec la face et le péristome entièrement rouges. Cotés de l'occiput couverts d'écailles grisâtres. Front très large pour un mâle, aussi large que la moitié de l'œil, tout couvert de poils noirs, avec quelques écailles jaunâtres parsemées; face assez proéminente, conique avec des poils noirs sur les cotés et des poils jaunâtres sur le milieu; trompe noire, pas plus longue que la bouche. Thorax entièrement noir, avec les poils du col, des cotés, du dos et des flancs, grisâtres; dos avec des écailles jaunâtres; toutes les soies jaunes. Ecusson noir, à bord rougeâtre, avec des écailles jaunâtres et des soies noires le long du bord postérieur. Abdomen large et plat, rougeâtre, avec la partie centrale noire jusqu'au bord antérieur du cinquième segment; il est couvert d'écailles jaunâtres et de poils blanchâtres sur les

cotés, plus longs sur le premier segment; ventre entièrement rouge. Pattes rouges, seulement les hanches antérieures et l'extrémité de tous les tarsi sont noirs; tibias de la première paire minces, dépourvus de spicules, aussi longs que leurs cuisses; tarsi antérieurs avec des poils très courts; cuisses de la dernière paire avec 4-5 épines noires en dessus; spicules des tibias médians et postérieurs noirs; crochets noirs, minces, avec la dent basale obtuse et en forme de tubercule. Ailes avec l'origine de la deuxième nervure un peu avant la transversale antérieure, et avec simple courbure à l'extrémité de la deuxième nervure; nervure sous-marginale placée obliquement, mais droite; première cellule postérieure étroite, égale dans toute sa longueur, fermée au bord ou étroitement ouverte; cellule discoïdale étroite et longue, avec la petite transversale un peu avant le milieu et avec la nervure terminale courbe, droite et placée presque perpendiculairement; cellule anale largement ouverte à l'extrémité. Peigne basal très peu développé, jaunâtre; hameçon basal courbé, rougeâtre-obscur. Les ailes sont hyalines-grisâtres, un peu jaunâtres à la base et le long des cellules costales. Les taches obscures sont arrondies mais peu foncées; il y a une tache unique sur la petite transversale et sur la racine de la deuxième nervure; les autres taches se trouvent sur la transversale sous-marginale, sur la base de la fourche cubitale, près de l'extrémité de la deuxième nervure, sur la nervure terminale de la cellule discoïdale, à la base de la troisième cellule postérieure et à la base de la quatrième cellule postérieure. En outre il y a des petites taches arrondies près des

Article II.—DIPTERA OF THE AMERICAN MUSEUM CONGO
EXPEDITION¹

PART I.—BIBIONIDÆ, BOMBYLIIDÆ, DOLICHOPODIDÆ, SYRPHIDÆ
AND TRYPANEIDÆ

BY C. H. CURRAN

The Diptera collected by the members of The American Museum of Natural History expedition to the Belgian Congo, (1909–1919), number several thousand specimens and undoubtedly represent the largest collection yet brought together from this region. As various families have been submitted to specialists for determination and will be reported upon by them, it is not possible to present a survey of the collection as a whole but it might be pointed out that the families containing flies of medium to large size are best represented, although there is a moderate sprinkling of small Diptera.

For the most part, the literature dealing with Ethiopian Diptera is very scattered and the descriptions often leave much to be desired. For this reason the determination of species in most families is frequently laborious and is often difficult owing to the fact that several necessary publications are almost inaccessible. The muscoid groups are particularly difficult to determine, as no catalogue or list of species is available.

All of the specimens examined have been collected by Messrs. Lang and Chapin. An extremely large number were taken from solitary wasps, *Bembex* spp., that had captured the flies as food for their larvæ.

In order that the exact location of the various localities may be determined, the following list has been prepared.

| | |
|----------------------------------|---------------------------------|
| Aba, 30° 10' E., 3° 50' N. | Malela, 12° 40' E., 6° S. |
| Akenge, 20° 50' E., 2° 55' N. | Medje, 27° 15' E., 2° 25' N. |
| Bafwabaca, 27° 30' E., 2° 10' N. | Niagara, 28° E., 3° 40' N. |
| Bagboro, 29° E., 4° 18' N. | Poko, 26° 50' E., 3° 10' N. |
| Banana, 6° S., 12° 40' E. | Risimu, 26° 45' E., 1° N. |
| Boma, 13° E., 30° N. | Stanleyville, 25° 10' E., 1° N. |
| Faradje, 29° 10' E., 3° 40' N. | Thysville, 15° E., 5° 30' S. |
| Gamangui, 27° 30' E., 2° 10' N. | Yakuluka, 28° 50' E., 4° 20' S. |
| Garamba, 29° 40' E., 4° 10' N. | |
| Kinshasa, 15° 20' E., 4° 20' S. | |
| Kwamouth, 16° 10' E., 3° 20' S. | |

¹Scientific Results of the American Museum Congo Expedition. Entomology, No. 16.

BIBIONIDÆ

Only a single species belonging to this family is represented in the collection.

PLECIA Walker**Plecia ruficollis** (Fabricius)

Tipula ruficollis FABRICIUS, 1781, 'Spec. Insect.,' II, p. 410.

Eighteen specimens from the following localities: 2 males, 4 females, Faradje, Nov., 1912, and 1 female, March, 1912; male, Poko, Aug., 1913; 9 males, 1 female, Stanleyville, Jan. to March, 1915.

BOMBYLIIDÆ

The number of Bombyliidæ in the collection is not large and but few of the genera are represented. However, there are some interesting forms and the records extend the distribution of many of the species. Three of the forms are described as new, while there is evidently a fourth undescribed species which is not sufficiently well preserved to warrant its description. As the classification in this family is based largely upon the color or arrangement of the pile, it is difficult to determine specimens accurately unless they are in excellent condition, and, unless they are collected and handled with great care (few being placed in a vial), they lose not only their striking colors but become extremely difficult to place. While a good many of the specimens are considerably denuded, it has been possible to place almost all with certainty, owing to the excellent revision of the family by Bezzi (1924, 'Bombyliidæ of the Ethiopian Region,' Brit. Mus. Nat. Hist.). Without this work, the determination of African Bombyliidæ is practically impossible, as the descriptions are so widely scattered and there is little indication of the relationships of the various forms.

The genera represented in the collection may be distinguished by means of the synopsis which follows. This is given merely as an indication of the genera which are most likely to be found and is of value only in dealing with forms from a limited region. Many other genera probably occur in the Congo.

SYNOPSIS OF GENERA

1. Posterior border of the eyes not indented, seldom strongly emarginate; eyes without a short bisecting line near the middle behind. 2.
- Posterior border of the eyes rather angularly indented and the eyes with a short bisecting line at point of greatest indentation; occiput bilobate above. . . . 7.
2. Prothorax strongly developed and bearing long, curved bristles.

Toxophora Meigen.

- Prothorax not strongly developed, without long bristles. 3.
3. Metasternum strongly developed, so that the coxæ are all approximate; abdomen long and slender, enlarged apically; antennæ very long.
Systropus Wiedemann.
Metasternum short, the legs not unusually approximate at base; abdomen robust; antennæ not as long as head and thorax. 4.
4. First posterior cell broadly open; metapleura hairy or bare. *Dischistus* Loew.
First posterior cell closed; metapleura usually hairy. 5.
5. Posterior border of the eyes with a deep emargination opposite the antennæ; first posterior cell closed by the fourth longitudinal vein.
Eurycarenus Loew.
Posterior border of the eyes but little or not at all sinuate; first posterior cell closed by the third longitudinal vein. 6.
6. First basal cell longer than the second. *Bombylius* Linné.
First basal cell not or scarcely longer than the second. *Systæchus* Loew.
7. Second longitudinal vein originating well before the anterior crossvein, usually arising at an angle. 8.
Second vein originating opposite or nearly opposite the anterior crossvein at right angle or nearly so. 9.
8. Anterior crossvein situated very much beyond the middle of the discal cell.
Antonia Loew.
Anterior crossvein situated at most slightly beyond the middle of the discal cell.
Petrorossia Bezzi.
9. Metapleura bare; styliform part of third antennal segment bisected at base and with an apical pencil of hairs. 10.
Metapleura pilose; third antennal joint not as above. 11.
10. Third antennal segment broader than the second, not inserted in the second segment. *Anthrax* Scopoli.
Third antennal segment globular, inserted in the cup-shaped second segment.
Spogostylum Macquart.
11. Front tibiæ with more or less regularly arranged tiny spicules. *Villa* Lioy.
Front tibiæ smooth, without spicules. *Thyridanthrax* Osten Sacken.

BOMBYLIUS Linnæus

The species recognized may be distinguished by the following table.

1. Second longitudinal vein straight or almost so; anterior crossvein beyond middle of discal cell. *analis* Fabricius.
Second longitudinal vein undulating; anterior crossvein situated before the middle of the discal cell. 2.
2. Black pattern at the base of the wings extended to the discal crossvein; third antennal segment long and deeply concave at apex. *argentatus* Fabricius.
Black pattern at base of wing not extending beyond the basal crossveins. 3.
3. Abdomen mainly clothed with yellowish hair. *auricomus* Bezzi.
Abdomen black-haired, the dorsum with abundant golden tomentum.
 rufiventris Macquart.

Bombylius analis Fabricius

B. analis FABRICIUS, 1794, 'Ent. Syst.,' IV, p. 408.

The collection contains six males and eight females from the following localities: 5 males, Stanleyville, March and April, 1915; male, Boma, June 18, 1915; 7 females, Garamba, June-July, 1912; female, Faradje, Nov., 1912.

Bombylius argentatus Fabricius

B. argentatus FABRICIUS, 1805, 'Syst. Antl.,' p. 135.

There is a poorly preserved female from Faradje, Nov., 1912. The wings are marked much as in the genus *Hemipenthes* Loew. The shape of the third antennal segment distinguishes the species from any other yet described.

Bombylius rufiventris Macquart

B. rufiventris MACQUART, 1846, 'Dipt. Exot.,' Suppl. 1, p. 116.

Male, Banana, Sept., 1915; female, Boma, June 17, 1915. The male is in almost perfect condition and while the female is somewhat damaged it is quite recognizable.

Bombylius auricomus Bezzi

B. auricomus BEZZI, 1924, 'Bomb. Ethiopian Reg.,' p. 44.

There is a single, largely denuded female from Stanleyville, April 10, 1915, which belongs to this or to an undescribed species. The wings are largely tinged with brownish yellow, which fades out apically, while the sides of the abdomen are yellow-haired at least on the basal three-fifths and there are numerous black bristles apically. Owing to the condition of the specimen, it is not possible to state with certainty that it is this species.

Bombylius species

A single, badly damaged specimen from Bafwabaca, Jan., 1910, belongs to a species not otherwise represented in the collection, but it is impossible to determine it.

SYSTÆCHUS Loew**Systæchus melampogon** Bezzi

S. melampogon BEZZI, 1911, Trans. Ent. Soc. London, p. 609.

The collection contains a single female from Faradje which, even though it is largely denuded, I believe belongs here. The specimen was captured in January, 1913.

DISCHISTUS Loew**Dischistus senegalensis** Macquart

Bombylius senegalensis MACQUART, 1840, 'Dipt. Exot.,' II, part 1, p. 99.

The following specimens are in the collection: 8 males and 2 females from Stanleyville, March and April, 1915.

In the female there is a broad patch of silvery scales on the sides of the front below, the head being chiefly clothed with golden hairs, only a few hairs on the upper portion of the face being black. There is evidently a narrowly interrupted row of black bristly hairs on the apex of each abdominal segment.

EURYCARENUS Loew**Eurycarenum laticeps** (Loew)

Bombylius laticeps Loew, 1852, 'Bericht ub. d. Verh. d. Kgl. Preuss. Akad. d. Wiss., Berlin, p. 659.

Two females from Stanleyville, March and April, I refer here with some doubt. One female is so badly denuded as to be quite unrecognizable by itself but the second is in fairly good condition and agrees well with the description. Without a male it is impossible to determine the species with certainty.

TOXOPHORA Meigen**Toxophora trivittata** Bezzi

T. trivittata BEZZI, 1908, Ann. Soc. Ent. Belg., LII, p. 375.

There are three males and two females in fair condition, from the following localities: 2 males, 1 female, Stanleyville, April 24 and 27, 1915; male, Boma, June 18, 1915; female, Faradje, Nov., 1912.

This species was originally described from the second mentioned locality and is recorded from Nigeria and Rhodesia by Bezzi.

ANTONIA Loew**Antonia bella**, new species

Related to *A. xanthogramma* Bezzi, but the abdomen is dull orange with black spots and bands, the frontal triangle is black above and the thorax is without complete yellow lateral stripe. Length, 9.5 mm.

MALE.—Face and cheeks reddish yellow, the latter with an obscure brownish spot below the eyes. Frontal triangle orange, the upper fifth, the extremely narrow front and the upper fourth of the occiput, opaque black; frontal orbits narrowly silvery white pollinose opposite the yellow ground and bearing yellow pile, the front elsewhere with longish, sparse, black pile, the opaque part of the occiput with short, stout black hairs, the head elsewhere yellow pilose, the occiput gray pollinose. Antennae

yellow, the small third segment black; first segment black-haired above and, inwardly below with yellow hair, the second segment with black hair. There is a small blackish triangle between and above the base of the antennæ.

Mesonotum opaque black, with the humeri, notopleura and posterior calli, bright yellow, the space between the notopleura and posterior calli, rusty reddish. Thorax with long black hair except across the front margin and along the sides, the disc with golden tomentum; posterior calli black-haired, the sides of the mesonotum with tawny pile; pleura gray pollinose and yellow pilose. Hypopleura yellow except on the posterior lower half. Scutellum rusty yellow, sparsely clothed with stiff back hairs.

Legs rusty yellow, the tarsi ferruginous, Wings somewhat cinereous and rather strongly tinged with luteous; squamæ yellow, the pile whitish; halteres yellow.

Abdomen orange-red. First segment dull black with linear yellow apex, the second with a slightly tapering median black vitta which is suddenly expanded on the apical fourth of the segment to three times its basal width and from the posterior end a slender black line runs to the lateral margin. Third segment with a very small oval black spot, the fourth wholly pale; fifth black with a broad, pale posterior margin, the sixth and seventh each broadly black basally in the middle. Pile yellow on the first segment, basal half of the second, lateral margin of the second and third and the whole of the venter, elsewhere black; long on the first segment, the sides and venter, tomentose on the base of the second. Both lobes of the posterior forceps bear abundant stout short black spines.

A single male, Stanleyville, March, 1915.

PETROROSSIA Bezzi

This genus is but feebly differentiated from *Aphabantus* Loew and should, perhaps, rank only as a subgenus. I present here a description of the female of *P. fulvipes* Loew in addition to that of a new species.

Petrorossia fulvipes (Loew)

Anthrax fulvipes LOEW, 1860, Öfvers. Kongl. Vet. Akad. Forhandl., XVII, p. 89.

Length, 6 to 7 mm.

FEMALE.—Head black, thickly covered with silvery white pollen on the face, sides of front below and occiput, the pollen on the occiput gradually becoming brown above, the front shining black except on the sides of the lower half; very narrow orbital border pale yellow. Face and occiput yellow pilose, the front with black pile. Antennæ each inserted in an orange-yellow circle, black, with only the tip of the first segment reddish; third segment short, the basal portion broader than long, the whole segment but little longer than the first two combined, its tip reddish.

Thorax black, the mesonotum brownish pollinose, the sides and pleura with pale grayish pollen; hairs of the mesonotum black, with the golden tomentum quite abundant; a few fine, black bristles posteriorly, the lateral bristles yellow. Sides of the mesonotum, the propleura and upper half of the mesopleura with long, golden yellow pile, the pleura whitish haired below. Scutellum blackish, the basal third and narrow margin clothed with golden tomentum, the remainder with short, sparse appressed black hairs, the margin with three or four pairs of short bristles.

Legs orange, the tarsi brown; anterior tarsi beneath with short, apically curved, fine sensory hairs on the whole length.

Wings brown on more than the basal half, the apex hyaline; the brown extends slightly obliquely across from the apex of the first vein, just over the apex of the discal cell and thence a little more obliquely to the posterior border; in front it fills out the whole of the sub-costal cell.

Abdomen black in the middle, orange laterally, the black varying in width from one-third the abdominal width to a width equal to that of the scutellum, but always narrower on the middle portion. First segment wholly tawny pilose, densely so laterally, the black portion otherwise with appressed, short, black pile, the orange lateral portion with longer, sub-erect tawny pile.

Described from two specimens from Stanleyville, taken on April 10 and 27, 1915.

***Petrorossia chapini*, new species**

Length, 7 mm.

FEMALE.—Head black, the lower fourth of the front, the face and lower half of the occiput, pale grayish pollinose. Front and upper half of occiput opaque black, the front, however, shining black below the middle. Frontal pile black, but there are some yellow hairs across the shining portion, the pile on the head elsewhere reddish yellow, conspicuous except on the opaque portion of the occiput where it is short and sub-appressed, the long pile commencing level with the dividing line on the eyes. Circle about each antennal base dull ochreous, the antennæ brown (third segment missing). The extremely narrow mouth-edge is yellow.

Thorax sub-opaque black above, clothed with rather abundant golden-reddish tomentum which is longer and more abundant laterally, and with scattered black bristly hairs. Pleura gray pollinose and clothed with golden reddish pile. Scutellum clothed with fairly long golden tomentum and some black bristly hairs, the three pairs of marginal bristles reddish.

Middle legs missing, the others reddish yellow, the posterior tarsi brownish, the anterior pair becoming brownish on the apical half, clothed below with normal, tiny bristles and entirely lacking sensory hairs.

Wings strongly cinereous with luteous tinge in front, especially on the basal half. Squamæ whitish, the halteres yellow.

Abdomen orange-red, the first segment black beneath the scutellum and clothed with dense, erect, long reddish pile laterally, the pile elsewhere on the abdomen shorter, fine, appressed, more golden reddish on the dorsum with scattered, sub-appressed black bristly hairs which become quite numerous on the apical segment; pile on sides and venter a little longer than on the dorsum.

Described from a single, almost perfect, female, Stanleyville, April 5, 1915.

Differs from *gratiosa* by the color of wings, etc.

ANTHRAX Scopoli**Anthrax pithecius** Fabricius

A. pithecius FABRICIUS, 1805, 'Syst. Atl.,' p. 122.

A single, headless male and three females from Stanleyville, January to April, 1915.

Anthrax aygulus Fabricius

A. aygulus FABRICIUS, 1805, "Syst. Atl.," p. 121.

A female from Faradje, Nov., 1912, and another from Garamba, June, 1912.

Anthrax hemimelas Speiser

A. hemimelas SPEISER, 1910, 'Kilimandjaro-Meru Exp., (1905-06),' II, Sect. 10, p. 78.

The collection contains a single female collected at Faradje in January, 1912.

SPOGOSTYLUM Macquart**Spogostylum subanthrax** (Bezzi)

S. subanthrax BEZZI, 1924, 'Bomb. Ethiopian Reg,' p. 169.

A single female specimen without head I believe to be this species but cannot be certain. The legs are also almost entirely missing. Superficially the specimen, which was taken at Faradje, Nov., 1912, is like *Anthrax hemimelas* but the wing venation is quite different.

VILLA Lioy**Villa sexfasciata** (Wiedemann)

Anthrax sexfasciatus WIEDEMANN, 1821, 'Dipt. Exot.,' p. 142.

To this species I refer a male with the abdomen mostly denuded. It agrees fully with the description and the pale abdominal fasciæ are well indicated. The specimen is from Banana, August, 1915.

THYRIDANTHRAX Osten Sacken**Thyridanthrax lineus** (Loew)

Anthrax lineus LOEW, 1860, Öfvers. Kongl. Vet. Akad. Förhandl., XVII, p. 91.

A largely denuded female from Faradje, Nov., 1912, is evidently this species. Sufficient hairs remain to permit of a reasonably accurate conception of their color and arrangement.

Thyridanthrax ternarius Bezzi

T. ternarius BEZZI, 1924, 'Bomb. Ethiopian Reg.,' p. 209.

The collection contains a female from Faradje, Jan., 1912, which differs from the description only in having the discal cell almost wholly infuscated, although the immediate apex is paler. The legs are mostly missing, only one hind one being intact.

Thyridanthrax species

Four specimens, only one in fair condition, apparently represent an undescribed form but, owing to the fact that it is impossible to determine the color and extent of the pile, it is not deemed advisable to describe the species. So far as I can determine, it is closely related to *T. inauratus* Klug, from which it differs in having the wing less extensively black, the black pattern being not quite so extensive as in *Exoprosopa dimidiata* Macquart (see Bezzi, 'Bomb Eth. Reg.,' p. 303) but much the same outline. The specimens are from the following localities: male, Banana, June, 1915; 3 females, Faradje, Nov., 1912.

SYSTROPUS Wiedemann

There are two species in the collection, one of which belongs to the group having the abdominal petiole composed of only two segments, and appears to be undescribed. It differs from related species in having the eyes distinctly separated on the front.

Systropus snowi Adams

S. snowi ADAMS, 1905, Kans. Univ. Sci. Bull., III, p. 156.

A female from Thysville appears to belong here, although differing slightly from the description. The wings are wholly brownish and the eyes narrowly separated, the frontal triangle long and slender. In the few species of *Systropus* known to me there is considerable variation in color and in order to properly differentiate the species I believe that the genitalia will have to be studied. In the females these possess excellent characters and the same is also true of the males. The lower genital plate of *S. snowi* is shown in Fig. 1.

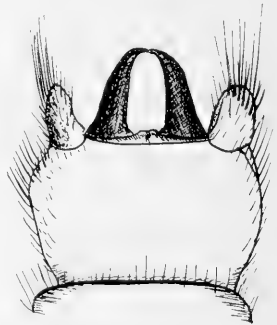


Fig. 1. *Systropus snowi* Adams. Lower genital plate of female.

Systropus rex, new species

Length, 16 mm.

FEMALE.—Head wine-red, the occiput black; sides of face and the cheeks, silvery white. Frontal triangle long, slender, much narrowed to about two-thirds the distance to the ocelli but the eyes very distinctly separated. Narrow portion of the front brownish, the occiput gray pollinose except along the broad upper orbits; pile wholly black, very short above. A dense tuft of short black pile on the brownish, rectangular, median portion of the face. Antennæ five mm. long, the first segment as long as the other two combined, ferruginous, the second segment of the same color but appearing black on account of the dense black hair, its length about three-eighths that of the black third segment which is strongly narrowed apically, leaving the stylus longer than wide. Palpi reddish, slender, tapering.

Mesonotum slaty black, with a pair of very broadly separated broad, darker vittæ on the anterior half; a broad, tapering, lateral yellow stripe extends from the humerus to the suture on either side; notopleura reddish. Hair of mesonotum extremely short, black, but there is a triangle of sparse, yellowish tomentum in front of the scutellum, and the hair on the lateral margins is longer. Scutellum transverse, with broadly rounded corners, the base with a reddish triangle on either side, the hair short, yellowish on the basal half, longer and black apically. Pleura black, with very short, appressed, black hairs; a broad reddish stripe extends from the middle coxæ to the base of the wing.

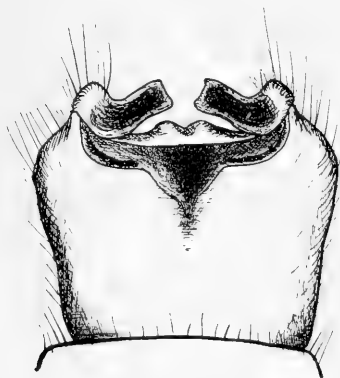


Fig. 2. *Systropus rex*, new species. Lower genital plate of female.

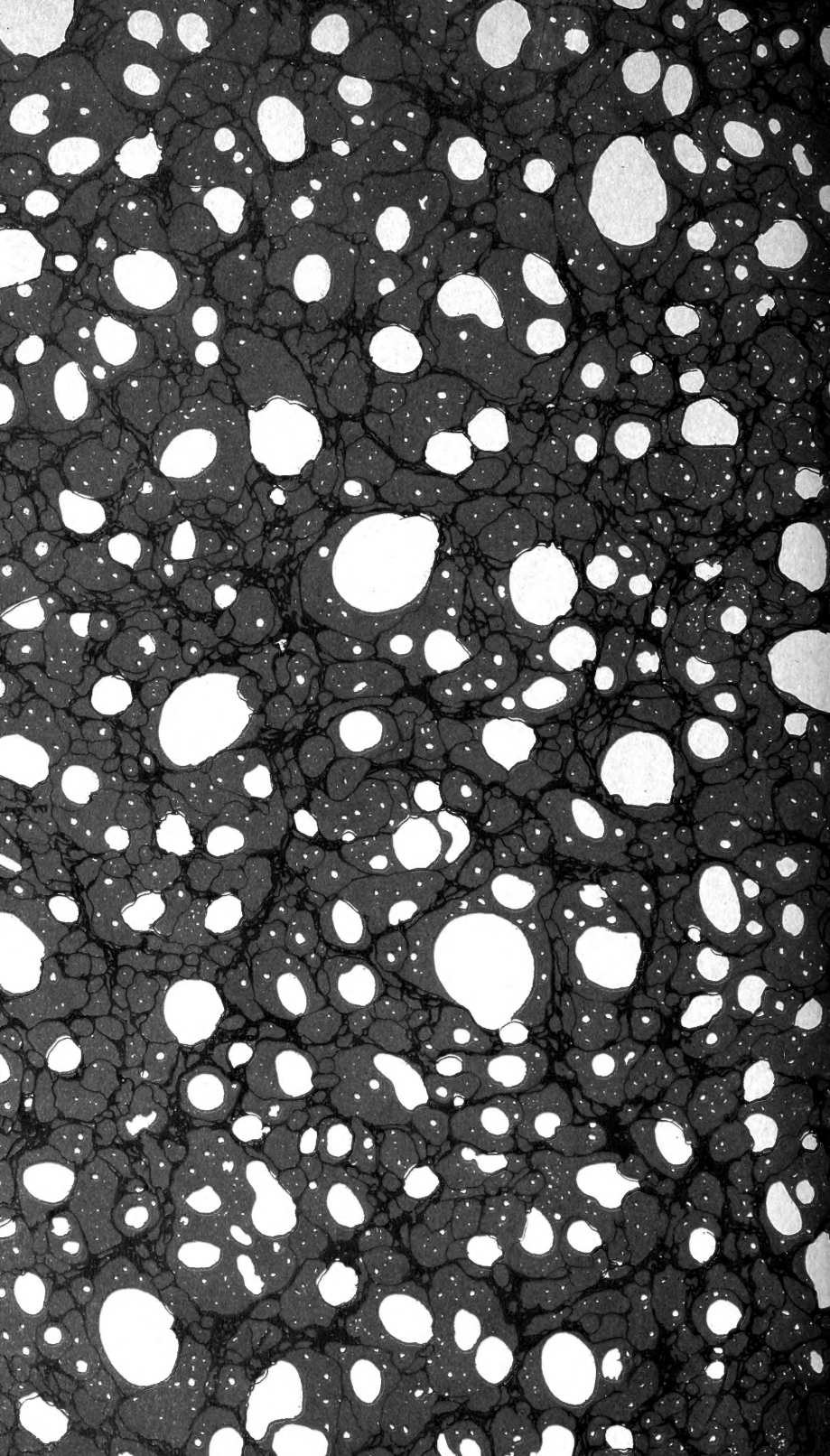
Coxæ, anterior four femora and their tibiæ, except behind, rusty reddish, the femora slightly darkened anteriorly. Anterior four tibiæ and first segment of their tarsi, whitish yellow behind, the latter reddish in front, the remaining tarsal segments blackish. Posterior femora reddish brown on almost the basal half, thence whitish yellow except the broad, dark apex; posterior tibiæ blackish brown on the basal half, thence pale yellow, the apical fifth black; first segment of posterior tarsi yellow, with the broad base and narrow apex black, the following segments black.

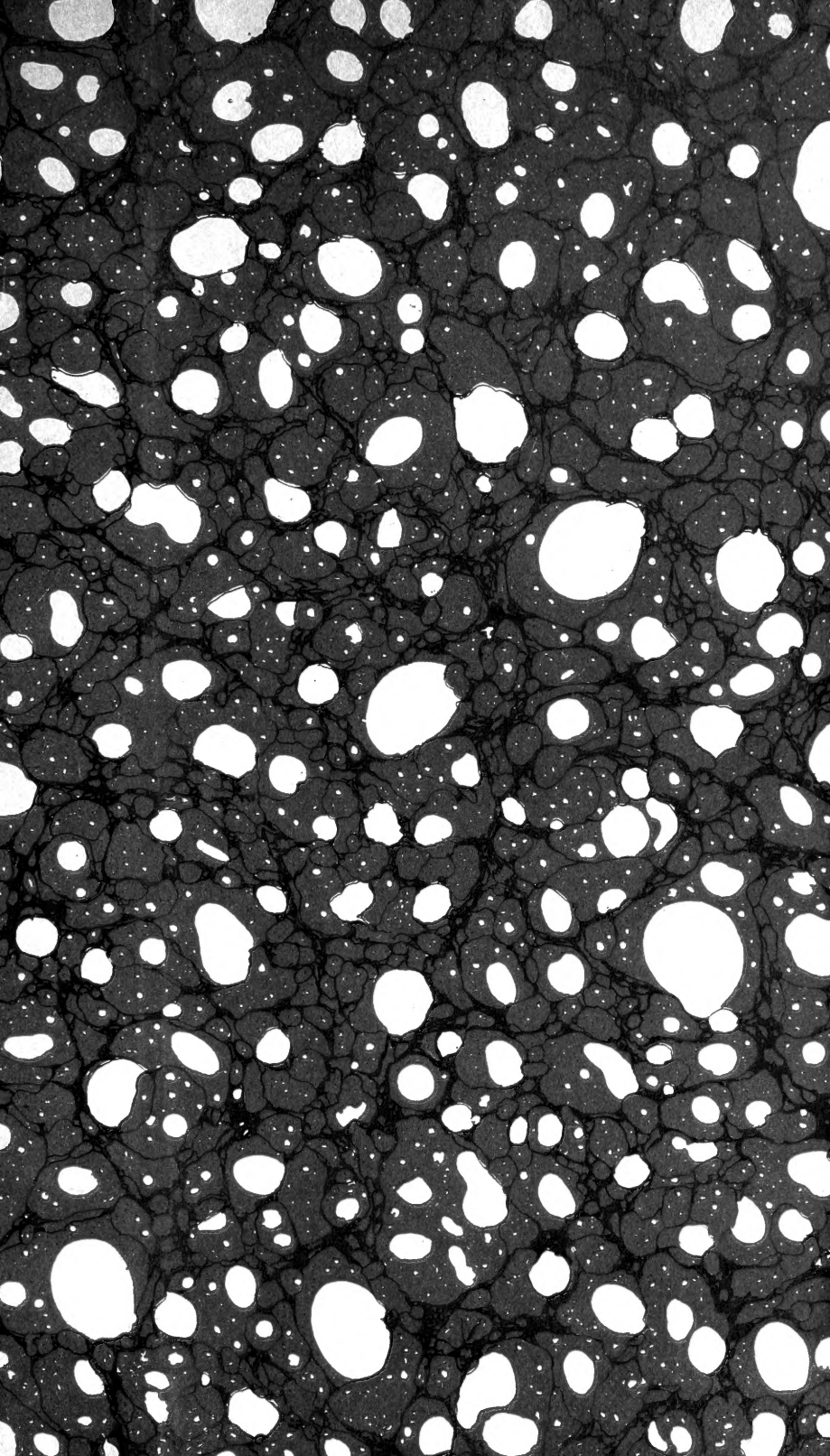
Wings lightly tinged with fuscous, somewhat darker apically and in front, the crossveins noticeably darker. Squamæ yellow, with dark fringe. Halteres reddish, with whitish knob.

Abdomen blackish, with the second, third and narrow base of the fourth segments, whitish yellow, the second and third each with a slender dorsal triangle of black reaching about three-fourths the distance to the segmental base. Lower genital plate as in Fig. 2.

Described from a single female, Garamba, June–July, 1912.







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