

## New Afrotropical Sciapodinae (Diptera: Dolichopodidae) with some new synonymy

### Новые виды мух-зеленушек Sciapodinae (Diptera: Dolichopodidae) из тропической Африки и несколько новых синонимов

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КЛЮЧЕВЫЕ СЛОВА: Diptera, Dolichopodidae, Sciapodinae, Тропическая Африка, определитель, новые виды, новые синонимы.

**ABSTRACT.** A new abundant material has been examined mainly from the collections of the National Museum of Natural History in Paris. Descriptions of 13 new species are given, and three species are replaced. *Mascaromyia alexisi* sp.n., *M. bebourensis* sp.n., *M. brooksi* sp.n., *M. cummingi* sp.n., *M. grimaldii* sp.n., *M. loici* sp.n., *M. tatyanae* sp.n., *M. michaeli* sp.n., *Amblypsilopus reunionensis* sp.n. and *A. takamaka* sp.n. are described from Reunion, *A. ambila* sp.n. and *A. ranomafana* sp.n. from Madagascar, *Chrysosoma (Chrysosoma) nguemba* sp.n. from Cameroon. *Chrysosoma (Mesoblepharia) albocrinatum* Curran, 1925 is recorded for Cameroon for the first time. *Sciapus nubilus* Parent, 1935 is transferred to the genus *Dytomyia* Bickel, 1994, *Sciapus aenescens* Vanschuytbroeck, 1952 to *Ethiosciapus* Bickel, 1994, and *Agonosoma micantifrons* Speiser, 1910 to *Plagiozopelma* Enderlein, 1912. The following pairs of species are synonymized: *Mascaromyia leptogaster* (Thomson, 1869) (= *Psilopus librativertex* Lamb, 1922); *Bickelia parallela* (Macquart, 1842) (= *Sciapus guerini* Parent, 1935; = *Bickelia subparallela* Grichanov, 1996); *Ethiosciapus latipes* (Parent, 1929) (= *Sciapus aenescens* Vanschuytbroeck, 1952); *Chrysosoma (Chrysosoma) vividum* Becker, 1923 (= *Chrysosoma tarsiciliatum* Parent, 1929); *Chrysosoma (Kalocheta) villiersi* (Vanschuytbroeck, 1970) (= *Kalocheta collarti* Parent, 1933, nec Curran, 1927; = *Chrysosoma (Kalocheta) alberti* Meuffels & Grootaert, 1999). A new name *Condylostylus erroneus* Grichanov, nom. nov. is proposed for *Condylostylus imitans* Curran, 1926. A key to known species of *Mascaromyia* Bickel, 1994 is also given. Presently 13 genera and 225 Afrotropical species of Sciapodinae are known.

в Париже и некоторых других музеев. В статье описаны 13 новых видов: *Mascaromyia alexisi* sp.n., *M. bebourensis* sp.n., *M. brooksi* sp.n., *M. cummingi* sp.n., *M. grimaldii* sp.n., *M. loici* sp.n., *M. tatyanae* sp.n., *M. michaeli* sp.n., *Amblypsilopus reunionensis* sp.n. и *A. takamaka* sp.n. с острова Реюньон, *A. ambila* sp.n. и *A. ranomafana* sp.n. с Мадагаскара, *Chrysosoma (Chrysosoma) nguemba* sp.n. из Камеруна. *Chrysosoma (Mesoblepharia) albocrinatum* Curran, 1925 впервые отмечается для Камеруна. *Sciapus nubilus* Parent, 1935 перемещен в род *Dytomyia* Bickel, 1994, *Sciapus aenescens* Vanschuytbroeck, 1952 — в род *Ethiosciapus* Bickel, 1994, а *Agonosoma micantifrons* Speiser, 1910 — в род *Plagiozopelma* Enderlein, 1912. Предложены следующие синонимы: *Mascaromyia leptogaster* (Thomson, 1869) (= *Psilopus librativertex* Lamb, 1922); *Bickelia parallela* (Macquart, 1842) (= *Sciapus guerini* Parent, 1935; = *Bickelia subparallela* Grichanov, 1996); *Ethiosciapus latipes* (Parent, 1929) (= *Sciapus aenescens* Vanschuytbroeck, 1952); *Chrysosoma (Chrysosoma) vividum* Becker, 1923 (= *Chrysosoma tarsiciliatum* Parent, 1929); *Chrysosoma (Kalocheta) villiersi* (Vanschuytbroeck, 1970) (= *Kalocheta collarti* Parent, 1933, nec Curran, 1927; = *Chrysosoma (Kalocheta) alberti* Meuffels & Grootaert, 1999). Предложено также новое название *Condylostylus erroneus* Grichanov, nom. nov. для *Condylostylus imitans* Curran, 1926. Приведен определитель известных видов рода *Mascaromyia* Bickel, 1994. В результате исследования число афротропических видов подсемейства достигло 225, объединенных в 13 родов.

#### Introduction

The world fauna of sciapodine genera was recently revised by Bickel [1994]. Afrotropical species of the

РЕЗЮМЕ. Исследован новый материал из коллекций Национального музея естественной истории

subfamily were reviewed by Grichanov [1998, 1999], Negrobov and Grichanov [1998]. Treating material from the rich collections of the National Museum of Natural History, Paris [MNHP] and the Swedish Museum of Natural History, Stockholm (NHRS), I have found a new abundant material on the subfamily Sciapodinae. Primary types of 28 Afrotropical species and paratypes of additional four species have been examined in the so-called Collection of Macquart, Collection of Parent and General Collection (MNHP), Collections of Thomson, Loew and Speiser (NHRS). All these are listed below. Lectotypes have been designated for some species. Descriptions of 13 new species, some new records for known African species are given here, and three species are replaced. *Mascaromyia alexisi* sp.n., *M. bebourensis* sp.n., *M. brooksi* sp.n., *M. cummingi* sp.n., *M. grimaldii* sp.n., *M. loici* sp.n., *M. michaeli* sp.n., *M. tatyanae* sp.n., *Amblypsilopus reunionensis* sp.n. and *A. takamaka* sp.n. are described from Reunion, *A. ambila* sp.n. and *A. ranomafana* sp.n. from Madagascar, *Chrysosoma* (*Chrysosoma*) *nguemba* sp.n. from Cameroon. *Sciapus nubilus* Parent, 1935 is transferred to the genus *Dytomyia* Bickel, 1994, *Sciapus aenescens* Vanschuytbroeck, 1952 to *Ethiosciapus* Bickel, 1994, and *Agonosoma micantifrons* Speiser, 1910 to *Plagiozopelma* Enderlein, 1912. The following pairs of species are synonymized: *Mascaromyia leptogaster* (Thomson, 1869) (= *Psilopus librativertex* Lamb, 1922); *Bickelia parallela* (Macquart, 1842) (= *Sciapus guerini* Parent, 1935; = *Bickelia subparallela* Grichanov, 1996); *Ethiosciapus latipes* (Parent, 1929) (= *Sciapus aenescens* Vanschuytbroeck, 1952); *Chrysosoma* (*Chrysosoma*) *vividum* Becker, 1923 (= *Chrysosoma tarsiciliatum* Parent, 1929); *Chrysosoma* (*Kalocheta*) *villiersi* (Vanschuytbroeck, 1970) (= *Kalocheta collarti* Parent, 1933, nec Curran, 1927; = *Chrysosoma* (*Kalocheta*) *alberti* Meuffels & Grootaert, 1999). A new name *Condylostylus erroneus* Grichanov, nom.n. is proposed for *Condylostylus imitans* Curran, 1926. A key to known species of *Mascaromyia* Bickel, 1994 is also given.

Now 13 genera and 225 Afrotropical species of Sciapodinae are presently known. It is the largest dolichopodid subfamily in the Region. The number of Afrotropical species belonging to sciapodine genera are as follows: *Chrysosoma* Guérin-Méneville, 1831 (67), *Amblypsilopus* Bigot, 1888 (48), *Mascaromyia* Bickel, 1994 (28), *Condylostylus* Bigot, 1859 (19), *Plagiozopelma* (17), *Gigantosciapus* Grichanov, 1997 (13), *Ethiosciapus* (9), *Mesorhaga* Schiner, 1868 (7), *Bickeliolus* Grichanov, 1996 (6), *Dytomyia* (5), *Parentia* Hardy, 1935 (4), *Bickelia* Grichanov, 1996 (1) and *Sciapus* Zeller, 1842 (1). These predatory flies are distributed throughout the continent and adjacent islands. The Sciapodinae has its great number of species in central Africa. With respect to the Afrotropical fauna, it is worth to note that only one species of the mostly Holarctic genus *Sciapus* have been found here. Six

species of the genus *Dytomyia* are known from Australia and New Guinea and five species from Madagascar. *Parentia* is speciose in Australia and adjacent islands with about 60 known species [Bickel, 1994]. It is the dominant sciapodine element in the New Zealand fauna, showing its possible Gondwanan origin. Afrotropical species of the genus are confined to southern Africa. *Bickelia* and *Mascaromyia* are genera endemic of the western Indian Ocean islands. Monotypic *Bickelia* and *Mascaromyia leptogaster* are distributed on Mauritius, Seychelles and Chagos Archipelago. The other *Mascaromyia* species are endemic of certain islands. The fauna of Mauritius comprises 12 species; Reunion numbers 9, Seychelles 5 species; only one species have been recorded from Rodriguez. The real number of species of the genus may be doubled following a special expedition covering yet unexplored islands. *Mascaromyia* is the typical example of adaptive radiation with *Bickelia parallela* being older colonist and *M. leptogaster* more recent, while the other species of the genus are neo-endemics.

Deposition of types of the new species in the collections of the National Museum of Natural History, Paris (MNHP) and the Royal Belgian Institute for Natural Sciences, Brussels (ISNB) is mentioned under the new names. The other material examined is deposited in the Museum of Natural History in Stockholm (NHRS) and the Zoological Museum in Lund University (MZLU). Diagnoses are given for species not listed in the previous reviews [Grichanov, 1998, 1999; Negrobov & Grichanov, 1998]. They include usually key characters and some important features that were missed in original descriptions. The relative lengths of the podomeres are representative ratios and not measurements (1 mm = 78). Hypopygia removed from the dry specimens are placed after alkalisation into glycerol and mounted on the same pin in a cavity of polymer film covered with a piece of adhesive tape. Listing material examined, I use here slash (/) to separate labels on one pin and square brackets [...] to insert my personal remarks. Bibliography includes works published after the "Catalogue of the Diptera of the Afrotropical Region" [Dyde & Smith, 1980].

## Taxonomy

### TRIBE MESORHAGINI (SCHINER) BICKEL

#### Genus Mesorhaga Schiner, 1868

##### 1. *Mesorhaga pauliani* Vanschuytbroeck

*Mesorhaga pauliani* Vanschuytbroeck, 1952: 137.

Type material examined. [♀], Holotype [red label] / I. S. Madagascar, Fort d'Ambohitantely, December 1947, R.P. / P. Vanschuytbroeck det. 1952 *Mesorhaga* [♂] *pauliani* n.sp. [MNHP].

REMARK. Despite of the description and label by P. Vanschuytbroeck, the holotype examined is a female. However, it corresponds to description of this species by Grichanov [1998: Fig. 2].

DISTRIBUTION: Madagascar.

## TRIBE SCIAPODINI (ZELLER) BECKER

Genus *Dytomyia* Bickel, 19942. *Dytomyia lutescens* (Vanschuytbroeck)

*Chrysosoma lutescens* Vanschuytbroeck, 1952: 139;  
*Ethiosciapus lutescens* (Vanschuytbroeck) Bickel, 1994: 142;  
*Bickeliolus lutescens* (Vanschuytbroeck) Grichanov, 1998: 82;  
*Dytomyia lutescens* (Vanschuytbroeck) Grichanov, 1999: 114.  
 Type material examined. [Holotype:] [♂], Ambila, VII.1951, R.P., forêt cotière / Institut Scientifique Madagascar / Type [♂], P. Vanschuytbroeck det. 1952 *Chrysosoma* [♂] *lutescens* n.sp. [MNHP].  
 REMARK. See diagnosis of this species in Grichanov (1998).

DISTRIBUTION. Madagascar, St. Helena.

3. *Dytomyia nubilis* (Parent)

*Sciapus nubilis* Parent, 1935: 87;  
*Amblypsilopus nubilis* (Parent) Bickel, 1994: 373;  
*Dytomyia nubilis* (Parent), **comb.n.**  
 Type material examined. [Holotype:] [♀], Museum Paris, Madagascar, Région du Sud-Est, Port-Dauphin, Ch. Alluaud 1901 / Type [red label] / *Sciapus nubilis* n.sp., O. Parent [MNHP].

REMARK. The species was described by a single female. Four more species of the genus occur on Madagascar. Their females are now unknown or indeterminable. Males of *Dytomyia deconinckae* have been recently described by Grichanov [1998] from environs of Port-Dauphin. However, *Dytomyia lutescens* widely distributed across the island and yet undescribed species may be found in that district.

DISTRIBUTION. Madagascar.

Genus *Bickelia* Grichanov, 19964. *Bickelia parallela* (Macquart)

*Psilopus parallelus* Macquart, 1842: 175;  
*Sciapus parallelus* (Macquart) Parent, 1932: 876;  
*Mascaromyia parallela* (Macquart) Bickel, 1994: 101;  
*Bickelia parallela* (Macquart) Grichanov, 1996a: 120;  
 = *Sciapus guerini* Parent, 1935: 86, **syn. n.**;  
 = *Mascaromyia guerini* (Parent) Bickel, 1994: 101;  
 = *Bickelia guerini* (Parent) Grichanov, 1996a: 120;  
 = *Bickelia subparallela* Grichanov, 1996a: 120, **syn. n.**  
 Type material examined. Lectotype [here designated], [♀], 879, 39 / Nr. 1028, *Psilopus parallelus* [on pin] / *P. parallelus* Macq. Mr. Desjardins, Ile de France, 893 [separate labels]; [Holotype:] [♂], Ile Maurice / Museum Paris, Coll. Guérin-Méneville / Type / *Sciapus guerini* n.sp. Type, O. Parent [MNHP].

Additional material. [♀], Ile Maurice / Musée Paris, Coll. Guérin-Méneville / *Sciapus parallelus* Macq., O. Parent [MNHP].

REMARK. Despite of the original description of *Sciapus guerini* by O. Parent, the holotype examined is a male rather than female. Both *Psilopus parallelus* and *Sciapus guerini* types are conspecific with *Bickelia subparallela*. Acrostichal setae are present; scutellum has 2 setae and 2 lateral hairs; anal vein is fold-like.

DISTRIBUTION: Mauritius; Seychelles, Chagos Archipelago.

Genus *Mascaromyia* Bickel, 1994

Eight new species described below have been found on Reunion. They are rather similar to species known from other western Indian Ocean islands, forming three natural groups. *M. alexisi*, *M. loici*, *M. michaeli* and *M. tatyanae* are related

to widely distributed *M. leptogaster*; *M. brooksi*, *M. cummingi* and *M. grimaldii* are close to *M. vagabunda* (Lamb, 1926) described from Rodriguez; *M. bebourensis* has some similarities to *M. amplicaudata* (Lamb, 1922) from Seychelles. The new species of the genus discussed below share the following characters (they are not repeated in species descriptions as many of them belong to generic concept of *Mascaromyia*). Head is rounded (anterior view). Frons metallic blue-green, slightly grey pollinose, with black setae. Strong postvertical seta is positioned as a linear continuation of the postocular setae row. Upper postocular setae black, lower setae white, long. Eyes contiguous in middle half of face, small facial triangle under antennae black-brown, whitish pollinose. Clypeus and narrow strip above densely covered with fine silvery-white pubescence. Palpi and proboscis short, yellow-brownish, white haired; palpus also with a black bristle. Acrostichal setae practically absent; only several pairs of microscopic acrostichals on anterior slope of mesonotum. Wing vein  $R_1$  1/3 as long as wing length.  $M_1$  with rounded right-angular bend;  $M_2$  straight, not reaching posterior margin of wing; crossvein *m-cu* straight. Anal vein and lobe reduced. Anal angle absent.

5. *Mascaromyia albitarsis* (Parent)

*Sciapus albitarsis* Parent, 1935: 83;  
*Mascaromyia albitarsis* (Parent) Bickel, 1994: 101.  
 Type material examined. [Holotype:] [♂], Ile Maurice / Museum Paris, Coll. Guérin-Méneville / Type / *Sciapus albitarsis* n.sp. Type, O. Parent [MNHP].

DIAGNOSIS. *M. albitarsis* is distinctive in having white hind tarsi. Thorax entirely dark; mid and hind femora brown-black; scape and pedicel brown; abdomen black (no hypopygium in holotype); body 3.6 mm. Cercus dorsally setose, with basoventral projection and S-shaped apicoventral appendix, bearing a basal comb of 4 setae and 3 apical spatulate setae; surstylus rounded, leaf-shaped, with a few short setae [Grichanov, 1996b].

DISTRIBUTION. Mauritius.

6. *Mascaromyia alexisi* Grichanov, **sp.n.**

Fig. 1.

Holotype. [♂], La Réunion, Route de Takamaka, 550 m, 8.XII.1973, L. Matile rec. [MNHP].

Paratype. [♂], La Réunion, Plaine des Affouches, 930–980 m, 11.XII.1973, L. Matile rec. / chemin forestière [MNHP].

DESCRIPTION. Male. Hair-like front vertical bristle bends forward. Antennae slightly shorter than height of head; scape orange, pedicel brown; scape simple; pedicel with ring of short setulae and 1 dorsal seta longer than pedicel. Postpedicel black, as long as high at base, triangular, with acute apex, pubescent. Stylus basodorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 5 : 4 : 7 : 20(?).

Mesonotum dark bluish-green, grey pollinose, pleura brown-black with bronze-green reflection, and only several small brownish spots, densely grey pollinose; metaepimere entirely yellow. Five strong dorsocentral bristles with a stiff hair in front of the 1<sup>st</sup> one. Scutellum with two strong bristles and 2 very short inner marginal hairs.

Legs mostly yellow; mid and hind coxae dirty-yellow; fore femur at apex and fore tibia dirty-yellow, 2<sup>nd</sup>–5<sup>th</sup> tarsomeres brownish, hind femur brown dorsally in distal half, hind tibia dirty yellow, mid and hind tarsi brownish. Fore coxa from the front with yellow hairs, 1 short brown and 1 long golden apical bristles, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia



and small brush of yellow hairs at the tip anteriorly. Hind coxa with one long brown external bristle. Legs thin, with weak setae. All femora bare. Fore basitarsus thin and long, with a regular distant ventral pectination on apical half and dorsal row of elongate setulae; 2<sup>nd</sup>–3<sup>rd</sup> tarsomeres with microscopic ventral pectination; 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with sparse dorsal setulae; fifth tarsomere widened and flattened, nearly twice as long as wide. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 50 : 65 : 60 : 82 : 14 : 25 : 24 : 5. Mid tibia with 2 anterodorsal, 3 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 25 : 75 : 138 : 105 : 28 : 23 : 12 : 7. Hind tibia with 1 anterodorsal at basal 1/4 and 2 dorsal setae in middle half. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 15 : 110 : 177 : 68 : 34 : 24 : 13 : 7.

Wing almost hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 37 : 5. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 17 : 45 : 17. Lower calypter dark-yellow, with black edging and yellow cilia. Halteres dirty-yellow.

Abdomen thin, dark-brown, weakly shining; 1<sup>st</sup> tergite mostly yellow; 2<sup>nd</sup>–5<sup>th</sup> terga with large yellow midlateral spots; unmodified segments combined 3.3 times as long as mesonotum. Sternites with short sparse light hairs, brownish-yellow; 1<sup>st</sup> tergite with long light hairs, 1 pair of brown and 2 pairs of yellow marginal setae; 2<sup>nd</sup> tergite with light lateral hairs. Other tergites with short dark hairs and short black setae; 7<sup>th</sup> abdominal segment and hypopygium brown; 7–8<sup>th</sup> segments with short sparse hairs. Cercus brown, swollen at base, with drawn-out apex, dorsally and laterally setose, with light hairs and two dirty yellow ventral appendices of equal length; distal appendix bearing long seta at base, thick apical seta and short narrow subapical process having short apical seta; basal appendix slightly curved, bearing apical brush of several thick setae and 2 subapical setae. Surstylus narrow, black, with shallow distal excavation and short setae. Epandrial seta pedunculate, situated closely to short epandrial lobe bearing 2 short setae.

Female unknown.

Length (mm): body 3.7; antenna 0.5(?); wing 3.2/0.8; 7<sup>th</sup> segment of abdomen 0.6; hypopygium 0.45.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named for my son, Aleksei Grichanov.

DIAGNOSIS. *M. alexisi* belongs to *leptogaster* group of species, differing in hyaline wing, modified fore tarsus with monochrome 2<sup>nd</sup>–5<sup>th</sup> segments of the same tarsus, cercus being as long as epandrium and having drawn-out apex.

#### 7. *Mascaromyia bebourensis* Grichanov, sp.n.

Fig. 2.

Holotype. [♂], La Réunion, Forêt de Bebour, 14.XII.1973, L. Matile rec. / Sentier de la rivière, alt. 1300–1350 m [MNHP].

Paratypes. 10 [♂♂], same labels; 5 [♂♂], same labels with collection date 18–19.XII.1973 [MNHP; 1 paratype in ISNB].

DESCRIPTION. Male. Strong front vertical bristle bends forward. Antennae 1/3 longer than height of head; scape and pedicel brownish-yellow; scape simple; pedicel with ring of short setae. Postpedicel brown, 1.6 times longer than high at base, subtriangular, with acute apex, pubescent. Stylus basodorsal, short haired, arising from small eminence. Length ratio of scape to pedicel to postpedicel to stylus, 8 : 4 : 13 : 60.

Mesonotum mostly brown, light brown laterally, shining metallic blue-green between rows of dorsocentrals, grey pollinose; scutellum metallic blue-green; pleura yellow, grey pollinose. Four strong and one anterior hair-like dorso-central setae. Scutellum with two strong setae and 2 very short lateral hairs.

Legs mostly yellow, sometimes entirely yellow; hind femur and tibia brownish dorsally. Fore coxa from the front with yellow hairs, two brownish apical setae, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxa with one long brown external bristle and two microscopic hairs. Legs thin, with weak setae. Fore femur with ventral row of feeble hairs, half as long as diameter of femur; fore tibia and tarsus simple. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 60 : 72 : 80 : 86 : 23 : 15 : 10 : 8. Mid femur with anteroventral, ventral and posteroventral rows of dense cilia, not longer or (anteroventrally at apex) slightly longer than diameter of femur; the cilia mostly dark in anteroventral row and mostly light in posteroventral row. Mid tibia with 4 anterodorsal, 3 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 33 : 88 : 148 : 111 : 33 : 15 : 27 : 8. Hind femur with 1 strong subapical anterior seta and 1–2 stiff subapical antero- and posteroventral hairs. Hind tibia with 1 anterodorsal at base and 5–7 short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 20 : 120 : 190 : 75 : 43 : 27 : 17 : 10.

Wing yellowish, almost hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 43 : 7. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 27 : 57 : 30. Lower calypter dark-yellow, with black edging and yellow cilia. Halter brownish-yellow.

Abdomen thin and long, with short black hairs and marginal setae; 1<sup>st</sup> tergite yellow, brownish posteriorly, with long light hairs laterally and black marginal setae dorsally; 2<sup>nd</sup> and 3<sup>rd</sup> terga yellow, with broad brown bands along sutures; 4<sup>th</sup> and 5<sup>th</sup> brown, with large yellow midlateral spots; 6<sup>th</sup> and 7<sup>th</sup> brown; hypopygium yellow-brown, with short cilia; cercus brown, with yellow processes. Sternum yellow, with light hairs. Unmodified segments together thrice as long as mesonotum. Cercus swollen at base, with beak-like apex, dorsally and laterally setose, with light hairs and two ventral appendices of unequal length; distal appendix bearing short seta at middle, narrow apical process having 3 spatulate setae and very small apical process having short simple seta; basal appendix strongly curved, bearing short thick apical seta. Surstylus narrow, brown, with short narrow subapical process, 1 long and 2–3 short apical setae. Epandrial seta pedunculate, situated closely to short epandrial lobe bearing 2 short setae.

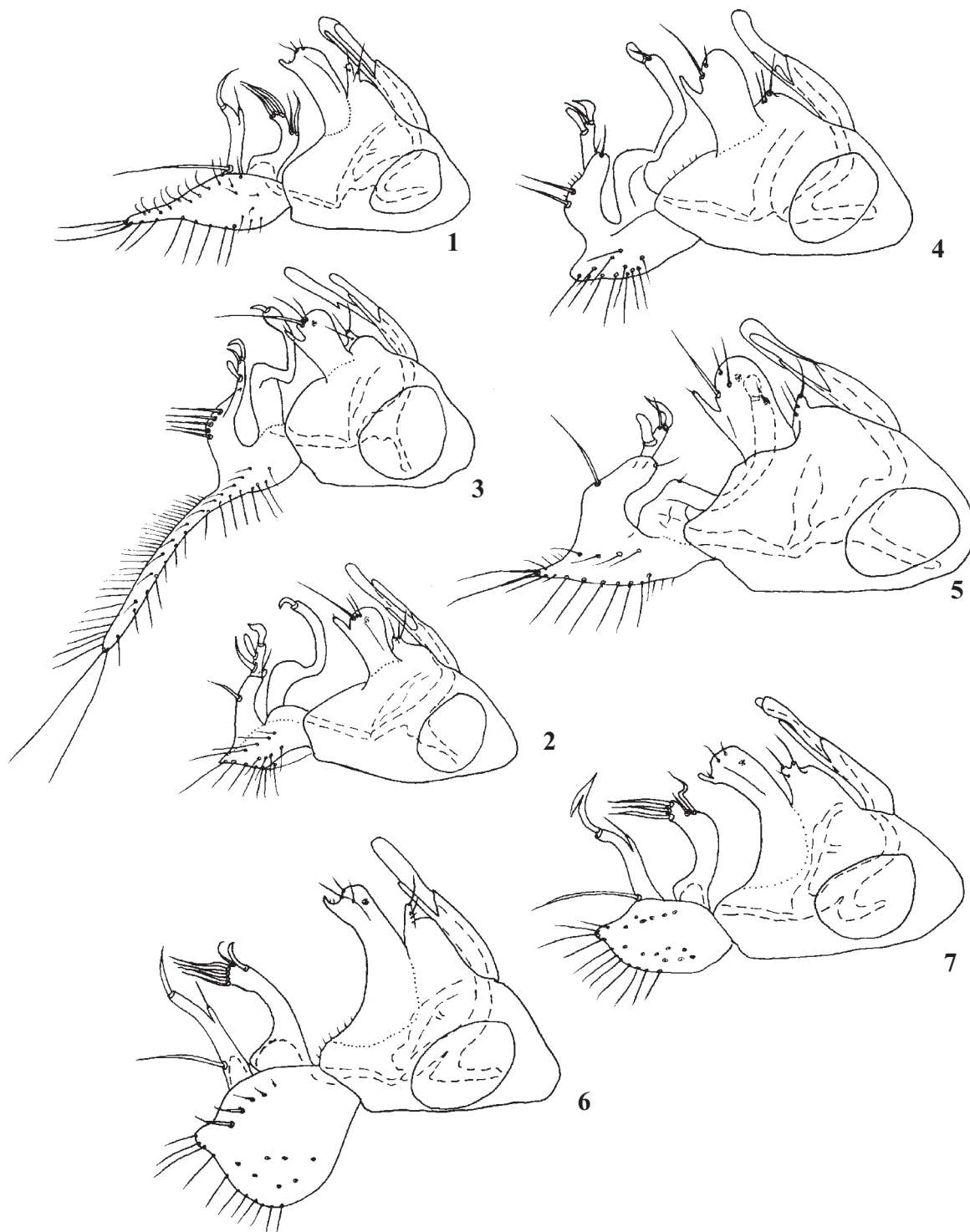
Female unknown.

Length (mm): body 4.0; antenna 1.1; wing 3.7/1.2; 7<sup>th</sup> segment of abdomen 0.8; hypopygium 0.4.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named after the type locality.

DIAGNOSIS. Males of *M. bebourensis* are related to *M. amplicaudata*, differing in mid femur having full row of anteroventral setae in addition to posteroventral row of long hairs; hind femur having a single subapical anterior seta; fore basitarsus being longer than tibia, longer than next tarsomeres combined.



Figs 1–7. Hypopygium, left lateral view: 1 — *Mascaromyia alexisi* sp.n.; 2 — *M. bebourensis* sp.n.; 3 — *M. brooksi* sp.n.; 4 — *M. cummingi* sp.n.; 5 — *M. grimaldii* sp.n.; 6 — *M. loici* sp.n.; 7 — *M. tatyanae* sp.n.

Рис. 1–13. Гипопигий, вид сбоку слева: 1 — *Mascaromyia alexisi* sp.n.; 2 — *M. bebourensis* sp.n.; 3 — *M. brooksi* sp.n.; 4 — *M. cummingi* sp.n.; 5 — *M. grimaldii* sp.n.; 6 — *M. loici* sp.n.; 7 — *M. tatyanae* sp.n.

#### 8. *Mascaromyia brooksi* Grichanov, sp.n.

Fig. 3.

Holotype. [♂], La Réunion, Plaine des Affouches, 1100 m, 11.XII.1973 / Bras guillaume [MNHP].

Paratypes. 3 [♂♂], La Réunion, Takamaka, 650–750 m, 8 & 12.XII.1973, L. Matile rec.; 3 [♂♂], La Réunion, Forêt de Bebour, 14 & 18.XII.1973, L. Matile rec. / Sentier de la rivière, alt. 1300–1350 m [MNHP].

DESCRIPTION. Male. Strong front vertical bristle bends forward. Antennae slightly longer than height of head; scape

and pedicel yellow; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae longer than pedicel. Postpedicel brown-black, as long as high at base, triangular, with acute apex, pubescent. Stylus dorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 7 : 4 : 8 : 61.

Mesonotum mostly brown, light brown laterally and anteriorly, shining metallic blue-green between rows of dorso-centrals, grey pollinose; scutellum metallic blue-green; pleura yellow, grey pollinose. Four strong and one anterior hair-like dorsocentral setae. Scutellum with two strong setae and 2 very short lateral hairs.

Legs mostly yellow; hind tibia dirty-yellow, apical tarsomeres brownish, 5<sup>th</sup> segment of fore tarsus black; hind femur brown dorsally in distal half. Fore coxa from the front with yellow hairs, two brown apical setae, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxa with one long brown external seta. Legs thin, with weak setae. Fore femur bare. Fore basitarsus thin and long, with a regular distant ventral pectination on apical half and dorsal row of elongate setulae, 2<sup>nd</sup> tarsomere with the same pectination; fifth tarsomere strongly widened and flattened, 1.5 times as long as wide; 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with sparse setulae. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 65 : 78 : 85 : 118 : 8 : 29 : 15 : 12. Mid femur practically bare. Mid tibia with 1–2 anterodorsal, 2–4 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 35 : 90 : 163 : 129 : 39 : 32 : 16 : 8. Hind femur with 1 weak anterior subapical seta. Hind tibia with 1 anterodorsal at basal 1/4 or 1/5, 5–7 short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 25 : 135 : 225 : 85 : 50 : 33 : 17 : 8.

Wing hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 40 : 7. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 27 : 63 : 29. Lower calypter dark-yellow, with black edging and yellow cilia. Halter with yellow stem and brown knob.

Abdomen thin and long, with short black hairs and marginal setae; 1<sup>st</sup> tergite yellow, brownish posteriorly, with long light hairs laterally and black marginal setae dorsally; 2<sup>nd</sup> and 3<sup>rd</sup> terga yellow, with broad brown bands along sutures; 4<sup>th</sup> and 5<sup>th</sup> brown, with large yellow midlateral spots; 6<sup>th</sup> and 7<sup>th</sup> brown; 7<sup>th</sup> segment with numerous short hairs; hypopygium yellow-brown, with short cilia; cercus brownish-yellow, with yellow processes. Sternum yellow, with light hairs. Unmodified segments together thrice as long as mesonotum. Cercus swollen in basal 1/3, with long and narrow distal part having numerous dorsal and ventral hairs and 2 long apical setae, with two basoventral appendices of unequal length; distal appendix bearing comb of 5 setae in middle and long narrow subapical process having 3 spatulate setae; basal appendix strongly curved, bearing short apical thick seta. Surstylus relatively narrow, brown, with short narrow subapical process, 1 long and 2–3 short apical setae. Epandrial seta pedunculate, situated closely to short epandrial lobe bearing 2 short setae.

Female unknown.

Length (mm): body 4.3; antenna 1.0; wing 3.9/1.1; 7<sup>th</sup> segment of abdomen 0.65; hypopygium 1.45.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named after the Canadian dipterologist Scott Brooks.

DIAGNOSIS. *M. brooksi* belongs to *vagabunda* group of species, differing in fore basitarsus being longer than fore tibia and 2 times longer than 2<sup>nd</sup>–5<sup>th</sup> segments; fore tarsus being dark, with flattened and enlarged 5<sup>th</sup> segment; cercus being nearly 2 times longer than epandrium, with distal process having a comb of setae in middle.

#### 9. *Mascaromyia cummingi* Grichanov, sp.n.

Fig. 4.

Holotype. [♂], La Réunion, Plaine des Affouches, 700 m, 11.XII.1973, L. Matile rec. [MNHP].

Paratypes. 4 [♂♂], same label; 2 [♂♂], La Réunion, Takamaka, 650–750 m, 12.XII.1973, L. Matile rec.; 4 [♂♂], La Réunion, St. Philippe, 170–450 m, 28.XII.1973, L. Matile rec. / Res. Biol. de la Mare Longue, Forêt a Nattes et Bois de Fer Marron [MNHP].

DESCRIPTION. Male. Strong front vertical bristle bends forward. Antennae as long as height of head; scape and pedicel yellow; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae as long as pedicel. Postpedicel brown, slightly longer than high at base, triangular, with acute apex, pubescent. Stylus dorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 5 : 4 : 8 : 52.

Mesonotum metallic blue-green, light brown along lateral margins, grey pollinose; scutellum metallic blue-green; pleura yellow, grey pollinose. Four strong and one anterior hair-like dorsocentral setae. Scutellum with two strong setae and 2 very short lateral hairs.

Legs mostly yellow; hind femur usually brownish dorsally in distal half; hind tibia usually dirty yellow; distal half of fore basitarsus and 2<sup>nd</sup> tarsomere usually whitish; 3<sup>rd</sup> segment of the same tarsus whitish or yellow; 4<sup>th</sup> segment brownish; 5<sup>th</sup> segment black. Fore coxa from the front with yellow hairs, two brown apical setae, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxa with one long brown external seta. Legs thin, with weak setae. All femora bare ventrally. Fore basitarsus thin and long, with a regular distant ventral pectination on apical half and dorsal row of elongate setulae; 2<sup>nd</sup> tarsomere with the same pectination; 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with sparse setulae; fifth tarsomere strongly widened and flattened, nearly twice as long as wide. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 49 : 58 : 60 : 78 : 5 : 21 : 9 : 10. Mid tibia with 1 anterodorsal, 1 posterodorsal setae at basal 1/4; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 28 : 68 : 125 : 85 : 25 : 21 : 10 : 7. Hind tibia with 2–4 very short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 15 : 99 : 145 : 50 : 33 : 21 : 14 : 8.

Wing hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 34 : 6. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 20 : 38 : 18. Lower calypter dark-yellow, with black edging and yellow cilia. Halter with yellow stem and brown knob.

Abdomen thin and long, with short black hairs and marginal setae; 1<sup>st</sup> tergite yellow, brownish posteriorly, with long light hairs laterally and black marginal setae dorsally; 2<sup>nd</sup> and 3<sup>rd</sup> terga yellow, with broad brown bands along sutures; 4<sup>th</sup> and 5<sup>th</sup> brown, with large yellow midlateral spots; 6<sup>th</sup> and 7<sup>th</sup> brown; hypopygium yellow-brown, with short cilia; cercus brown, with yellow processes. Sternum yellow, with light hairs. Unmodified segments together thrice as long as mesonotum. Cercus swollen at base, with beak-like apex, dorsal-

ly and laterally setose, with two ventral appendices of unequal length; distal appendix bearing 2 short seta at middle, short simple apical seta and thick subapical process having 3 thick setae of different shape; basal appendix strongly curved, broad in basal half, narrow in distal half, bearing 1 spatulate and 1 simple short apical setae. Surstylus narrow, brown, with short narrow subapical process, 1 long and 1–2 short apical setae. Epandrial seta situated closely to short epandrial prominence bearing 2 short setae.

Female unknown.

Length (mm): body 3.0; antenna 0.7; wing 2.8/0.9; 7<sup>th</sup> segment of abdomen 0.5; hypopygium 0.4.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named after the Canadian dipterologist Dr. J.M. Cumming.

DIAGNOSIS. *M. cummingi* belongs to *vagabunda* group of species, differing in fore basitarsus being longer than fore tibia and nearly 2 times longer than 2<sup>nd</sup>–5<sup>th</sup> segments; fore tarsus being dark, with flattened and enlarged 5<sup>th</sup> segment; cercus being shorter than epandrium, with distal process having two setae in middle.

#### 10. *Mascaromyia desjardinsi* (Macquart)

*Psilopus desjardinsi* Macquart, 1842: 175;

*Sciapus desjardinsi* (Macquart) Parent, 1932: 874;

*Mascaromyia desjardinsi* (Macquart) Bickel, 1994: 101.

Type material examined. Holotype [here designated], ♀, 39 / Nr. 1047, *Psilopus desjardinsi* [on pin] / *P. desjardinsi* Macq. Mr. Desjardins, Ile de France, 893 [separate labels, MNHP].

REMARK. Most part of 28 known *Mascaromyia* species have been described by males only. Their females have completely lacked diagnostic specific characters, and their identification and association with female *Psilopus desjardinsi* are not now possible as many species have similar size (3.5–4.0 mm), habitus and identical locality data.

DISTRIBUTION. Mauritius.

#### 11. *Mascaromyia grimaldii* Grichanov, **sp.n.**

Fig. 5.

Holotype. (♂), La Réunion, Takamaka, 650–750 m, 8.XII.1973, L. Matile rec. [MNHP].

Paratypes. 4 [♂♂], La Réunion, Forêt de Bebour, 19.XII.1973, L. Matile rec. / Sentier de la rivière, alt. 1300–1350 m [MNHP].

DESCRIPTION. Male. Front vertical bristle bends forward. Antennae slightly longer than height of head; scape and pedicel dirty yellow; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae as long as pedicel. Postpedicel brown, 1.1–1.5 times longer than high at base, triangular, with acute apex, pubescent. Stylus dorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 5 : 4 : 9 : 51.

Mesonotum metallic blue-green, light brown along lateral margins, grey pollinose; scutellum metallic blue-green; pleura yellow, grey pollinose. Four strong and one anterior hair-like dorsocentral setae. Scutellum with two strong setae and 2 very short lateral hairs.

Legs mostly yellow; hind femur dirty yellow or brownish dorsally in distal half; fore tarsus snow-white from tip of basitarsus. Fore coxa from the front with yellow hairs, two yellow apical setae, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and small brush of several yellow hairs at the tip anteriorly. Hind coxa with one long yellow or reddish external seta. Legs thin, with weak setae. All femora bare ventrally. Fore basitarsus thin and

long, with a regular ventral pectination at extreme apex; remainder of tarsomeres shortened, snow-white. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 45 : 57 : 57 : 85 : 7 : 8 : 6 : 6. Mid tibia with 0–1 anterodorsal, 1–3 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 21 : 64 : 102 : 79 : 21 : 17 : 10 : 7. Hind tibia with several very short dorsal setae. Tarsus simple; basitarsus with short basoventral seta and short ventral seta at 2/3. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 16 : 96 : 128 : 52 : 29 : 20 : 12 : 7.

Wing hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 28 : 6. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 19 : 34 : 19. Lower calypter dark-yellow, with black edging and yellow cilia. Halter with yellow stem and brownish knob.

Abdomen thin, mostly yellow, 2<sup>nd</sup>–5<sup>th</sup> terga with brown bands along sutures; 6<sup>th</sup> segment mostly brown; unmodified segments together thrice as long as mesonotum. Sternites with light hairs, yellow; 1<sup>st</sup> tergite with long light hairs and marginal setae. Other tergites with short dark hairs and short black setae; 7<sup>th</sup> abdominal segment and hypopygium brownish-yellow, with short cilia. Cercus brown, swollen at base, with beak-like apex, dorsally and laterally setose, with two ventral appendices of unequal length; distal appendix broad, bearing 1 long seta at middle, short simple apical seta and narrow subapical process having 3 thick setae of different shape; basal appendix strongly curved, broad in basal 1/3, narrow in distal 2/3, bearing 1 spatulate and 1 simple short apical setae. Surstylus relatively narrow, brown, with short narrow subapical process, 1 long and 3 short apical setae. Epandrial seta situated closely to short epandrial prominence bearing 2 short setae.

Female unknown.

Length (mm): body 3.0; antenna 0.8; wing 2.6/0.9; 7<sup>th</sup> segment of abdomen 0.45; hypopygium 0.4.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named after the Canadian dipterologist Dr. D.A. Grimaldi.

DIAGNOSIS. *M. grimaldii* belongs to *vagabunda* group of species, differing in fore basitarsus being longer than fore tibia and 3 times longer than 2<sup>nd</sup>–5<sup>th</sup> segments combined; fore tarsus being snow-white from tip of basitarsus; cercus being shorter than epandrium, with distal process having only one seta in middle.

#### 12. *Mascaromyia leptogaster* (Thomson)

*Psilopus leptogaster* Thomson, 1869: 510;

*Sciapus leptogaster* (Thomson) Parent, 1935: 86;

*Mascaromyia leptogaster* (Thomson) Bickel, 1994: 101;

=*Psilopus librativertex* Lamb, 1922: 374, **syn. n.**;

=*Sciapus librativertex* (Lamb) Dyte & Smith, 1980: 448;

=*Mascaromyia librativertex* (Lamb) Bickel, 1994: 101.

Type material examined. Holotype (♂), Mauritius / Kinb. / Type / Riksmuseum Stockholm [on pin] / 112. *Psilopus leptogaster* Thoms. [on separate label; NHRS].

Material examined. (♂) [no hypopygium], Museum Paris, Ile Maurice / Museum Paris, Coll Guérin-Méneville 1871 / *Sciapus leptogaster* Thoms., O. Parent [det.] [MNHP].

DIAGNOSIS. *M. leptogaster* is placed within the group of species having bare femora and dark body and can be separated by simple legs except fifth tarsomere, which is slightly enlarged on fore leg; fore basitarsus nearly as long as rest tarsomeres; mid coxa brownish externally. This is the only known species having foggy posterior margin of male wing in apical half. Cercus with long thin basoventral projec-



tion, bearing pedunculate short seta in the middle and long seta on the apex. Apicoventral appendix of cercus short, bidactyl, with simple setae. Surstylus tooth-shaped, with two strong setae (see Fig. 4 for *M. libravitex* in Grichanov, 1996b).

DISTRIBUTION. Mauritius; Seychelles, Chagos Archipelago.

### 13. *Mascaromyia loici* Grichanov, **sp.n.**

Fig. 6.

Holotype. [♂], La Réunion, Plaine des Affouches, 930–950 m, 22.XII.1973, L. Matile rec. [MNHP].

Paratypes. 3 [♂♂], same label with collection date 11.XII.1973 / chemin forestiere.

DESCRIPTION. Male. Front vertical bristle bends forward. Antennae slightly shorter than height of head; scape and pedicel brown; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae longer than pedicel. Postpedicel black, 1.3 times longer than high at base, triangular, with acute apex, pubescent. Stylus dorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 6 : 5 : 9 : 57.

Mesonotum metallic blue-green, grey pollinose; pleura bronze-green, with blue reflection and only several small brownish spots, densely grey pollinose. Five strong dorsocentral setae with a stiff hair in front of the 1<sup>st</sup> one. Scutellum with two strong setae and 2 very short lateral hairs.

Legs bicolorate: fore leg mostly yellow, fore femur at apex and fore tibia dirty-yellow, 2<sup>nd</sup>–4<sup>th</sup> tarsomeres brownish, 5<sup>th</sup> tarsomere whitish-yellow except brownish base. Mid leg with coxa and femur at apex brownish-yellow, tibia brownish dorsally and yellow ventrally, tarsus brownish. Hind leg with coxa brownish-yellow; femur brownish dorsally and yellow ventrally, gradually becoming brown towards apex; tibia and tarsus entirely brown. Fore coxa from the front with yellow hairs, two yellow apical setae, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxa with one long yellow external seta and two short hairs. Legs thin, with weak setae. Fore femur with 1–2 light fine ventral setae at basal 1/5, slightly longer than diameter of femur. Fore basitarsus thin and long, with a regular distant ventral pectination on apical half and dorsal row of elongate setulae, 2<sup>nd</sup> tarsomere with the same pectination; fifth tarsomere slightly widened and flattened, nearly twice as long as wide; 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with sparse setulae. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 65 : 85 : 73 : 94 : 11 : 31 : 33 : 7. Mid femur bare. Mid tibia with 0–1 anterodorsal, 3–4 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 37 : 90 : 154 : 170 : 39 : 31 : 17 : 9. Hind femur bare. Hind tibia with 1–4 very short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 25 : 145 : 222 : 98 : 47 : 30 : 17 : 10.

Wing hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 33 : 8. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 30 : 59 : 24. Lower calypter dark-yellow, with black edging and yellow cilia. Halteres yellow.

Abdomen thin, mostly blackish metallic blue-green, 2<sup>nd</sup> and 3<sup>rd</sup> terga with large yellow midlateral spots; unmodified segments together thrice as long as mesonotum. Sternites with light hairs, brown-black; 1<sup>st</sup> tergite with long light hairs and marginal setae. Other tergites with short dark hairs and short black setae; 7<sup>th</sup> abdominal segment and hypopygium dark-

brown, with short cilia. Cercus dark brown, with light hairs and yellow processes; bulbous or semiglobular, with short obtuse apex, dorsally and laterally setose, with two ventral appendices of equal length; distal appendix bearing 1 comparatively long seta at base, short thick apical seta and short narrow process at middle having 1 short simple seta; basal appendix slightly curved, bearing apical comb of several thick setae and 2 subapical setae. Surstylus narrow, black, with short narrow subapical process and several short apical setae. Epandrial lobe short, digitiform, bearing 4 short setae.

Female unknown.

Length (mm): body 5.3; antenna 1.0; wing 3.75/1.2; 7<sup>th</sup> segment of abdomen 0.8; hypopygium 0.5.

DISTRIBUTION. Reunion.

ETYMOLOGY. The species is named after the French dipterologist Prof. Loïc Matile.

DIAGNOSIS. *M. loici* belongs to *leptogaster* group of species, differing in hyaline wing, modified fore tarsus with yellow 5<sup>th</sup> segment of the same tarsus; fore femur having 1–2 fine ventral setae at base; cercus being shorter than epandrium, semiglobular, strongly swollen, with short, nearly right-angular apex.

### 14. *Mascaromyia tatyanae* Grichanov, **sp.n.**

Fig. 7.

Holotype. [♂], La Réunion, Forêt de Bebour, 18.XII.1973, L. Matile rec. / Sentier de la rivière, alt. 1300–1350 m [MNHP].

PARATYPES. 2 [♂♂], La Réunion, Plaine des Affouches, 1100 m, 11.XII.1973 / Bras guillaume [MNHP].

DESCRIPTION. Male. Hair-like front vertical bristle bends forward. Antennae slightly shorter than height of head; scape and pedicel brown; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae longer than pedicel. Postpedicel black, as long as high at base, triangular, with acute apex, pubescent. Stylus middorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 7 : 5 : 8 : 65.

Mesonotum metallic blue-green, grey pollinose, pleura bronze-green, with blue reflection and only several small brownish spots, densely grey pollinose. Five strong dorsocentral bristles with a stiff hair in front of the 1<sup>st</sup> one. Scutellum with two strong bristles and 2 very short lateral hairs.

Legs bicolorate: fore leg mostly yellow, fore tarsus brown-black from tip of basitarsus; mid leg with coxa and femur at apex brownish-yellow, mid tibia and basitarsus brownish dorsally and yellow ventrally, other tarsomeres brown-black. Hind leg with coxa brownish-yellow, femur brownish dorsally and yellow ventrally, gradually becoming brown towards apex; tibia and tarsus entirely brown. Fore coxa from the front with yellow hairs, two yellow apical bristles, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxae with one long brown external bristle and 1–2 short hairs. Legs thin, with weak setae. All femora practically bare. Fore basitarsus thin and long, with a regular distant ventral pectination on apical half and dorsal row of elongate setulae, 2<sup>nd</sup> tarsomere with the same pectination; fifth tarsomere slightly widened and flattened, nearly twice as long as wide; 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with sparse setulae. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 80 : 100 : 93 : 113 : 14 : 29 : 42 : 10. Mid tibia with 1 anterodorsal, 5–7 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 42 : 120 : 210 : 190 : 52 : 40 : 27 : 10. Hind tibia with 4–6 short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind



coxa to femur to tibia to tarsus (segments from first to fifth), 30 : 177 : 270 : 120 : 64 : 44 : 26 : 10.

Wing evenly greyish, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 43 : 10. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 39 : 82 : 25. Lower calypter dark-yellow, with black edging and yellow cilia. Halteres dirty-yellow.

Abdomen thin, mostly blackish metallic blue-green, 2<sup>nd</sup>–4<sup>th</sup> terga with large yellow midlateral spots; unmodified segments together thrice as long as mesonotum. Sternites with light hairs, brown-black; 1<sup>st</sup> tergite with long light hairs and black and light marginal setae. Other tergites with short dark hairs and short black setae; 7<sup>th</sup> abdominal segment and hypopygium dark-brown, 7–8<sup>th</sup> segments with short cilia. Cercus suboval, bulbous, with short acute apex, dorsally and laterally setose, with two basoventral appendices of equal length; distal appendix bearing long seta at base, long flattened hook-like apical seta and short narrow process at middle having short simple apical seta; basal appendix slightly curved, bearing apical comb of several thick setae and 2 subapical setae. Surstylus narrow, black, with short narrow subapical process and several short apical setae. Epandrial seta pedunculate, situated closely to short epandrial lobe bearing 2 short setae.

Female unknown.

Length (mm): body 6.2; antenna 1.1; wing 4.8/1.5; 7<sup>th</sup> segment of abdomen 0.9; hypopygium 0.6.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named for my daughter, Tatyana Grichanova.

DIAGNOSIS. *M. tatyanae* belongs to *leptogaster* group of species, differing in hyaline wing, modified fore tarsus with black 5<sup>th</sup> segment of the same tarsus, bare fore femur; cercus being half shorter than epandrium, suboval, with short beak-like apex.

### 15. *Mascaromyia rufiventris* (Macquart)

*Psilopus rufiventris* Macquart, 1842: 174;

*Sciapus rufiventris* (Macquart) Parent, 1932: 877;

*Mascaromyia rufiventris* (Macquart) Bickel, 1994: 101.

Type material examined. Lectotype [here designated], ♀, 27/ Nr. 1046, *Psilopus rufiventris* [on pin] / *P. rufiventris* Macq. Mr. Desjardins, Ile de France, 894 [separate label; MNHP].

Additional material. ♀, Ile Maurice / Musée Paris, Coll. Guérin-Ménéville / *Sciopus rufiventris* Macq., O. Parent [MNHP].

REMARK. The females examined are very close to *M. leptogaster*. See also remark under *M. desjardinsi*.

DISTRIBUTION. Mauritius.

### 16. *Mascaromyia michaeli* Grichanov, sp.n.

Fig. 8.

Holotype. [♂], La Réunion, Plaine des Affouches, 930–980 m, 11.XII.1973, L. Matile rec. / chemin forestiere [MNHP].

Paratypes. [♂] with the same labels; 2[♂] [♂], La Réunion, Plaine des Affouches, 700 m, 11.XII.1973, L. Matile rec.; [♂], La Réunion, Plaine des Affouches, 930–950 m, 22.XII.1973, L. Matile rec. / chemin forestiere [MNHP].

DESCRIPTION. Male. Hair-like front vertical bristle bends forward. Antennae slightly shorter than height of head; scape and pedicel brown; scape simple; pedicel with ring of short setulae, 1–2 dorsal and 1–2 ventral setae longer than pedicel. Postpedicel black, slightly longer than high at base, triangular, with acute apex, pubescent. Stylus dorsal, short haired. Length ratio of scape to pedicel to postpedicel to stylus, 7 : 4 : 10 : 57.

Mesonotum metallic blue-green, grey pollinose, pleura bronze-green, with blue reflection and only several small brownish spots, densely grey pollinose. Five strong dorsocentral bristles with a stiff hair in front of the 1<sup>st</sup> one. Scutellum with two strong bristles and 2 very short lateral hairs.

Legs mostly yellow; middle and hind coxae brownish at base; 2<sup>nd</sup>–4<sup>th</sup> segments of fore tarsus brownish, 5<sup>th</sup> tarsomere and apex of 4<sup>th</sup> bright-yellow. Mid tarsus brown from tip of basitarsus. Hind leg with femur brownish dorsally and yellow ventrally, gradually becoming brown towards apex; tibia and tarsus entirely brown. Fore coxa from the front with yellow hairs, 1 short dark and 1 long orange-yellow apical bristles, ending with a long thin flattened whitish thorn. Mid coxa with two long yellow external cilia and regular dense tuft of yellow hairs at the tip anteriorly. Hind coxa with one long brown external bristle and 1–2 short hairs. Legs thin, with weak setae. Fore femur with 1 fine short light ventral hair at basal 1/4. Fore basitarsus thin and long, with a regular distant ventral pectination on apical 1/3 and dorsal row of elongate setulae, 2<sup>nd</sup>–4<sup>th</sup> tarsomeres with microscopic ventral pectination and sparse dorsal setulae; fifth tarsomere strongly widened and flattened, subtriangular, nearly twice as long as wide, with small thumb-like reddish anterior process. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 65 : 83 : 68 : 104 : 20 : 31 : 22 : 12. Mid femur with ventral row of about 10 feeble light hairs in basal half, 2/3 as long as diameter of femur. Mid tibia with 1 anterodorsal, 3 posterodorsal setae; tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 32 : 90 : 151 : 140 : 36 : 32 : 15 : 7. Hind tibia with 2–3 short dorsal setae. Tarsus simple; basitarsus with short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 20 : 142 : 212 : 80 : 48 : 29 : 18 : 9.

Wing hyaline, veins brown. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 41 : 8. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 23 : 52 : 21. Lower calypter dark-yellow, with black edging and yellow cilia. Halteres yellow.

Abdomen thin, mostly blackish metallic blue-green, 2<sup>nd</sup>–4<sup>th</sup> terga with large yellow midlateral spots; unmodified segments combined thrice as long as mesonotum. Sternites with light hairs, brown-black; 1<sup>st</sup> tergite with long light hairs and marginal setae; 2<sup>nd</sup> tergite with light lateral hairs. Other tergites with short dark hairs and short black setae; 7<sup>th</sup> abdominal segment and hypopygium dark-brown; 7–8<sup>th</sup> segments with short sparse hairs. Cercus brown, with light cilia along entire length. Cercus swollen at base, with very long and narrow, filiform, distal part having numerous dorsal and ventral setae, with two basoventral appendices of equal length; distal appendix bearing long seta at base, long flattened hook-like apical seta and long narrow process at middle having short simple apical seta; basal appendix slightly curved, bearing apical comb of several thick setae. Surstylus relatively narrow, black, with short narrow subapical process and several short apical setae. Epandrial lobe short, digitiform, bearing 3 short setae.

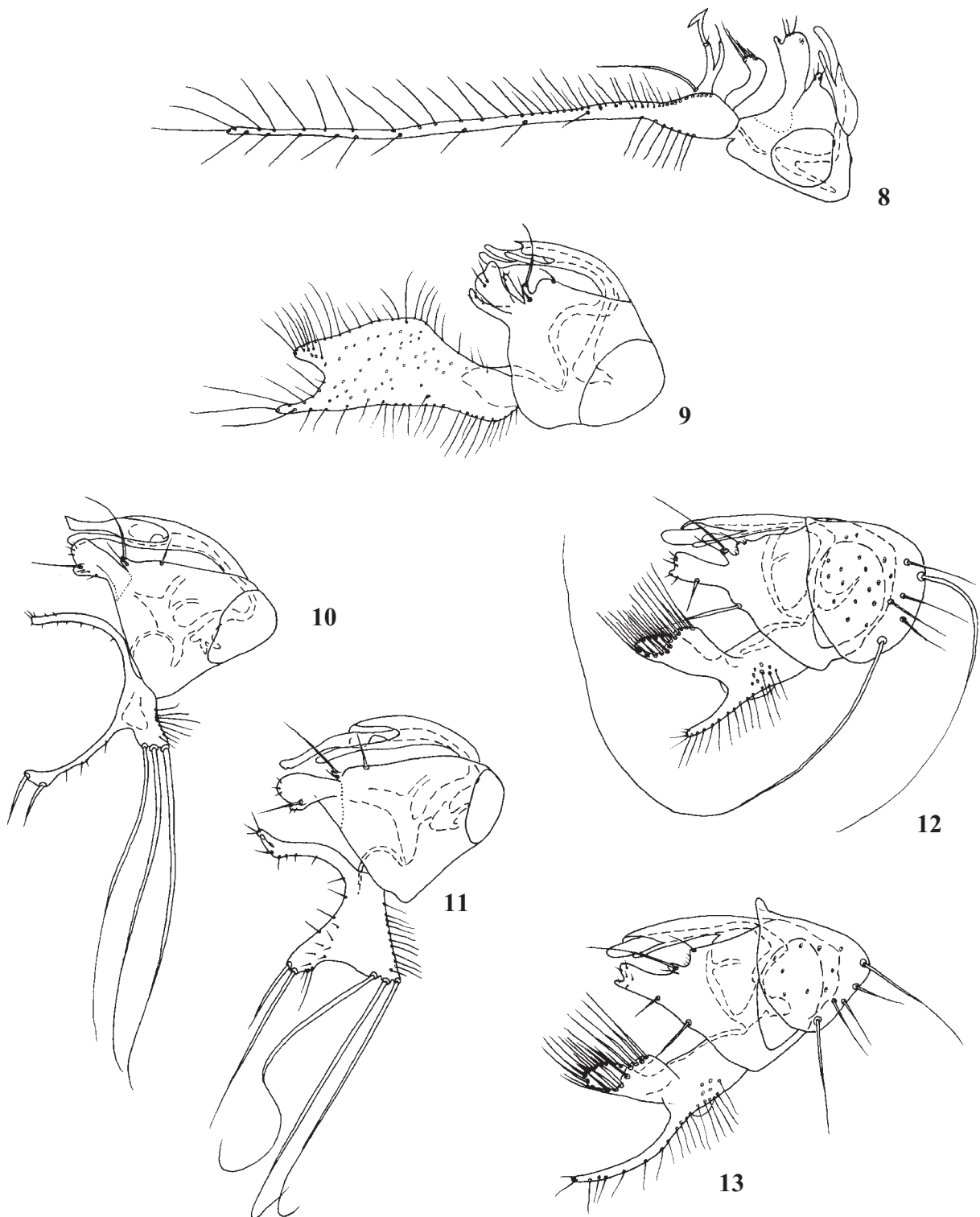
Female unknown.

Length (mm): body 4.8–4.9; antenna 0.9; wing 3.5–3.7/1.1; 7<sup>th</sup> segment of abdomen 0.8; hypopygium 1.25.

DISTRIBUTION: Reunion.

ETYMOLOGY. The species is named for my son, Mikhail Grichanov.

DIAGNOSIS. *M. michaeli* belongs to *leptogaster* group of species, differing in hyaline wing, modified fore tarsus with yellow 5<sup>th</sup> segment of the same tarsus, cercus being at least 3 times longer than epandrium.



Figs 8–13. Hypopygium, left lateral view: 8 — *M. michaeli* sp.n.; 9 — *Chrysosoma* (*Chrysosoma*) *nguemba* sp.n.; 10 — *Amblypsilopus ambila* sp.n.; 11 — *A. ranomafana* sp.n.; 12 — *A. reunionensis* sp.n.; 13 — *A. takamaka* sp.n.

Рис. 8–13. Гипопигий, вид сбоку слева: 8 — *M. michaeli* sp.n.; 9 — *Chrysosoma* (*Chrysosoma*) *nguemba* sp.n.; 10 — *Amblypsilopus ambila* sp.n.; 11 — *A. ranomafana* sp.n.; 12 — *A. reunionensis* sp.n.; 13 — *A. takamaka* sp.n.

KEY TO KNOWN SPECIES OF *MASCAROMYIA* (MALES)

1. Fore femur with 2–5 thorns or spines beneath ..... 2
  - Fore femur without long bristles ..... 5
2. Fore femur with 2 fine ventral thorns at the base, mid femur bare ..... 3
  - Fore femur with a row of 5 conspicuous sloping black bristles beneath on the basal two-thirds ..... 4
3. Last tarsomere of fore leg dilated and twisted, and carries a small side process like a thumb .... *M. pollicifer* Lamb
  - Last tarsomere absolutely simple and undifferentiated ..... *M. indistincta* Lamb
  - Last tarsomere yellow, slightly flattened ..... *M. loici* Grichanov
4. Scape and pedicel dark; femur with regular bristles below; hypopygium less pedicellate .... *M. magnicaudata* Lamb
  - Scape and pedicel orange; fore femur with very irregular rows of variously sized bristly hairs; mid femur is devoid of the row of bristles; hypopygium more pedicellate ..... *M. grandicaudata* Lamb
5. Thoracic pleura entirely yellow; lateral margins of mesonotum and basal segments of abdomen yellow-brownish ..... 6
  - Thorax and abdomen metallic; at most metapleuron and first two abdominal segments partly yellow ..... 14
6. Mid femur with ventral rows of strong setae ..... 7
  - Mid femur bare ..... 8
7. Mid femur with 5 strong ventral setae in basal half; hind femur with 6 large curved anterior setae in middle 2/3; fore basitarsus shorter than tibia, shorter than next tarsomeres combined ..... *M. amplicaudata* Lamb
  - Mid femur with full row of anteroventral setae in addition to posteroventral row of long hairs; hind femur with a single subapical anterior seta; fore basitarsus longer than tibia, longer than next tarsomeres combined ..... *M. bebourensis* Grichanov
8. Vein  $M_2$  and apical part of  $CuA_1$  absent without fold or indication on membrane ..... *M. bickeli* Grichanov
  - Wing venation undistorted ..... 9
9. Fore basitarsus shorter than fore tibia ..... *M. babichae* Grichanov
  - Fore basitarsus 1 and 1/3 times as long as fore tibia .... 10
10. Fore basitarsus as long as second and third tarsomeres combined; legs yellow ..... *M. vagabunda* Lamb
  - Fore basitarsus at least 2 times longer than second and third tarsomeres combined ..... 11
11. Fore tarsus snow-white from tip of basitarsus ..... *M. grimaldii* Grichanov
  - Fore tarsus dark-yellow to black ..... 12
12. Hind leg mostly brown; hind tibia white in basal 1/3; fore tarsus simple ..... *M. makhotkini* Grichanov
  - Hind leg yellow, at most femur brownish at apex; fore basitarsus ornamented with ventral pectination; 5<sup>th</sup> segment of same tarsus flattened and enlarged ..... 13
13. Cercus nearly 2 times longer than epandrium ..... *M. brooksi* Grichanov
  - Cercus shorter than epandrium .... *M. cummingi* Grichanov
14. Legs yellow, simple, mid coxae black ..... *M. duplicata* Parent
  - All the coxae yellow; if mid and hind coxae brownish, then femur or tibiae partly brown or some tarsomeres modified (enlarged, shortened, thin and long, or white) ..... 15
15. Fore basitarsus no more than 1.5 times longer than rest tarsomeres ..... 16
  - Fore basitarsus long and thin, more than twice as long as rest tarsomeres ..... 20
16. Posterior margin of wing in apical half foggy; fore basitarsus simple ..... *M. leptogaster* Thomson
  - Wing evenly darkened or hyaline; fore basitarsus with elongate dorsal setulae and short erect ventral hairs in distal half ..... 17
17. Cercus at least 3 times longer than epandrium; fore femur bare; 5<sup>th</sup> segment of fore tarsus yellow ..... *M. michaeli* Grichanov
  - Cercus not longer than epandrium ..... 18
18. Cercus with drawn-out apex; smaller species (wing 3.2 mm); 2<sup>nd</sup>–5<sup>th</sup> segments of fore tarsus brownish ..... *M. alexisi* Grichanov
  - Cercus strongly swollen, with short, nearly right-angular apex; larger species ..... 19
19. Fore femur with 1–2 fine ventral setae at base; 5<sup>th</sup> segment of fore tarsus yellow ..... *M. loici* Grichanov
  - Fore femur bare; 5<sup>th</sup> segment of fore tarsus black ..... *M. tatyanae* Grichanov
20. Face nearly as wide as postpedicel ..... 21
  - Eyes touching in the middle of face ..... 22
21. Last tarsomere of fore tarsus strongly enlarged, black .. *M. shabuninae* Grichanov
  - Last tarsomere simple, short ..... *M. hutsoni* Grichanov
22. Hind tarsus white ..... *M. albitarsis* Parent
  - Hind tarsus dark-brown ..... 23
23. Antenna yellow, legs yellow, tarsi brownish ..... 24
  - Antenna black, hind femur progressively brown towards apex, hind tibia brown ..... 25
24. Fore basitarsus 10 times longer than 2–5<sup>th</sup> tarsomeres combined ..... *M. dytei* Grichanov
  - Fore basitarsus no more than 2 times longer than 2–5<sup>th</sup> tarsomeres combined ..... *M. cummingi* Grichanov
25. Fore tarsus white, first tarsomere 3 times as long as the rest ..... *M. kalinkini* Grichanov
  - Fore tarsus dark, first tarsomere 2 times as long as rest tarsomeres ..... *M. frolovi* Grichanov

Genus *Condylostylus* Bigot, 185917. *Condylostylus angustipennis* (Loew)

*Psilopus angustipennis* Loew, 1858: 372;

*Condylostylus angustipennis* (Loew) Grichanov, 1998: 81;

*Parentia angustipennis* (Loew) Grichanov, 1999: 120.

Type material. Holotype has been examined in the collection of the Swedish Museum of Natural History, Stockholm: [♂], 189/150 / *Psilopus angustipennis*. [No geographical label].

DIAGNOSIS. The species is a typical representative of South American *Condylostylus* near *C. chrysoprasi* (Walker) (see Robinson, 1975 and Bickel, 1994), but having entirely black legs. Femora having double antero- and posteroventral rows of black setae, up to 2 times longer than diameter of femur; tibiae without setae except one subapical dorsal and one apical ventral setae on mid tibia; hind tibia with short anterior furrow at 1/3; fore tarsus simple; fore basitarsus with row of erect ventral setulae; mid tibia and basitarsus with 2 rows of erect or semierect setulae; mid basitarsus slightly swollen in distal 2/3; wing simple, narrow; *m-cu* about 2 times longer than apical section of  $CuA_1$ ; lower calypter with black cilia; hypopygium of *Parentia* type; size 3–4 mm.



REMARK. I have not seen any other material regarding this species. I think that the single type male was likely to be mislabelled by collectors. *C. angustipennis* should be probably excluded from the fauna of Africa.

DISTRIBUTION. (?) South Africa.

#### 18. *Condyllostylus erroneus* Grichanov, **nom.n.**

=*Condyllostylus imitans* Curran, 1926: 391 (male *nec* female) *nec* *Condyllostylus imitans* Curran, 1925: 114 ([unnecessary] new name for *Condyllostylus imitator* Curran, 1924: 221, Curran, 1926: 391 [female *nec* male]).

REMARK. See Grichanov [1999: 117] for discussion and figure.

DISTRIBUTION. Mozambique, Malawi, South Africa, Angola, Namibia, Swaziland.

#### 19. *Condyllostylus paricoxa* Parent

*Condyllostylus paricoxa* Parent, 1939: 267 (♀); Grichanov, 1996c: 220 (description of ♂).

Type material examined. [♀], van Someren, Rabai, 8–37 / Coll. 8291 / *Condyllostylus paricoxa* n.sp. Cotype / paratype [red label]. [MNHP].

DISTRIBUTION: Kenya, Zimbabwe, Tanzania.

#### 20. *Condyllostylus pseudoparicoxa* Grichanov

*Condyllostylus pseudoparicoxa* Grichanov, 1999: 117.

REMARK. Despite of the original indication, the holotype and part of the paratypes are deposited in the National Museum of Kenya (Nairobi), remainder of the paratypes stays in the Royal Museum for Central Africa (Tervuren).

DISTRIBUTION: Kenya.

#### Genus *Parentia* Hardy, 1935

#### 21. *Parentia stenurus* (Loew)

*Psilopus stenurus* Loew, 1858: 372;

*Condyllostylus stenurus* (Loew) Curran, 1927: 12;

*Parentia stenurus* (Loew) Grichanov, 1999: 120.

Type material. Syntypes have been examined in the collection of the Swedish Museum of Natural History, Stockholm, and lectotype and paralectotypes are here designated in order to promote stability of nomenclature: *Lectotype*: [♀], Cap. B., Spei, Victorin. / 111 / 149 / *Psilopus stenurus*; *Paralectotype*: 1 [♀], R. / 183 / 148 / *Psilopus stenurus*.

Additional material. 1 [♀], R / 183 / Caffraria / J. Wahlb. [NHRS].

DIAGNOSIS. Legs yellow; mid and hind coxa black; fore and mid tibia black from middle of basitarsus; hind knee narrowly brown; hind tibia black in distal 1/4 or 1/3; hind tarsus black; fore tibia with 3 anterodorsals and 3 posterodorsals; mid femur with 2–3 subapical anteroventrals; mid tibia with 4+1 short anterodorsals, 2+1 short posterodorsals; hind tibia with 4–5 anterodorsals, 2–3 short posterodorsals, 2–3 very short ventral setae. Male hind tibia with ventral callus-like swelling; it has small frontal mound with strong vertical seta and a few microscopic hairs; wing with female-type venation; cercus 1.5 times as long as 7<sup>th</sup> tergum and epandrium together, with small basoventral projection [Grichanov, 1996c]; 3.5 mm

REMARK. I have found 51 specimens labelled by P. Vanschuytbroeck [1960] as *Condyllostylus stenurus* [MZLU]. All they should be referred to *Parentia asymmetrica* Grichanov, 2000.

DISTRIBUTION. South Africa, Zimbabwe.

### TRIBE CHRYSOSOMATINI (GUÉRIN-MÉNEVILLE) BECKER

#### Genus *Ethiosciapus* Bickel, 1994

#### 22. *Ethiosciapus dilectus* (Parent)

*Sciapus dilectus* Parent, 1935: 84;

*Ethiosciapus dilectus* (Parent) Bickel, 1994: 142.

Type material examined. [Holotype]: [♂], Tanganyika / Museum Paris, 1932, G. Babault / Type [red label] / *Sciapus dilectus* n.sp., O. Parent [MNHP].

REMARK. The holotype of *E. dilectus* has no significant difference from the description of *E. inflexus* (Becker, 1923) and the two species are possible synonyms. See diagnosis of *E. inflexus* in Grichanov [1998].

DISTRIBUTION. Tanzania, Uganda.

#### 23. *Ethiosciapus flavirostris* (Loew)

*Psilopus flavirostris* Loew, 1858: 371;

*Sciapus flavirostris* (Loew) Curran, 1924: 220;

*Ethiosciapus flavirostris* (Loew) Bickel, 1994: 142.

Type material. Holotype has been examined in the collection of the Swedish Museum of Natural History, Stockholm: [♂], 143 / 147 / *Psilopus flavirostris*. [No geographical label].

Additional material. 1 [♂], 5 [♀♀], Caffraria / J. Wahlb. [1 ♀ with No. 182]. [NHRS].

DIAGNOSIS. Fore tibia with one posteroventral seta just below middle, 1 subapical posteroventral and 1 basal antero-dorsal setae and with ventral row of semierect setulae; mid tibia with 2 very short ventral, 3 anterodorsal and 1 postero-dorsal setae; *m-cu* as long as middle section of  $M_{1+2}$ ; *m-cu* 2 times longer than apical section of  $CuA_1$ . See also diagnosis of *E. flavirostris* in Grichanov [1998].

DISTRIBUTION. South Africa, Mozambique, Madagascar, ?Ethiopia.

#### 24. *Ethiosciapus latipes* (Parent)

*Chrysosoma latipes* Parent, 1929: 170;

*Ethiosciapus latipes* (Parent) Bickel, 1994: 142;

=*Sciapus aenescens* Vanschuytbroeck, 1952: 138, **syn.n.**;

=*Amblypsilopus aenescens* (Vanschuytbroeck) Bickel, 1994: 142;

=*Ethiosciapus aenescens* (Vanschuytbroeck), **comb.n.**

Type material examined. [Holotype]: [♂], Museum Paris, Madagascar, Coll. Noualhier 1898 / *Chrysosoma latipes* n.sp., Type, O. Parent det.; [♂], Holotype [red label] / chasse sur bord du lac, Inst. Scient. Madagascar, 28–X–48, JR / Tananarive, Tsimbazaza / P. Vanschuytbroeck det. 1952 *Sciopus* [♂] *aenescens* n.sp. [MNHP].

DIAGNOSIS. *E. latipes* is closely related to *E. finitimus* (Parent, 1939) known from continental Africa, differing practically in stronger and longer lateral and subapical setae on male cercus. Fore and hind femora with long setae, 1.5 times longer than femora diameter; 5<sup>th</sup> segment of hind tarsus inconspicuously flattened and broadened; 4<sup>th</sup> segment of hind tarsus simple; 3<sup>rd</sup> abdominal segment with strong ventral setae.

DISTRIBUTION. Madagascar.

#### Genus *Bickeliolus* Grichanov, 1996

#### 25. *Bickeliolus alluaudi* (Parent)

*Chrysosoma alluaudi* Parent, 1935: 80;

*Ethiosciapus alluaudi* (Parent) Bickel, 1994: 142;

*Bickeliolus alluaudi* (Parent) Grichanov, 1998: 81.

Type material examined. [Holotype:] [♂], Museum Paris, Madagascar, Forêt Tanala, Région D'Ikongo, Ankarimbelo, Ch. Alluaud, 1901 / Mars 01 / Type [red label] / *Chrysosoma alluaudi* n.sp., Type, O. Parent [MNHP].

DISTRIBUTION. Madagascar.

Genus *Chrysosoma* Guérin-Ménéville, 1831

Subgenus *Chrysosoma* Guérin-Ménéville, 1831

## 26. *Chrysosoma (Chrysosoma) aestimabile* Parent

*Chrysosoma aestimabile* Parent, 1933: 43.

Type material examined. [Paratype:] [♂] [no abdomen, no hind leg, fore and mid tarsi], Paratype [yellow label] / S. Nigeria, Bonny, 7.V.1910, J.J. Simpson, Pres. by Imp. Bur. Ent. 1910–222 / *Chrysosoma aestimabile* Par. Cotype [MNHP].

DIAGNOSIS. *C. aestimabile* differs from close species in having simple legs, almost entirely yellow coxae; yellow basitarsi, entirely metallic abdomen. Paratype examined has brownish mid coxa; slightly sinuate *m-cu* wing vein; light hairlike vertical seta; simple and bare fore and mid tibiae; fore femur with several short erect yellow cilia in basal half, shorter than femur diameter.

DISTRIBUTION. Nigeria, Gambia, ?Madagascar.

## 27. *Chrysosoma (Chrysosoma) alboguttatum* Parent

*Chrysosoma alboguttatum* Parent, 1930: 93.

Type material examined. [Holotype:] [♀], Museum Paris, Cameroun, Rég. de Dchang (1400 m d'alt.) Plateaux volcanique, Dr. Gromiere 1924 / Juin à Sept., saison humide / *Chrysosoma alboguttatum* n.sp., Type, O. Parent det. [MNHP].

REMARK. See diagnosis of male of this species in Grichanov [1998].

DISTRIBUTION. Cameroon; Burundi, Guinea.

## 28. *Chrysosoma (Chrysosoma) flexum* (Loew)

*Psilopus flexus* Loew, 1858: 371;

*Chrysosoma flexum* (Loew) Becker, 1923: 19 nec Curran, 1924: 217 [misident.].

Type material. Holotype has been examined in the collection of the Swedish Museum of Natural History, Stockholm: [♀], 184 / 146 / *Psilopus flexus*. [No geographical label].

REMARK. The specimen examined has no head and is probably unrecognisable. Fore coxa mostly yellow, with black outer spot in basal 1/2; mesonotum having 5 dorsocentrals with 3<sup>rd</sup> seta reduced; wing vein *m-cu* 1.5–2 times longer than apical section of CuA<sub>1</sub>; abdomen entirely green black; 4 mm (wing 5 mm). Parent [1933] considered the species to be close to *C. carum* Walker. The latter is probably unrecognisable, and I have found some resemblance of *C. flexum* and *C. singulare* Parent.

DISTRIBUTION. South Africa.

## 29. *Chrysosoma (Chrysosoma) gromieri* Parent

*Chrysosoma gromieri* Parent, 1930: 170.

Type material examined. [Holotype:] [♂], Museum Paris, Cameroun N.-O., Plateaux de Dchang, 1500 m, saison sèche, Dr. Gromiere, 1924 / *Chrysosoma gromieri* n.sp. Type, O. Parent det. [MNHP].

DIAGNOSIS. *C. gromieri* differs from close species in having all coxae black; femora mostly black; male middle tibia and tarsus with irregular erect setulae; wing hyaline; lower calypter with pale cilia. Cercus short, slightly widening

apicad, with small middorsal tooth bearing two long setae and small subapical ventral projection.

DISTRIBUTION. Cameroon.

## 30. *Chrysosoma (Chrysosoma) nguemba* Grichanov, sp.n.

Fig. 9.

Holotype. [♂], Mission Cameroun, C.N.R.S., RCP 318, Octobre-Novembre 1975 / Bafut Nguemba (Vallée de la Haute Nguemba), Province du Nord-Ouest / Maison forestière, 2000 m, 24.X.1975 / Piège lumineux [MNHP].

DESCRIPTION. Male. Head wider than high. Frons broad, dark blue-green, weakly pollinose, with one hair-like black lateral seta not far from strong black postvertical seta; postocular setae white. Ocellar tubercle with a pair of strong setae and one pair of short hairs. Face wide, whitish pollinose; epistome convex, dark blue-green, 1.5 times wider than high, 1.5 times wider than clypeus; clypeus yellow-brownish, bulging, subquadrate, separated from eyes. Palpi and proboscis orange-yellow, with dark hairs; palpus also with a pair of black bristles. Antenna yellow, nearly 2 times as long as height of head. Scape small, simple. Pedicel globular, with a ring of short setae, one of the dorsal setae longer than postpedicel. Postpedicel subtriangular, asymmetric, with distodorsal apex, 1.5 times higher than long. Stylus black, apical, bare and simple. Length ratio of scape to pedicel to postpedicel to stylus, 7 : 7 : 8 : 240.

Mesonotum mostly orange-brownish, weakly pollinose; almost whole area between dorsocentral setae metallic blue-green; scutellum metallic blue-green with yellow margin; postnotum dark green; pleura with mostly black-green major sclerites and widely yellow-orange sutures, pollinose; metapleuron yellow. Three strong posterior and 4(?) hair-like anterior dorsocentral setae, of which 2 penultimate strong setae positioned closely by one another in each row; 5 pairs of strong long acrostichals. Scutellum with two strong bristles, 2 lateral and at least 1 dorsal hairs.

Legs mostly yellow; coxae yellow; apical segments of fore and mid tarsi brownish; 2<sup>nd</sup>–5<sup>th</sup> segments of hind tarsi black. Fore coxa from the front with numerous white hairs and 3–4 brown subapical setae. Mid coxa with white external hairs and several dark subapical cilia; hind coxa with dark external fine seta at base and several white external cilia. Fore femur with double ventral row of light hairs in basal half, 2 times longer than femur diameter. Fore tibia with 1 short posterodorsal seta at basal 1/3; 2 subapical dorsal setae, of which distal seta 2 times longer than diameter of tibia. Fore basitarsus with 14 long setae along entire length, gradually increasing in length distad; distal setae reaching 2/3 length of 2<sup>nd</sup> segment; other tarsomeres simple. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 70 : 170 : 200 : 338 : 75 : 61 : 40 : 19. Mid femur bare. Mid tibia with 4 anterodorsal, 3 shorter posterodorsal and 3–4 apical setae. Mid tarsus simple, without remarkable hairs. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 55 : 195 : 305 : 244 : 68 : 50 : 33 : 12. Hind femur bare. Hind tibia with 5–6 very short setae in ventral and dorsal rows and 3 apical short setae. Hind basitarsus with one short basoventral seta. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 45 : 235 : 398 : 175 : 75 : 48 : 27 : 13.

Wing hyaline; veins light brown. R<sub>1</sub> 0.4 times as long as wing. M<sub>1</sub> widely convex anteriorly. M<sub>1+2</sub> and M<sub>1</sub> forming right angle. Ratio of part of costa between R<sub>2+3</sub> and R<sub>4+5</sub> to this between R<sub>4+5</sub> and M<sub>1</sub>, 52 : 11. M<sub>2</sub> present as short stub vein and faint fold on membrane, almost straight. Distinct pseudovein

running along the whole length of  $M_{1+2}$  anteriorly. Crossvein *m-cu* almost straight, with very weak sinuation. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 76 : 132 : 35. Anal vein foldlike, anal lobe and alula present. Anal angle acute. Lower calypter mostly yellow, with fine dark cilia. Halteres brown in distal half; halter stem orange at base, thin, 3 times as long as knob, with short row of black setulae.

Abdomen whitish pollinose, with short black hairs and long marginal setae; 1<sup>st</sup> segment entirely yellow, with pale lateral hairs; 2<sup>nd</sup> tergite mostly yellow-brownish, narrowly black at distal margin, weakly metallic shining dorsally; 3<sup>rd</sup> tergite mostly brown, black posteriorly, metallic dorsally; other tergites greenish-black; 2<sup>nd</sup>–3<sup>rd</sup> sternites brown, with pale hairs. Unmodified segments combined nearly 3 times longer than mesonotum. 7<sup>th</sup> segment as long as epandrium, with fine black cilia. Hypopygium small, black. Cercus light-brown, broad and flat, with deep apical emargination, numerous light hairs; the longest hairs 1/4 length of cercus, positioned at apices of cercus. Surstylus black, split, sparsely setose, with broad ventral and narrow dorsal lobes of equal length. Two digitiform epandrial lobes of unequal length positioned just before surstylus; longer lobe bearing 3 short setulae; shorter lobe having 1 long apical and 1 short basal setae. Short epandrial seta positioned on ventral eminence of epandrium halfway between epandrial lobes and hypandrium.

Female unknown.

Length (mm): body 8.3; antenna 3.4; wing 8.1/2.1; hypopygium 1.0.

DISTRIBUTION. Cameroon.

DIAGNOSIS. Having the fore basitarsus ornamented with numerous long cilia, the new species has no analogies in the subgenus *Chrysosoma*. It keys out to *C.(C.) aestimabile* Parent, 1933, *C.(C.) asperum* Parent, 1933 and doubtful species, *C.(C.) trigemmans* (Walker, 1849), differing in the complex of characters in addition to ornamented fore basitarsus [Grichanov, 1998]. All coxae yellow; antenna yellow; basitarsus yellow; abdomen partly yellow at base; mid and hind legs simple, with simple setae and setulae; cercus broad and flat, with deep apical emargination.

### 31. *Chrysosoma (Chrysosoma) unguatum* Parent

*Chrysosoma unguatum* Parent, 1941: 207.

Type material examined. [Paratype:] [♀], W. Africa, Principe I, 27.XII.1932, W.H.T. Tams, B.M. 1933–39 / *Chrysosoma unguatum* n.sp. [♀] [red label] / Pres by B.M. (N.H.), II.1938 / Type [red label, separately] [MNHP].

DIAGNOSIS. *C. unguatum* is related to *C. stubbsi* Grichanov [1997] differing in shape of male cercus and other characters as following: apex of hind femur and all tibia entirely brown, tarsi black, mid tibia with only 1 dorsal seta at base; male 3<sup>rd</sup> to 5<sup>th</sup> segments of fore tarsus with long dorsal hairs; fore tarsus with hypertrophied claws (from Parent, 1941).

DISTRIBUTION. Principe.

### 32. *Chrysosoma (Chrysosoma) woodi* Parent

*Chrysosoma woodi* Parent, 1935: 82.

Type material examined. [Paratype:] [♂], N.W. Rhodesia, Chilanga, 8.XI.1913, R.C. Wood, By stream on vegetation / *Chrysosoma woodi* Par. Cotype [MNHP].

DIAGNOSIS. *C. woodi* is very close to *C. singulare* Parent, 1933, differing in having fine erect white ventral pilosity on all femora, postpedicel 1.5 times longer than high and some other fine characters. Despite of the figure by

Parent, *m-cu* 2 times longer than  $CuA_1$ ; cercus with equal in length lobes; ventral lobe of cercus without apical incision.

DISTRIBUTION. Zambia.

### 33. *Chrysosoma (Chrysosoma) zephyrum* (Bigot)

*Psilopus zephyr* Bigot, 1858: 361;

*Chrysosoma zephyrum* (Bigot) Parent, 1932: 228.

Type material examined. [Holotype:] [♂], *Psilopus zephyr* [♂] n.sp. J. Bigot, Gabon, Coll. Thomson / [blue label] / Type [red label] [MNHP].

DIAGNOSIS. *C. zephyrum* (cilia on lower calypters are absent in holotype) is close to *C. aequatoriale* Parent [1933], differing in pale-yellow antenna; mesonotum having two bronze stripes; middle femora bearing exclusively yellow ventral setae and other characters. It is very similar to female *C. praecipuum* described by Parent [1936] and the two species are possible synonyms. See also redescription and figures of *C. zephyrum* by Parent [1932].

DISTRIBUTION. Gabon.

### Subgenus *Mesoblepharia* Bigot, 1859

### 34. *Chrysosoma (Mesoblepharia) albocrinitatum* Curran

*Chrysosoma albocrinitatum* Curran, 1925: 109.

Material examined. [♂], Cameroun, Yaoundé — N'kolbisson, 9.VIII.1967, L. Matile rec./ Museum Paris / *Chrysosoma albocrinitatum* Curr. G. Couturier det. 1973 / comparé an type [MNHP].

REMARK. See diagnosis of this species in Grichanov [1998].

DISTRIBUTION. Congo (Kinshasa), Congo (Brazzaville), Cameroon (!).

### 35. *Chrysosoma (Mesoblepharia) angolense* Parent

*Chrysosoma angolense* Parent, 1933: 45.

Type material examined. [Holotype:] [♂], Museum Paris, Angola, Benguela, Capelongo Dongo, Mission Rohan-Chabot, 1914 / *Chrysosoma angolense* n.sp. Type, O. Parent, O. Parent det. 1933 [MNHP].

DIAGNOSIS. *C. angolense* is related to *C. triumphator* Parent [1933], differing in hypopygium morphology mainly. Cercus has narrow pointed apex and small dorsal apophysis just behind the middle; mid tibia with 7 anterodorsal, 8 posterodorsal and 1 apicoventral long setae; mid basitarsus with 4 long setae.

DISTRIBUTION. Angola, Congo (Kinshasa).

### 36. *Chrysosoma (Mesoblepharia) senegalense* (Macquart)

*Psilopus senegalensis* Macquart, 1834: 450;

*Chrysosoma senegalense* (Macquart) Parent, 1929: 153; 1933: 7 (description);

=*Psilopus smaragdinus* Walker, 1849: 642;

=*Chrysosoma smaragdinum* (Walker) Dyte & Smith, 1980: 446;

=*Psilopus saphirus* Bigot, 1858: 362;

=*Chrysosoma saphirum* (Bigot) Becker, 1923: 33;

=*Chrysosoma mixtum* Curran, 1927: 3 [Grichanov, 1997: 30 synonymized].

Type material examined. [Holotype:] [♂] [no hypopygium], *Psilopus Saphir* [♂] n.sp. J. Bigot, Gabon, Coll. Thomson / Type [red label, separately] [MNHP].

DISTRIBUTION. Congo (Brazzaville), Congo (Kinshasa), Gabon, Senegal, Sierra Leone, Nigeria.



37. *Chrysosoma (Mesoblepharia) vividum* Becker

*Chrysosoma vividum* Becker, 1923: 36; Negrobov & Grichanov, 1998: 144 (redescription);

= *Chrysosoma crinipes* Parent, 1933: 25 [Negrobov & Grichanov, 1998: 144 synonymized];

= *Chrysosoma tarsiciliatum* Parent, 1929: 168, **syn.n.**

Type material examined. [Holotype:] [♂], Museum Paris, Ogooué, Lambaréné, R. Ellenberger, 1911 / *Chrysosoma tarsiciliatum* n.sp., Type, O. Parent det. [MNHP].

REMARK. All measurements from the holotype of *C. tarsiciliatum* as well as other characters correspond to those listed for type of *C. vividum* by Negrobov and Grichanov [1998]. Therefore I consider the first name as a junior synonym of the second.

DISTRIBUTION. Equatorial Guinea, Cameroon, Sierra Leone, Congo (Kinshasa), Gabon.

Subgenus *Kalocheta* Becker, 192338. *Chrysosoma (Kalocheta) villiersi* (Vanschuytbroeck)

*Kalocheta villiersi* Vanschuytbroeck, 1970: 267;

*Chrysosoma villiersi* (Vanschuytbroeck) Bickel, 1994: 212;

*Chrysosoma (Kalocheta) villiersi* (Vanschuytbroeck) Grichanov, 1995: 364;

= *Kalocheta collarti* Parent, 1933: 35, **syn.n.**;

= *Chrysosoma collarti* (Parent) Bickel, 1994: 212 *nec Chrysosoma collarti* Curran, 1927: 249 [actually *Plagiozopelma collarti* (Curran)];

= *Chrysosoma (Kalocheta) collarti* (Parent) Grichanov, 1995: 363;

= *Chrysosoma (Kalocheta) alberti* Meuffels & Grootaert, 1999: 291 [new name for *C. (K.) collarti* (Parent)], **syn.n.**

Type material examined. [Holotype:] [♂], Odzala, Congo, X.1963, Museum Paris, Mission A. Descarpentries et A. Villiers 1963–1964 / Holotype / P. Vanschuytbroeck det. 1969 [♂] *Kalocheta villiersi* n.sp. [MNHP].

REMARK. See diagnosis of *C. (K.) collarti* Parent and description of female of this species by Grichanov [1995, 1998]. Female allotype labelled by Vanschuytbroeck as *Kalocheta villiersi* n.sp. [MNHP] has nothing to do with the subgenus *Kalocheta*, representing indeterminable species of *Chrysosoma* s.str.

DISTRIBUTION. Congo (Kinshasa), Congo (Brazzaville), Tanzania, Kenya, Uganda.

Genus *Plagiozopelma* Enderlein, 191239. *Plagiozopelma micantifrons* (Speiser), **comb.n.**

*Agonosoma micantifrons* Speiser, 1910: 108;

*Chrysosoma micantifrons* (Speiser) Grichanov, 1998: 82.

Type material. Holotype has been examined in the collection of the Swedish Museum of Natural History, Stockholm: [♀], 3 Nov. / Kilimandj, Sjöstedt, 1905–1906 / *Agonosoma micantifrons* P. Speiser det. Type!

DIAGNOSIS: Frons shining blue; face broad, pollinose; antenna with scape and pedicel entirely yellow (postpedicel broken); pleura blue-black, yellow along sutures; fore coxa with lateral row of 7–8 yellow bristles; femora bare; mid femur with strong anteroventral subapical seta; legs yellow; mid coxa with narrow brown stripe on posteroventral surface and small brown spot on anteroventral surface in apical 1/3; mid and hind basitarsi dirty yellow to brownish; fore tibia with 1 anterodorsal and 3 posterodorsal setae; mid tibia with 4 anterodorsal, 3 posterodorsal and 2 ventral setae; hind tibia with 7 anterodorsal, 4 posterodorsal and 6 short ventral setae;

mid section of  $M_{1+2}$  1.5 times longer than *m-cu*; *m-cu* 2 times longer than apical section of  $CuA_1$ , practically straight.

DISTRIBUTION. Tanzania.

40. *Plagiozopelma tritiseta* (Parent)

*Chrysosoma tritiseta* Parent, 1929: 171;

*Plagiozopelma tritiseta* (Parent) Bickel, 1994: 231.

Type material examined. [Holotype:] [♂], Museum Paris, Cameroun, Rég. de Dchang (1400 m d'alt.) Plateaux volcanique, Dr. Gromiere 1923/ saison très humide / *Chrysosoma tritiseta* n.sp., Type, O. Parent det. / Type [red label] [MNHP].

DIAGNOSIS. Stylus with 2–3 inconspicuous flattenings at extreme apex; fore tibia with 1 apical thick seta; first two segments of fore tarsus with rows of long strong ventral setae; 3<sup>rd</sup> and 4<sup>th</sup> segments with rows of short strong ventral setae. Cercus with long ventral cilia and short basoventral process.

DISTRIBUTION. Cameroon, Ghana, Nigeria, Congo (Kinshasa).

Genus *Amblypsilopus* Bigot, 188841. *Amblypsilopus ambila* Grichanov, **sp.n.**

Fig. 10.

Holotype. [♂], Ambila, Semaitoo, VIII.1952 (R.P.) / Institute Scientifique Madagascar / Type [red label] / P. Vanschuytbroeck det. 1954 / *Sciopus* [♂] *exsertus* n.sp. [*Nomen nudum*, in coll.] / Type [red label] [MNHP].

DESCRIPTION. Male. Head wider than high. Frons broad, strongly concave, shining metallic blue-green. A strong front vertical and a strong postvertical black setae (broken) present on frons. A pair of strong ocellar setae (broken) and pair of short hairs raising on ocellar tubercle. Upper postocular setae black, short, in one row. Ventral postcranium covered with dense irregular white hairs. Face dark blue-green, whitish pollinose, slightly narrowed towards clypeus; clypeus slightly bulging, separated from eyes, not coming down eyes, weakly convex at apex; face 1/4 higher than wide under antennae, nearly 2 times higher than wide at clypeus. Palpus brownish, with light hairs and pair of black bristles; proboscis yellow, with dark hairs. Scape and pedicel black. Scape small, vase-like; pedicel short, with a ring of short setulae and 1 long dorsal seta. Postpedicel broken.

Mesonotum and scutellum mostly shining blue-green, weakly pollinose. Pleura dark-blue, whitish pollinose. 5 dorsocentral setae with 2<sup>nd</sup> and 3<sup>rd</sup> setae reduced to weak hairs; 2 pairs of long acrostichals with several short hairs anteriorly. Scutellum with two strong setae.

Legs mostly yellow; fore coxa black in basal 1/4; mid and hind coxae, mid and hind trochanters black; hind femur brownish at apex; hind tibia and basitarsus light-brown; 5<sup>th</sup> segment of fore tarsus and distal tarsomeres of posterior four tarsi black. Fore coxa from the front with white hairs and 3 yellow apical setae. Mid coxa anteriorly with light cilia in apical half, hind coxa with 2 light external setae and several hairs. Fore femur with row of yellow ventral setae, as long as diameter of femur; fore tibia with 1 very short dorsal at base, 1 long fine posterior seta at distal 1/4 and posteroventral row of elongate setulae ending with 2 subapical setae; fore basitarsus slightly widened and flattened ventrally, forming ventral cushion with dense pale pile, and posterior row of long hairs; most of hairs longer than width of tarsomere. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 50 : 85 : 88 : 64 : 22 : 16 : 9 : 7. Mid femur with anteroventral row of black hairs, not longer than diameter of

femur, and posteroventral row of slightly longer yellow cilia. Mid tibia with 2 anterior, 2 dorsal, 1 very short ventral, 2–3 apical setae. Mid tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 40 : 100 : 130 : 85 : 30 : 20 : 10 : 10. Hind femur with 1 black anteroventral subapical seta and ventral row of fine white cilia, not longer than diameter of femur. Hind tibia with 2 anterior, 5–6 short dorsal, 3–4 apical setae. Hind basitarsus with short basoventral seta; 3–5<sup>th</sup> tarsomeres ventrally flattened and bare. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 33 : 118 : 176 : 70 : 35 : 12 : 15 : 7.

Wing almost hyaline; veins brown.  $R_1$  0.4 wing length.  $R_{2+3}$  and  $R_{4+5}$  convex anteriorly. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 25 : 5.  $M_1$  with rather strong curvature, forming right angle with  $M_{1+2}$ .  $M_2$  present as short stub-vein and fold on membrane, *m-cu* inconspicuously sinuate. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 33 : 51 : 20. Anal vein foldlike, anal lobe and alula present. Anal angle acute. Lower calypter brown, with black cilia. Halteres brown; halter stem thin, bone-like, 2 times longer than knob, with group of black setulae in distal 1/3.

Abdomen entirely dark, shining bluish-green, blackish along sutures, thin, with black hairs and fine setae. Ventrum brown-black; first segment and sternites with light hairs; 7<sup>th</sup> segment half as long as 6<sup>th</sup>, with numerous hairs; both 6<sup>th</sup> and 7<sup>th</sup> segments with 2 pairs of long strong marginal setae. Hypopygium small, greenish-brown. Cercus brown, practically trilobate, with short dorsal hairs; dorsal lobe short, with 3 long black apical setae, twice longer than epandrium; middle lobe long and narrow, as long as epandrium, with widened apex bearing 2 strong setae; ventral lobe slightly shorter than middle, narrow, covered with sparse setulae. Surstylus broad, with 1 long and several short setae, having short ventral lobe. Epandrial lobe short, with 1 very long and 2 short setae.

Female unknown.

Length (mm): body 3.9; 7<sup>th</sup> segment 0.26; wing 3.6/1.1; epandrium 0.52.

DISTRIBUTION. Madagascar.

ETYMOLOGY. The species is named after the type locality.

DIAGNOSIS. The new species shares many features with *A. dallastai* Grichanov, 1998, differing in yellow ventral setae on fore femur and practically trilobate cercus with very long medial lobe and short dorsal lobe having 3 long black apical setae, twice longer than epandrium.

#### 42. *Amblypsilopus flavus* (Vanschuytbroeck)

*Megistostylus flavus* Vanschuytbroeck, 1962: 353;

*Chrysosoma flavum* (Vanschuytbroeck) Dyte & Smith, 1980: 448;

*Plagiozopelma flavum* (Vanschuytbroeck) Bickel, 1994: 231;

*Amblypsilopus flavus* (Vanschuytbroeck) Grichanov, 1998: 84.

Type material examined. Holotypus, [♂], Coll. Mus. Congo, Madagascar: Ambodiwani, XII.1949, I. Vadon / P. Vanschuytbroeck det. 195? *Megistostylus flavus* n.sp. [MNHP].

REMARK. See diagnosis of this species in Grichanov [1998].

DISTRIBUTION. Madagascar.

#### 43. *Amblypsilopus miserus* (Parent)

*Chrysosoma miserum* Parent, 1935: 81;

*Amblypsilopus miserus* (Parent) Bickel, 1994: 373.

Type material examined. [Holotype:] [♂], Musée Paris, Mozambique, Vallée du Pungoué, Guengère, G. Vasse, 1906 / Type / *Chrysosoma miserum* n.sp., Type, O. Parent [MNHP].

DIAGNOSIS. *A. miserus* is associated with *auratus* Group, differing by the following combination of characters. Frons with two or three curved black vertical setae. One postvertical bristle. Upper postocular setae long. Postpedicel asymmetrically triangular, as long as high at base. Mesonotum with two strong posterior and a few hairlike anterior dorsocentral setae; three pairs of long acrostichals. Legs mostly black; fore and mid tibiae and basitarsi yellow. All femora with whitish ventral cilia, not longer than femora diameter. Fore tibia and basitarsus with fine erect ciliation on dorsal side. Fore basitarsus except base and second tarsomere with ventral pad of short hooked hairs; first segment of fore tarsus 1.25 times as long as second article and half as long as rest tarsomeres.  $R_1$  long, ending just before the middle of wing. Costa with short setulae; crossvein *m-cu* straight. Cercus short, similar to that in *A. cilifrons* (Parent, 1937).

DISTRIBUTION: Mozambique, Zimbabwe.

#### 44. *Amblypsilopus ranomafana* Grichanov, sp.n.

Fig. 11.

= *Amblypsilopus aenescens* Grichanov, 1998: 111, nec Vanschuytbroeck, 1952: 138 (*Sciapus*) [misidentification].

Holotype. [♂], Madagascar: Fia Ranomafana, 19.I.1992, A. Pauly, forêt [ISNB].

Paratypes. About 300 [♂♂], in alcohol, 1 [♂] in glycerol, Madagascar: Fia Ranomafana, 19.I.1992, A. Pauly, forêt [ISNB].

DESCRIPTION. Male. Similar to *A. ambila* sp.n. in many respects except as noted. Frons shining metallic blue-green, but with copper reflection. Antenna black, longer than height of head. Postpedicel short and small, oval, asymmetric, slightly shorter than high, pubescent. Stylus dorsal, simple and practically bare. Length ratio of scape to pedicel to postpedicel to stylus, 7 : 6 : 7 : 100.

Mesonotum and scutellum mostly shining blue-green, with copper reflection. Pleura bronze-black. 3 pairs of long acrostichals with several short hairs anteriorly.

Legs mostly yellow; fore coxa black in basal half (anterior view) or mostly black (lateral view); fore trochanter brown; mid and hind coxae, mid and hind trochanters black; hind femur widely brown-black at apex; hind tibia and basitarsus light-brown; 3 or 4 distal tarsomeres of posterior four tarsi black. Hind coxa with one light external seta and several hairs. Fore femur with double row of black ventral setae, 1.0–1.5 times longer than diameter of femur; fore tibia with 1 very long fine posterior seta at distal 1/4 and posteroventral row of elongate setulae ending with 2 subapical setae; fore basitarsus slightly widened and flattened ventrally, forming ventral cushion with dense pale pile, and posterior row of long hairs; the hairs in basal half longer than width of tarsomere. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 70 : 95 : 102 : 64 : 26 : 16 : 11 : 9. Mid femur with anteroventral row of black setae, 1.0–1.5 times longer than diameter of femur, and posteroventral row of slightly shorter and finer black cilia. Mid tibia with 2 anterior, 2 dorsal, 1–2 very short ventral, 3–4 apical setae. Mid tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 42 : 110 : 155 : 94 : 28 : 22 : 13 : 8. Hind femur with anteroventral row of black setae, 1.0–1.5 times longer than diameter of femur, and posteroventral row of finer white cilia. Hind tibia with 2 anterior, 5–6 short dorsal, 2–3 apical setae. Hind basitarsus with short basoventral seta; 3–5<sup>th</sup> tarsomeres ventrally flattened and bare. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 30 : 130 : 205 : 77 : 37 : 19 : 17 : 10.

Wing mostly greyish, almost hyaline along posterior margin. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 25 : 5.  $M_1$  with rather strong curvature, forming acute angle with  $M_{1+2}$ ; *m-cu* straight. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 40 : 55 : 23. Lower calypter black, with black cilia. Halteres brown-black; halter stem thin, bone-like, 3 times longer than knob.

Abdomen entirely dark, shining bluish-green with copper reflection; unmodified segments combined slightly more than 2 times as long as mesonotum. Hypopygium small, black. Cercus black, short, practically trilobate, with short dorsal hairs; dorsal and middle lobes forming triangle with distal emargination; dorsal lobe with 3 long black undulate apical setae, longer than postabdomen; middle lobe with 2 black setae of unequal length, longer than cercus; ventral lobe looking like long thin yellow basoventral cercal process covered with short hairs.

Female unknown.

Length (mm): body 4.8; antenna 1.5; wing 4.5/1.3; 7<sup>th</sup> segment 0.13; epandrium 0.19.

DISTRIBUTION. Madagascar.

ETYMOLOGY. The species is named after the type locality.

DIAGNOSIS. *A. ranomafana* is a sister species to *A. ambila* sp.n., differing in black ventral setae on fore femur and practically trilobate cercus with short middle and dorsal lobe; the latter having 3 long black apical setae, twice longer than postabdomen. However, it keys out to *A. tenuicauda* Parent, 1936 [Grichanov, 1998], differing in femora yellow and denser setose with black setae and hypopygium morphology.

#### 45. *Amblypsilopus reunionensis* Grichanov, sp.n.

Fig. 12.

Holotype. [♂], La Réunion, Plaine des Affouches, 930–980 m, 11.XII.1973, L. Matile rec. / chemin forestiere [MNHP].

Paratype. [♂], same labels.

DESCRIPTION. Male. Head wider than high. Frons broad, strongly concave, shining metallic blue-green, weakly pollinose. A small black front vertical bristle and a strong postvertical one positioned laterally on frons. A pair of strong ocellar setae and 2–3 pairs of small hairs raising on ocellar tubercle. Upper postocular setae black, short, lateral postoculars white, in one row. Ventral postcranium covered with dense irregular white hairs. Face dark-blue-green, whitish pollinose, slightly narrowed towards palpi; clypeus bulging, separated from eyes, not coming down eyes, rounded at apex; face 1/4 higher than wide under antennae, 1.6 times higher than wide at clypeus. Palpus black, narrow, longer than clypeus, 5–6 times longer than wide, covered with short hairs dorsally, with long hairs laterally and apically directed ventrad, half as long as palpus; proboscis orange, with short hairs. Antenna 1.5 times as long as height of head, mostly black, with scape and pedicel brown. Scape small, vase-like; pedicel short, with a ring of short setulae, 1 longer ventral and 1 dorsal setae, as long as pedicel. Postpedicel suboval, slightly longer than high, covered with short hairs. Stylus arising at basal 1/3 of dorsal side, having very long 1<sup>st</sup> segment; 2<sup>nd</sup> segment of stylus covered with short hairs. Length ratio of scape to pedicel to postpedicel to stylus (1<sup>st</sup> to 2<sup>nd</sup> segments), 8 : 6 : 12 : 25 : 69.

Mesonotum and scutellum mostly shining blue-green, weakly pollinose. Pleura dark bronze-blue, whitish pollinose. 5 pairs of strong dorsocentral setae with one microscopic seta

anteriorly; acrostichals practically absent, at most one pair of microscopic hairs present anteriorly. Scutellum with two strong setae and two short lateral hairs.

Legs mostly yellow; fore coxa yellow, mid and hind coxae black, 3–4 apical segments of tarsi brown. Fore coxa from the front densely covered with short white hairs, having 2–3 light subapical setae. Mid coxa anteriorly with several brownish cilia in apical half, hind coxa with one fine brownish external seta and several short hairs. Fore femur with 5–6 light posteroventral hairs at base, half as long as diameter of femur. Fore tibia and tarsus simple, without strong setae and remarkable hairs; all segments of fore tarsus having approximately equal width. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 65 : 107 : 117 : 125 : 37 : 28 : 13 : 8. Mid femur with ventral and posteroventral irregular rows of light sparse hairs in basal 1/3 or 1/2, slightly longer than diameter of femur. Mid tibia with 1 short posterodorsal at basal 1/3, 2–3 apical setae. Mid tarsus simple. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 40 : 101 : 160 : 140 : 40 : 31 : 15 : 9. Hind femur bare. Hind tibia with several very short dorsal and ventral, 1–2 apical setae. Hind basitarsus with 1 short basoventral and 1 short ventral seta at distal 1/3; other segments simple. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 25 : 142 : 203 : 78 : 52 : 35 : 17 : 9.

Wing hyaline, veins brown.  $R_1$  0.4 wing length.  $R_{2+3}$  and  $R_{4+5}$  slightly convex anteriorly. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 45 : 6.  $M_1$  with rather strong curvature, slightly recurved basad, forming almost straight angle with  $M_{1+2}$ .  $M_2$  half foldlike, *m-cu* almost straight. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 49 : 43 : 17. Anal vein foldlike, anal lobe and alula present. Anal angle acute. Lower calypter brown-black, with light cilia. Halteres yellow; halter stem thin, bone-like, 2 times longer than knob, with group of black setulae at apex.

Abdomen shining bluish-green with copper reflection, blackish along sutures, pollinose, thin, with short hairs and fine setae. Ventrum black-brown; 1<sup>st</sup> and 2<sup>nd</sup> segments with white hairs laterally and ventrally; unmodified segments combined 2.2 times as long as mesonotum; 6<sup>th</sup> segment with strong marginal setae; 7<sup>th</sup> segment long, approximately as long as 6<sup>th</sup>. 8<sup>th</sup> segment covered with 15–20 fine setae and 2 pairs of very long fine dorsal setae; basal setae slightly longer than epandrium; distal setae more than 3 times longer than epandrium. Hypopygium entirely black, with black appendages. Cercus bilobate; ventral lobe broad, enrolled, with dense row of long golden setae along distal margin; dorsal lobe narrow, shorter than ventral, with row of black cilia along entire length. Surstylus narrow, with 1 long middorsal and several short apical setae. One long epandrial seta positioned halfway between cercus and surstylus. Epandrial lobe short, with 1 very long and 1 short setae. Epandrial seta pedunculate, situated closely to epandrial lobe.

Female unknown.

Length (mm): body 4.9–5.1; antenna 1.4; wing 4.3/1.3; 7<sup>th</sup> segment 0.8; epandrium 0.45.

DISTRIBUTION. Reunion.

ETYMOLOGY. The species is named after the type locality.

DIAGNOSIS. The new species is a sister species to *A. takamaka* sp.n. (see diagnosis of this species), differing in slightly larger size; 8<sup>th</sup> segment having 2 pairs of very long fine dorsal setae: basal setae being slightly longer and distal setae more than 3 times longer than epandrium; cercus having dorsal lobe shorter than ventral.



46. *Amblypsilopus takamaka* Grichanov, **sp.n.**

Fig. 13.

Holotype. [♂], La Réunion, Takamaka, 650–750 m, 12.XII.1973, L. Matile rec. [MNHP].

PARATYPE. [♂], La Réunion, Plaine des Affouches, 930–980 m, 11.XII.1973, L. Matile rec. / chemin forestiere [MNHP].

DESCRIPTION. Male. Similar to *A. reunionensis* sp.n. in almost all respects except as noted. Head with face 1/4 higher than wide under antennae, 2 times higher than wide at clypeus. Antenna with scape dark-brown (holotype) or light-brown (paratype). Length ratio of scape to pedicel to postpedicel to stylus (1<sup>st</sup> to 2<sup>nd</sup> segments), 8 : 6 : 11 : 27 : 69.

Fore femur with 5–6 light posteroventral hairs at base, not longer than diameter of femur. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 65 : 93 : 107 : 115 : 37 : 32 : 16 : 10. Mid femur with ventral and posteroventral irregular rows of light sparse hairs in basal 1/3 or 1/2, not longer than diameter of femur. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 37 : 95 : 150 : 122 : 39 : 31 : 15 : 9. Same ratio for hind leg, 23 : 140 : 181 : 70 : 50 : 32 : 21 : 9.

Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_1$ , 38 : 6. Ratio of crossvein *m-cu* to apical part of  $M_{1+2}$  (fork-handle) to apical part of  $CuA_1$ , 46 : 40 : 15.

Abdomen with 8<sup>th</sup> segment covered with 15–20 fine setae; 2 pairs of longest dorsal setae 2/3 as long as epandrium. Cercus bilobate; ventral lobe broad, enrolled, with dense row of long golden setae along distal margin; dorsal lobe narrow, longer than ventral, with sparse black cilia along entire length. Epandrial seta situated on small eminence closely to epandrial lobe.

Female unknown.

Length (mm): body 4.65; antenna 1.5; wing 4.0/1.3; 7<sup>th</sup> segment 0.65; epandrium 0.45.

DISTRIBUTION. Reunion.

ETYMOLOGY. The species is named after the type locality.

DIAGNOSIS. The new species keys out to *A. cuthbertsoni* (Parent, 1937), differing in broad metallic face, wider wing, simple fore tarsus, longer 7<sup>th</sup> segment of abdomen and bilobate cercus [Grichanov, 1998]. *A. cuthbertsoni* has narrow silvery face (3–4 times higher than wide), narrow wing (4 times longer than wide), modified 5<sup>th</sup> segment of fore tarsus, 7<sup>th</sup> segment being shorter than 6<sup>th</sup>, knife-shaped cercus having 2 long middorsal cilia. *A. takamaka* is a sister species to *A. reunionensis* sp.n., differing in slightly smaller size; 8<sup>th</sup> segment having the longest dorsal setae 2/3 as long as epandrium; cercus having dorsal lobe longer than ventral.

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