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94

Harry Brailovsky Alperowitz

Insecta Hemiptera Heteroptera Coreidae

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Insecta Hemiptera Heteroptera Coreidae

Harry BRAILOVSKY ALPEROWITZ

Insecta Hemiptera Heteroptera Coreidae

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Résumé / Summary

Résumé

Les Coreidae (Hemiptera Heteroptera) de Madagascar sont révisés ; tous les taxa connus présents dans l'île sont traités. Deux sous-familles, douze tribus, vingt-neuf genres, un sous-genre et soixante-neuf espèces sont traités en détail. Plusieurs nouveaux taxa sont décrits et placés dans la sous-famille des Coreinae : quatre genres [*Cletoliturus* n. gen. (Gonocerini), *Cletoscellus* n. gen. (Gonocerini), *Elasmocniella* n. gen. (Mictini) et *Odontocurtus* n. gen. (Daladerini)] et dix-neuf espèces [*Choerommatus decoratus* n. sp. (Acanthocorini), *Choerommatus linnavuorii* n. sp. (Acanthocorini), *Petalocnemis inconditus* n. sp. (Acanthocorini), *Kerzhnercryptes couturieri* n. sp. (Daladerini), *Odontorhopala pallescens* n. sp. (Daladerini), *Odontocurtus consociatus* n. gen., n. sp. (Daladerini), *Parabrachytes inornatus* n. sp. (Daladerini), *Cletoscellus delectabilis* n. gen, n. sp. (Gonocerini), *Cletus incultus* n. sp. (Gonocerini), *Cletus poikilus* n. sp. (Gonocerini), *Cletus presignus* n. sp. (Gonocerini), *Latimbus naevillus* n. sp. (Latimbini), *Latimbus refulgens* n. sp. (Latimbini), *Latimbus saphisus* n. sp. (Latimbini), *Latimbus stereus* n. sp. (Latimbini), *Anoplocnemis consociatus* n. sp. (Mictini), *Elasmocniella gloriasus* n. gen., n. sp. (Mictini), *Oxypristis augurium* n. sp. (Petascelini), *Oxypristis conspicuus* n. sp. (Petascelini)]. Trois espèces sont transférées dans un autre genre : *Petalocnemis dilatatus* (Garcia Varela) n. comb. anciennement dans le genre *Acanthocoris* ; *Cletoliturus lituripennis* (Stål) n. comb. anciennement dans le genre *Gonocerus* ; *Cletoscellus spinijugis* (Bergroth) n. comb. anciennement dans le genre *Cletomorpha*. Les espèces suivantes sont mises en synonymie : *Gonocerus caffer* Stål n. syn. = *Cletus capensis* (Westwood) ; *Gonocerus varius* Dallas n. syn. = *Cletus capensis* (Westwood) ; *Cletus borealis* Blöte n. syn. = *Cletus ochraceus* (Herrich-Schaeffer) ; *Cletus fuscescens* Walker n. syn. = *Cletus ochraceus* (Herrich-Schaeffer) ; *Cletus madagascariensis* Blöte n. syn. = *Cletus ochraceus* (Herrich-Schaeffer). Deux genres – *Latimbus* Stål et *Oncaspidia* Stål – et une espèce – *Oncaspidia pilosicollis* (Stål) – sont cités pour la première fois de Madagascar. Le genre monospécifique *Rhombolaparus* Bergroth et son espèce *R. tardigradus* Bergroth sont considérés comme *incertae sedis* (genre et espèce *inquirenda*). Dans ce travail, une espèce par genre, au moins, est illustrée par son habitus en vue dorsale et environ 200 dessins, représentant des détails morphologiques (tête, antennes, pronotum, pattes), ainsi que les *genitalia* mâles et femelles de quelques espèces, facilitent l'identification des espèces. Des clés en français et en anglais des sous-familles, tribus, genres, sous-genres et espèces malgaches sont fournies. Des localités nouvelles apportent des précisions sur la distribution des espèces déjà connues de Madagascar.

Summary

The Coreidae (Hemiptera Heteroptera) from Madagascar are revised, including all taxa known to occur in the area. Two subfamilies, twelve tribes, twenty-nine genera, one subgenus, and sixty-nine species are treated in detail. The four new genera [*Cletoliturus* n. gen. (Gonocerini), *Cletoscellus* n. gen. (Gonocerini), *Elasmocniella* n. gen. (Mictini), and *Odontocurtus* n. gen. (Daladerini)], and the nineteen new species [*Chaerommatus decoratus* n. sp. (Acanthocorini), *Choerommatus linnavuarii* n. sp. (Acanthocorini), *Petalocnemis inconditus* n. sp. (Acanthocorini), *Kerzhnercryptes couturieri* n. sp. (Daladerini), *Odontorhopala pallescens* n. sp. (Daladerini), *Odontocurtus consociatus* n. gen., n. sp. (Daladerini), *Parabrachytes inornatus* n. sp. (Daladerini), *Cletoscellus delectabilis* n. gen,

n. sp. (Gonocerini), *Cletus incultus* n. sp. (Gonocerini), *Cletus poikilus* n. sp. (Gonocerini), *Cletus presignus* n. sp. (Gonocerini), *Latimbus naevillus* n. sp. (Latimbini), *Latimbus refulgens* n. sp. (Latimbini), *Latimbus saphisus* n. sp. (Latimbini), *Latimbus stereus* n. sp. (Latimbini), *Anoplocnemis consociatus* n. sp. (Mictini), *Elasmocniella gloriosus* n. gen., n. sp. (Mictini), *Oxypristis augurium* n. sp. (Petascelini), *Oxypristis conspicuus* n. sp. (Petascelini)] are described and placed in the subfamily Coreinae. Three species are transfered to other genera: *Petalocnemis dilatatus* (Garcia Varela) n. comb. described in the genus *Acanthocoris*; *Cletoliturus lituripennis* (Stål) n. comb. described in the genus *Gonocerus*; and *Cletoscellus spinijugis* (Bergroth) n. comb. described in the genus *Cletomorpha*. The following species are synonymized: *Gonocerus caffer* Stål n. syn. = *Cletus capensis* (Westwood) ; *Gonocerus varius* Dallas n. syn. = *Cletus capensis* (Westwood) ; *Cletus borealis* Blöte n. syn. = *Cletus ochraceus* (Herrich-Schaeffer) ; *Cletus fuscescens* Walker n. syn. = *Cletus ochraceus* (Herrich-Schaeffer) ; *Cletus madagascariensis* Blöte n. syn. = *Cletus ochraceus* (Herrich-Schaeffer). Two genera, *Latimbus* Stål and *Oncaspidia* Stål, and one species, *Oncaspidia pilosicollis* (Stål), are recorded for the first time from Madagascar. The genus *Rhombolaparus* Bergroth and its only known species *Rhombolaparus tardigradus* Bergroth are placed as *incertae sedis* (genus and species *inquirenda*). A dorsal habitus illustrations for at least one species of each genus, as well as 200 drawings of morphological details of head, antennae, pronotum, legs, and male and female *genitalia* to some of the species are provided to help to distinguish these taxa. Keys to subfamilies, tribes, genera, subgenera and species recorded from Madagascar are included. New distributional records for many of the previously known species are added.

Mots-clés

Insecta, Hemiptera, Heteroptera, Coreidae, révision, nouveaux genres, nouvelles espèces, nouvelles combinaisons, nouvelles synonymies, clés, Madagascar.

Keywords

Insecta, Hemiptera, Heteroptera, Coreidae, revision, new genera, new species, new combinations, new synonymies, keys, Madagascar.

Introduction

Madagascar is the fourth largest island in the world after Greenland, New Guinea and Borneo. Its area covers 587,038,935 km², with a maximum length of 1580 km, and a maximum width of 570 km. It lies in the southern hemisphere between latitude 11°57' and 25°38'S and longitude 43°12' and 50°17'E, and is thus almost entirely within the tropics; the tropic of Capricorn crosses the southern end of it. The Mozambique channel separating it from Africa is about 398 km wide at the narrowest point. Madagascar is surrounded at distances of 290 km to 890 km by small groups of volcanic islets: the Comoro Islands, the Mascarene Islands, and the Seychelles Islands.

Madagascar consists of three large, parallel, longitudinal zones: the Central Plateau formed from ancient systems; a narrow littoral strip to the East; and a zone of sedimentary formations comprising low plateau and vast plains to the West.

Most of the unique fauna and flora is found in the lush rain forest of the narrow eastern coastline, whereas the wider drier western plain with more arid vegetation has less diversity.

Bugs in the family Coreidae are commonly known as squash bugs, leaf-footed bugs, or plant-feeding bugs. The coreids include some of the largest living heteropterans, as well as other species that are delicate or slender. Most coreids are relatively heavy-bodied insects usually robustly elongate or broadly elliptical. Many species have bizarre dilations and expansions of their humeral angles, hind femur, tibiae, and antennal segments.

Coreidae are characterized by having the head usually small relative to body size; antennae inserted above a line running through the center of the eyes; hind femur sometimes ornamented with large spines; hemelytral membrane usually with numerous veins; well developed scent gland openings ventrally on the metathorax of adults; nymphal dorsal abdominal scent gland orifices between terga IV-V and V-VI; inner laterotergites usually present; and all abdominal spiracle ventral. The scent gland fluid releases an odor that serves both to deter predators and as an alarm pheromone, causing aggregations to scatter. Composition of the gland secretion is variable, but may include acids, aldehydes, alcohols and acetate or butyrate esters of these alcohols. Adults and nymphs are capable of exuding a strong-smelling fluid when disturbed. The body color is variable; the temperate species are predominately dull brown or gray as adults, but nymphs may be brightly colored; adults of several tropical species are quite colorful (Levin Mitchell *in* Schaefer & Panizzi 2000).

The biology of Coreidae is typically hemipterous. In all species, the nymphs pass through five stages, suck plant juices, and in due time transform into adults. There may be one or

more generations per year depending the region of the country in which they develop (Baranowski & Slater 1986).

All members of this family are essentially phytophagous, chiefly feeding on plant saps and fruits, though some are seed feeders. Occasional reports mention that some individuals imbibe fluids from descomposing animal carcasses, but this is not a regular habit. The majority live above ground, dwelling on plants. The coreids are characteristic inhabitants of the herb and shrub layers of tropical and, to a lesser extent, of temperate ecosystems. They are frequently encountered in surveys of crops. There are a number of important destructive and invasive species. Many groups of coreids bugs show definite association with particular groups of plants; others, by contrast, contain members that are more polyphagous and feed on unrelated plants (Dolling 1986; Henry & Froeschner 1988; Schuh & Slater 1995).

The family was established by Leach (1815) and included Rhopalidae and Alydidae as subfamilies, which are now accorded full family rank. The basic suprageneric classification was established by Stål (1867, 1870), and although there has been considerable recent work on the higher classification of this family, the tribal relationships remain obscure and need a modern synthesis.

The family is found in all major zoogeographic regions, and comprises three subfamilies: Meropachynae restricted to the Western Hemisphere, chiefly Neotropical, with three recognized tribes Merocorini, Meropahydini and Spathophorini; Pseudophloeinae predominately Old World, with most of the species distributed in the tropics and with two tribes Clavigrallini and Pseudophloeini; and Coreinae with 32 tribes found on both Old and New World. Twelve of the tribes are found in the New World and with the exception of Coreini, Hydarini, Anisoscelini and Chariesterini, the other eight are restricted to that region: Acanthocephalini, Acanthocerini, Barreratalpini, Chelinideini, Discogastrini, Leptoscelini, Nematopodini, and Spartocerini. The Coreini of the Old World include twenty tribes: Acanthocorini, Agriopocorini, Amorbini, Anhomoeini, Cloresmini, Colpurini, Cyllarini, Daladerini, Dasynini, Gonocerini, Homoeocerini, Latimbini, Manocoroeini, Mecocnemini, Mictini, Petascelidini, Phyllomorphini, Prionotylini, Procamptini and Sinotagini, plus Coreini, Hydarini, Anisoscelini, and Chariesterini shared with the New World.

Schuh & Slater (1995) and Cassis & Gross (2002) estimated that the family comprised 252 genera and 1802 species. Henry (2009) estimated 267 genera and 1884 species. Perhaps an objective assessment of an appropriate size of the family is still impossible.

Despite early descriptions by Signoret (1860), Stål (1853, 1873), Distant (1879, 1902), Bergroth (1894b, 1914), and Garcia Varela (1913), the coreid fauna of Madagascar has been little studied. Recently Brailovsky (1998, 2006), Brailovsky & Barrera (1998, 2006), and Brailovsky & Ortega León (1998), described several new genera and species and built a general overview of the family.

Madagascar is currently known to have representatives of two subfamilies, twelve tribes, twenty-two genera, one subgenus, and forty-nine species. In this contribution, six genera, and twenty species are added, bringing to twenty-nine genera, one subgenus, and sixty-nine species the total number of known taxa. From that list, four genera and nineteen species are herein described as new, and two genera *Latimbus* Stål and *Oncaspidia* Stål and one species *Oncaspidia pilosicollis* (Stål) are recorded for the first time from Madagascar.

Taxonomie / Taxonomy

Materials and methods

Abbreviations

AMNH	American Museum of Natural History, New York, USA;
BMNH	The Natural History Museum, London, United Kingdom;
CASC	California Academy of Sciences, San Francisco, California, USA;
EHCA	Ernst Heiss Collection, Austria;
IRNB	Institut royal des Sciences naturelles, Bruxelles, Belgique;
MNCN	Museo Nacional de Ciencias Naturales, Madrid, Spain;
MNHN	Muséum national d'Histoire naturelle, Paris, France;
MRAC	Musée royal de l'Afrique Centrale, Tervuren, Belgium;
NHMW	Naturhistorisches Museum Wien, Austria;
NMPC	National Museum, Prague, Czech Republic;
NRES	Naturhistoriska Riksmuseet, Stockholm, Sweden;
OXUM	Oxford University Museum, Hope Entomological Collections, United Kingdom;
PBCC	Petr Banar Collection, Czech Republic;
RMNH	Nationaal Natuurhistorische Museum, Leiden, The Netherlands;
UNAM	Colección Entomológica, Instituto de Biología, Universidad Nacional Autónoma de México, México;
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA,
ZMAS	Zoological Institute, Academy of Sciences, St. Petersburg, Russia;
ZMHB	Zoologisches Museum, Humboldt Universität, Berlin, Germany;
ZSMC	Zoologische Staatsammlung München, Germany.

Abbreviations used in the text

A. R.	Pierre André Robinson;
n. comb.	nouvelle combinaison / new combination;
E. R.	Edouard Razafimamdimby, collecteur / collector;
♀	femelle / female;
n. gen.	nouveau genre / new genus;
mm	millimètres / millimeters;
♂	mâle / male;
R. P.	Renaud Paulian;
n. sp.	nouvelle espèce / new species;
n. syn.	nouvelle synonymie / new synonymy.

Localities names follow VIETTE (1991).

Glossary of structures used in the text

Diagrams are provided of the structures used in the specific and generic descriptions, as well as those used to define the various tribes.

The meaning of the character states and their location are provided in the diagrams and additional support is provided with a glossary of commonly used terms, based mostly on TORRE-BUENO (1989) and SCHUH & SLATER (1995), which is included at the end. It is important to note that the handling of each specimen during microscopic examination can result in some variation with respect to the description or redescription presented, and thus the illustrations and the keys are important aids for correct taxonomic identifications.

Hemiptera Heteroptera Coreidae

Malagasy Coreidae checklist

Order HEMIPTERA Linnaeus, 1758

Suborder HETEROPTERA Latreille, 1810

Family COREIDAE Leach, 1815

Subfamily COREINAE Stål, 1867

Tribe Acanthocorini Amyot et Audinet-Serville, 1843

Genus *Acanthocoris* Amyot et Audinet-Serville, 1843

A. tibialis Signoret, 1860

Genus *Antanambecoris* Brailovsky, 2001

A. pronotalis Brailovsky, 2001

Genus *Choerommatus* Amyot et Audinet-Serville, 1843

C. argillaceus Stål, 1865

C. decoratus n. sp.

C. linnavuorii n. sp.

Genus *Petalocnemis* Stål, 1853

P. dilatatus (Garcia Varela, 1913) n. comb.

P. inconditus n. sp.

Genus *Phelaus* Stål, 1865

P. dilaticornis (Signoret, 1860)

Genus *Pluotenia* Brailovsky, 2001

P. pulla Brailovsky, 2001

Tribe Anisoscelini Amyot et Audinet-Serville, 1843

Genus *Leptoglossus* Guérin-Méneville, 1831

L. gonagra (Fabricius, 1775)

Tribe Daladerini Stål, 1873

Genus *Kerzhnercryptes* Brailovsky, 2002

K. couturieri n. sp.

K. perinetus Brailovsky, 2002

Genus *Odontorhopala* Stål, 1873

O. callosa Stål, 1873

O. pallescens n. sp.

Genus *Odontocurtus* n. gen.

O. consociatus n. gen., n. sp.

Genus *Parabrachytes* Distant, 1879

P. antsalovus Brailovsky, 2002

P. coloratus Distant, 1879

P. inornatus n. sp.

P. longicornis Garcia Varela, 1913

P. morondavus Brailovsky, 2002

P. obscurus Distant, 1879

Tribe Dasynini Bergroth, 1913

Genus *Madagalaesus* Brailovsky, 2007

M. garciai Brailovsky, 2007

M. notios Brailovsky, 2007

Tribe Gonocerini Stål, 1873

Genus *Cletoliturus* n. gen.

C. lituripennis (Stål, 1855) n. comb.

Genus *Cletoscellus* n. gen.

C. delectabilis n. gen., n. sp.

C. spinijugis (Bergroth, 1905) n. comb.

Genus *Cletus* Stål, 1859

C. capensis (Westwood, 1842)

C. clavatus (Signoret, 1860)

C. incultus n. sp.

C. ochraceus (Herrich-Schaeffer, 1842)

C. poikilus n. sp.

C. presignus n. sp.

C. pronus (Bergroth, 1914)

Genus *Plinachtus* Stål, 1859

P. contortus Brailovsky et Barrera, 2006

P. madagascariensis (Kiritshenko, 1916)

P. scitulus Brailovsky et Barrera, 2002

P. vermiculus Brailovsky et Barrera, 2002

Tribe Hydarini Stål, 1873

Genus *Corduba* Stål, 1862

Subgenus *Acanthocorduba* Linnavuori, 1978

C. baniana Brailovsky et Ortega León, 1998

Genus *Hydara* Dallas, 1852

H. kmenti Brailovsky, 2006

H. tenuicornis (Westwood, 1842)

Tribe Latimbini Stål, 1873

Genus *Latimbus* Stål, 1859

L. naevillus n. sp.

L. refulgens n. sp.

L. saphisus n. sp.

L. stereus n. sp.

Tribe Mictini Amyot et Audinet-Serville, 1843

Genus *Anoplocnemis* Stål, 1873

A. brevicornis Bergroth, 1910

A. brevicrus Bergroth, 1910

A. consociatus n. sp.

A. curvipes (Fabricius, 1781)

A. distincta (Brancsik, 1893)

A. luctuosa (Stål, 1865)

A. madagascariensis (Signoret, 1860)

Genus *Dianomictis* O'Shea, 1980

D. expansa (Distant, 1879)

Genus *Elasmocniella* n. gen.

E. gloriosus n. gen., n. sp.

Genus *Mygdonia* Stål, 1865

M. elongata Distant, 1879

Tribe Petascelini Stål, 1873

Genus *Oxypristis* Signoret, 1860

O. augurium n. sp.

O. conspicuus n. sp.

O. leroyi Signoret, 1860

O. modestus Blöte, 1938

Tribe Phyllomorphini Stål, 1873

Genus *Craspedum* Rambur, 1839

C. madagascariense (Coquerel, 1848)

Subfamily PSEUDOPHLOEINAE Stål, 1867

Tribe Clavigrallini Stål, 1873

Genus *Clavigralla* Spinola, 1837

C. ankatsoensis Dolling, 1979

C. annulipes Signoret, 1860

C. asterix Dolling, 1979

C. elongata Signoret, 1860

C. madagascariensis Dolling, 1979

C. pusilla Dolling, 1979

C. wittei (Schouteden, 1938)

C. tuberculicollis (Reuter, 1887)

Genus *Oncaspidia* Stål, 1873

O. pilosicollis (Stål, 1855)

Tribe Pseudophloeini Stål, 1873

Genus *Mevanidea* Reuter, 1883

M. spiniceps (Signoret, 1860)

Incertae sedis: Genus and species inquirenda

Genus *Rhombolaparus*

R. tardigradus Bergroth, 1906

Clé des sous-familles malgaches de Coreidae

1. Tibias non sulciformes ; péritrème métathoracique non bilobé, généralement avec un seul lobe large, parfois avec deux lobes presque fusionnés ; méso- et métasternum sulciformes ..... **Pseudophloeinae** Stål

– Tibias sulciformes (parfois peu profondément) ou si non sulciformes, sans la combinaison de caractères ci-dessus ; péritrème métathoracique plus large, nettement bilobé ..... **Coreinae** Leach

Key to Malagasy subfamilies of Coreidae

1. Tibiae not sulcate; metathoracic peritreme not bilobed, usually with a single large or occasionally with two nearly fused auricles (lobes); mesosternum and metasternum sulcate ..... **Pseudophloeinae** Stål

– Tibiae sulcate (sometimes shallowly) or if appearing non-sulcate, without the above combination of characters; metathoracic peritreme larger, conspicuously bilobed ..... **Coreinae** Leach

Subfamily Coreinae Leach, 1815

The Coreinae can be distinguished from other Coreidae subfamilies by having the head variable, always much narrower than the thorax; interocellar distance longer, rarely shorter or equidistant to eye; anterolateral opening of the metathoracic scent gland well developed; metathoracic peritreme with well developed projections; apical margin of corium straight or slightly sinuous; membranal veins of forewing arising from a transverse vein near or touching corial margin; abdominal terga I-II and III-VII fused in both sexes.

This subfamily contains the vast majority of coreid bugs, with aproximately 210 genera and 1586 species. It is worldwide in distribution, but most species occur in the tropics (Schuh & Slater 1995).

19 tribes occur in the Eastern Hemisphere and 10 are recorded from Madagascar.

Clé des tribus malgaches de Coreinae

1. Tête quadrangulaire, courte, plus large que longue, inclinée vers le bas au niveau des tubercules antennifères ; tubercules antennifères saillant vers l'avant, rapprochés ; tylus indistinct, non prolongé ; buccule totalement, ou presque, située en arrière du tubercule antennifère, ou atteignant au plus le bord antérieur de l'œil ; rostre épais, court, ne dépassant pas le mésosternum **2**

– Tête comparativement longue, partie antérieure rectiligne vers l'avant, dépassant ou non les tubercules antennifères ; tylus distinct prolongé ; rostre fin, atteignant ou dépassant le mésosternum ; tubercules antennifères moins saillants **5**

2. Jugum développé antérieurement formant une plaque quadrangulaire située sous le tubercule antennifère ; article I des antennes généralement plus long que le II .... **Latimbini** Stål

– Jugum non développé en avant et ne formant pas de plaque quadrangulaire **3**

3. Fémur antérieur avec une ou deux grandes dents pointues subapicales sur la face inférieure ..... **Mictini** Amyot et Audinet-Serville

– Fémur antérieur sans grande dent subapicale sur la face inférieure, généralement avec deux rangées ventrales d'épines, ou non armé **4**

4. Stigmates abdominaux assez grands, transversalement ovales à elliptic (Fig. 60g) ; coxae postérieures distantes ; fémurs postérieurs épaissis ..... **Petascelini** Stål

– Stigmates abdominaux petits, ronds (Fig. 75b) ; coxae postérieures non distantes, presque contiguës ; fémur postérieur généralement robuste, non nettement épaissi ; article antennaire II dilaté à l'apex ..... **Daladerini** Stål

5. Tête longue, plus longue que large ; partie antérieure toujours rectiligne en avant ; fémur postérieur atteignant l'apex de l'abdomen ; tibia foliacé, les expansions s'étendant à la fois sur les faces inférieure et supérieure .... **Anisoscelini** Amyot et Audinet-Serville

– Tête plus courte, plus large que longue, brusquement inclinée vers le bas au niveau des tubercules antennifères, ou fortement inclinée ou rectiligne vers l'avant ; tibia postérieur non expansé ou expansé seulement sur la face inférieure **6**

6. Apex des fémurs antérieurs avec une rangée d'épines et de tubercules sur la face inférieure ; abdomen à bords presque parallèles, non dilaté latéralement ; fémurs postérieurs des mâles fortement ou graduellement épaissis, généralement épineux ou dentés ; partie basale des fémurs postérieurs distinctement courbée ; lobe antérieur du péritrème métathoracique proche de la marge antérieure des métapleures ; trochanters des pattes postérieures fortement séparés, la distance les séparant étant plus grande que la distance séparant le trochanter de la marge latérale du métasternum ..... **Acanthocorini** Amyot et Audinet-Serville

– Apex des fémurs antérieurs sans épine, et s'il y a deux rangées d'épines ou de tubercules, l'abdomen est alors distinctement dilaté ; fémurs postérieurs du mâle non nettement épaissis ; trochanters postérieurs du mâle non ou à peine distants, la distance les séparant étant plus courte que celle séparant le trochanter de la marge latérale du métasternum **7**

7. Bords latéraux du thorax et des segments abdominaux avec des expansions foliacées lobées semi-hyalines portant sur leur marge et leur surface de longues épines aiguës ; articles antennaires et pattes minces, en partie épineux .... **Phyllomorphini** Stål

– Bord latéraux du thorax et des segments abdominaux sans expansion foliacée lobée et sans longues épines **8**

8. Tibia postérieur non sulciforme sur sa face supérieure ; article I des antennes avec l'apex distinctement dilaté en massue ; article IV des antennes généralement aplati ; article III plus de deux fois aussi long que le II ; apex des fémurs légèrement épaissi ..... **Hydarini** Stål

– Tibia postérieur sulciforme sur sa face supérieure ; article I des antennes avec l'apex non dilaté en massue ou seulement légèrement épaissi ; article IV non aplati ; article III généralement plus court que le II, jamais deux fois aussi long que le II ; apex des fémurs variable **9**

9. Article antennaire IV plus long que le I ; stigmates abdominaux distinctement situés dans la première moitié de chaque segment et beaucoup plus proches du tiers médian des marges latérales ..... **Dasynini** Bergroth

– Article antennaire IV plus court que le I ; stigmates abdominaux situés près des marges latérales des segments, plus distants des marges antérieures que des latérales ; distance entre le stigmate abdominal et la marge latérale de l'abdomen, plus courte que la distance entre le stigmate et le marge antérieure de chaque segment ..... **Gonocerini** Stål

Key to Malagasy tribes of Coreinae

1. Head quadrate, short, wider than long, bending downward at the antenniferous tubercle level; antenniferous tubercle protruding forward, almost occupying the intertubercular space; tylus not protracted; buccula almost or totally situated before antenniferous tubercle or at must reaching anterior margin of eye; rostrum wide, short, not extending beyond mesosternum **2**

– Head comparatively long, anterior portion porrect, surpassing or not the antenniferous tubercle; tylus protracted; rostrum slender, reaching or extending beyond mesosternum; antenniferous tubercle less prominent **5**

2. Jugum anteriorly expanded as a quadrate plate, projected below the antenniferous tubercle; antennal segment I usually longer than II ..... **Latimbini** Stål

– Jugum anteriorly not expanded, never projected as a quadrate plate; antennal segment I usually shorter than II **3**

3. Fore femur ventrally with one or two large, sharp subapical teeth .... **Mictini** Amyot et Audinet-Serville

– Fore femur ventrally without one or two large, sharp subapical, teeth, usually with two rows of ventral spines or unarmed **4**

4. Abdominal spiracles rather large, transversely elliptical (Fig. 60; hind coxae widely separated; hind femur incrassate ..... **Petascelini** Stål

– Abdominal spiracles small, rounded (Fig. 75); hind coxae not widely separated, almost contiguous; hind femur not conspicuously incrassate, usually slightly robust ..... **Daladerini** Stål

5. Head long, longer than wide, anterior portion always porrect; hind femur reaching the apex of abdomen; tibiae foliaceous, expanding both dorsally and ventrally .....**Anisoscelini** Amyot et Audinet-Serville

– Head shorter, wider than long, suddently bending downward at the antenniferous tubercle level, or strongly slanting or porrect; hind tibiae not expanded, or only ventrally expanded **6**

6. Apex of fore femur with a row of spines and tubercles on ventral side; abdomen almost parallel-sided, not dilated laterally; male hind femur strongly incrassate or gradually incrassate, usually spinose or dentate; basal part of hind femur distinctly curved; anterior lobe of metathoracic peritreme close to anterior margin of metapleura; trochanters of hind legs strongly separated, their distance greater than that between the trochanter and the lateral margin of metasternum .... **Acanthocorini** Amyot et Audinet-Serville

– Apex of fore femur spineless, or if with two rows of spines or tubercles, then abdomen distinctly dilated; male hind femur not distinctly incrassate; male hind trochanters not separated or not very widely, so that their distance is shorter than that between the trochanter and the trochanter and the lateral margin of metasternum **7**

7. Lateral margins of thorax and abdominal segments expanded into leaf-like, semihyaline lobes on their margins and on the surface long pointed and acute spines; antennal segments and legs slender, and partially spinate ..... **Phyllomorphini** Stål

– Lateral margins of thorax and abdominal segments not foliated or lobated, and without long spines; antennal segments and legs non-spinated **8**

8. Hind tibiae not sulcate dorsally; antennal segment I with apex distinctly clavate; antennal segment IV usually flattened; antennal segment III over twice as long as II; apices of femora slightly thickened ..... **Hydarini** Stål

– Hind tibiae sulcate dorsally; antennal segment I not clavate at apex or slightly thickened; antennal segment IV not flattened; antennal segment III usually shorter than II, never twice as long as II; apices of femora variable..... **9**

9. Antennnal segment IV longer than I; abdominal spiracles located before the middle of sternum, and much nearer to middle third of lateral margins .... **Dasynini** Bergroth

– Antennal segment IV shorter than I; abdominal spiracles placed close to the lateral margins of segments, more distant from their anterior margins than from the lateral ones; distance between abdominal spiracles and lateral margins of abdomen shorter than distance between spiracle and anterior margin of sternum..... ..... **Gonocerini** Stål

Tribe Acanthocorini Amyot et Audinet-Serville, 1843

Body dull colored, relatively small to large sized. Head not strongly elongated in front of the antenniferous tubercles, usually wider than long, suddenly bending downward at the antenniferous tubercles; antenniferous tubercles protruding forward, not contiguous, and the space between them filled by tylus; tylus protracted; rostrum slender, reaching or extending beyond mesosternum; hind femur incrassate, and distinctly spinated and tuberculate; apex of hind femur not reaching the apex of abdomen; hind tibiae narrowed or conspsicuously dilated at inner surface; abdominal spiracles small, circular, frequently closest to anterior edge, and far from lateral edge.

Description

Head. Quadrate, wider than long, dorsally flat; tylus extending anteriorly to and laterally higher than juga; antennae shorter than body length; antennal segment I longer than total head length; ocelli close to eyes; distance between ocelli to eye shorter than interocellar distance; buccula rectangular, raised, short, entire, not projecting beyond antenniferous tubercles, meeting posteriorly, and closed.

Thorax. Pronotum trapezoidal, wider than long; collar wide. Scutellum: triangular.

Abdomen. Abdominal sterna without furrow.

Female *genitalia*. Abdominal sternite VII with plica and fissura; gonocoxae I in caudal view closed; paratergite VIII with spiracle visible.

Clé des genres malgaches d'Acanthocorini

1. Tibias antérieurs et médians irrégulièrement tuberculés et épineux ; article I des antennes et tylus fortement tuberculés et épineux **2**

– Tibias antérieurs et médians non armés ; article I des antennes et tylus lisse, sans tubercule ni épine **4**

2. Corps aplati dorso-ventralement ; yeux petits, faiblement saillants ; chez la femelle, sternite X de l'abdomen remarquablement saillant entre les paratergites IX ; article I des antennes épais, robuste, quadrangulaire ou subquadrangulaire ; tibias antérieurs cylindriques ..... ***Choerommatus*** Amyot et Audinet-Serville

– Corps non aplati dorso-ventralement ; yeux grands, protubérants ; sternite X de l'abdomen chez la femelle non saillant entre les paratergites IX ; article I des antennes mince, cylindrique ; tibias antérieurs dilatés, dilatations inférieure et supérieure externe de taille et de forme variables **3**

3. Articles antennaires II et III non dilatés ; article II plus long que les autres ; tiers médian de la tête en vue dorsal et tiers médian du disque du pronotum sans carène longitudinale semblable à une nervure ; marge supérieure du connexivum avec une double rangée de minuscules tubercules ; tibias postérieurs allongés, légèrement dilatés sur leur face inférieure ..... ***Acanthocoris*** Amyot et Audinet-Serville

– Articles antennaires II et III dilatés à l'apex ; article III plus long que les autres ; tiers moyen de la tête en vue dorsale, et tiers moyen du disque du pronotum avec une étroite carène longitudinale semblable à une nervure ; marge supérieure du connexivum armée de gros tubercules épineux ; tibias postérieurs notablement dilatés sur leur face inférieure et généralement sur leur face supérieure ..... ***Petalocnemis*** Stål

4. Marge antérieure du mésosternum dépourvue de gouttière médiane longitudinale ; angles huméraux aigus, saillants (Fig. 8) ; lobe postérieur du disque du pronotum densément tuberculé ..... ***Pluotenia*** Brailovsky

– Marge antérieure du mésosternum avec une gouttière médiane recevant l'extrémité du labium ; angles huméraux obtus ou arrondis (Figs 3; 7) ; lobe postérieur du pronotum lisse, sans tubercule ni épine **5**

5. Espèce dépassant 23 mm de long ; article antennaire III dilaté en spatule à l'apex ; angles huméraux hémisphériques, larges, relevés (Fig. 7) ; face supérieure des fémurs postérieurs tuberculée chez les mâles ; rostre court, dépassant la marge antérieure du mésosternum ..... ***Phelaus*** Stål

– Espèce n'atteignant pas 19 mm de long ; article III des antennes uniformément cylindrique ; angles huméraux obtus, non saillants (Fig. 3) ; face supérieure des fémurs postérieurs lisse ; rostre atteignant la marge postérieure du métasternum ..... ***Antanambecoris*** Brailovsky

Key to Malagasy genera of Acanthocorini

1. Fore and middle tibiae irregularly tuberculate and spinate; antennal segment I and tylus conspicuously tuberculate and spinate **2**

– Fore and middle tibiae unarmed; antennal segment I and tylus smooth, lacking tubercles or spires **4**

2. Body dorsoventrally flattened; eyes small, weakly protuberant; female abdominal sternite X strongly raised between paratergite IX; antennal segment I stout, robust, quadrate to subquadrate; fore tibiae cylindrical ..... ***Choerommatus*** Amyot et Audinet-Serville

– Body non flattened dorsoventrally; eyes large, protuberant; female abdominal sternite X not raised between paratergite IX; antennal segment I cylindrical, slender; fore tibiae dilated, outer and inner dilation variable in size and shape **3**

3. Antennal segments II and III not dilated; antennal segment II the longest; middle third of head in dorsal view and middle third of pronotal disk without raised longitudinal stripe-like rib; upper margin of connexivum with double row of tiny tubercles; hind tibiae elongate, weakly dilated on inner face ..... ***Acanthocoris*** Amyot et Audinet-Serville

– Antennal segments II and III apically dilated; antennal segment III the longest; middle third of head in dorsal view, and middle third of pronotal disk with narrow and raised longitudinal stripe-like rib; upper margin of connexivum armed with

large and stout tubercle-like spines; hind tibiae conspicuously dilated on inner and usually on outer face ..... ***Petalocnemis*** Stål

4. Anterior margin of mesosternum lacking longitudinal furrow; humeral angle produced laterally into an angulate projection (Fig. 8); posterior lobe of pronotal disk densely tuberculate ..... ***Pluotenia*** Brailovsky

– Anterior margin of mesosternum with sulcate tubercle to receive the labium; humeral angle entire, not produced into an angulate projection (Figs 3; 7); posterior lobe of pronotal disk smooth, lacking tubercles or spines **5**

5. Species longer than 23 mm; antennal segment III apically dilated, obovate in outline; humeral angle hemispheric, broad, raised, directed upward (Fig. 7); male dorsal face of hind femur tuberculate; rostrum short, not extending beyond anterior border of mesosternum ..... ***Phelaus*** Stål

– Species shorter than 19 mm; antennal segment III uniformly cylindrical; humeral angle obtuse, not exposed (Fig. 3); male dorsal face of hind femur smooth; rostrum reaching posterior margin of metasternum ..... ***Antanambecoris*** Brailovsky

Genus *Antanambecoris* Brailovsky, 2001

Antanambecoris Brailovsky, 2001: 627-628.

Redescription

Body medium-sized.

Head

Tylus and juga unarmed; antenniferous tubercle unarmed, protruding, never contiguous; antennal segment I robust, thickest, slightly curved outward, not sulcated or flattened; segments II and III cylindrical, IV fusiform; antennal segment II the longest or subequal to IV, III the shortest, I shorter or subequal to IV; preocellar pit obliquely deep; eyes globose, protuberant; postocular tubercle absent; rostrum reaching middle third of mesosternum.

Thorax

Pronotum. Almost flat; frontal and humeral angles obtuse, not exposed; calli entire, not raised, separated at midline by short longitudinal furrow; anterior margin smooth; anterolateral and posterolateral borders obliquely straight, smooth; posterior border smooth, weakly convex; posterior margin with an irregular and low transverse ridge; anterior and posterior lobe of pronotal disk lack tubercles; mesosternum flat, with median sulcus at anterior portion; metasternum rectangular, flat; anterior lobe of metathoracic peritreme oval, raised, posterior lobe, raised, short, and obtuse; canal short, semicircular, with raised sides; evaporative area well developed.

Legs. Fore and middle femora robust, ventrally armed with two subdistal spines, and one inner row of three to four spines or tubercles, dorsal surface smooth; hind femur of both sexes incrassate, more in males, dorsally smooth, ventrally with two subdistal spines and one inner row of five to six stout spines or tubercles; fore and middle tibiae unarmed, sulcate; male hind tibia flattened, with outer margin sulcate, not expanded, and inner margin weakly expanded and apically armed with a single broad, long spine; female hind tibia similar, but apically unarmed.

Scutellum. Wider than long, flat; apex subacute; lateral margins emarginate.

Hemelytra. Macropterous, extending beyond the apex of last abdominal segment; costal margin emarginate; apical margin obliquely straight with apical angle narrow, long, but not extending beyond middle third of hemelytral membrane.

Abdomen

Gradually expanded, widest point beyond segments V and VI, and compressed between segments VII and IX; connexivum elevated above terga, and posterior angle unarmed; abdominal spiracle closer to middle third.

Male *genitalia*. Genital capsule. Posteroventral edge straight, with small concavity at middle third. Female *genitalia*. Plica triangular; fissura short, barely reaching middle third of segment, inner margin overlapping. Genital plates: gonocoxae I subtriangular, upper border rounded; paratergite VIII quadrangular; paratergite IX subquadrate.

Integument

Body rather dull, not tuberculate, covered with short decumbent whitish bristle-like setae; head, calli, prosternum, mesosternum, metasternum, connexivum, and abdominal sterna impunctate; pronotum, acetabulae, clavus, and corium densely punctate; propleuron, mesopleuron, and metapleuron scarcely punctate; scutellum transversely striate; antennal segments and legs with intermixed, short and long, decumbent to suberect, whitish setae.

Comments

Externally the genus resembles *Physomerus* Burmeister, which is distributed in India and the Indonesian and Pacific islands, such as Borneo, Java, Sumatra, the Philippines, and the Mollucas. In *Physomerus*, the humeral angles in males form spines (obtuse angles in females), the dorsal face of hind femur, and the abdominal sterna III and IV are densely tuberculate, the inner face of male hind tibia has a long and robust spine close to middle third, whereas the inner face in females is entirely dentate. In *Antanambecoris* Brailovsky, known only from Madgascar, the humeral angles in both sexes are obtuse, the dorsal face of hind femur and the abdominal sterna III and IV are non-tuberculate, smooth, and the hind tibia in both sexes lack strong spines or denticles.

Type species

Antanambecoris pronotalis Brailovsky, 2001.

Antanambecoris pronotalis Brailovsky, 2001

(Fig. 3)

Antanambecoris pronotalis Brailovsky, 2001: 628-631.

Type material

Holotype ♂: MADAGASCAR EAST: Antanambe, 1898 (*MOCQUERYS*) (MNHN).

Paratype ♀: MADAGASCAR EAST: District Mananara N, Antanambe, VII (*VADON, PEYRIERAS*) (MNHN).

Redescription

Male

Measurements. Head: length 1.62 mm; width across eyes 2.40 mm; interocular distance 1.37 mm; length antennal segments: I, 3.20 mm, II, 3.30 mm, III, 2.25 mm, IV,

3.30 mm. Pronotum: length 3.45 mm, width across humeral lobes 4.35 mm. Scutellum: length 1.50 mm, width 1.70 mm. Body length 15.76 mm.

Dorsal color. Head, and antennal segments I to III dark orange; antennal segment IV pale oronge; pronotum shiny dark orange, except middle third of posterior margin with yellow discoidal spot covered with black hemispheric spot; scutellum dark reddish with lateral margins and apex yellowish orange; clovus and corium shiny dark chestnut orange except anal margin, and corial veins shiny chestnut yellow; hemelytral membrane dark ambarine; connexival segments III to V reddish orange, VI black with anterior and posterior angle yellow, and VII yellow with reddish brown spot close to posterior margin; dorsal abdominal segments black with scars of segments IV-V, and V-VI yellow.

Ventral color. Head dark orange; rostral segments (apex of IV black), fore and middle legs, prosternum, mesosternum, and metasternum pale orange; propleuron, mesopleuron, and metapleuron dark reddish orange; anterior and posterior lobes of metathoracic peritreme yellow; hind leg with coxae and trochanter pale orange, femora reddish brown with basal and apical third pale orange, tibiae with inner face pale orange and outer face reddish brown, and tarsi yellow with orange reflections; abdominal sterna and genital capsule reddish brown with chestnut orange reflections; pleural abdominal sterna III to VI reddish brown with anterior third yellow, and pleural sternite VII yellow with reddish brown spot close to posterior margin.

Female

Measurements. Head: length 2.13 mm; width across eyes 2.64 mm; interocular distance 1.45 mm; length antennal segments: I, 3.45 mm, II, 3.75 mm, III, 2.55 mm, IV, 3.45 mm. Pronotum: length 4.10 mm, width across humeral lobes 5.36 mm. Scutellum: length 1.70 mm, width 2.30 mm. Body length 18.68 mm.

Habitus and color similar to male. Connexival segments III to VI reddish brown with dark brown reflections, VII with anterior half yellow, and posterior half orange with posterior angle yellow, and segments VIII and IX orange; dorsal abdominal segments orange; genital plates shiny chestnut orange.

Variation

1 - Head ventrally, and prosternum, mesosternum, and metasternum pale yellow. 2 - Abdominal sterna shiny reddish orange.

Comments

This species, belonging to the monotypic genus *Antanambecoris* Brailovsky, is clearly distinguished by having the pronotum shiny dark chestnut orange, except the middle third of posterior margin with yellow discoidal spot covered with black hemispheric spot, and the scutellum dark reddish with lateral margins and apex yellowish orange.

Distribution

This species is known only from Madagascar.

Specimens examined. MADAGASCAR EAST: District Mananara N., Antanambe, 1898 (*MOCQUERYS*) (MNHN); District Mananara N, Antanambe, VII (*VADON, PEYRIERAS*) (MNHN); 1 ♀, Andrakamba, Dandrakatoa (Tananara) [without date] (MNHN); 1 ♂, Baie d'Antongil [without date] (*MOCQUERYS*) (MNHN); 1 ♀, Vohémar [without date] (NMPC).

Genus *Acanthocoris* Amyot et Audinet-Serville, 1843

Acanthocoris Amyot et Audinet-Serville, 1843: 213-214.

Redescription

Body medium-sized, robust.

Head

Armed with eight or more short, robust tubercles; tylus armed with one or more rows of irregular stout tubercles, and basally with one large, stout spine, directed upward and forward; juga unarmed; antenniferous tubercles protruding, unarmed or armed with short tubercles, non contiguous, and the space between them filled by tylus; antennae shorter than total body length; antennal segment I thickest, strongly, shortly spinated; antennal segments II and III robust (less than antennal segment I), cylindrical, shortly spinate; apical third of antennal segment III with or without large stout spine, and segment IV fusiform, unarmed; antennal segment II the longest, IV the shortest, and III subequal to I; preocellar pit deep; eyes hemispheric, protuberant; postocular tubercle protuberant; rostrum reaching posterior margin of mesosternum.

Tharax

Pronotum. Declivent; anterior margin strongly tuberculate; frontal angles obtuse, not exposed; anterolateral borders obliquely straight, uniformly tuberculate or dentate; humeral angles quadrate, slightly exposed apicad, with outer border truncated, and slightly crenulate (Fig. 2); posterolateral borders obliquely straight, weakly crenulate; posterior border straight, smooth; calli slightly swollen, separated at midline by wide longitudinal furrow; posterior margin with low, irregular transverse ridge; pronotal disk posteriorly densely tuberculate; mesosternum not sulcate; metasternum rectangular, flat, densely tuberculate; anterior and posterior lobe of metathoracic peritreme raised, short, auriculiform; canal wide open, oval, with raised sides; evaporative area well developed.

Legs. Fore and middle femora robust, short, ventrally armed with double row of stout spines, dorsally scattered with low tubercles, and apically with one large and stout spine, directed upward, and forward; hind femur strongly incrassate in both sexes, especially in males, with ridge of blunt tubercles along dorsal surface, and each tubercle with a spinule, and ventrally with basal half tuberculate, and distal half with ventral surface emarginate, and armed with one row of strong, stout, and multiple spines, and dorsal surface not emarginate, and armed with four to five stout, large spines; fore and middle tibiae short, robust, inner margin slightly dilated, unarmed, and outer margin sulcate, not dilated, and armed with two rows of stout tubercles; hind tibiae elongate, slightly dilated, and armed at inner margin, and sulcate, not dilated, and armed with two rows of stout spines at outer margin (Fig. 2).

Scutellum. Wider than long or longer than wide; anterior half depressed, and posterior half raised, and armed with two rows of small tubercles; apex globosus; scutellar disk with T-shaped elevation.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate; apical margin obliquely straight, with apical angle not extending beyond middle third of the hemelytral membrane.

Abdomen

Dilated; connexivum elevated above tergum, with upper margin armed with double row

of tiny tubercles; posterior angle of each connexival segment unarmed; dorsal abdominal segment VII in males straight, in females weakly concave; abdominal sterna tuberculate; abdominal spiracles closest to anterior edge, and far from lateral edge.

Female *genitalia*. Plica U-shaped, narrow, and close to posterior margin of abdominal sternite VI; fissura well developed, with inner margins overlapping. Genital plates: gonocoxae I subtriangular, upper border rounded; paratergite VIII triangular; paratergite IX rectangular, longer than paratergite VIII; outer borders of paratergites VIII and IX smooth.

Male *genitalia*. Genital capsule: Posterolateral angles narrowly produced and between them a wide medial projection. Paramere: Fig. 1a, b.

Integument

Body rather dull, and densely covered with short decumbent to suberect golden bristle-like setae.

Comments

This genus can be placed near *Petalocnemis* Stål as they are similar in the following characters: fore and middle tibiae short, irregularly tuberculate and spinated, antennal segment I and tylus conspicuously spinate to tuberculate, and antennal segment I cylindrical, and relatively slender. *Acanthocoris* can be easily distinguished by having the apex of antennal segments II and III not dilated, antennal segment II the longest, outer margin of antenniferous tubercles unarmed or with short tubercles, middle third of head in dorsal view and middle third of pronotal disk simple, without raised longitudinal stripe like-rib, upper margin of connexivum with double row of tiny tubercles, posterior angles of connexival segments unarmed, and hind tibiae elongate, feebly dilated at inner margin, and sulcate and not dilated at outer margin. In *Petalocnemis,* the apices of antennal segments II and III are dilated; antennal segment III the longest; outer margin of antenniferous tubercles armed with large and stout spine; middle third of head in dorsal view, and middle third of pronotal disk with narrow and raised longitudinal stripe-like rib; upper margin of connexivum armed with large, stout tubercle like-spines; posterior angles of connexival segments armed with large, stout, bifid tubercles; and hind tibiae conspicuously dilated at inner and usually at outer margin. Only one species, *A. tibialis* Signoret, is known from Madagascar.

Type species

Coreus scabrator Fabricius, 1803.

Acanthocoris tibialis Signoret, 1860

(Figs 1a, b; 2)

Acanthocoris tibialis Signoret, 1860: 945.

Type material

Madagascar: no locality given; not examined.

Redescription

Male

Measurements. Head: length 1.06 mm; width across eyes 1.44 mm; interocular distance 0.96 mm; length antennal segments: I, 1.80 mm, II, 1.92 mm, III, 1.70 mm, IV,

1.24 mm. Pronotum: length 2.40 mm, width across humeral lobes 3.44 mm. Scutellum: length 1.40 mm, width 1.36 mm. Body length 10.25 mm.

Dorsal color. Dark to reddish brown; antennal segment I reddish brown, II and III pale orange castaneus, and IV yellowish orange; scutellum shiny reddish brown with yellowish white longitudinal stripe basally, and apically yellow; hemelytral membrane yellowish brown; connexivum reddish brown, with anterior third of connexival segment VII yellow; dorsal abdominal segments shiny orange.

Ventral color. Dark to reddish brown, with following areas yellow: anterior and posterior lobe of metathoracic peritreme, rectangular or irregular spot near the middle third of each tibiae, and anterior third of pleural abdominal sternite VII; rim of abdominal spiracle reddish brown.

Female

Measurements. Head: length 1.18 mm; width across eyes 1.60 mm; interocular distance 1.14 mm; length antennal segments: I, 2.04 mm, II, 2.28 mm, III, 2.08 mm, IV, 1.40 mm. Pronotum: length 2.68 mm, width across humeral lobes 4.35 mm. Scutellum: length 1.76 mm, width 1.88 mm. Body length 12.15 mm.

Habitus and color similar to male. Connexival segments VIII and IX, and dorsal abdominal segments VIII and IX reddish brown; ventral surface dark orange.

Variation

1 - Antennal segment IV dark yellowish orange.

Comments

Acanthocoris tibialis is distinguished by having the humeral lobes quadrate, with outer border truncated and feebly tuberculate, and connexival segments and pleural abdominal sterna reddish brown except the anterior third yellow.

Distribution

This species, originally described from Madagascar, is also recorded from South Africa (SIGNORET 1860; STÅL 1865).

Specimens examined. MADAGASCAR: without data; 3 ♂, 1 ♀. ANJOUAN, Remani, 800 m, IX.1958 (*RAHARIZONINA*) (MNHN, UNAM).

Genus *Choerommatus* Amyot et Audinet-Serville, 1843

Choerommatus Amyot et Audinet-Serville, 1843: 204.

Redescription

Body

Small to medium-sized, slender to robust, dorsoventrally flattened.

Head

Tuberculate; tylus armed with one or more rows of irregular, short to large stout tubercles; juga armed with short tubercles; antenniferous tubercles not clearly protruding, densely tuberculate, not contiguous, and the space between them filled by tylus; antennal segment I thickest, quadrate to subquadrate, with dense, short tubercles; antennal segment II and III robust (less than antennal segment I), cylindrical, with short tubercles; antennal

segment IV fusiform, unormed, except the basal third tuberculate; antennal segment IV the shortest, III usually the longest, and II longer than I; preocellar pit deep; ocelli close to eye; distance between ocelli to eye shorter than interocellar distance; ocellar tubercle slightly to remarkably raised; eyes hemispheric, small, weakly protuberant; postocular tubercle exposed, tuberculate; rostrum reaching posterior margin of mesosternum.

Thorax

Pronotum. Slightly declivent; frontal angles obtuse, not exposed; anterolateral borders obliquely straight, uniformly tuberculate; humeral angles quadrate, not exposed apicad, outer border truncate, feebly crenulate; posterolateral borders obliquely straight, smooth; posterior border straight, smooth; calli slightly swollen, separated at midline by narrow longitudinal furrow, sometimes difficult to see; posterior margin with low, irregular transverse ridge; posterior lobe at midline with wide longitudinal furrow; anterior margin, space between calli, and posterior lobe scattered tuberculate; mesosternum deeply sulcate; metasternum rectangular, flat, scattered tuberculate; anterior lobe of metathoracic peritreme raised, auriculiform, posterior lobe raised, slightly elongate; canal wide opened, oval, with raised sides; evaporative area small.

Legs. Fore and middle femora robust, short, ventral and dorsally abruptly armed with double row of stout and large tubercles; hind femora elongate, not strongly incrassate, ventrally armed with double row of tiny to short stout tubercles, dorsally with double row of irregular stout medium-sized tubercles; fore and middle tibiae short, robust, not dilated, with dense, robust tubercles; hind tibiae elongate, not dilated, outer margin sulcate, armed with double row of short tubercles, inner margin feebly crenulate, almost unarmed.

Scutellum. Wider than long or as long as wide; lateral borders emarginate; anterior half weakly depressed, posterior half raised, unarmed; apex globose to truncated; scutellar disk with T-shaped elevation.

Hemelytra. Macropterous to submacropterous, reaching the apex of last abdominal segment or anterior border of abdominal segment VII; costal margin emarginate, crenulate; apical margin obliquely straight, and apical angle not extending beyond middle third of hemelytral membrane; veins of hemelytral membrane densely reticulate.

Abdomen

Male. Narrower, elongately ovate or relatively dilated; connexivum elevated above terga, with upper margin sulcated, feebly crenulate; posterior angle of each connexival segment unarmed; posterior border of abdominal segment VII widely opened, middle third straight to concave, and lateral lobes sharply prominent, with triangular expansion, apically rounded; abdominal sterna with small tubercles; abdominal spiracle raised, closest to lateral edge, far from anterior edge; abdominal spiracle III usually visible in dorsal view.

Male *genitalia*. Genital capsule: Posteroventral edge simple, not exposed, uniformly rounded. Paramere: Fig. 1c-h.

Female. Abdomen strongly dilated, broadly ovate; connexivum remarkably raised above terga, upper margin sulcated, feebly crenulate; posterior angle of each connexival segment unarmed; lateral angles of abdominal segment VII large, apically subtruncate, slightly directed outward, middle third straight; lateral angles of abdominal segment VIII large, triangular, apically rounded, middle third straight; abdominal segment IX

U-shaped, lateral lobes elongated, far or close from each other, robust, and the space between them elongated, and widely opened; abdominal sterna with sparse, small tubercles; abdominal spiracle raised; abdominal spiracle III and VII closest to lateral edge, far from anterior edge, and spiracles IV to VI closest to anterior edge, far from lateral edge; abdominal spiracle III usually visible in dorsal view.

Female *genitalia*. Plica U-shaped, wide, far from posterior margin of abdominal sternite VI; fissura well developed, inner margin not overlapping. Genital plates: gonocoxae I subquadrate, upper border straight, truncate; paratergite VIII triangular; paratergite IX elongated, narrowed, middle third constricted, apical half foliaceous, widened; sternite X circular, remarkably raised between paratergite IX.

Integument

Body rather dull, blackish, densely covered with white farinaceous marks or chestnut orange without withish farinaceous marks; body surface including antennal segments and legs with short to large-sized, erect, silvery, bristle-like setae. The whitish bloom condition is well preserved in newly matured and freshly caught individuals; it is easily rubbed off and often became greasy in specimens captured long time ago or after immersion in alcohol; hemelytral membrane light brown contrasting with dark veins; cells of the membrane with secondary venation giving to the wings a reticular aspect.

Comments

Choerommatus resembles *Acanthocoris* and *Petalocnemis*, in having the fore and middle tibiae irregularly tuberculate, and antennal segment I and tylus conspicuously tuberculate. However, *Choerommatus* can be distinguished from them by having the body dorso-ventrally flattened, eyes small, weakly protuberant, abdominal sternite X of female remarkably raised between paratergite IX, and antennal segment I stout and robust. On the other genera the body is not flattened dorsoventrally, the eyes are large-sized, the female abdominal sternite X is not raised between paratergite IX, and the antennal segment I is slender.

Seven species of *Choerommatus* have been described, and only one, *C. argillaceus* Stål, is recorded from Madagascar. In this contribution, two new species are added.

Type species

Choerommatus farinosus Amyot et Audinet-Serville, 1843.

Clé des espèces malgaches de Choerommatus

1. Tubercule des ocelles remarquablement proéminent ; couleur générale marron orangé, sans tache farineuse ; corps densément recouvert de soies dressées, courtes ou longues, semblables à des poils argentés ..... ***decoratus*** n. sp.

– Tubercule des ocelles faiblement proéminent ; couleur générale noirâtre, recouverte de marques farineuses ; corps non densément recouvert de soies dressées, courtes ou longues, semblables à des poils argentés **2**

2. Mâles **3**

– Femelles **4**

3. Submacroptère, les ailes atteignant le tiers antérieur ou médian du segment abdominal VII ; corps étroit, petit, inférieur à 9,5 mm de long ; abdomen relativement

étroit, d'un ovale allongé ; bord postérieur du segment abdominal VII largement échancré ; longueur de l'article antennaire I inférieure à 1 mm ..... ***argillaceus*** Stål

– Macroptère, les ailes atteignant presque l'apex du dernier segment abdominal ; corps robuste, de taille moyenne, longueur inférieure à 11 mm ; abdomen dilaté, d'un ovale large ; bord postérieur du segment abdominal VII non largement échancré (Fig. 4) ; longueur de l'article antennaire I supérieure à 1,20 mm ..... ***linnavuorii*** n. sp.

4. Submacroptère, les ailes atteignant le tiers antérieur ou médian du segment abdominal VII ; abdomen fortement dilaté ; angles latéraux du segment abdominal VII légèrement saillants ; lobes latéraux du segment abdominal IX divergents, l'espace entre-eux large ; stigmate abdominal III visible dorsalement ..... ***argillaceus*** Stål

– Macroptère, les ailes atteignant la marge antérieure du segment abdominal IX ; abdomen non fortement dilaté : angles latéraux du segment abdominal VII non saillants ; lobes latéraux du segment abdominal IX non divergents, et l'espace entre-eux étroit ; stigmate abdominal III non visible dorsalement ..... ***linnavuorii*** n. sp.

Key to Malagasy species of Choerommatus

1. Ocellar tubercle strongly raised; overall color chestnut orange, without withish farinaceous marks; body densely covered with short to large-sized erect, silvery, bristle-like setae ..... ***decoratus*** n. sp.

– Ocellar tubercle weakly raised; overall color blackish, densely covered with farinaceous marks; body not densely covered with short to large-sized erect, silvery, bristle-like setae **2**

2. Males **3**

– Females **4**

3. Submacropterous, hemelytra reaching anterior or middle third of abdominal segment VII; body narrow, small, shorter than 9.5 mm; abdomen narrow, elongately ovate; posterior border of abdominal segment VII wide opened; antennal segment I shorter than 1 mm ..... ***argillaceus*** Stål

– Macropterous, hemelytra almost reaching the apex of last abdominal segment; body robust, medium-sized, longer than 11 mm; abdomen dilated, broadly ovate; posterior border of abdominal segment VII not widely opened (Fig. 4); antennal segment I longer than 1.20 mm ..... ***linnavuorii*** n. sp.

4. Submacropterous, hemelytra reaching anterior or middle third of abdominal segment VII; abdomen strongly dilated; lateral angles of abdominal segment VII slightly directed outward; lateral lobes of abdominal segment IX far from each other, and the space between them widely opened; abdominal spiracle III visible in dorsal view..... ***argillaceus*** Stål

– Macropterous, hemelytra reaching anterior margin of abdominal segment IX; abdomen not strongly dilated; lateral angles of abdominal segment VII straight; lateral lobes of abdominal segment IX near to each other, and the space between them narrow; abdominal spiracle III not visible in dorsal view.... ***linnavuorii*** n. sp.

Choerommatus argillaceus Stål, 1865

(Fig. 1c, d)

Choerommatus argillaceus Stål, 1865: 61-62.

Type material

Lectotype ♂: MADAGASCAR: no locality given (NRES).

Redescription

Male

Measurements. Head: length 0.90-0.94 mm; width across eyes 1.18-1.21 mm; interocular distance 0.84-0.87 mm; length antennal segments: I, 1.06-1.08 mm, II, 1.26-1.28 mm, III, 1.54-1.56 mm; IV, 0.78-0.80 mm. Pronotum: length 1.97-2.01 mm, width 2.46-2.48 mm. Scutellum: length 0.94-0.96 mm, width 0.94-0.96 mm. Body length 9.78-9.92 mm. Body small, narrow, shorter than 9.50 mm.

Overall color blackish; apical half of antennal segment IV, and tarsi pale chestnut orange; dorsal abdominal segments III to VII (posterior margin of VII black) dark to pale reddish orange; prosternum, mesosternum, metasternum, and abdominal sterna III to VII black to dark reddish orange; anterior and posterior lobes of metathoracic peritreme and adjacent areas yellow; hemelytral membrane pale whitish-brown contrasting with dark veins; rim of abdominal spiracles dark white.

Structure. Antennal segment I subquadrate, shorter than 1.10 mm; antennal segment III the longest; ocellar tubercle weakly raised; scutellum as long as wide; submacropterous, reaching anterior or middle third of abdominal terga VII; abdomen narrow, elongately ovate; posterior border of abdominal segment VII widely opened, middle third straight to slightly concave, and lateral lobes exposed, rounded; abdominal spiracle III clearly visible in dorsal view.

Genitalia. Genital capsule: Posteroventral edge simple, not exposed, uniformly rounded. Paramere: Fig. 1c, d.

Female

Measurements. Head: length 1.00-1.04 mm; width across eyes 1.30-136 mm; interocular distance 0.92-1.00 mm; length antennal segments: I, 1.06-1.08 mm, II, 1.26-1.38 mm, III, 1.60-1.62 mm; IV, 0.80-0.92 mm. Pronotum: length 2.16-2.24 mm, width 2.60-2.76 mm. Scutellum: length 1.00-1.04 mm, width 1.00-1.04 mm. Body length 11.80-12.10 mm. Habitus and color similar to male. Body medium-sized, robust, longer than 11.00 mm; antennal segment I subquadrate, longer than 1.05 mm.

Submacropterous; abdomen broadly oval to strongly dilated; lateral angles of abdominal segment VII large, apically subtruncated, slightly directed outward, and middle third straight; abdominal spiracle III clearly visible in dorsal view; lateral angles of abdominal segment VIII large, triangular, apically rounded; abdominal segment IX "U"-shaped, lateral lobes elongated, far from each other, robust, and the space between them wide opened.

Comments

Like in *Ch. farinosus* with the female abdomen broadly ovate, and posterior border of male abdominal segment VII U-shaped. In *Ch. farinosus*, recorded from Chad and Senegal in the Ethiopian Continent, the male has the posterior border of abdominal segment VII not as wide opened, and the lateral lobes shorter; the female has the lateral lobes of

abdominal segment VII truncated, not exposed, and the lateral lobes of abdominal segment IX shorter and near to each other. In *Ch. argillaceus*, known from Madagascar and Mayotte Island, the posterior border of male abdominal segment VII are widely opened, and the lateral lobes prominent and expanded; the female has the lateral lobes of abdominal segment VII elongate, and laterally exposed, and the lateral lobes of abdominal segment IX elongate, and far from each other.

Distribution

This species, described from Madagascar, was first recorded from Diego Suárez and Tananarivo (Blöte 1935; Garcia Varela 1913; Linnavuori 1978; Stål 1865; Vollenhoven 1869). It is also known from Mayotte Island.

Specimens examined. Madagascar: 1 ♀; Madagascar [without data] (NRES). New records. Madagascar : 2 ♀♀, Tamatave (IRNB); 1 ♀, Adivoangy, XI. 1950 *(Vadon)* (MNHN); 27 ♂♂, 13 ♀♀, Rogez [without date] (NMPC); 6 ♂♂, 2 ♀♀, Vohémar [without date] (NMPC); 14 ♂♂, 3 ♀♀, Ampanefena [without date] (NMPC); 5 ♂♂, 1 ♀, Ambanja, Bas Sambirano, 29.VI.1948 *(A. R.)* (NMPC); 2 ♀♀, Ambodivoniha, around Vohémar [without date] (NMPC); 4 ♂♂, Anjouan, 800 m, IX.1958 (Raharizonina) (MNHN, UNAM); 1 ♂, 1 ♀, Boeni, Maevatanana, 1901 *(J. Decorse)* (MNHN); 1 ♂, région de Sakarami, 1905 (MNHN); 4 ♂♂, 6 ♀♀, Region South-East, Vallée du Fanjahira, XII.1901 *(Ch. Alluaud)* (MNHN); 1 ♂, 1 ♀, île de Nossi-Bé, Helleville, IX. 1933 (ZMAS); 1 ♀, région de l'Androy, Ambovombe, 1901 *(J. Decorse)* (MNHN); 1 ♂, Maroantsetra, Ambodivoangy [without date] (MNHN); 3 ♂♂, Ampijoroa, Tsaramandroso [without date] (MNHN).

Choerommatus decoratus n. sp.

(Fig. 1e, f)

Type material.

Holotype ♂: Madagascar South: Bekily, VI.1936 *(A. Seyrig)* (MNHN).

Paratypes: Madagascar: 1 ♀, Ambanja [without date] (NMPC); 1 ♂, Mahitsikakazo, 180 m, II.1973 *(A. Peyrieras)* (MNHN); 1 ♂, Forêt d'Ambre et Maevatanana, 1907 *(Cervoni)* (UNAM).

Derivatio nominis

From the Latin word, *decorus*, meaning colorfull, refering to the chestnut-orange color.

Description

Male holotype

Measurements. Head: length 0.98 mm; width across eyes 1.40 mm; interocular distance 1.02 mm; length antennal segments: I, 1.08 mm, II, 1.48 mm, III, 1.52 mm; IV, 0.92 mm. Pronotum: length 2.32 mm, width 3.00 mm. Scutellum: length 1.08 mm, width 1.22 mm. Body length 11.00 mm. Body medium-sized, narrow, longer than 11.00 mm.

Overall color pale to dark chestnut orange; antennal segment IV shiny orange, basally dark chestnut orange; hemelytral membrane pale whitish-brown, contrasting with dark veins; legs dark chestnut orange; anterior and posterior lobes of metathoracic peritreme pale chestnut orange, adjacent areas dark brown; dorsal abdominal segments shiny orange; rim of abdominal spiracle white.

Structure. Antennal segment I subquadrate, elongate, longer than 1.00 mm; antennal segment III longer than II; ocellar tubercle remarkably raised; scutellum wider than long; macropterous, reaching or extending beyond the apex of last abdominal segment; abdomen narrowly dilated; posterior border of abdominal segment VII widely opened, middle third semicircular, and lateral lobes exposed, rounded; abdominal spiracle III not visible in dorsal view.

Genitalia. Genital capsule: posteroventral edge simple, not exposed, uniformly rounded. Paramere: Fig. 1e, f.

Female paratype

Measurements. Head: length 1.15 mm; width across eyes 1.44 mm; interocular distance 0.96 mm; length antennal segments: I, 1.24 mm, II, 1.56 mm, III, 1.76 mm; IV, 0.94 mm. Pronotum: length 2.40 mm, width 2.80 mm. Scutellum: length 1.16 mm, width 1.20 mm. Body length 13.25 mm. Body medium-sized, elongate, longer than 12 mm.

Color. Similar to male holotype.

Antennal segment I subquadrate, elongate, longer than 1.00 mm; submacropterous, reaching posterior margin of abdominal segment VII; abdomen narrowly ovate, dilated; lateral angles of abdominal segment VII large, directed outward, straight, apically acute; abdominal spiracle III visible in dorsal view; lateral angles of abdominal segment VIII large, triangular, apically subacute; abdominal segment IX U-shaped, lateral lobes elongate, robust, widely separated.

Variation

1 - Anterior and posterior lobe of metathoracic peritreme, and adjacent areas pale chestnut orange. 2 - Posterior angles of abdominal segments III to VII yellow.

Comments

Choerommatus decoratus n. sp. can be distinguished from other described species by having the ocellar tubercle conspicuously raised, the overall color chestnut orange, lacking farinaceous marks, and body surface densely covered with short to large-sized erect, bristle-like setae. In the other species, the ocellar tubercle is weakly raised, the overall color is blackish and densely covered with farinaceous marks, and the body surface is not densely covered with bristle-like setae.

Distribution

This species is known only from Madagascar.

Choerommatus linnavuorii n. sp.

(Figs 1g, h; 4)

Type material

Holotype ♂: MADAGASCAR EAST: District Mananara N, Mont Antampona [without date] (*VADON ET PEYRIERAS*) (MNHN).

Paratypes: MADAGASCAR EAST: 1 ♂, District Mananara N, Mont Antampona [without date] (*VADON et PEYRIERAS*) (UNAM). MADAGASCAR: 1 ♀, East Coast, 1901 (*CH. ALLUAUD*) (MNHN); 1 ♀, Mahafaly, Lovokampy [without date] (MNHN); 1 ♂, 3 ♀♀, Vohémar [without date] (NMPC, UNAM); 1 ♀, Miandrivazo, I.1943 (*J. HERRMANN*) (NMPC).

Derivatio nominis

Named for Ruano Linnavuori, distinguished Finnish entomologist.

Description

Male holotype

Measurements. Head: length 1.04 mm; width across eyes 1.28 mm; interocular distance 1.04 mm; length antennal segments: I, 1.40 mm, II, 1.60 mm, III, 1.60 mm; IV, 1.20 mm. Pronotum: length 2.60 mm, width 3.20 mm. Scutellum: length 1.18 mm, width 1.20 mm. Body length 12.52 mm. Body medium-sized, robust, longer than 11.00 mm.

Overall color dark brown; apical half of antennal segment IV dark reddish brown; tarsi dark reddish orange; hemelytral membrane pale whitish-brown, contrasting with dark veins; anterior and posterior lobes of metathoracic peritreme and adjacent areas dark orange; dorsal abdominal segments III to VI dark reddish, and VII dark reddish with posterior margin black; rim of abdominal spiracle dark white.

Structure. Antennal segment I subquadrate, longer than 1.25 mm; ocellar tubercle weakly raised; scutellum wider than long; macropterous, almost reaching the apex of last abdominal segment; abdomen dilated, broadly ovate; posterior border of abdominal segment VII opened, middle third rather deep, lateral lobes roundly prominent; abdominal spiracle III visible in dorsal view.

Genitalia. Genital capsule: posteroventral edge simple, not exposed, uniformly rounded. Paramere: Fig. 1g, h.

Female paratype

Measurements. Head: length 1.14 mm; width across eyes 1.60 mm; interocular distance 1.18 mm; length antennal segments: I, 1.46 mm, II, 1.84 mm, III, 1.80 mm; IV, 1.22 mm. Pronotum: length 2.76 mm, width 3.70 mm. Scutellum: length 1.40 mm, width 1.40 mm. Body medium-sized, robust, longer than 12.00 mm.

Color. Similar to male holotype.

Structure. Antennal segment I subquadrate, longer than 1.25 mm; antennal segment II the longest; scutellum equilateral, as long as wide; macropterous, reaching anterior margin of abdominal segment IX; abdomen broadly ovate, dilated; lateral angles of abdominal segment VII large, straight, apically rounded, and middle third straight; abdominal spiracle III not visible in dorsal view; lateral angles of abdominal segment VIII large, triangular, apically rounded; abdominal segment IX U-shaped, lateral lobes elongated, robust, nearly contiguous, and the space between them narrow.

Variation

1 - Body blackish. 2 - Prosternum, mesosternum, metasternum, and abdominal sterna III to V dark hazel orange.

Comments

This species resembles *Ch. argillaceus* in general appearance, with ocellar tubercle weakly raised, body rather dull, blackish, and densely covered with farinaceous marks, and surface not densely covered with silvery, bristle-like setae. However, it is separable from the latter by the following characters (its opposite characters given in parentheses). The male of *Ch. linnavuorii* n. sp. has the body length longer than 11 mm (9.5 mm),

antennal segment I longer than 1.20 mm (1.00 mm, or less), abdomen dilated, broadly ovate (abdomen narrow, elongately ovate), posterior border of abdominal segment VII not widely opened (posterior border of abdominal segment VII widely opened), and for the macropterous condition (submacropterous). The female is recognized by the macropterous condition (submacropterous), abdomen dilated (abdomen strongly dilated), lateral angles of abdominal segment VII straight (lateral angles slightly directed outward), lateral lobes of abdominal segment IX near to each other, and the space between them narrow (lateral lobes far from each other, and the space between them wide opened, and abdominal spiracle III not visible in dorsal view (visible in dorsal view).

Distribution

This species is known only from Madagascar.

Genus *Petalocnemis* Stål, 1853

Petalocnemis Stål, 1853: 259.

Redescription

Body medium-sized, robust.

Head

Armed with eight or more short and robust tubercles; head dorsally at middle third with narrow and raised longitudinal carina; armed with one or more rows of irregular stout tubercles, and basally with one large and stout spine, directed upward and forward; juga unarmed; antenniferous tubercles protruding, outer border armed with one or two large and stout tubercles, non contiguous, and the space between them filled by tylus; antennal segment I thickest, with dense, short spines; antennal segments II and III robust (less than antennal segment I), cylindrical, with short spines, with apical third narrowly dilated, and densely tuberculate, and segment IV fusiform, unarmed (Figs 5; 6); antennal segment III the longest, IV the shortest, and II usually longer than I; preocellar pit deep; ocelli far from eye; distance between ocelli to eye longer or equal to the interocellar distance; eyes hemispheric, protuberant; postocular tubercle protuberant; rostrum reaching posterior margin of mesosternum.

Thorax

Pronotum. Declivent; anterior margin tuberculate; frontal angles obtuse, not exposed; anterolateral borders obliquely straight, tuberculate; humeral angles strongly exposed apicad, with outer border truncate (Fig. 5), or rather small, and weakly exposed (Fig. 6); posterolateral borders obliquely straight, densely crenulate; posterior border straight, smooth; calli entire, weakly raised, separated at midline by narrow and raised longitudinal carina-like rib; posterior margin with low, irregular transverse ridge; pronotal disk posteriorly densely tuberculate; middle third of pronotal disk with narrow and raised longitudinal carina-like rib; mesosternum sulcated; metasternum rectangular, flat, densely tuberculate; anterior and posterior lobe of metathoracic peritreme raised, short, auriculiform; canal wide open, oval, with raised sides; evaporative area well developed.

Legs. Fore and middle femora robust, short, ventrally armed with double row of stout spines, dorsally with scattered low tubercles, and apically with one large and stout spine, directed upward, and forward; hind femur strongly incrassate in both sexes, especially in male, with ridge of blunt tubercles along dorsal surface, and each tubercle armed with

a spinule, and ventrally with basal half tuberculate, and distal half with ventral surface emarginate, and armed with one row of strong, stout, and multiple spines; dorsal surface not emarginate, and armed with four to five stout, large spines; fore tibiae short, robust, inner and outer margin widely dilated, inner margin unarmed, and outer margin armed with one row of large and stout tubercles; middle tibiae short, robust, inner margin narrowly dilated, unarmed, and outer margin not dilated, and armed with two rows of stout tubercles; hind tibiae with outer and inner margins dilated, and variable throughout the species (Figs 5; 6); undilated portion of hind tibiae densely tuberculate, with spines along the entire surface.

Scutellum. Wider than long; anterior half depressed, and posterior half raised, and armed with two rows of small tubercles; apex globosus; scutellar disk with T-shaped elevation.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate; apical margin obliquely straight, with apical angle not extending beyond middle third of the hemelytral membrane.

Abdomen. Dilated; connexivum elevated above tergum, with upper margin densely tuberculate, with large and stout tubercles; posterior angle of each connexival segment armed with strong, stout, bifid tubercles; posterior border of abdominal segment VII in males straight, in females feebly concave; abdominal sterna tuberculate; abdominal spiracles closest to anterior edge, and far from lateral edge.

Male *genitalia*. Genital capsule: Posteroventral edge simple, not exposed, variable. Paramere: Fig.1k-n.

Female *genitalia*. Plica U-shaped, narrow, and close to posterior margin of abdominal sternite VI; fissura well developed, with inner margins overlapping. Genital plates: gonocoxae I subtriangular, with upper border rounded; paratergite VIII triangular; paratergite IX rectangular, longer than paratergite VIII; outer border of paratergites VIII and IX densely tuberculate.

Integument

Body rather dull, and densely covered with short, decumbent to suberect, golden, bristle-like setae.

Comments

This genus is similar to *Acanthocoris*, but can be distinguished from it by the features given in the comments of that genus. Two species are known from Madagascar.

Type species

Acanthocoris pachycera Stål, 1855.

Clé des espèces malgaches de Petalocnemis

1. Corie brun rougeâtre foncé ; moitié basale des tibias postérieurs avec des dilatation foliacées sur les faces inférieure et supérieure, et plus ou moins de mêmes longueur et largeur (Fig. 5) ; angles huméraux fortement proéminents apicalement, bord externe tronqué (Fig. 5) ; tiers apical de l'article antennaire III faiblement dilaté (Fig. 5)..... ***dilatatus*** (Garcia Varela) n. comb.

– Corie jaune, avec la moitié antérieure et l'angle apical grisâtre brun rouge ; moitié basale des tibias postérieurs non foliacée (Fig. 6) ; angles huméraux plutôt petits, faiblement proéminents (Fig. 6) ; tiers apical de l'article III des antennes fortement dilaté, obové (Fig. 6) ..... ***inconditus*** n. sp.

Key to Malagasy species of Petalocnemis

1. Corium dark reddish brown; basal half of hind tibiae with outer and inner dilation foliaceous, and more or less same width and same length (Fig. 5); humeral angles strongly exposed apicad, outer border truncated (Fig. 5); apical third of antennal segment III slightly dilated (Fig. 5) ..... ***dilatatus*** (Garcia Varela) n. comb.

– Corium yellow with anterior half and apical angle greyish red brown; basal half of hind tibiae not foliaceous (Fig. 6); humeral angles rather small, weakly exposed (Fig. 6); apical third of antennal segment III strongly dilated, obovate (Fig. 6)..... ..... ***inconditus*** n. sp.

Petalocnemis dilatatus (Garcia Varela, 1913) n. comb.

(Figs 1m, n; 5)

Acanthocoris dilatatus Garcia Varela, 1913: 27.

Type material

Holotype ♀: MADAGASCAR: Diego Suárez [without date] (MNCN).

Redescription

Male

Measurements. Head: length 1.24 mm; width across eyes 1.48 mm; interocular distance 1.02 mm; length antennal segments: I, 1.92 mm, II, 2.16 mm, III, 2.24 mm, IV, 1.38 mm. Pronotum: length 2.54 mm, width across humeral lobes 4.92 mm. Scutellum: length 1.48 mm, width 1.52 mm. Body length 10.75 mm.

Dorsal color. Dark to reddish brown, with yellowish-white longitudinal stripe from apex to anterior half of pronotum; antennal segment I pale reddish orange, with one or two dark reddish-brown longitudinal stripes; antennal segments II and III pale reddish orange with apical third darker, and IV pale yellowish orange; callar area black to dark reddish brown; scutellum dark reddish brown with yellowish-white longitudinal stripe in middle of basal third; hemelytral membrane white, with basal third, and several discoidal spots scattered on the middle and apical third brown; dorsal abdominal segments shiny pale orange.

Ventral color. Dark to reddish brown; apex of rostral segment IV black; anterior and posterior lobe of metathoracic peritreme dark yellow; inner dilation of tibiae with large dark yellow to yellowish-orange discoidal or irregular spots; tarsi pale yellowish orange.

Structure. Apical third of antennal segments II and III slightly dilated, and tuberculate (Fig. 5); outer margin of antenniferous tubercles with distinct large spine; calli slightly swollen, and bordered with tubercles; humeral lobes strongly exposed apicad, outer border truncated, and armed with five large and stout tubercles (Fig. 5); posterolateral borders of pronotum with large and stout tubercles; hind tibiae foliaceous in basal half, rather slender to gracile apically; outer dilation lanceolate, sulcate, armed with two

rows of short tubercles, and more or less the same width as inner dilation; inner dilation lanceolate, as long as outer dilation, armed with two rows of short tubercles; undilated portion of hind tibiae densely tuberculate, with spines along the entire surface; base of scutellar disk strongly concave, apex scarcely swollen; clavus and corium minutely tuberculate; connexivum broad, conspicuously tuberculate.

Genitalia. Genital capsule: Posteroventral edge narrowly produced, uniformly rounded. Paramere: Fig. 1m, n.

Female

Measurements. Head: length 1.16 mm; width across eyes 1.42 mm; interocular distance 0.94 mm; length antennal segments: I, 1.76 mm, II, 1.98 mm, III, 2.08 mm, IV, 1.18 mm. Pronotum: length 2.56 mm, width across humeral lobes 5.00 mm. Scutellum: length 1.56 mm, width 1.48 mm. Body length 11.77 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates dark brown to reddish brown.

Comments

This species, originally included in the genus *Acanthocoris* Amyot et Audinet-Serville, is here transferred to *Petalocnemis* by having the apical third of antennal segments II and III dilated, middle third of head in dorsal view and middle third of pronotal disk with narrow and raised longitudinal carina-like rib, posterior angles of connexival segments armed with large, stout, bifid tubercles, and hind tibiae dilated on inner and outer margins.

Petalocnemis dilatatus n. comb. is clearly distinguished by having the outer and inner margin of hind tibiae at basal half clearly foliaceous, with outer dilation as long as inner dilation (Fig. 5), and humeral lobes of pronotum strongly exposed apicad, with outer border truncated and armed with five large, stout tubercles (Fig. 5).

Distribution

This species is endemic to Madagascar.

Specimens examined. MADAGASCAR: Diego Suárez. MADAGASCAR: 2 ♂♂, Pays Androy, Ambovombe, XI.1901 (*CH. ALLUAUD*) (MNHN); 1 ♂, Forêt d'Ambre et Maevatanana, 1907 (*CERVONI*) (MNHN); 6 ♂♂, 2 ♀♀, Madagascar [without data] (MNHN, NMPC, UNAM).

Petalocnemis inconditus n. sp.

(Figs 1k, l; 6)

Type material

Holotype ♂: MADAGASCAR: Province d'Antsiranana, Forêt d'Orangea, 3.6 km, 128°, SE Ramena, 90 m, 12°15'32"S-49°22'29"E, 22-28.II.2001 (*FISHER, GRISWOLD* et al.) (CASC).

Paratypes: MADAGASCAR: 1 ♂, 1 ♀, same data as male holotype (CASC, UNAM); 1 ♀, Province Diego Suárez, Sakalava Beach, 10 m, 12°15'46"S-49°23'51"E, VIII.2001 (R. Harin'Hala) (dwarf littoral forest, Malaise trap, across sandy trail) (CASC); 1 ♀, Province de Mahajanga, Parc National d'Ankarafantsika, Forêt de Tsimaloto, 18.3 km, 46°, NE de Tsaramandroso, 135 m, 16°13'41"S-46°08'37"E, 2-8.IV.2001 (*FISHER, GRISWOLD* et al.) (dwarf littoral forest, Malaise trap, across sandy trail) (CASC).

Derivatio nominis

From the Latin, *inconditus*, meaning irregular, refering to the irregular tubercles on the body.

Description

Male holotype

Measurements. Head: length 1.08 mm; width across eyes 1.32 mm; interocular distance 0.90 mm; length antennal segments: I, 2.00 mm, II, 1.90 mm, III, 2.04 mm, IV, 0.98 mm. Pronotum: length 2.08 mm, width across humeral lobes 2.72 mm. Scutellum: length 1.16 mm, width 1.12 mm. Body length 8.67 mm.

Dorsal color. Head and pronotum greyish red brown, with yellowish-white, longitudinal stripe from apex of head to posterior third of pronotum; antennal segments I to III greyish red brown, and IV pale yellowish orange; scutellum greyish red brown, with yellowish-white longitudinal stripe on middle of basal third, and black basally; clavus greyish red brown; corium yellow with anterior half and apical angle greyish red brown; hemelytral membrane greyish with inner and outer margin, and veins brown; connexivum greyish red brown; dorsal abdominal segments II to VI shiny orange, and VII greyish red brown, with basal margin shiny orange.

Ventral color. Greyish red brown; apex of rostral segment IV black; tarsi yellow; anterior and posterior lobes of metathoracic peritreme dark yellow; rim of abdominal spiracles black; pleural margin of sterna IV to VII dark orange.

Structure. Antennal segment II widely dilated apically, tuberculate; apical third of antennal segment III strongly dilated, obovate, tuberculate; outer margin of antenniferous tubercles with short, stout tubercles; pronotal disk tuberculate, with median longitudinal ridge continuing on scutellum; anterolateral borders of pronotum dentate; humeral lobes rather small, weakly exposed, not prominent (Fig. 6); posterolateral borders tuberculate; fore and middle femora strongly tuberculate; hind femur strongly incrassate, coarsely tuberculate, outer margin strongly expanded apicad; fore and middle tibiae flattened, with few large teeth on outer margin; hind tibiae basally with inner dilation subtriangular, apically rounded, and outer dilation restricted to short triangular expansion; apical half rather gracile, inner and outer margins dentate; base of scutellum slightly concave, apex scarcely swollen; connexivum broadly visible, minutely tuberculate.

Genitalia. Genital capsule: Posteroventral edge broad, median plate slightly concave, exposed, and lateral angles rounded to hemispheric. Paramere: Fig. 1k, l.

Female paratype

Measurements. Head: length 1.24 mm; width across eyes 1.48 mm; interocular distance 1.02 mm; length antennal segments: I, 2.20 mm, II, 2.36 mm, III, 2.44 mm, IV, 1.28 mm. Pronotum: length 2.64 mm, width across humeral lobes 3.60 mm. Scutellum: length 1.32 mm, width 1.32 mm. Body length 12.20 mm.

Habitus and color similar to male holotype. Corium with anterior half, and apical angle greyish red brown, and middle third yellow with three dark brown elongate marks; middle and hind tibiae with outer and inner margins greyish red brown, tinged with dark yellowish orange; connexival segments with anterior half dark yellow, and posterior half greyish red brown.

Variation

1 - Antennal segment III dark yellow, and apically pale brownish orange.

Comments

This species can be distinguished from the other described species of *Petalocnemis* by having the corium yellow with anterior half and apical angle greyish red brown, apical third of antennal segment III strongly dilated, obovate and tuberculate (Fig. 6), the basal half of hind tibiae with inner dilation subtriangular, apically rounded, and the outer expansion restricted to a small triangular projection, and the humeral lobes rather small (Fig. 6). In *P. dilatatus* n. comb., the only other species recorded from Madagascar, the corium is dark reddish brown, the apical third of antennal segment III is feebly dilated and tuberculate (Fig. 5), the basal half of hind tibia is conspicuously foliaceus and lanceolate at inner and outer margins, and the humeral lobes are strongly exposed apicad, with outer truncated border (Fig. 5).

Distribution

Known only from Madagascar.

Genus *Pluotenia* Brailovsky, 2001

Pluotenia Brailovsky, 2001: 624-625.

Redescription

Body medium-sized, robust.

Head

Tylus and juga unarmed; antenniferous tubercle unarmed, protruding, never contiguous; antennal segment I robust, thickest, slightly curved outward, non-sulcate or flattened; segments II and III cylindrical, flattened, IV fusiform; antennal segment II the longest, III the shortest, and I longer than IV; preocellar pit obliquely deep; eyes globose, protuberant; postocular tubercle absent; rostrum barely reaching posterior margin of mesosternum.

Thorax

Pronotum. Moderately declivent; frontal angles obtuse, not exposed; humeral angles produced laterally, ending in a sharp spine; calli entire, not raised, separated at midline by a short longitudinal furrow; anterior margin smooth; anterolateral borders obliquely straight, uniformly tuberculate; posterolateral borders sinuous, with outer third dentate, and inner third smooth; posterior border smooth, weakly convex; posterior margin with an irregular and low transverse ridge; anterior lobe of pronotal disk smooth, and posterior lobe densely tuberculate; mesosternum weakly convex, not sulcate, and anterior margin lacking longitudinal furrow; metasternum rectangular, flat; anterior lobe of metathoracic peritreme raised, auriculiform, and perpendiculary bending, posterior lobe pentalobulate; canal short, semicircular, with raised sides; evaporative area poorly developed.

Legs. Fore femur robust, ventrally armed with two subdistal spines, dorsally with scattered short tubercles; middle femur robust, ventrally armed with two subdistal spines, and one inner row of stout spines, dorsal surface densely tuberculate; hind femur incrassate in both sexes, especially in male, with ridge of blunt tubercles along dorsal surface, large subdistal tooth ventrally followed by two irregular rows of spines and tubercles; fore and

middle tibiae unarmed, sulcate; hind tibia recurved, S-shaped, outer margin sulcate, not expanded, inner margin slightly expanded, with anterior half finely dentate, posterior half conspicuously spinose.

Scutellum. Wider than long, flat; apex subacute; lateral margins emarginate.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate; apical margin obliquely straight, with apical angle narrower, extending beyond middle third of the hemelytral membrane.

Abdomen

Parallel-sided, slightly dilated posteriorly, between segments VI and VII; connexivum slightly elevated above terga, posterior angle unarmed, outer margin sparsely tuberculose; abdominal sterna conspicuously tuberculose; abdominal spiracle closer to middle third.

Male *genitalia*. Genital capsule: posteroventral edge subacuminate, with deep V-shaped concavity at middle third; lateral to the midline with conspicuous longitudinal depression.

Female *genitalia*. Plica U-shaped, narrow, and close to posterior margin of sternite VI; fissura well developed, inner margins overlapping. Genital plates: gonocoxae I subtriangular, upper border rounded; paratergite VIII triangular; paratergite IX rectangular.

Integument

Body rather dull, covered with short decumbent to suberect whitish bristlelike setae; posterior lobe of pronotal disk, propleuron, mesopleuron, metapleuron, and abdominal sterna conspicuously tuberculate; head, pronotum, prosternum, mesosternum, metasternum, scutellum, connexivum, abdominal sterna, and male and female genitalia impunctate; collar in ventral view, posterior margin of metapleuron, acetabulae, clavus, and corium finely punctate; collar in dorsal view, calli, and anterior lobe of pronotal disk smooth; antennal segments and legs with intermixed, short and long, decumbent to suberect whitish setae.

Comments

Similar to the genera *Acanthocoris* and *Choerommatus* in having the posterior lobe of pronotal disk coarsely tuberculate, and the humeral angles acute, never obtuse and rounded. In the genus *Pluotenia*, the fore and middle tibiae, antennal segment I, tylus, and the dorsal surface of head are smooth, lacking the tubercles and spines present in the other two genera. In *Pluotenia*, the abdomen is parallel-sided, and not expanded laterally as seen in *Acanthocoris* and *Choerommatus* in which the connexivum extended and bent upward.

Type species

Pluotenia pulla Brailovsky, 2001.

Pluotenia pulla Brailovsky, 2001

(Fig. 8)

Pluotenia pulla Brailovsky, 2001: 625-626.

Type material

Holotype ♂: MADAGASCAR: Diego Suárez [without date] (MNCN).

Paratype ♀: Hera Ankazoabo [without date] (MNHN).

Redescription

Male

Measurements. Head: length 1.57 mm; width across eyes 2.05 mm; interocular distance 1.20 mm; length antennal segments: I, 2.70 mm; II, 3.20 mm; III, 2.42 mm; IV, 2.63 mm. Pronotum: length 3.40 mm, width across humeral angles 4.75 mm. Scutellum: length 1.55 mm, width 1.80 mm. Body length 15.60 mm.

Dorsal color. Head dark chestnut orange with space between ocelli and eyes dull yellow, anterior and inner margin of preocellar pit black; inner face of antennal segments I and II dark chestnut orange, outer face black; antennal segment III black with basal third yellow, and IV yellow; pronotum dark chestnut orange with tubercles, apex of humeral angle, and posterolateral border shiny reddish brown; scutellum chestnut orange with lateral margins dull orange, apex yellow; clavus chestnut orange; corium chestnut orange with veins and irregular spot located close to apical margin yellow; hemelytral membrane dark ambarine with veins brown to black; connexivum reddish brown with anterior margin and posterior border yellow; connexival segment VII reddish brown and only with anterior margin yellow; dorsal abdominal segments shiny orange.

Ventral color. Head dark chestnut orange with reddish-brown quadrangular spot lateral to midline; rostral segments reddish brown with apical joint between segments II and III and III and IV yellow; prosternum, mesosternum, and metasternum shiny orange; anterior half of acetabulae reddish brown and posterior half yellow with reddish-brown spots; propleuron and mesopleuron yellow with reddish- brown irregular stripes; metapleuron reddish brown with posterior margin yellow; anterior and posterior lobe of metathoracic peritreme dull orange; outer face of legs reddish brown, inner face dark chestnut orange; tubercles shiny orange to dark reddish brown; tibiae with single yellow ring close to middle third; abdominal sterna yellow with black tubercles; genital capsule yellow and basally dark brown.

Female

Measurements. Head: length 1.65 mm; width across eyes 2.15 mm; interocular distance 1.35 mm; length antennal segments: I, 2.40 mm, II, 2.75 mm, III, 2.05 mm, IV, 2.10 mm. Pronotum: length 3.80 mm, width across humeral angles 5.50 mm. Scutellum: length 1.74 mm, width 2.15 mm. Body length 17.50 mm.

Color similar to male.

Connexival segments VIII and IX reddish brown, with anterior and posterior margin yellow; dorsal abdominal segment VIII shiny orange with reddish-brown spot on middle third, and segment IX reddish brown; abdominal sternite VII yellow with dark brown irregular spots below plica; genital plates yellow.

Variation

1 - Posterior lobe of pronotal disk with median, broad, yellow, longitudinal stripe. 2 - Dorsal abdominal segment VII dark orange, with brown stripes laterally. 3 - Abdominal sterna with dark brown reflections.

Comments

This species belongs to the monotypic genus *Pluotenia* and is clearly distinguished by

having the humeral angles produced laterally, ending in a sharp spine, and each tibiae with single yellow ring near the middle third.

Distribution

This species was described from and is known only from Madagascar.

Specimens examined. MADAGASCAR: Diego Suárez and Hera Ankazoabo. New records. MADAGASCAR: 1 ♀, Rogez [without date] (NMPC).

Genus *Phelaus* Stål, 1865

Phelaus Stål, 1865: 49-50.

Redescription

Body large-sized, robust.

Head

Unarmed; tylus and juga unarmed; antenniferous tubercles protruding, unarmed, non contiguous, and the space between them filled by tylus; antennal segment I thickest; antennal segment II weakly flattened at apical third, segment III dilated at apical third, the dilation obovate in outline, and IV fusiform; frons deeply cleft medially; preocellar pit deep; ocelli close to eye; distance between ocelli to eye shorter than the interocellar distance; eyes hemispheric, protuberant; postocular tubercle contiguous, not exposed; rostrum reaching anterior border of mesosternum.

Thorax

Pronotum. Declivent; anterior margin weakly concave, smooth; frontal angles obtuse, not exposed; anterolateral borders obliquely straight, uniformly tuberculate; humeral lobes quadrate, exposed, outer border obtusely rounded; posterolateral borders straight, smooth; posterior border tiny convex, smooth; calli flat, separated at midline by wider longitudinal furrow armed with double row of tiny tubercles; posterior margin with low transverse ridge.

Mesosternum with median sulcus at anterior portion; mesosternum not sulcated; metasternum flat; anterior lobe of metathoracic peritreme raised, auriculiform, posterior lobe raised, elongately oval; canal raised, wide open, oval; evaporative area well developed.

Legs: Hind coxae widely separated; fore and middle femora robust, ventrally armed with double row of stout spines, dorsally with low tiny tubercles; hind femur recurved, strongly incrasssate in both sexes, especially in males, dorsally with double row of stout spines, and ventrally with stout basal spine, very large expansion near mid point armed with stout spines, and apically with double row of stout spines; fore and middle tibiae in both sexes sulcate, apically unarmed; hind tibia with outer surface sulcate, inner surface flattened, dilated, with triangular expasion near middle third; apical third armed with one row of short spines.

Scutellum. Wider than long, flat; apex subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate, smooth; apical margin obliquely straight, with apical angle not extending beyond middle third of hemelytral membrane.

Abdomen

Dilated; connexivum elevated above terga, with upper margin armed with double row of tiny tubercles; posterior angle of each connexival segment unarmed; posterior border of dorsal abdominal segment VII of males, straight, in females slightly concave; abdominal sterna non tuberculate; abdominal spiracles closest to anterior edge, far from lateral edge.

Male *genitalia*. Genital capsule: Posteroventral edge quadrate, middle third wide and straight, lateral angles exposed like short wing expansion. Paramere: Fig. 1i, j.

Female *genitalia*. Plica U-shaped, narrow, close to posterior margin of abdominal sternite VI; fissura well developed, inner margins overlapping. Genital plates: Gonocoxae I subtriangular, upper border rounded; paratergite VIII triangular; paratergite IX rectangular, longer than paratergite VIII; outer border of paratergite VIII and IX with tiny tubercules.

Integument

Body rather dull, covered with short decumbent, silvery, bristle-like-setae.

Comments

Like *Antanambecoris* with the fore and middle tibiae unarmed; antennal segment I and tylus smooth, lacking tubercles or spines; mesosternum with a median sulcus at anterior portion, and humeral lobes entire, not angulate. *Phelaus* is distinguished by having antennal segment III apically dilated, obovate in outline; the humeral angles hemispheric, broad, raised, and directed outward; and the dorsal surface of hind femur tuberculate to spinate. In *Antanambecoris*, the antennal segment III is uniformly cylindrical; the humeral angles obtuse, not exposed; and the dorsal surface of hind femur smooth.

The only species included in *Phelaus*, *P. dilaticornis* (Signoret), was described based on a single specimen collected in Madagascar.

Type species

Physomerus dilaticornis Signoret, 1860.

Phelaus dilaticornis (Signoret, 1860)

(Figs 1i, j; 7)

Physomerus dilaticornis Signoret, 1860: 939.

Phelaus dilaticornis (Signoret): Stål 1865: 50.

Type material

Sex not mentioned: Madagascar: Nossi-bé; not examined.

Redescription

Male

Measurements. Head: length 1.96 mm; width across eyes 2.28 mm; interocular distance 1.40 mm; length antennal segments: I, 4.56 mm, II, 4.52 mm, III, 3.40 mm, IV, 3.44 mm. Pronotum: length 9.20 mm, width 10.40 mm. Scutellum: length 3.08 mm, width 4.02 mm. Body length 27.25 mm.

Dorsal color. Head, pronotum, scutellum, clavus, and corium reddish black; antennal segments I to III reddish brown, and IV yellow; calli black; hemelytral membrane dark

brown; connexivum black with upper border castaneus; dorsal abdominal segments III to V black with shiny orange marks, segment VI shiny orange with lateral margins black, and VII shiny orange with posterior margin black.

Ventral color. Including rostral segments, legs, and pygophore reddish brown; mesosternum darker; hind tibia with outer and inner borders castaneus; anterior and posterior lobe of metathoracic peritreme yellow.

Female

Measurements. Head: length 1.52 mm; width across eyes 2.12 mm; interocular distance 1.32 mm; length antennal segments: I, 3.88 mm, II, 3.76 mm, III, 3.04 mm; IV, 3.08 mm. Pronotum: length 5.12 mm, width 8.52 mm. Scutellum: length 2.60 mm, width 3.32 mm. Body length 23.64 mm.

Habitus and color similar to male.

Connexival segments VIII and IX black with upper border castaneus; dorsal abdominal segments VIII and IX black with shiny orange marks; abdominal sterna and genital plates dark orange.

Variation

1 - Body dorsal and ventrally dark orange. 2 - Connexival segment VII black with anterior third yellow. 3 - Dorsal abdominal segment VI black.

Comments

This species belonging to the monotypic genus *Phelaus* is clearly distinguished by having antennal segment III apically dilated, obovate in outline; the humeral angles hemispheric, broad, raised, and directed outward; and antennal segment IV yellow.

Distribution

This species is endemic to Madagascar. MADAGASCAR: Nossi-bé, and Diego Suárez (GARCIA VARELA 1913; SIGNORET 1860; STÅL 1865).

Specimens examined. MADAGASCAR: 1 ♂, Marolambo, Province of Vato Mandry, I.1927 (USNM); 1 ♂, S. P. Antsalova, Antsingy Res., Nat., I.1975 *(A. PEYRIERAS)* (MNHN); 4 ♂♂, 2 ♀♀, Maroantsetra [without date] (MNHN, UNAM); 2 ♀♀, S.O. Bas Fiherena, 1911 *(F. GEAY)* (MNHN); 1 ♂, Beloha, dans l'Androy [without date] (MNHN).

TRIBE ANISOSCELINI AMYOT ET AUDINET-SERVILLE, 1843

Head

Conspicuously long, longer than wide; anterior portion always porrect; tylus and juga never deflexed; antenniferous tubercles not prominent; rostrum extending beyond mesosternum.

Thorax

Pronotum with distinct collar; femora ventrally spined; hind femur reaching the apex of abdomen; hind tibiae foliate and expanded dorsal and ventrally; abdomen almost par-

allel-sided, not dilated laterally, and never spined posterolaterally. Only one genus and one species, introduced from the Western Hemisphere, are known from Madagascar.

Genus *Leptoglossus* Guérin-Méneville, 1831

Leptoglossus Guérin-Méneville, 1831 (1838): pl. 12, fig. 9.

Redescription

Body small to large sized, elongate.

Head

Longer than wide, usually shorter than length of pronotum, pentagonal, porrect, and produced forward between bases of antennae; tylus usually blunt, forming a rounded elevated ridge, slightly exceeding juga; juga unarmed, thickened; antenniferous tubercles unarmed; antennal segment I thicker than segments II and III (usually same thickness as IV), slightly curved; segments II and III cylindrical, IV fusiform; preocellar pit small, nearly circular; ocelli slightly raised, widely separated, distance between ocelli greater than distance from ocellus to eye; eyes hemispherical, prominent; postocular tubercle indistinct; buccula smoothly rounded, short, slightly raised, not extending beyond antenniferous tubercles; rostral length variable.

Thorax

Pronotum. Trapeziform, wider than long, strongly declivent; disc punctate, slightly rugose and nontuberculate; collar wide; anterolateral border obliquely straight, smooth to serrate; humeral angles obtuse to greatly expanded; posterolateral borders sinuous, upper half dentate, inner half smooth; posterior border almost straight, entire; callar region barely elevated, raised area between calli with two small tubercles; disk posteriorly with low median longitudinal carina; prosternum with deep excavation; mesosternum with shallow longitudinal sulcus; metasternum flat; anterior lobe of metathoracic peritreme auriculiform, posterior lobe digitiform, small, subacute.

Legs. Femora with two subapical spines, and one row of ventral acute spines; hind femur usually incrassate and always spined or tubercled dorsally; fore and middle tibiae cylindrical, unarmed, and sulcate; hind tibiae foliate, expanded at inner and outer surfaces.

Scutellum. Triangular, flat, and usually longer than wide; apex subacute.

Hemelytra. Macropterous, extending far from the apex of last abdominal segment; costal margin emarginate; apical margin weakly sinuous.

Abdomen

Connexivum slightly higher than margin of hemelytron at rest; connexival segments not spined posteroapically; abdominal spiracles IV-VII circular, subequal in distance from base and apex of each segment, closest to lateral edge.

Male *genitalia*. Genital capsule: Posteroventral edge variable thought the species.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica wide, rectangular, transversely straight; gonocoxae I triangular, large, wide, in caudal view opened; paratergite VIII almost square with spiracle visible; paratergite IX subquadrate, longer than former paratergite.

Comments

This genus can be distinguished from all other genera in the tribe based on the following characters: antennal segment I shorter or subequal to head length, but always longer than preocular distance; antennal segment III not expanded laterally; bucculae not extending posteriorly past base of antenniferous tubercles; male genital capsule notched medially; and hind femur usually incrassate and always spined or tuberculated dorsally. In *Narnia*, the genus most closely related to *Leptoglossus*, antennal segment I is shorter than length in front of eyes, and rostral segment IV the longest. In *Leptoglossus*, antennal segment I is longer than length in front of eyes, and rostral segment I the longest.

The genus *Leptoglossus* is widely distributed from southern Canada, throughout the United States, México, the Antilles, Central America, and South America, including Chile and Argentina. *Leptoglossus gonagra* (Fabricius) and *L. occidentalis* Heidemann are the only species of *Leptoglossus* that occur outside of the Western Hemisphere. *Leptoglossus occidentalis* has been recorded in Europe (Italy, Spain and France), and *L. gonagra* in Southeast Asia, the Pacific Islands, Australia, and Africa including Madagascar (Allen 1969; Baranowski & Slater 1986; Brailovsky & Barrera 1998, 2004; Osuna 1984; Packauskas 1994; Taylor *et al.* 2001; Tescari 2001).

Type species

Leptoglossus dilaticollis Guérin-Méneville, 1838.

Leptoglossus gonagra (Fabricius, 1775)

(Fig. 9a-c)

Cimex gonagra Fabricius, 1775: 708.

Cimex australis Fabricius, 1775: 708; synonymized by Baranowski & Slater 1986: 21.

Cimex membranaceus Fabricius, 1781: 351; synonymized by Cassis & Gross 2002: 110.

Leptoglossus gonagra (Fabricius): Stål 1868: 51.

Type material

Sex not mentioned: St. Thomas (as insula St. Thomas Americae); not examined.

Redescription

Male

Measurements. Head: length 2.95 mm; width across eyes 2.50 mm; interocular distance 1.38 mm, preocular distance 1.75 mm, length antennal segments: I, 3.38 mm, II, 4.65 mm, III, 3.60 mm, IV, 4.80 mm. Pronotum: length 3.70 mm, width across humeral lobes 8.50 mm. Legs: hind tibiae: total length 12.87 mm, length of outer dilation 8.93 mm, length of inner dilation 6.15 mm. Scutellum: length 2.90 mm, width 2.85 mm. Body length 21.50 mm.

Dorsal color. Head black with three narrow longitudinal stripes dark orange, one at midline, the other two close to eyes; antennal segment I black, II and III black with median yellowish orange ring, and IV yellow with basal third black; pronotum black with narrow, arcuate, yellowish-orange transverse fascia; intercallar space black or yellowish orange; scutellum black with basal angles and apex yellow; clavus black with claval vein dark reddish; corium black with yellow discoidal spot at middle third of endocorium; hemelytral membrane dark with basal angle almost black; connexivum black with anterior margin yellowish orange; dorsal abdominal segments black.

Ventral color. Head black with two wide longitudinal stripes yellowish orange lateral to midline; rostral segments black; thorax black with following areas yellow to yellowish orange: mesosternum, acetabulae, anterior and posterior lobes of metathoracic peritreme and two or three discoidal to rectangular spots on propleura, mesopleura and metapleura; abdominal sterna black with seven yellow to yellowish orange longitudinal stripes (occasionally interrupted at intersegmental sutures); pleural margins black with anterior angle or anterior border yellow; genital capsule black with lateral yellowish marks.

Head. Rostrum reaching posterior margin of abdominal sternite V.

Thorax. Pronotum. Anterolateral borders dentate; posterolateral borders with upper half dentate, and inner half smooth; humeral angles strongly spinose, produced into sharp spine, turning laterally and slightly upward. Legs. Hind tibiae. Outer dilation phylliform with at least two or three shallow emarginations, occupying 75 to 90% of the length of hind tibiae; inner dilation lanceolate, shorter than outer dilation, occupying 40 to 48% of the length of hind tibiae.

Genitalia. Genital capsule: Posteroventral edge with deeply rounded median notch; dorsal prongs absent (Fig. 1b). Paramere: Fig. 1c.

Female

Measurements. Head: length 3.18 mm; width across eyes 2.67 mm; interocular distance 1.47 mm, preocular distance 1.87 mm, length antennal segments: I, 2.90 mm, II, 4.40 mm, III, 3.70 mm, IV, 4.58 mm. Pronotum: length 3.90 mm, width across humeral lobes 8.12 mm. Legs: hind tibiae: total length 12.24, length of outer dilation 7.80 mm, length of inner dilation 5.45 mm. Scutellum: length 3.10 mm, width 3.00 mm. Body length 21.90 mm.

Habitus and color similar to male.

Dorsal abdominal segments VIII and IX, and connexival segments VIII and IX black; genital plates black with wide longitudinal stripe at gonocoxae I; one irregular spot on outer faces of paratergites VIII and IX yellow to yellowish orange. Legs. Hind tibiae. Outer dilation phylliform with at least two or three shallow emarginations, occupying 75 to 90% of the length of hind tibiae; inner dilation lanceolate, shorter than outer dilation, occupying 36 to 44% of the length of hind tibiae.

Variation

1 - Body color black to dark brown, suffused with reddish-brown marks. 2 - Inner angle of antenniferous tubercles black to yellowish orange. 3 - Clavus and corium dark reddish brown with yellow discoidal spot at middle third of endocorium. 4 - Female genital plates yellow to yellowish orange with inner and outer borders black. 5 - Outer dilation of hind tibiae occupying 75 to 90% of total length of tibiae.

Comments

This is the only known species of *Leptoglossus* that occurs in Madagascar. It is readily recognized by the presence of the following yellow to yellowish-orange areas that strongly contrast with the black to dark brown color: narrow arcuate transverse fascia on pronotal disk; numerous large discoidal spots on the thoracic pleura; seven longitudinal stripes on abdominal sterna, which occasionally are interrupted at the intersegmental sutures, if so, the stripes are made up a series of rectangular spots. Also the humeral angles are strongly spinose, and the outer dilation of hind tibiae is relatively narrow, and

gradually tapers to almost the end of the tibiae, occupying about 75 to 90% of the total length of hind tibiae. This occasional pest species *L. gonagra* (Fabricius) is found in all zoogeographic regions.

Distribution

Widely distributed from United States, México, the Antilles, Central America, South America, Indian subcontinent, Australia, New Guinea, Borneo, Java, Timor, Halmaheira, Philippines, Indonesia, Micronesia, New Hebrides, Solomon Islands, Samoa, Cook Islands, Tahiti, Malay Archipelago, Africa, New Caledonia, Seychelles Islands, and Madagascar (Allen 1969; Blöte 1936).

Specimens examined. Madagascar: 1 ♀, Antoingy, Maintiranss Forêt, VII.1949 (*R. P.*) (MNHN); 1 ♂, 1 ♀, Tananarive, Tsimbazaza, 4.III.1945 (*A. R.*) (MNHN); 1 ♀, Mahafaly, 1900 (*Grandier*) (MNHN); 3 ♀♀, Tamatave, Andevorante, 1905 (*G. Bovet*) (MNHN); 1 ♀, Ambilobe, IV.1951 (*R. P.*) (MNHN); 8 ♂♂, 4 ♀♀, Diego Suárez, II.1893 and VII.1893 (*Ch. Alluaud*) (MNHN, UNAM); 3 ♂♂, 2 ♀♀, Tananarive, 1914 (*Waterlot*) (MNHN). Madagascar South West: 1 ♂, Plaines de Ranove, 1905 (*F. Geay*) (MNHN); 1 ♂, Bas Fiherena, 1911 (*F. Geay*) (MNHN). Madagascar South: 1 ♀, Bekily [without date] (*A. Seyrig*) (MNHN).

Tribe Daladerini Stål, 1873

Head

Quadrate, short, wider than long, bending downward at the antenniferous tubercle level; antenniferous tubercle protruding downward, almost occupying the intertuberculare space; antennal segment III usually dilated and occasionally spined; tylus not protracted; juga anteriorly not expanded, never projected as quadrate plates; buccula situated before antenniferous tubercle or reaching anterior margin of eye; rostrum not extending beyond abdominal sternite III.

Thorax

Hind coxae almost contiguous; fore femur without subapical teeth or with two rows of ventral spines or occasionally unarmed; hind femur not conspicuously incrassate, usually slightly robust.

Four genera and nine species are known from Malagasy.

Clé des genres malgaches de Daladerini

1. Article antennaire II en massue, armé de fortes épines sur le tiers distal (Fig. 10b-g) ; fémurs postérieurs robustes, armés ventralement de deux rangées de grandes et fortes épines **2**

– Article antennaire II presque cylindrique sans épine distale (Fig. 10a) ; fémurs postérieurs allongés, minces, légèrement épaissis vers l'apex, avec deux minuscules dents parfois indistinctes ventralement **3**

2. Angles huméraux obtus, arrondis, non proéminents ; segments abdominaux non élargis latéralement (Fig. 17) ..... ***Parabrachytes*** Distant

– Angles huméraux fortement développés latéralement et antérieurement en lobe arrondi en forme d'aileron (Fig. 15) ; abdomen fortement et brusquement dilaté (Fig. 15) ..... ***Odontorhopala*** Stål

3. Abdomen fortement élargi au milieu, à contour rhomboidal (Fig. 16) ..... ***Odontocurtus*** n. gen.

– Abdomen non élargi, relativement étroit, à bords latéraux subparallèles (Figs 13; 14) ..... ***Kerzhnercryptes*** Brailovsky

Key to Malagasy genera of Daladerini

1. Antennal segment II clavate, with distal third armed with stout spines (Fig. 10b-g); hind femur robust, ventrally armed with two rows of large stout, spines **2**

– Antennal segment II almost cylindrical, without distal spines (Fig. 10a); hind femur elongate, slender, slightly thickened toward apex, and ventrally with two minute or indistinct spines **3**

2. Humeral angles obtuse, rounded, not expanded; abdominal segments not expanded laterally (Fig. 17) ..... ***Parabrachytes*** Distant

– Humeral angles strongly produced laterally and anteriorly into rounded wing-lobes (Fig. 15); abdomen strongly and abruptly dilated (Fig. 15) ..... ***Odontorhopala*** Stål

3. Abdomen strongly expanded in middle, rhomboidal in outline (Fig. 16) ..... ***Odontocurtus*** n. gen.

– Abdomen not expanded, relatively narrow, parallel-sided (Figs 13; 14) ..... ***Kerzhnercryptes*** Brailovsky

Genus *Kerzhnercryptes* Brailovsky, 2002

Kerzhnercryptes Brailovsky, 2002: 112-115.

Redescription

Body medium sized to large, moderately elongate.

Head

Eyes wider than long, subquadrate, dorsally flat; tylus conspicuously deflexed, unarmed, apically truncated, and shorter than juga; juga produced forward as a strong conical tubercle, extending anteriorly to tylus and slightly raised in lateral view; vertex with deep longitudinal groove along midline; antenniferous tubercle large, prominently produced, wide, separated by distance equal to its own width; sides of head in front of eyes almost straight; antennal segment I slightly robust, thickest and much longer than head; segments II and III cylindrical, slender; segment IV fusiform; antennal segment II longest, I longer than III, IV the shortest; ocelli scarcely tuberculate; preocellar pit deep, diagonally excavated; eyes protruding, hemispherical; postocular tubercle protuberant; buccula rounded, raised, short, not extending beyond antenniferous tubercle, with short spine projection anteriorly; rostrum reaching anterior third of abdominal sternite III; mandibular plate unarmed.

Thorax

Pronotum. Trapeziform, wider than long, moderately declivent; collar indistinct; anterolateral margins obliquely straight, coarsely nodulose; frontal angles obtuse; humeral angles produced laterad, directed upward and each margin finely nodulose; posterolateral margin sinuate, with upper half nodulose and inner half smooth; posterior margin smooth, concave; callar region indistinct, transversely flat, separated along midline by an obscure longitudinal groove; posterior margin with transverse ridge, distinctly raised.

Prosternum with broad medio-longitudinal groove; metasternum entire; anterior lobe of metathoracic peritreme elevated, reniform, posterior lobe sharp, small.

Legs. Femora slightly incrassate, surface smooth, armed with two small anteapical spines; tibiae cylindrical, sulcate, unarmed.

Scutellum. Triangular, flat, relation length-width, with two conditions independent of the sex, longer than wide, or wider than long, and transversely striated; apex short, acute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin with shallow groove; apical margin obliquely straight, with short apical angle almost reaching middle third of hemelytral membrane.

Abdomen

Connexival segments higher than margin of hemelytron at rest, not spined posteroapically; upper margin smooth; posterior third of connexival segments III, IV and VII straight, and posterior third of segments V and VI depressed, concave or diagonally truncated; abdominal spiracle closer to anterior margin than to posterior margin.

Male *genitalia*. Genital capsule: Posteroventral edge simple, convex. Parameres: Shaft robust; anterior lobe convex, posterior lobe short and slender (Fig. 11a, b).

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica triangular, reaching anterior third of sternite VII; gonocoxae I enlarged dorso-ventrally, in caudal view closed, in lateral view convex, with upper margin rounded; paratergite VIII triangular, with spiracle visible but difficult to see; paratergite IX subquadrate, larger than paratergite VIII. Spermatheca. Distal bulb spherical; sclerotized duct leading from bulb moderately coiled; chamber elongate with acute lateral spines; distal duct straigth; membranous duct wide.

Integument

Body surface rather dull, almost glabrous. Dorsal head, pronotum, scutellum, clavus, corium, propleura, mesopleura, metapleura, abdomen, and exposed parts of genital segments of both sexes punctate. Ventral head, calli, connexival segments, prosternum, mesosternum and metasternum impunctate; antenniferous tubercles granulate.

Comments

This genus is related to *Parabrachytes* in having a relatively narrow, non-expanded abdomen, and the humeral angles of pronotum not conspicuously expanded into wing-like lobes. *Kerzhnercryptes* has the antennal segment II almost cylindrical without distal spines; the rostrum elongate, slender and reaching abdominal sternite III; each femur slender, and ventrally armed with two small subapical spines; the humeral angles of the pronotum subacute; and the tibiae longer, and more slender. *Parabrachytes* is distinguished by having the antennal segment II distally clavate and

armed with strong spines; the rostrum short, robust, and not extending beyond the middle third of mesosternum; the femora is robust and ventrally armed with two rows of stout spines; the humeral angles are rounded, and obtuse; and the tibiae are short, and robust.

Rhombolaparus is distinguished by having the abdomen conspicuously dilated, rhomboidal, and the humeral angles laterally expanded.

Only one species, *K. perinetus* Brailovsky, endemic to Madagascar, was previously known. One new species is added.

Type species
Kerzhnercryptes perinetus Brailovsky, 2002.

Clé des espèces malgaches de Kerzhnercryptes

1. Lobes antérieur et postérieur du péritrème métathoracique noirs ; article I des antennes sans granule ni tache brun rougeâtre ; articles II et III jaunâtre avec le tiers apical noir ; connexivum noir avec le tiers antérieur jaune ..... ***perinetus*** Brailovsky

– Lobes antérieur et postérieur du péritrème métathoracique jaune-crème ; article I des antennes granuleux et couvert de taches brun rougeâtre ; articles II et III châtain orangé foncé avec des taches brun rougeâtre ; connexivum châtain orangé clair à foncé, avec seulement le tiers de la moitié supérieure jaune ..... ***couturieri*** n. sp.

Key to Malagasy species of Kerzhnercryptes

1. Anterior and posterior lobe of metathoracic peritreme black; antennal segment I without granules and reddish-brown spots; antennal segments II and III yellowish with apical third black; connexivum black with anterior third yellow..... ***perinetus*** Brailovsky

– Anterior and posterior lobe of metathoracic peritreme creamy yellow; antennal segment I granulate and covered with reddish-brown spots; antennal segments II and III dark chestnut orange with reddish brown spots; connexivum pale to dark chestnut orange, and with only anterior third at upper half yellow ..... ***couturieri*** n. sp.

Kerzhnercryptes perinetus Brailovsky, 2002
(Figs 10a; 11a, b; 14)

Kerzhnercryptes perinetus Brailovsky, 2002b: 115.

Type material
Holotype ♂: MADAGASCAR: Province Perinet, Analamasotra, XII.1930 [without collector] (ZMAS).

Paratypes: MADAGASCAR: 3 ♂♂, 4 ♀♀, Province Perinet, Analamasotra, XII.1930 [without collector] (UNAM, ZMAS); 6 ♂♂, 6 ♀♀, District Mananara, N. Mont Antampona, VII.1965 (*VADON ET PEYRIERAS*) (MNHN, UNAM).

Redescription

Male

Measurements. Head: length 2.00 mm, width across eyes 2.23 mm, interocular space 1.30 mm, preocular distance 1.32 mm, length antennal segments: I, 4.71 mm, II, 4.96 mm, III, 3.96 mm, IV, 2.91 mm. Pronotum: length 3.78 mm, width across humeral angles 6.69 mm. Scutellum: length 2.31 mm, width 2.29 mm. Body length 21.10 mm.

Dorsal color. Head, pronotum, clavus and corium chestnut orange; antennal segment I yellow, II and III yellow with apical third black, and IV creamy yellow; scutellum yellow with apex chestnut orange and a black basal square near to middle third; corium with black spots scattered along costal border; hemelytral membrane pale orange brown; connexival segments black with anterior third or anterior half orange yellow; dorsal abdominal segments shiny yellowish orange.

Ventral color. Pale yellowish orange with following areas black: apex of rostral segment IV, anterior and posterior lobes of metathoracic peritreme, 1 to 3 discoidal spots on coxae, dense discoidal spots on femora and tibiae, and few scattered spots on abdominal sterna III to VII.

Genitalia. Paramere: Fig. 11a, b.

Female

Measurements. Head: length 2.12 mm, width across eyes 2.41 mm, interocular space 1.50 mm, preocular distance 1.44 mm; length antennal segments: I, 5.08 mm, II, 5.56 mm, III, 4.46 mm, IV, 3.10 mm. Pronotum: length 4.34 mm, width across humeral angles 7.87 mm. Scutellum: length 2.88 mm, width 2.91 mm. Body length 24.80 mm.

Habitus and color similar to male. Dorsal abdominal segments VIII and IX, and genital plates pale yellowish orange.

Comments

Kerzhnercryptes perinetus can be distinguished by the yellow antennal segment I without reddish-brown spots; antennal segments II and III yellowish with apical third black; and anterior and posterior lobe of metathoracic peritreme black.

Distribution

This species is known only from Magacascar. The only previously known record came from the original description.

Specimens examined. MADAGASCAR: 1 ♀, Province Perinet, Andasibe Park, Perinet Prot. Area, 19-31.XII.2001 *(V. DOLIN)* (EHCA). MADAGASCAR EAST: 2 ♀♀, District Sambava, Marojejy, Ambinanitelo, 500 m, XII.1958 *(RAHARIZONINA)* (MNHN).

Kerzhnercryptes couturieri n. sp.

(Fig. 13)

Type material

Holotype ♂: MADAGASCAR EAST: District Sambave, R. N. XII, Marojejy, Ambatosoratra, 1700 m, XI.1969 *(P. SOGA)* (MNHN).

Paratypes: MADAGASCAR EAST: 3 ♀♀, District Sambave, R. N. XII, Marojejy, Beondroka, 1200 m, VI.1960 (*P. SOGA*) (MNHN, UNAM).

Derivatio nominis

Dedicated to Guy Couturier (IRD), distinguished French entomologist.

Description

Male holotype

Measurements. Head: length 1.94 mm, width across eyes 2.10 mm, interocular space 1.17 mm, preocular distance 1.24 mm, length antennal segments: I, 4.21 mm, II, 4.65 mm, III, 3.84 mm, IV, 3.03 mm. Pronotum: length 3.78 mm, width across humeral angles 5.82 mm. Scutellum: length 2.17 mm, width 2.41 mm. Body length 20.55 mm.

Dorsal color. Head, pronotum and clavus dark chestnut orange; antennal segment I dark chestnut orange, with reddish-brown spots and armed with creamy yellow granules; segments II and III dark chestnut orange with reddish-brown spots, and IV dark yellow with basal third black; corium dark chestnut orange with creamy-yellow irregular spot at middle third of endocorium, and with the costal border yellow and scattered with reddish-brown spots; scutellum dark chestnut orange with apex paler and a black basal square near to middle third; hemelytral membrane pale orange; connexivum pale to dark chestnut orange with anterior third at upper half yellow; dorsal abdominal segments pale shiny orange with posterior margin of segment VII darker.

Ventral color. Pale chestnut orange with following areas black: apex of rostral segment IV, and a discoidal spots scattered on coxae, trochanters, femora, tibiae and abdominal sterna; anterior and posterior lobes of metathoracic peritreme creamy yellow; pleural margins of abdominal sterna pale chestnut orange with anterior third yellow.

Structure. Rostrum reaching posterior border of metasternum; humeral angles slightly produced laterad.

Female paratype

Measurements. Head: length 2.00 mm, width across eyes 2.17 mm, interocular space 1.24 mm, preocular distance 1.26 mm, length antennal segments: I, 4.58 mm, II, 4.85 mm, III, 4.02 mm, IV, 2.97 mm. Pronotum: length 3.90 mm, width across humeral angles 6.75 mm. Scutellum: length 2.62 mm, width 2.69 mm. Body length 22.85 mm.

Habitus and color similar to male. Connexival segments VIII and IX, and genital plates pale chestnut orange with reddish-brown spots; dorsal abdominal segment VIII shiny orange, and IX pale chestnut orange.

Variation

1 - Ventral spines of femur creamy yellow.

Comments

In *K. perinetus*, the only previously known species, antennal segment I is relatively slender, unarmed, without granules, and without reddish-brown spots; antennal segments II and III are yellowish with apical third black; the anterior and posterior lobes of metathoracic peritreme are black; the connexivum is black with anterior third yellow; and the humeral angles are more expanded (Figs 13; 14). In *K. couturieri* n. sp., antennal segment I is slightly more robust, armed with granules and densely covered with reddish-brown

spots; antennal segments II and III are dark chestnut orange with reddish-brown spots; the anterior and posterior lobes of metathoracic peritreme are creamy yellow; and the connexivum is pale to dark chestnut orange, and only with upper half yellow.

Distribution

This species is known only from Madagascar.

Genus *Odontocurtus* n. gen.

Derivatio nominis

The generic name is combination of the Latin word, *curtus*, meaning short, and the prefix from the closely related *Odontorhopala*.

Description

Body medium sized, rather dull, and almost glabrous.

Head

Quadrate, wider than long, dorsally flat; tylus unarmed, apically globose, suddenly bending downward between antenniferous tubercles, and shorter than juga; juga unarmed, straight, longer than tylus, extending anteriorly, and apically obtuse; space between antenniferous tubercles filled by tylus and juga; frons with longitudinal impression behind tylus; antenniferous tubercles unarmed, protruding, never contiguous; antennae shorter than body; antennal segment I robust, thickest, granulate, with few small and obtuse spines; segments II and III cylindrical, apically slightly thickened, and IV fusiform; antennal segment II the longest, IV the shortest, and I longer than III; ocelli at equal distance from eyes and from each other; preocellar pit deep; eyes globose, protuberant; postocular tubercle moderately exposed; mandibular plate absent; neck short; buccula rectangular, raised, short, not projecting beyond antenniferous tubercles, unarmed, meeting posteriorly and closed; rostrum reaching middle third of metasternum.

Thorax

Pronotum. Trapeziform, wider than long, declivent; collar wide; frontal angles obtuse, not exposed; humeral angles produced laterally into an angulate projection; anterior border smooth; anterolateral margins obliquely straight, uniformly granulate; posterolateral borders sinuous, with upper third granulate, and inner third smooth; posterior border smooth, straight; calli entire, not raised, separated at midline by short longitudinal furrow; anterior lobe of pronotal disk with few punctures, and posterior lobe densely punctate; posterior margin with an irregular transverse ridge; triangular process absent. Prosternum markedly sunken, with posterior third in front of the area between fore coxae produced into narrowed acute tubercle; mesosternum convex, with deep median longitudinal groove, and with anterior margin in front of fore coxae produced into two broad arms; metasternum hexagonal, with shallow and wide middle groove; anterior lobe of metathoracic peritreme reniform, posterior lobe short, subacute; canal short, wide open, semicircular, with raised sides; evaporative area weakly developed.

Legs. Femora not distinctly swollen, slightly thickened toward apex; ventrally with two rows of short and acute spines, and dorsally granulate; tibiae sulcate, unarmed.

Scutellum. Triangular, wider than long, flat, apically subacute, and shorter than clavus; scutellar disk punctate.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate, barely granulate; apical margin obliquely sinuous, with apical angle almost reaching the middle third of the hemelytral membrane; clavus and corium densely punctate.

Abdomen

Strongly dilated, specially at segment V; connexivum conspicuously raised above tergum, with upper margin sparsely granulate; connexival segments III and IV with posterior angle unarmed, V subtruncate, VI clearly bifid, and VII obliquely straight, with triangular projection apically rounded; abdominal spiracle circular, closer to anterior third.

Male *genitalia*. Genital capsule: Simple, globose; posteroventral edge entire, transversely sinuous. Paramere: Fig. 11e, f.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica narrow, closer to posterior border of abdominal sternite VI; fissura well developed, with inner margins overlapping; gonocoxae I exposed, convex, in caudal view closed; paratergite VIII triangular, spiracle visible; paratergite IX subquadrate, longer than paratergite VIII.

Comments

Like *Odontorhopala* with the abdomen strongly and abruptly dilated. *Parabrachytes* and *Kerzhnercryptes*, the other two previously known Daladerini from Madagascar, have the abdomen relatively narrow and almost parallel-sided.

In *Odontorhopala*, the apical third of antennal segment II is strongly clavate and tuberculated, the humeral angles of pronotum strongly produced laterally and anteriorly into rounded wing-like lobes, the juga barely longer than tylus, the metasternum flat, and the rostrum reaching anterior or middle third of mesosternum. *Odontocurtus* n. gen. has the apical third of antennal segment II almost cylindrical, not tuberculated, the humeral angles produced laterally into an angulate projection, the juga longer than tylus, the metasternum hexagonal, with shallow and wide groove, and the rostrum reaching middle third of metasternum.

Type species

Odontocurtus consociatus n. gen., n. sp.

Odontocurtus consociatus n. gen., n. sp.

(Figs 11e, f; 16)

Type material

Holotype ♂: MADAGASCAR EAST: District Mananara-N, Seranambe, VII.1965 *(VADON ET PEYRIERAS)* (MNHN).

Paratypes: MADAGASCAR EAST: 2 ♂♂, 2 ♀♀, District Mananara-N, Seranambe, VII.1965 *(VADON et PEYRIERAS)* (MNHN, UNAM); 1 ♂, District Ivontaka, Maroantsetra, 8 m, III.1958 (Soga, Raharizonina) (MNHN). MADAGASCAR: 1 ♂, 1 ♀, Anbadikala, Riv. Ranomena, Brickaville, IX.1954 (*A. R.*) (MNHN); 1 ♂, environs de Rogez [without date] (NMPC). MADAGASCAR CENTER: 1 ♂, Province Fianarantsoa, Ranomafana Nat. Park, Vohiparara area, 1050 m, 21°14'03"S-47°23'09"E, stop # 98-26, 12.IV.1998 *(D. H. KAVANAUGH)* (CASC) (collected by beating suspended clusters of dead leaves and twigs at mixed tropical forest); 1 ♀, Province Fianarantsoa, Vohiparara Env., 17-18.IX.2002 *(I. JENI)* (NMPC); 1 ♀, Province Tdamasina, Moramanga Env., 9-12.I.2003 *(I. JENI)* (NMPC).

Derivatio nominis

From the Latin word, *consociatus*, meaning united.

Description

Male holotype

Measurements. Head: length 1.88 mm, width across eyes 1.76 mm, interocular space 1.00 mm, length antennal segments: I, 2.48 mm, II, 2.96 mm, III, 2.32 mm, IV, 1.80 mm. Pronotum: length 3.04 mm, width across humeral angles 5.92 mm. Scutellum: length 1.84 mm, width 2.20 mm. Abdomen: maximum width 6.60 mm. Body length 15.15 mm.

Dorsal color. Head and pronotum pale orange; antennal segments I to III pale orange, and IV pale orange with basal third pale reddish; scutellum dark orange, basally with two black spots lateral to midline, and apically yellow to creamy yellow; clavus and corium pale orange with punctures darker and veins and apical margin yellowish orange; endocorium with pale brown elongate mark; hemelytral membrane dark ambarine with basal angle and few spots scattered on disk dark brown; connexival segments dark orange brown with anterior margin of connexival segments III, IV, and VII yellow; dorsal abdominal segments shiny orange.

Ventral color. Dark to pale orange with punctures darker; rostral segments pale orange with apex of IV black; legs pale orange with spines and granules yellowish orange; anterior and posterior lobe of metathoracic peritreme yellow; pleural margins dark orange brown with anterior third of sterna III, IV and VII yellow; genital capsule dark orange.

Female paratype

Measurements. Head: length 1.92 mm, width across eyes 1.82 mm, interocular space 1.08 mm, length antennal segments: I, 2.28 mm, II, 2.88 mm, III, 2.12 mm, IV, 1.72 mm. Pronotum: length 3.36 mm, width across humeral angles 6.64 mm. Scutellum: length 1.88 mm, width 2.32 mm. Abdomen: maximum width 8.50 mm. Body length 16.68 mm.

Color and habitus similar to male holotype. Connexival segments VIII and IX, and genital plates pale orange with punctures darker; dorsal abdominal segments VIII and IX shiny orange to pale orange.

Variation

1 - Anterolateral borders of pronotum yellowish orange. 2 - Scutellar disk basally with two black discoidal spots and in between a yellow mark. 3 - Femora yellow, suffused with pale red marks. 4 - Tibiae yellow with pale red marks.

Distribution

The new species is known only from Madagascar.

Genus *Odontorhopala* Stål, 1873

Odontorhopala Stål, 1873: 55-56.

Redescription

Body medium sized to large, rather dull, and almost glabrous.

Head

Quadrate, wider than long, dorsally flat, and apex suddenly bending downward between antenniferous tubercle; tylus unarmed, apically rounded, and laterally scarcely lower than juga; juga barely longer than tylus, unarmed, globose; space between antenniferous tubercles filled by tylus; frons with longitudinal impression behind tylus; antenniferous tubercles unarmed, protruding forward, never contiguous; antennae shorter than total body length; antennal segment I robust, thickest, slightly curved outward, densely granulate, spinose, and non sulcated or flattened; antennal segment II cylindrical, granulate, apically slightly to strongly incrassated, and strongly tuberculated; segment III cylindrical, granulate, apically weakly incrassated, and segment IV fusiform; antennal segment III the shortest, I, II, and IV subequal, or II the longest, and I longer than IV, or I the longest, and II longer or shorter than IV (Fig. 10b); ocelli near to eyes; preocellar pit deep; eyes globose, protuberant; postocular tubercle barely exposed; mandibular plate absent; neck short; buccula rectangular, raised, short, not projecting beyond antenniferous tubercles, anteriorly rounded, meeting posteriorly, and closed; rostrum reaching anterior margin of mesosternum; rostral segment III the shortest, I and II subequal, and IV shorter than II.

Thorax

Pronotum. Wider than long, steeply declivent; collar wide; anterior border slightly concave, smooth; frontal angles obtuse, not exposed; anterolateral borders obliquely straight, finely dentate; humeral angles foliaceous, broadly expanded into long and wide anteriorly curving ascending processes, with borders finely dentate; posterolateral borders sinuous, smooth; posterior border almost straight, smooth; calli entire, not raised, separated at midline by short longitudinal furrow; triangular process absent; posterior margin with transverse ridge; pronotal disk densely punctate.

Prosternum markedly sunken, with posterior third in front of the area between fore coxae produced into subacute tubercle;

Mesosternum convex with median longitudinal groove, with anterior margin in front of fore coxae produced into triangular projection;

Metasternum flat; anterior lobe of metathoracic peritreme auriculiform, elongate, posterior lobe short.

Legs. Femora densely granulate, not distinctly swollen, with two rows of strong and acute ventral spines; hind femora conspicuously robust (less in female); tibiae sulcate, cylindrical, and densely granulate.

Scutellum. Triangular, wider than long or subequal, flat, shorter than clavus, and laterally emarginate; scutellar disk striate; apex subacute, flat.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate, barely nodulose; apical margin obliquely sinuous, with apical angle narrow, almost reaching the middle third of the hemelytral membrane; clavus and corium densely punctate.

Abdomen

Strongly and abruptly dilated, especially on segments IV-V; connexivum conspicuously raised above tergum, with upper margin barely granulate; posterior angle of connexival segment III unarmed, at IV subacute, elongate, at V and VI clearly bifid, and at VII rounded, with triangular projection apically rounded, and near to anterior third; abdominal

spiracle circular, closer to middle third.

Male *genitalia*. Genital capsule: Simple, globose; posteroventral edge entire, transversely convex. Paramere: Fig. 11c, d.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica narrow, near to posterior margin of abdominal sternite VI; fissura well developed, with inner margin not overlapping; gonocoxae I exposed, convex, in caudal view closed; paratergite VIII short, subtriangular, with spiracle visible; paratergite IX foliaceous, larger than paratergite VIII.

Comments

Odontorhopala is most closely related to *Parabrachytes*. Both genera are restricted to Madagascar, and have the apex of antennal segment II incrassate and tuberculated, and the femora of both sexes not swollen and ventrally armed with two rows of spines. *Odontorhopala* is distinguished by having the humeral angles of the pronotum strongly foliaceous; the hind femora robust; the abdomen strongly and abruptly dilated especially at segment IV-V; and the postocular tubercle slightly visible. In *Parabrachytes* the humeral angles are weakly prominent; the hind femora maderately robust; the abdomen moderately and regularly dilated in both sexes; and the postocular tubercle well developed.

Rhombolaparus has the abdomen conspicuously dilated and rhomboidal; the humeral angles are laterally expanded but not produced as large, broadly rounded process; and the apex of antennal segment II are not strongly incrassate and tuberculated.

The genus contains a single species, *O. callosa* Stål, endemic to Madagascar. On this contribution one new species is added.

Type species

Odontorhopola callosa Stål, 1873.

*Clé des espèces malgaches d'*Odontorhopala

1. Article II des antennes entièrement jaune, avec le tiers apical non épaissi et non tuberculé ; corps parsemé ventralement de quelques taches noires arrondies .... ***pallescens*** n. sp.

– Article II des antennes jaune avec le tiers apical noir, fortement épaissi et tuberculé ; corps densément recouvert ventralement de taches noires arrondies .... ***callosa*** Stål

Key to Malagasy species of Odontorhopala

1. Antennal segment II entirely yellow; apical third of antennal segment II not incrassate and not strongly tuberculated; body ventrally with some scattered black discoidal spots..... ***pallescens*** n. sp.

– Antennal segment II yellow with apical third black; apical third of antennal segment II strongly incrassate and tuberculated; body ventrally densely covered with black discoidal spots ..... ***callosa*** Stål, 1873

Odontorhopala callosa Stål, 1873

(Figs 10b; 11c, d)

Odontorhopala callosa Stål, 1873: 56.

Odontorhopala bergrothi Distant, 1893: 54 *n. syn.*

Odontorhopala geminata Bergroth, 1912: 82-83 *n. syn.*

Type material

Holotype ♀: *Odontorhopala callosa* Stål, MADAGASCAR: [without date] (NHMW).

Holotype ♂: *Odontorhopala bergrothi* Distant, MADAGASCAR: Fianarantsoa (BMNH).

Holotype ♀: *Odontorhopala geminata* Bergroth, MADAGASCAR: Forest of Province of East Perinet; not examined.

Redescription

Male

Measurements. Head: length 2.30 mm, width across eyes 2.40 mm, interocular space 1.30 mm, length antennal segments: I, 5.10 mm, II, 5.10 mm, III, 3.20 mm, IV, 4.50 mm. Pronotum: length 4.20 mm, width across humeral angles 11.60 mm. Scutellum: length 2.70 mm, width 2.70 mm. Abdomen: maximum width 11.90 mm. Body length 23.65 mm.

Dorsal color. Head dark orange, scattered with small black discoidal spots; antennal segment I yellow with numerous, small black to reddish-brown spots; antennal segment II yellow with black to reddish-brown spots, and apical third entirely black, segment III yellow with black to reddish-brown discoidal spots, and IV yellow; pronotum dark orange, with numerous small black discoidal spots, and large black discoidal spot at middle third behind calli; scutellum black to reddish brown with apex and irregular spot near middle third of basal margin dark orange; clavus and corium dark to pale yellow with dark hazel orange spots; hemelytral membrane dark orange with basal angle black, and disk suffused with dark brown irregular spots; connexival segments III, IV and VII with anterior half yellow and posterior half dark orange with few small black spots; connexival segments V and VI dark orange with few small black spots; dorsal abdominal segments pale yellowish orange, suffused with pale brown irregular marks.

Ventral color. Dark orange with numerous small black spots; rostral segments yellowish orange with reddish-brown to black discoidal spots on segments I to III; coxae and trochanters dark yellowish orange with black spots; femora dark yellowish orange with numerous black spots giving a black impression with tubercles and spines creamy yellow; tibiae and tarsi pale yellowish orange; anterior and posterior lobe of metathoracic peritreme yellowish orange; rim of abdominal spiracle yellow.

Structure. Antennal segment I with large, robust spines; apical third of antennal segment II strongly incrassate and tuberculated.

Genitalia. Paramere: Fig. 11c, d.

Female

Measurements. Head: length 2.20 mm, width across eyes 2.40 mm, interocular space 1.30 mm, length antennal segments: I, 4.60 mm, II, 5.10 mm, III, 3.10 mm, IV, 4.50 mm. Pronotum: length 4.20 mm, width across humeral angles 11.40 mm. Scutellum: length

2.95 mm, width 3.10 mm. Abdomen: maximum width 13.40 mm. Body length 24.15 mm.

Habitus and color similar to male. Connexival segments VIII and IX dark orange, with scattered black spots; dorsal abdominal segments VIII and IX dark to pale yellowish orange; genital plates dark orange with numerous black spots.

Variation

1 - Anterolateral, posterolateral and posterior borders of pronotum pale yellow. 2 - Connexival segments not clearly bifid. 3 - Dorsal color occasionally black. 4 - Proportions between measurements of antennal segments I to IV variable through the specimens. 5 - Lateral expansion of the pronotal humeral angles variable through the specimens.

Comments

The different degree in which the lateral expansion of the pronotal angles is developed, the different proportions between the measurements of antennal segments I to IV, as well as the proportion between width and length on the scutellum, and the high variation in dorsal and ventral color are unquestionably intraspecific and for that reason only the type species of the genus, *O. callosa* is retained, and *O. bergrothi* and *O. geminata* are considered as junior synonyms.

Distribution

This species is known only from Madagascar. MADAGASCAR: Province of East Perinet (BERGROTH 1912); Tananarive and Tamatave (BLÖTE 1938); Diego Suárez (GARCIA VARELA 1913).

Specimens examined. MADAGASCAR: 1 ♀, Province Perinet, Analamasotra, XI.1939 [without collector] (ZMAS); 1 ♀, Rogez, W of Fanovana, 1934 *(CHAUVIN)* (ZMAS); 1 ♀, Antsiranama, 6.5 km, SSW Befingetra Res., 14°45'S-49°39'E, 875 m, 17-31.X.1994 *(B. L. FISHER)* (CASC); 1 ♂, 1 ♀, Marofezy, XII.1972 [without collector] (MNHN, UNAM); 1 ♂, 1 ♀, District Sambava, R. N. XII, Marojejy, Ambatosoratra, 1140-1700 m, XI.1959, XI.1960 *(P. SOGA)* (MNHN); 3 ♀♀, Province Fianarantsoa, Parc National Ranomafana, Bellevue at Talatakely, 945-1130 m, 21°15'99''S-47°25'21''E, 12.XI.1998, 2-10.I.2002, 24.VI-5.VII.2002 *(R. HARIN'HALA)* (CASC); 1 ♂, Province Tamatave, Maramanga Env., 27-30.XII.1996 *(I. JENIS)* (NMPC); 3 ♂♂, 6 ♀♀, Environs de Rogez [without collector] (NMPC); 1 ♀, Vallée du Mongoro, Env. de Moramanga, 1915 *(M. UNGEMACH)* (MNHN); 2 ♀♀, Province Fanovana, 1906 *(CRENN)* (MNHN); 2 ♂♂, 1 ♀, Province Perinet, Andasibe, Park Perinet Prot. Area, 19-31.XII.2001 *(V. DOLIN)* (EHCA); 1 ♂, Baie d'Antongil, Hiaraka, 500-1000 m, IX.1970 *(A. PEYRIERAS)* (MNHN); 1 ♂, Baie d'Antongil, Ambohitsitondrona, XI.1951 *(J. VADON)* (MNHN); 1 ♂, Province Tananarive, Reg. de Soabierana, 1905 *(AMATHIAUX)* (MNHN); 1 ♂, Bezanozano, 1898 [without collector] (MNHN); 1 ♂, Fort Dauphin, 1914 *(P. GODEL)* (MNHN); 1 ♂, Maroantsetra, X.1935 *(J. VADON)* (MNHN).

Odontorhopala pallescens n. sp.

(Fig. 15)

Type material

Holotype ♂: MADAGASCAR: (collection *NOUALHIER*, 1898) [without date] (MNHN).

Paratype ♂: MADAGASCAR [without date] (UNAM).

Derivatio nominis

The epithet, *pallescens*, refers to the overall pale color of antennal segments I to IV.

Description

Male holotype

Measurements. Head: length 2.00 mm, width across eyes 2.40 mm, interocular space 1.20 mm, length antennal segments: I, 4.52 mm, II, 4.30 mm, III, 3.00 mm, IV, 4.70 mm. Pronotum: length 4.00 mm, width across humeral angles 10.80 mm. Scutellum: length 2.75 mm, width 2.80 mm. Abdomen: maximum width 11.10 mm. Body length 23.00 mm.

Dorsal color. Head dark orange; antenniferous tubercles with scattered dark orange granules; antennal segments I to III yellow with reddish brown granules, and IV yellow; pronotum dark orange, punctures darker and following areas black to dark brown: large discoidal spot near middle third and behind calli, and anterolateral margins and anterior margins of humeral angles (anterolateral border yellowish orange); scutellum black to reddish brown with apex and discoidal spot near the middle third yellow; clavus and corium dark yellow with dark hazel orange punctures, and elongate pale brown mark at endocorium; basal half of hemelytral membrane almost entirely dark brown and posterior half dark yellow and densely suffused with dark brown irregular marks; connexival segment III dark brown with anterior border yellow, segments IV and VII dark brown with anterior third yellow, V dark brown, and VI dark brown with inner border of anterior margin yellowish orange; dorsal abdominal segments pale yellowish orange, with posterior margin of segment VII pale brown.

Ventral color. Dark orange with reddish to dark hazel orange punctures, and few, scattered black granules on abdominal sterna III to VII; rostral segments yellowish orange with reddish-brown to black discoidal spots on segments I to III; coxae and trochanters yellowish orange with black spots; femur dark yellowish orange with numerous black spots giving a black impression, with tubercles and spines creamy yellow; tibiae and tarsi pale yellowish orange; anterior and posterior lobe of metathoracic peritreme yellowish orange; rim of abdominal spiracle yellow.

Structure. Antennal segment I with short and robust spines; antennal segment II cylindrical, granulate, and apically tuberculated and slightly incrassated.

Female

Unknown.

Comments

In *O. pallescens* n. sp., the antennal segment II is entirely yellow and apically tuberculated and slightly incrassate; and the spines of antennal segment I are short and robust.

In *O. callosa*, the antennal segment II is yellow with the apical third black, and apically strongly tuberculated and incrassate; and the spines of antennal segment I are large and robust.

Distribution

The new species is known only from Madagascar.

Genus *Parabrachytes* Distant, 1879

Parabrachytes Distant, 1879: 213-214.

Redescription

Body medium sized to large, rather dull, and almost glabrous.

Head

Quadrate, wider than long, dorsally flat, and apex suddenly bending downward between antenniferous tubercles; tylus unarmed, apically globose, barely raised, extending anteriorly to and laterally scarcely higher than juga; jugum unarmed, globose; space between antenniferous tubercles filled by tylus; antenniferous tubercles unarmed, protruding forward, never contiguous; antennae shorter than body; antennal segment I robust, thickest, slightly curved outward, densely granulate, and non sulcated or flattened; segment II cylindrical, granulate, and apically incrassated and strongly tuberculated; segment III cylindrical, granulate, and apically weakly incrassated; segment IV fusiform; antennal segment II the longest, and segments I, III and IV subequal (Fig. 10c-g); ocelli close to eyes; preocellar pit deep; eyes globose, protuberant; postocular tubercle moderately exposed; mandibular plate absent; neck short; buccula rectangular, raised, short, not projecting beyond antenniferous tubercles, with small spiny anterior projection, meeting posteriorly and closed; rostum reaching anterior margin of mesosternum.

Thorax

Pronotum. Trapeziform, wider than long, declivent; collar wide; frontal angles obtuse, not exposed; humeral angles moderately dilated, somewhat rounded; calli entire, not raised, separated at midline by short longitudinal furrow; anterior border slightly concave and granulose; anterolateral borders obliquely straight, barely granulose; posterolateral borders sinuous, scarcely granulose; posterior border concave, almost smooth; triangular process absent; posterior margin with an irregular transverse ridge; pronotal disk densely granulose and punctate.

Prosternum markedly sunken, with posterior third in front of the area between fore coxae produced into subacute tubercle; mesosternum convex, with median longitudinal groove, and with anterior margin in front of fore coxae produced into two broad arms.

Metasternum flat; anterior lobe of metathoracic peritreme reniform, posterior lobe short, subacute.

Legs. Femora densely granulose, not distinctly swollen, and with two rows of strong and acute ventral spines; tibiae sulcate and densely granulose.

Scutellum. Triangular, wider than long or as long as wide, flat, shorter than clavus; scutellar disc striate; apex subacute, not elevated; lateral margins emarginate.

Hemelytra. Macropterous, reaching the apex of the last abdominal segment; costal margin emarginate, barely nodulose; apical margin obliquely sinuous to straight, with apical angle narrow, and almost reaching the middle third of the hemelytral membrane; clavus and corium densely punctate.

Abdomen

Moderately and evenly dilated on each side; connexival segments elevated, with posterior angle unarmed, and upper margin barely granulose; abdominal spiracle circular, closer to the middle third.

Male *genitalia*. Genital capsule: Simple, globose; posteroventral edge entire, transversely straight to sinuous. Paramere: Figs 11g, h; 12a-h.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica narrow closer to posterior margin of abdominal sternite VI; fissura well developed, with inner margins not overlapping; gonocoxae I elongated anteroposteriorly, in caudal view closed, in lateral view with external face sinuous; paratergite VIII short, triangular, with spiracle visible; paratergite IX foliaceous, longer than VIII.

Comments

Related to *Odontorholapa*, both genera are endemic to Madagascar and characterized by having the apex of antennal segment II incrassate and tuberculated; the femora of both sexes not swollen, ventrally armed with two rows of spines. *Parabrachytes* is distinguished by having the humeral angles of the pronotum weakly prominent, the abdomen moderately and evenly dilated in both sexes, and the postocular tubercle well developed. In *Odontorhopala*, the humeral angles are produced into strongly foliaceous lobes, the abdomen is strongly and abruptly dilated specially at segments IV-V, and the postocular tubercle is barely visible.

The genus contains five species; one new species is added.

Type species

Parabrachytes coloratus Distant, 1879.

Clé des espèces malgaches de Parabrachytes

1. Articles antennaires II et III, tarses, thorax et abdomen, noirs **2**

– Articles antennaire II et III jaunes, le II avec des tubercules et le tiers apical noir ; tarses jaunâtre orangé ; thorax et abdomen jamais noirs **3**

2. Trochanters et fémurs noirs ; tête noire dorsalement..... ***longicornis*** Garcia Varela

– Trochanters, tiers basal et distal des fémurs jaunes ; tête jaune dorsalement .... ***coloratus*** Distant

3. Longueur totale du corps supérieure à 22 mm ; longueur de l'article antennaire II supérieure à 4,40 mm **4**

– Longueur totale du corps inférieure à 18 mm ; longueur de l'article antennaire II inférieure à 3,30 mm..... **5**

4. Tiers apical de l'article antennaire II remarquablement épaissi en massue et tuberculé ; angles huméraux subaigus, dirigés vers le haut..... ***morondavus*** Brailovsky

– Tiers apical de l'article antennaire II légèrement épaissi et tuberculé ; angles huméraux modérément arrondis ..... ***antsalovus*** Brailovsky

5. Bord externe de la corie avec des taches brunes et jaunes alternées ; article antennaire II fortement épaissi en massue et tuberculé ; membrane de l'hémélytre ambrée pâle, avec des taches diffuses brun orange foncé..... ***obscurus*** Distant

– Bord externe de la corie orange pâle ; article antennaire II légèrement épaissi et faiblement tuberculé ; membrane de l'hémélytre ambrée sombre .... ***inornatus*** n. sp.

Key to Malagasy species of Parabrachytes

1. Antennal segments II and III black; tarsi black; thorax and abdomen black..... **2**

– Antennal segments II and III yellow, with tubercles and apical third black; tarsi yellowish orange; thorax and abdomen never black..... **3**

2. Trochanters and femora black; head dorsally black..... ***longicornis*** Garcia Varela

– Trochanters, and basal and distal third of femora yellow; head dorsally yellow..... ***coloratus*** Distant

3. Total body length longer than 22.00 mm; antennal segment II longer than 4.40 mm..... **4**

– Total body length shorter than 18.00 mm; antennal segment II shorter than 3.30 mm..... **5**

4. Apical third of antennal segment II strongly clavate and tuberculated; humeral angles subacute, directed upward..... ***morondavus*** Brailovsky

– Apical third of antennal segment II tuberculated but not strongly clavate; humeral angles moderately rounded..... ***antsalovus*** Brailovsky

5. Costal margin of corium with alternating brown and yellow spots; antennal segment II strongly clavate and tuberculated; hemelytral membrane pale ambarine and suffused with dark orange- brown discoidal spots..... ***obscurus*** Distant

– Costal margin pale orange; antennal segment II slightly clavate, and weakly tuberculated; hemelytral membrane dark ambarine..... ***inornatus*** n. sp.

Parabrachytes antsalovus Brailovsky, 2002
(Figs 10d; 11g, h; 17)

Parabrachytes antsalovus Brailovsky, 2002a : 97-99.

Type material

Holotype ♀: MADAGASCAR: Ankara-Fankaika, 20.I.1950, *A. R.* (MNHN).

Paratypes: MADAGASCAR WEST: 1 ♂, 3 ♀♀, Antsalova, Antsingy Res. Nat., I.1975 (*A. PEYRIERAS*) (MNHN, UNAM).

Redescription

Female

Measurements. Head: length 1.80 mm, width across eyes 2.50 mm, interocular space 1.39 mm, length antennal segments: I, 5.10 mm, II, 5.50 mm, III, 4.40 mm, IV, 4.30 mm. Pronotum: length 5.70 mm, width across humeral angles 9.80 mm. Scutellum: length 3.20 mm, width 3.20 mm. Abdomen: maximum width 13.10 mm. Body length 28.10 mm.

Dorsal color. Head, pronotum, clavus and corium pale reddish orange; antennal segment I yellow with black tubercles, II and III yellow with tubercles and apical third yellow, and IV yellow with basal joint black; antenniferous tubercles black; scutellum black with lateral margins and apex yellow; costal margin of corium pale brown with reddish-orange spots; hemelytral membrane pale ambarine; connexival segments reddish orange with anterior margins of segments II, III, and VII yellow; dorsal abdominal segments II to VI black with middle third shiny orange, and segments VII to IX shiny orange.

Ventral color. Including anterior and posterior lobe of metathoracic peritreme and genital plates reddish orange with anterior margin of pleural sterna II, III, and VII pale yellow; rostral segments yellow with punctures and apex of segment IV black; coxae, trochanters, femora, and tibiae yellow, with tubercles suffused with black; tarsi yellowish orange; rim of abdominal spiracle yellow.

Head. Apical third of antennal segment II tuberculated but not strongly clavate (Fig. 10d).

Male

Measurements. Head: length 1.60 mm, width across eyes 2.35 mm, interocular space 1.35 mm, length antennal segments: I, 4.10 mm, II, 4.80 mm, III, 3.90 mm, IV, 4.10 mm. Pronotum: length 4.80 mm, width across humeral angles 8.20 mm. Scutellum: length 2.70 mm, width 2.90 mm. Abdomen: maximum width 11.00 mm. Body length 24.10 mm.

Color and habitus similar to female. Costal margin of corium reddish orange; connexival segments reddish orange with anterior margins of segments II, III, VI, and VII yellow; dorsal abdominal segments shiny orange with black spot at lateral third on segments III to VI; genital capsule reddish orange.

Genitalia. Paramere: Fig. 11g, h.

Comments

This species is similar in size and habitus to *P. longicornis*. In *P. antsalovus*, the pronotum is reddish orange, antennal segments I to IV yellow with tubercles, distal third of segments II and III and basal joint of IV black, legs yellow suffused with black, tarsi yellowish orange, and thorax and abdomen reddish orange. In *P. longicornis*, the pronotum is reddish orange with anterior lobe, including the calli black, antennal segments, legs, thorax and abdomen black to reddish brown, and connexivum black with anterior margin of segments II to VII usually yellow.

Distribution

This species is known only from Madagascar. The only previously known record came from the original description (Brailovsky 2002a).

Specimen examined. Madagascar: 1 ♀, Isalo Nat. Park, camp Namaza, near Ranohira, 17-18.I.2007 (*M. Tŕýzna*) (PBCC).

Parabrachytes coloratus Distant, 1879

(Figs 10f; 12a, b)

Parabrachytes coloratus Distant, 1879: 214.

Type material

Lectotype ♂: Madagascar: Antananarivo [without date] (BMNH).

Redescription

Male

Measurements. Head: length 1.75 mm, width across eyes 2.40 mm, interocular space 1.32 mm, length antennal segments: I, 3.40 mm, II, 4.20 mm, III, 3.00 mm, IV, 3.45 mm. Pronotum: length 4.22 mm, width across humeral angles 7.90 mm. Scutellum:

length 2.50 mm, width 2.60 mm. Abdomen: maximum width 10.30 mm. Body length 22.30 mm.

Dorsal color. Head yellowish orange; pastocular tubercle and neck black; antennal segments I to III black with basal joint of I and II yellowish orange, and IV dark reddish black with basal and apical joint black; pronotum and scutellum black; clavus and corium pale reddish orange; costal margin of corium with anterior half black and posterior half orange; hemelytral membrane dark brown; connexivum black with anterior margin yellowish orange; dorsal abdominal segments reddish orange, with posterior margin of VII black.

Ventral color. Head black with anterior third and rostral segments yellowish orange (apex of segment IV black); thorax including acetabulae and anterior and posterior lobe of metathoracic peritreme black; legs black with apical third of coxae, basal and apical margin of femora, and basal third of tibiae yellowish orange; abdominal sterna black with anterior third of pleural sterna III to VII, and rim of abdominal spiracle yellowish orange; genital capsule black.

Head. Antennal segment II clavate, and strongly tuberculated (Fig. 10f).

Thorax. Pronotum. Humeral angles moderately exposed, slightly subacute.

Genitalia. Genital capsule: Posteroventral edge scarcely sinuous. Paramere: Fig. 12a, b.

Female

Measurements. Head: length 1.83 mm, width across eyes 2.45 mm, interocular space 1.35 mm, length antennal segments: I, 3.70 mm, II, 4.28 mm, III, 3.50 mm, IV, 3.90 mm. Pronotum: length 4.70 mm, width across humeral angles 8.30 mm. Scutellum: length 2.70 mm, width 3.00 mm. Abdomen: maximum width 10.70 mm. Body length 24.00 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates black.

Head. Antennal segment II slightly clavate, and weakly tuberculated.

Comments

This is the only species in the genus *Parabrachytes* with antennal segments II and III, scutellum, thorax, abdomen, and tarsi entirely black.

Distribution

This species is known only from Madagascar (Distant 1879; Garcia Varela 1913; Brailovsky 2002a).

Specimens examined. 1 ♂, 4 ♀♀, Ambohusti Vondroina, 1000 m, [without date] (*Vadon*) (MNHN, UNAM); 1 ♀, Ambohimitombo, 1874 (MNHN); 2 ♀♀, Mandraka, between Tananarivo and Tamatave, Forêt de Manjavandriana, 1910 (*A. Mathiaux*) (MNHN, UNAM); 1 ♀, Tananarivo, Lamberton, 1912 (MNHN); 1 ♂, 2 ♀♀, Ambalamarovandana, 1500-1600 m, 15-25.I.1971 (MNHN); 1 ♂, 1 ♀, Diego Suárez [without date] (MNCN). New records. Madagascar: 2 ♀♀, Montagne d'Ambre, Lac Belle étape, X-XII.1903 (*Machulka*) (NMPC); 1 ♀, Province Moramanga, Anosibellody, 1000-1200 m, 31.I.1993 (*G. Dunay, J. Janák*) (NMPC); 1 ♀, Ranomafana Nat. Park, near Ranomafana Village, 26-31.I.2007 (*M. Trýzna*) (PBCC); 1 ♀, Province Fianarantsoa, Ranomafana Nat. Park, Belle Vue at Talatakely, 1020 m, 21°15'99"S-47°25'21"E, 15-

28.V.2003 (*R. Harin'Hala*) (CASC); 1 ♂, Ampijoroa, Ankarafantsika, 1070 m, I.1957 (*R. E.*) (MNHN); 2 ♀♀, Province Diego Suárez, Analamerana, 50 km SE Diego Suárez, 80 m, I.1959 (*A. Robinson*) (MNHN); 1 ♀, Montagne d'Ainore, Les Roussettes, 1100 m, IX.XII.1958 (*A. Robinson*) (MNHN); 1 ♂, Env. de Perinet, Forêt d'Analamazoates, 910 m, XII.1972 (*Peyrieras*) (MNHN).

Parabrachytes inornatus n. sp.
(Fig. 12e, f)

Type material

Holotype ♂: Madagascar South: W of Faux-Cap, XII.1951 (*R. P.*) (MNHN).

Paratypes: Madagascar South: 5 ♂♂, W of Faux-Cap, XII.1951 (*R. P.*) (MNHN; UNAM); 1 ♀, Ambovombe, VI.1939 (*Abadie*) (MNHN); 2 ♂♂, Pays Androy, Ambovombe, XI.1901 (*Ch. Alluaud*) (MNHN).

Derivatio nominis

Named for the fact that this species, like many others of this genus, does not exhibit any conspicuous structural features.

Description

Male holotype

Measurements. Head: length 1.74 mm, width across eyes 1.90 mm, interocular space 1.16 mm, length antennal segments: I, 2.80 mm, II, 3.20 mm, III, 2.52 mm, IV, 1.80 mm. Pronotum: length 3.34 mm, width across humeral angles 4.88 mm. Scutellum: length 1.88 mm, width 1.96 mm. Abdomen: maximum width 7.08 mm. Body length 16.42 mm.

Dorsal color. Head, pronotum, clavus and corium pale orange; tylus, juga and antenniferous tubercles with reddish-brown tubercles; antennal segment I yellow with reddish-brown tubercles, segments II and III yellow with apical third black, and pale reddish-brown tubercles scattered throught the segment, and IV yellow with basal third pale orange brown; scutellum black with lateral margins and apex pale orange; hemelytral membrane dark ambarine; connexivum dark orange with anterior border of segments III and IV yellow; dorsal abdominal segments shiny orange.

Ventral color. Head, thorax, abdominal sterna, and genital capsule pale orange; rostral segments I to III yellow with reddish-brown tubercles, and IV yellow with apex black; mesosternum pale yellowish orange with reddish-brown tubercles; anterior and posterior lobe of metathoracic peritreme yellow; coxae, trochanters, femora and tibiae yellow with reddish-brown tubercles; tarsi yellowish orange; rim of abdominal spiracle anteriorly yellow and posteriorly black; anterior border of pleural sterna III and IV pale yellow.

Head. Antennal segment II slightly clavate, and weakly tuberculated; antennal segment III weakly clavate.

Thorax. Humeral angles subtruncated, not exposed.

Genital capsule: Posteroventral edge transversely convex, with deep and short longitudinal furrow on middle third.

Female paratype

Measurements. Head: length 1.64 mm, width across eyes 2.00 mm, interocular space

1.28 mm, length antennal segments: I, 3.00 mm, II, 3.68 mm, III, 2.60 mm, IV, 1.96 mm. Pronotum: length 3.50 mm, width across humeral angles 5.68 mm. Scutellum: length 1.92 mm, width 2.32 mm. Abdomen: maximum width 8.00 mm. Body length 18.06 mm.

Habitus and color similar to male holotype. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates pale orange.

Variation

1 - Scutellar disk basally with pale orange spot on middle third.

Comments

Parabrachytes inornatus n. sp., and *P. obscurus* are the smallest species of the genus, size 18.10 mm or less. In *P. inornatus* n. sp., the costal margin of corium is entirely pale orange; antennal segment II slightly clavate and weakly tuberculated, the hemelytral membrane dark ambarine, and connexival segments VI and VII dark orange. In *P. obscurus*, the costal margin has alternating brown and yellow spots, antennal segment II is strongly clavate and tuberculated, the hemelytral membrane pale ambarine and suffused with dark orange-brown discoidal spots scattered throught the disk, and connexival segments VI and VII dark orange red, and usually with the anterior margin yellow.

Distribution

This new species is known only from Madagascar.

Parabrachytes longicornis Garcia Varela, 1913

(Fig. 10c)

Parabrachytes longicornis Garcia Varela, 1913: 20-21.

Type material

Holotype ♂: MADAGASCAR: Diego Suárez (MNCN).

Redescription

Female

Measurements. Head: length 2.00 mm, width across eyes 2.43 mm, interocular space 1.32 mm, length antennal segments: I, 4.10 mm, II, 4.80 mm, III, 3.70 mm, IV, 4.10 mm. Pronotum: length 5.08 mm, width across humeral angles 9.40 mm. Scutellum: length 3.10 mm, width 3.20 mm. Abdomen: maximum width 10.34 mm. Body length 25.32 mm.

Dorsal color. Head black with neck dirty yellow; antennal segments I to III black and IV dark reddish brown with basal joint black; pronotum reddish orange with collar, anterior margin and calli black; scutellum black with lateral margins and apex yellow; clavus and corium including costal margin reddish orange; hemelytral membrane dark ambarine with veins darker; connexivum black with anterior margin of segments II and III, and VI and VII yellow or anterior margin of segments II to VII yellow, and inner margin of segments IV and V black or dirty orange brown; dorsal abdominal segments shiny orange, except segment IX black.

Ventral color. Black with anterior margin of pleural sterna II and III, and VI and VII yellow and propleura and abdominal sterna III and IV with reddish-orange reflections; rostral

segments chestnut brown (apex of IV black); mesosternum with longitudinal furrow dirty yellow; anterior and posterior lobe of metathoracic peritreme, and legs black; rim of abdominal spiracle anteriorly yellow and posteriorly black.

Thorax. Humeral angles rounded, moderately exposed and slightly directed upward.

Male

Unknown.

Comments

Similar to *P. coloratus* in having antennal segments II and III, the thorax, abdomen, and tarsi black. In *P. longicornis*, the head and legs are entirely black, and the pronotum orange red with anterior lobe black. In *P. coloratus*, the head dorsally, trochanters, basal and distal third of femora, and basal third of tibiae yellow.

Distribution

This species is known only from Madagascar (Garcia Varela 1913; Brailovsky 2002a).

Specimens examined. Madagascar: 1 ♀, Onkarana Plaine de Diego Suárez [without date] (*Vadon, Peyrieras*) (MNHN); 1 ♀, Contreforts du Tsaratanama Haut. Sambirano, Vallée de la Besanetrikely, 9-12.XII.1963 (*P. Viette*) (MNHN). Madagascar: 1 ♀, Rogez [without date] (NMPC).

Parabrachytes morondavus Brailovsky, 2002

(Figs 10e; 12g, h)

Parabrachytes morondavus Brailovsky, 2002a: 99-100.

Type material

Holotype ♂: Madagascar: Antsalova, Antsingy Res. Nat., I.1975 (*A. Peyrieras*) (MNHN).

Paratypes: Madagascar: 1 ♂, Morondava Foret, Sud de Befasy, I.1956 (*R. P.*) (UNAM); 1 ♂, Antanemora, 300 m, 11.XII. 1959 (*E. S. Ross*) (CASC); 1 ♀, Antsalova, Antsingy Res. Nat., I.1975 (*A. Peyrieras*) (MNHN).

Redescription

Male

Measurements. Head: length 1.90 mm, width across eyes 2.40 mm, interocular space 1.40 mm, length antennal segments: I, 4.30 mm, II, 4.60 mm, III, 3.60 mm, IV, 3.20 mm. Pronotum: length 4.50 mm, width across humeral angles 8.00 mm. Scutellum: length 2.80 mm, width 3.20 mm. Abdomen: maximum width 12.70 mm. Body length 24.00 mm.

Dorsal color. Head, pronotum, clavus and corium pale reddish orange; antennal segments I to III yellow with tubercles and distal third black, and IV yellow with basal joint pale brown; scutellum pale reddish orange with two basal spots lateral to midline black or dark brown; hemelytral membrane ambarine with pale brown discoidal spots scattered throught the disk; connexivum reddish orange with black tubercles, and with anterior margins of segments II, III, and VII and upper anterior margins of V and VI yellow; dorsal abdominal segments shiny orange.

Ventral color. Including head, thorax, abdomen, and genital capsule pale reddish orange, with anterior margin of pleural sterna II, III and VII and upper anterior margin of V and VI yellow; tubercles of abdominal sterna black; rostral segments yellow with apex of IV black; coxae, trochanters, femora, tibiae and tarsi yellow with black tubercles; anterior and posterior lobe of metathoracic peritreme and rim of abdominal spiracle yellow.

Head. Apex of antennal segment II remarkably clavate and tuberculated (Fig. 10e).

Thorax. Humeral angles subacute, slightly exposed, and directed upward.

Genitalia. Genital capsule: Posteroventral edge transversely straight, at middle third with elongate furrow. Paramere: Fig. 12g, h.

Female

Measurements. Head: length 1.90 mm, width across eyes 2.40 mm, interocular space 1.40 mm, length antennal segments: I, 4.30 mm, II, 4.70 mm, III, 3.50 mm, IV, 3.10 mm. Pronotum: length 4.70 mm, width across humeral angles 9.10 mm. Scutellum: length 3.10 mm, width 3.20 mm. Abdomen: maximum width 13.00 mm. Body length 23.20 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates reddish orange.

Comments

This species is related to *P. antsalovus* and *P. obscurus* in having antennal segments II and III yellow with tubercles and distal third black, pronotum reddish orange and tarsi yellowish orange. *Parabrachytes morondavus* is recognized by having the hemelytral membrane dark with fuscous spots, by the peculiar shape of humeral angles of pronotum, by having the apical third of antennal segment II strongly clavate and tuberculated, and the total body length over 22.00 mm. In *P. obscurus*, antennal segment II is tuberculated but not strongly clavate, and the total body length is shorter than 18.00 mm.

Distribution

This species is known only from Madagascar. The only previously known record came from the original description (Brailovsky 2002a).

Specimens examined. Madagascar: 1 ♀, Province Diego Suárez, Analamerana, 50 km SE Diego Suárez, 80 m, I.1959 (*A. Robinson*) (MNHN); 1 ♂, 1 ♀, Province Antsalova, Andobo, Foret Antsingy, 1900 m, II.1957 (*P. Griv*) (MNHN).

Parabrachytes obscurus Distant, 1879

(Figs 10g; 12c, d)

Parabrachytes obscurus Distant, 1879: 214-215.

Type material

Lectotype ♂: Madagascar: Antananarivo [without date] (BMNH).

Redescription

Male

Measurements. Head: length 1.45 mm, width across eyes 1.70 mm, interocular space 1.00 mm, length antennal segments: I, 2.40 mm, II, 2.40 mm, III, 2.05 mm, IV, missing.

Pronotum: length 3.40 mm, width across humeral angles 6.00 mm. Scutellum: length 2.10 mm, width 2.30 mm. Abdomen: maximum width 8.10 mm. Body length 16.92 mm.

Dorsal color. Head pale yellowish orange with pink reflections, and with the tubercles black to reddish brown; antennal segment I yellow with tubercles suffused with black, segments II and III yellow with basal joint and distal third black, and IV yellowish orange with pink reflections; costal margin of corium with alternating brown and yellow spots; hemelytral membrane pale ambarine with dark orange brown discoidal spots scattered throught the disk, and with anterior third including basal angle dark orange brown; connexivum dark orange red with tubercles black, and with anterior margin of segments II, III, and VII yellow or with anterior margin of segments II to VII yellow; dorsal abdominal segments shiny orange with posterior margin of VII dark orange.

Ventral color. Dark orange with pink reflections, tubercles black, and following areas shiny yellow: anterior margin of pleural sterna II, III, and VII, or II and VII, and rim of abdominal spiracle; acetabulae, and posterior margin of metasternum dirty yellow with punctures orange pink; rostral segments dark yellow with tubercles of segments I and II and apex of segments III and IV black; coxae, trochanters, femora, and tibiae yellow with tubercles and punctures suffused with black; tarsi shiny yellowish orange; anterior and posterior lobe of metathoracic peritreme dark orange to yellow; genital capsule dark orange.

Thorax. Humeral angles rounded, moderately exposed.

Genitalia. Genital capsule: Posteroventral edge transversely straight, with short longitudinal furrow at middle third. Paramere: Fig. 12c, d.

Female

Measurements. Head: length 1.70 mm, width across eyes 2.00 mm, interocular space 1.15 mm, length antennal segments: I, 2.70 mm, II, 3.20 mm, III, 2.60 mm, IV, missing. Pronotum: length 3.30 mm, width across humeral angles 5.20 mm. Scutellum: length 1.90 mm, width 2.00 mm. Abdomen: maximum width 7.30 mm. Body length 17.32 mm.

Habitus and color similar to male. Connexival segments VIII and IX dark orange red; dorsal abdominal segments VII to IX shiny orange; genital plates dark orange.

Comments

Parabrachytes obscurus can be distinguished from other species by the long, robust creamy yellow spines on antennal segment I, the costal margin of corium alternating brown and yellow spots, and the hemelytral membrane ambarine with fuscous discoidal spots.

Distribution

This species is known only from Madagascar (DISTANT 1879; BRAILOVSKY 2002a).

MADAGASCAR: 1 ♀, Dinbohitantely, I.1956 (MNHN); 2 ♂♂, 1 ♀ [without date] (MNHN, UNAM); 1 ♂, Ambatolampy [without date] (MNHN); 2 ♂♂, 2 ♀♀, Andringitra, Forêt de Vakoana, 2100 m, 2.XI.1949 (MNHN); 1 ♂, Manjakatompo, XII.1948 (*CAPUSON*) (MNHN); 1 ♀, Ambovombe, VI.1939 (UNAM). New records. MADAGASCAR: 1 ♀, 30 km SEE of Betroka, 2 km E of Vohitrosa Forest, 1400-1825 m, 17-23.XII.1998 (*P. BUURSCH*) (NMPC); 4 ♂♂, 9 ♀♀, Antsirabe, I.1953 (*BOUVET*) (MNHN, UNAM); 6 ♂♂, 4 ♀♀, Mananjary, 8-30.I.1940 (*M. ABADIE*) (MNHN); 1 ♂, Andohahelo, 1500 m [without date] (*R. P.*) (MNHN); 2 ♂♂, 3 ♀♀, Bezanozano, 1898 (MNHN).

Tribe Dasynini Bergroth, 1913

Body dull and pale colored, medium to large-sized, relatively broad, nearly parallel-sided.

Head

Comparatively long, wider than long, shorter than length of pronotum, distinctly produced and surpassing the antenniferous tubercles; tylus not protracted, apically rounded; antennal segment I cylindrical, apically slightly expanded, not clavate or dilated; antennal segment IV longer than I; eyes hemispheric, protruding; rostrum slender, reaching or extending beyond mesosternum.

Thorax

Claval suture not longer than apical corial margin; mesosternum anteriorly not sulcate; legs slender; fore femora unarmed or with two rows of spines or tubercles ventrally; male hind femora not distinctly incrassate, reaching middle third of abdomen, and not attaining the apex of last abdominal segment; hind tibiae sulcate, not expanded or only expanded ventrally.

Abdomen

Parallel-sided, not dilated laterally; abdominal sterna without lateral discoidal glandular capsules; abdominal spiracle small, rounded, situated before the middle of sternum and much closer to middle third of pleural margin.

Only one genus and two species are known to Madagascar.

Genus *Madagalaesus* Brailovsky, 2007

Madagalaesus Brailovsky, 2007: 847-850.

Redescription

Body nearly parallel-sided.

Head

Wider than long, pentagonal, non-declivent, dorsally flat, and distinctly produced and surpassing the antenniferous tubercles; tylus unarmed, apically globose, barely raised, extending anteriorly to and laterally higher than juga; juga unarmed; antenniferous tubercles unarmed, continuous, almost circular, not prominent, widely separated; antennal segment I thicker than succeeding segments, cylindrical, curved outward, apically slightly expanded, longer than head; antennal segments II and III slender, slightly expanded apically, and flanked by carinae, and segment IV fusiform; antennal segment IV the longest, III the shortest, and I longer than II, or antennal segment II the longest, III the shortest, and IV longer than I; ocelli distant, placed near eyes; ocellar tubercles barely raised; preocellar pit deep; eyes globose, upper margin located almost at same level as frontal and vertex area; postocular tubercle indistinct; mandibular plate unarmed; buccula rectangular, raised, short, entire, not projecting beyond antenniferous tubercles, meeting posteriorly, and closed; rostrum slender, reaching posterior margin of metasternum or posterior margin of abdominal sternite III; rostral segment I not extending beyond base of head or reaching anterior margin of prosternum, or reach-

ing or passing posterior margin of metasternum; rostral segment IV the longest, III the shortest, and I and II subequal.

Thorax

Pronotum. Trapezoidal, wider than long, gradually declivent; collar wide; anterior border almost straight, smooth; frontal angles barely exposed; anterolateral borders obliquely straight, nodulose; humeral angles thick at base, tapering into strongly large, acute spine, pointing strongly dorsad, or tapering into medium-sized to stout spine pointing laterally, slightly laterad, and barely dorsad; posterolateral borders sinuous, outer third nodulose, inner third smooth; posterior border straight or weakly concave, smooth; calli indistinct, not raised, with deep submedial longitudinal furrow; triangular process absent; pronotal disk without longitudinal medial carinae; posterior margin with low transverse ridge, running between humeral angles.

Prosternum with deep excavation; mesosternum and metasternum entire; anterior margin of mesosternum in front of the area between fore legs produced into broad, blunt keel.

Legs. Slender, unarmed; tibiae cylindrical, sulcate.

Scutellum. Triangular, longer than wide, flat, apically subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginated; apical margin sinuous with apical angle obtuse, extending beyond middle third of membrane.

Abdomen

Connexivum raised above tergum, with posterior angle sometimes produced into short, subacute spine; abdominal sterna without medial furrow; abdominal spiracles circular, small, closest to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible.

Male *genitalia*. Genital capsule: Posteroventral edge with lateral angles rounded, and mesial lobe stout and apically bifid, or mesial lobe short and rounded (Fig. 19a, b). Paramere: Fig. 19e, f.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica short, subtriangular, reaching anterior margin of the sternite, or reduced to small hemispheric elevation; fissura covering 2/3 to almost the entire length of sternite; gonocoxae I wide, enlarged anteroposteriorly, in caudal view closed, in lateral view convex; paratergite VIII triangular, spiracle visible; paratergite IX projected as a broad subquadrate lobe (Fig. 19c, d).

Integument

Body rather dull, almost glabrous; posterior lobe of pronotal disk, clavus and corium strongly punctated; head, calli, connexivum, prosternum, mesosternum, metasternum, abdominal sterna, male genital capsule, and female genital plates not punctate; propleura, mesopleura, metapleura and acetabulae strongly punctate or with scattered punctures; scutellum transversely striated, strongly punctate or with scattered punctures; tibiae and tarsi densely clothed with large, erect, bristle-like setae; antennal segments with tiny setae, not densely adpressed.

Comments

Madagalaesus, like *Galaesus*, have the postocular tubercle indistinct, antenniferous tubercles unarmed, rostral segment IV the longest, collar wide, femora unarmed, and female

abdominal sternite VII with plica and fissura. *Madagalaesus*, known only from Madagascar, is recognized by having the humeral angles projected into large and acute spines, abdominal sterna III to VI yellow to pale yellowish orange, without black anterior margin, and antennal segments II and III cylindrical, with apical third weakly stout and carinate. In *Galaesus*, recorded from the African continent, the humeral angles are obtuse and rounded, the abdominal sterna III to VI yellow or pale yellowish orange, or reddish orange and always with the anterior margin black, and antennal segments II and III uniformly carinate, with apical third cylindrical or strongly expanded, and obovate (Brailovsky 2007).

Type species

Madagalaesus garciai Brailovsky, 2007.

Clé des espèces malgaches de Madagalaesus

1. Face dorsale de la tête jaune orangé pâle avec une mince bande noire médiane, longitudinale ; pronotum sans bande noire transversale près de la marge postérieure ; scutellum orange pâle avec deux taches basales noires arrondies ; angles huméraux étirés en longue pointe remarquablement aiguë ; bord postéroventral du pygophore avec un fort lobe médian bifide ..... ***garciai*** Brailovsky

– Face dorsale de la tête jaune pâle sans bande noire médiane longitudinale ; pronotum avec une large bande transverse noire près de la marge postérieure ; scutellum jaune foncé avec une ponctuation brun rouge ; angles huméraux étirés en épine de taille moyenne ou robuste, dirigée vers l'extérieur et à peine vers l'arrière ; bord postéroventral du pygophore avec un petit lobe médian court et arrondi ..... ***notios*** Brailovsky

Key to Malagasy species of Madagalaesus

1. Head dorsally pale orange yellow with narrow longitudinal black stripe at midline; pronotal disk without black transverse stripe near to posterior margin; scutellar disk pale orange, basally with two black discoidal spots; humeral angles tapering into strongly large, acute spine; posteroventral edge of male genital capsule apically bifid with stout mesial lobe ..... ***garciai*** Brailovsky

– Head dorsally pale yellow without longitudinal black mesial stripe; pronotal disk with wide transverse black stripe near to posterior margin; scutellum dark yellow with reddish-brown punctures; humeral angles tapering into medium-sized or stout spine, pointing laterally and barely posteriad; posteroventral edge of male genital capsule with mesial lobe short and rounded ..... ***notios*** Brailovsky

Madagalaesus garciai Brailovsky, 2007

(Figs 19a, d-f; 21)

Madagalaesus garciai Brailovsky, 2007: 850-853.

Type material

Holotype ♂: Madagascar: Diego Suárez ? (Légion étrangère), 1903 (MNHN).

Paratypes: Madagascar: 2 ♂♂, 1 ♀, Hera, Ankazoabo [without date] (MNHN, UNAM); 1 ♀, Morondava, Forêt Sud de Betasy, I.1956 (*R. P.*) (MNHN). Madagascar South: 1 ♀ (*A. Seyrig*) [without date] (UNAM).

Redescription

Male

Measurements. Head: length 2.20 mm; width across eyes 2.28 mm; interocular distance 1.14 mm; interocellar distance 0.60 mm; length antennal segments: I, 4.33 mm, II, 3.87 mm, III, 3.11 mm, IV, 4.94 mm. Pronotum: length 3.34 mm, width across humeral angles 6.61 mm. Scutellum: length 2.12 mm; width 1.90 mm. Body length 18.27 mm.

Color. Pale yellowish orange with following areas black: head dorsally with single and narrow longitudinal stripe on midline, apex of rostral segment IV, anterolateral margins of pronotum, large discoidal spot on propleura, mesopleura and metapleura, two wide discoidal spots on basal third of scutellar disk, basal 2/3 of costal margin of corium, large discoidal spot between abdominal segments V-VI, two large discoidal spots on abdominal sterna III to V, and one on sterna VI-VII; antennal segment I reddish brown with apical third black, and IV reddish brown with middle third black; hemelytral membrane dark brown with basal angle pale yellowish orange.

Structure. Antennal segment IV the longest, III the shortest, and I longer than II; rostrum reaching posterior margin of metasternum; rostral segment I reaching base of head; humeral angles tapering into strongly large, acute spine pointing upward; connexivum with posterior angles produced into short subacute spine; prapleura, mesopleura, metapleura, and acetabulae strongly punctate.

Genitalia. Genital capsule: Posteroventral edge with lateral angles rounded, and mesial lobe stout, apically bifid (Fig. 19a). Paramere: Fig. 19e, f.

Female

Measurements. Head: length 1.97 mm; width across eyes 2.37 mm; interocular distance 1.32 mm; interocellar distance 0.65 mm; length antennal segments: I, 3.42 mm, II, 3.26 mm, III, 2.67 mm, IV, 3.95 mm. Pronotum: length 3.42 mm, width across humeral angles 6.46 mm. Scutellum: length 2.12 mm; width 1.90 mm. Body length 18.70 mm.

Habitus and color similar to male. Antennal segment I dark yellow, with basal joint paler; antennal segments II and III dark yellow with apical third black, and IV dark yellow with middle third pale brown; connexivum shiny reddish orange, with upper border pale yellow; dorsal abdominal segments shiny reddish orange with pale brown discoidal spot between segments V and VI; genital plates pale yellowish orange.

Genital plates: Plica short, subtriangular, reaching anterior margin of sternite; fissura covered 2/3 of total sternite length (Fig. 19d).

Variation

1 - Antennal segment I dark orange with basal joint paler. 2 - Antennal segments II and III dark orange with apical third black. 3 - Antennal segment IV dark orange with middle third pale brown. 4 - Connexivum and dorsal abdominal segments shiny reddish orange. 5 - Upper border of connexivum pale yellow or shiny reddish orange. 6 - Abdominal sterna III and V with one large black discoidal spot.

Distribution

This species, recently described from Madagascar (Brailovsky 2007), is endemic to that region. Known only from Madagascar.

Specimens examined. MADAGASCAR: Diego Suárez, Hera (Ankazoabo), Morondava, and Bekily.

Madagalaesus notios Brailovsky, 2007

(Figs 19b-c; 20)

Madagalaesus notios Brailovsky, 2007: 853-855.

Type material

Holotype ♂: MADAGASCAR: District Mahajamba, Mahaganga, River Ampatika Env., 10-12.XII.1996 (*I. JEANIS*) (NMPC).

Paratypes: MADAGASCAR: 1 ♂, Bezanozano [without date] (MNHN); 1 ♀, Ampandrandava (*A. SEYRIG*) [without date] (UNAM).

Redescription

Male

Measurements. Head: length 1.76 mm; width across eyes 2.05 mm; interocular distance 1.09 mm; interocellar distance 0.48 mm; length antennal segments: I, 3.49 mm, II, 4.18 mm, III, 2.66 mm, IV, 3.87 mm. Pronotum: length 2.81 mm, width across humeral angles 5.01 mm. Scutellum: length 1.90 mm; width 1.67 mm. Body length 15.30 mm.

Dorsal color. Head pale yellow; preocular and postocular areas black; antennal segment I shiny reddish orange, II and III dark orange with apical third black, and IV with basal half pale orange (basal joint black) and apical half pale brown (apex dark brown); pronotum pale yellow with anterolateral margins, borders of humeral spine, and wide transverse stripe near posterior margin black; posterior margin dark yellow with reddish-brown punctures; scutellum dark yellow with reddish-brown punctures, and apically pale yellow; clavus dark yellow with reddish-brown punctures; corium dark yellow, costal margin black (except apical third), with reddish-brown punctures; hemelytral membrane dark yellowish with basal angle pale brown; connexivum yellow with posterior angle and inner border black; dorsal abdominal segments III to VI shiny reddish orange, and VII shiny reddish orange with posterior border yellow and black stripe dorsally.

Ventral color. Pale yellow with apex of rostral segment IV, and large discoidal spot on abdominal sterna IV and V black; coxae and trochanter pale yellow; femora dark yellow with apex tinged with pale orange marks; tibiae and tarsi shiny reddish orange.

Structure. Antennal segment II the longest, III the shortest, and IV longer than I; rostrum reaching posterior margin of abdominal sternite III; rostral segment I reaching anterior margin of prosternum; humeral angles tapering into medium-sized or stout spine pointing laterad, and barely posteriorly and dorsally; connexivum with posterior angles produced into short subacute spine; propleura, mesopleura, metapleura, and acetabulae with scattered punctures.

Genital capsule: Posteroventral edge with lateral angles rounded, and mesial lobe short and rounded (Fig. 19b).

Female

Measurements. Head; length 2.05 mm; width across eyes 2.28 mm; interocular distance 1.29 mm; interocellar distance 0.60 mm; length antennal segments: I, 3.64 mm, II, 4.25 mm, III, 2.73 mm, IV, 4.02 mm. Pronotum: length 3.26 mm, width across humeral

angles 6.08 mm. Scutellum: length 2.20 mm; width 2.10 mm. Body length 18.60 mm.

Habitus and color similar to male. Connexival segments VIII and IX shiny reddish orange, with upper border yellow, and inner margin suffused with pale brown marks; dorsal abdominal segments VIII and IX shiny reddish orange; genital plates pale yellow.

Genital plates: Plica reduced to small hemispheric elevation; fissura covering almost the entire length of sternite (Fig. 19c).

Variation

1 - Humeral spine shorter and robust. 2 - Fore and middle legs with femora, tibiae and tarsi dark yellow. 3 - Inner margin of connexivum shiny reddish orange.

Comments

Madagalaesus notios is distinguished by having the head dorsally pale yellow without a longitudinal black stripe, pronotal disk with wide transverse black stripe near the posterior margin, and humeral angles tapering into medium-sized or stout spine, pointing laterally and barely posteriad. In *M. garciai*, the other previously known species, the head in dorsal view exhibits a pale yellowish-orange color with a narrow longitudinal black stripe on middle third, the pronotal disk without black transverse stripe near the posterior margin, and humeral angles tapering into a remarkably large and acute spine.

Distribution

This species, recently described from Madagascar, is endemic to that region. MADAGASCAR: Mahajamba, Bezanozano, Ampandrandava, Fomboni, and Bekily.

TRIBE GONOCERINI STÅL, 1873

Head

Comparative long; preocular region surpassing the antenniferous tubercles; tylus apically rounded, not compressed laterally; rostrum slender, reaching or extending beyond mesosternum.

Thorax

Legs unarmed; hind femora not incrassate, and not attaining the apex of abdomen; tibiae sulcate, not expanded; claval suture shorter than apical corial margin; mesopleura or metapleura or both usually with black discoidal spot;

Abdomen

Parallel-sided or slightly expanded; abdominal spiracles circular, small, closer to anterior border, and remote from upper border of connexivum, or located almost on the middle of abdominal sterna, and much nearer to the lateral border of pleural margin; distance between abdominal spiracles and lateral margin of abdomen shorter than distance between spiracle and anterior margin of each sternite.

Clé des genres malgaches de Gonocerini

1. Lobe antérieur du péritrème métathoracique réniforme, lobe postérieur plus court, chacun dirigé latéralement, laissant l'orifice glandulaire largement ouvert ; tête pentagonale, légèrement inclinée **2**

– Lobes antérieur et postérieur du péritrème métathoracique bilobés ou à contours subcordiforme avec un petit orifice glandulaire ; tête subquadrangulaire, brusquement inclinée ..... ***Cletoscellus*** n. gen.

2. Bord externe de la corie lisse, non dentelé ; l'espace entre les coxae postérieures de 1 à 1,5 fois le diamètre de l'une des coxae ; bord postéroventral du pygophore avec une plaque médiane saillante ..... ***Plinachtus*** Stål

– Bord externe de la corie crénelé à dentelé ; l'espace entre les coxae postérieures inférieure à la moitié du diamètre de l'une des coxae ; bord postéroventral du pygophore sans plaque médiane **3**

3. Longueur de la région antéoculaire supérieure à 1 mm ; tête pentagonale ; angles postérieurs des segments V et VI (connexivum) armés de petites saillies mousses ; paratergites VII réduits, presque cachés par les marges latérales du sternite VII de l'abdomen ; abdomen arrondi, distinctement plus large que les hémélytres ; front et vertex avec un profond sillon longitudinal ..... ***Cletoliturus*** n. gen.

– Longueur de la région antéoculaire inférieure à 0,70 mm ; tête subquadrangulaire, inclinée obliquement ; angles postérieurs des segments V et VI (connexivum) non armés ; paratergites VIII triangulaires et bien développés ; abdomen à côtés parallèles, non distinctement plus large que les hémélytres ; front avec un profond sillon longitudinal, parfois présent sur le vertex ..... ***Cletus*** Stål

Key to Malagasy genera of Gonocerini

1. Anterior lobe of metathoracic peritreme reniform, posterior lobe shorter, each directed laterally, leaving the scent gland orifice exposed; head pentagonal, moderately bent downward **2**

– Anterior and posterior lobe of metathoracic peritreme bilobed or subcordate in outline, with the scent gland orifice small; head subquadrate, abruptly bent downward ..... ***Cletoscellus*** n. gen.

2. Costal margin of the corium smooth, unserrate; space between each hind coxae 1 to 1.5 times the diameter of one coxae; posteroventral edge of male genital capsule with prominent medial plate ..... ***Plinachtus*** Stål

– Costal margin of the corium crenulate to serrate; space between each hind coxae less than 0.5 times the diameter of one coxae; posteroventral edge of male genital capsule without median plate **3**

3 Preocular length longer than 1.00 mm; head pentagonal; posterior angles of connexival segments V and VI armed with short obtuse projection; paratergite VIII reduced, almost hidden by the lateral margins of abdominal sternite VII; abdomen rounded, distinctly broader than the hemelytra; frons and vertex with deep longitudinal sulcus ..... ***Cletoliturus*** n. gen.

– Head smaller; preocular length shorter than 0.70 mm; head subquadrate, moderatelly bent down; posterior angles of connexival segments V and VI unarmed; paratergite VIII triangular, and well developed; abdomen parallel-sided,

not distinctly broader than hemelytra; frons with deep longitudinal sulcus, faint on the vertex ..... ***Cletus*** Stål

Genus *Cletus* Stål, 1859

Cletus Stål, 1859a: 236.

Redescription

Body almost parallel-sided.

Head

Wider than long, shorter than length of pronotum, pentagonal, moderatelly bending, dorsally flat, distinctly produced and surpassing the antenniferous tubercles; tylus unarmed, apically globose or flat, barely raised, extending anteriorly to and laterally higher than juga; juga unarmed; antenniferous tubercles unarmed, borders entire, continuous, almost circular, not prominent, widely separated; preocular length shorter than 0.70 mm; antennal segment I thicker than segments II and III, and barely thicker than IV, cylindrical, curved laterally, longer than head, and granulate; antennal segments II and III slender, cylindrical, and IV fusiform; antennal segment I always longer than IV; length of antennal segments variable through the species; ocelli close to eyes, on an hypothetical line located slightly behind posterior margin of eyes; ocellar tubercle weakly raised; preocellar pit deep; eyes globose, upper margin located almost at same level of frons and vertex; postocular tubercle conspicuous; middle third of frons with deep longitudinal sulcus; vertex without longitudinal sulcus; mandibular plate unarmed; buccula rectangular, raised, short, entire with more or less anterior free angle, not projecting beyond antenniferous tubercles, meeting posteriorly and closed; rostrum reaching anterior or posterior third of metasternum; rostral segment I reaching the base of the head, or extending to the anterior border of prosternum; rostral segment III the shortest, IV shorter than I, and II longest or subequal to I.

Thorax

Pronotum. Wider than long, trapeziform, declivent; collar wide; anterior border almost straight, smooth; frontal angles not exposed; anterolateral borders obliquely straight, crenulate to serrulate; humeral angles thick at base, with the projection variable throughout the species; posterolateral borders sinuous, outer third crenulate to serrulate, inner third smooth; posterior border straight; calli indistinct, not raised, with deep submedial longitudinal furrow; triangular process absent; pronotal disk without medial carina; posterior margin with low transverse ridge running between humeral angles. Prosternum with deep excavation; mesosternum feebly sulcate; metasternum deeply sulcate; anterior margin of mesosternum in front of the area between fore legs produced into broad and blunt keel; distance between procoxae, and mesocoxae two times the diameter of procoxae; distance between mesocoxae and metacoxae almost equal or less than diameter of mesocoxae; anterior lobe of metathoracic peritreme raised, reniform, posterior lobe raised, shorter, and each directed laterally; scent gland orifice wide open; evaporative area poorly developed.

Legs. Unarmed; space between each hind coxae reduced, coxae almost contiguous, separated by less than half the diameter of one coxae; hind femora not attaining the apex of abdomen; tibiae terete, sulcate.

Scutellum. Wider than long, triangular, flat, apically subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment or extending slightly beyond the abdomen; costal margin emarginated, almost parallel-sided, basal half crenulate, and posterior half entire; apical margin sinuous; apical angle obtuse, not reaching middle third of hemelytral membrane.

Abdomen

Weakly dilated at connexival segments IV-V; connexivum distinctly raised above tergum with posterior angles unarmed, not produced into short spines; upper margin of connexivum crenulate; abdominal sterna without medial furrow; abdominal spiracles circular, small, closer to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible.

Male *genitalia*. Genital capsule: Posteroventral edge variable through the species.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica reduced, occupying the anterior border of the sternite, and barely concave; fissura covers 2/3 or more of the total length of the sternite; gonocoxae I wide, enlarged antero-posteriorly, in caudal view closed, in lateral view convex, entire; paratergite VIII triangular, small, with visible spiracle; paratergite IX broad, subquadrate.

Integument

Body surface dull, almost glabrous. Head, collar, posterior lobe of pronotal disk, clavus, corium, acetabulae, propleura, mesopleura, metapleura, connexival segments III-IV, and anterior and posterior margins of V strongly punctate; scutellar disk transversely wrinkled and strongly punctate; calli, male genital capsule, and gonocoxae I with less dense punctation; middle third of ventral head, prosternum, mesosternum, and metasternum smooth; abdominal sterna finely punctate; femora and tibiae usually granulate.

Comments

Cletus, like *Cletomorpha*, has the anterior lobe of metathoracic peritreme reniform, the posterior lobe shorter, each directed laterally, and the scent gland orifice widely opened. In *Cletomorpha*, the vertex has a deep longitudinal sulcus, the head elongate, with the preocular length longer than 1.00 mm, the posterior angles of connexival segments IV to VI or V and VI armed with a short and obtuse projection, the abdomen more rounded at each side, and distinctly broader than the hemelytra, and paratergite VIII reduced, almost hidden by the lateral margins of abdominal sternite VII. In *Cletus*, the frons has a deep longitudinal sulcus, and the vertex lacks a sulcus, the head smaller, conspicuously bending, with the preocular length shorter than 0.70 mm, the connexival segments always unarmed, the abdomen parallel-sided, never expanded, and not distinctly broader than hemelytra, and paratergite VIII triangular, exposed, and well developed.

Type species

Cimex trigonus Thunberg, 1783.

Clé des espèces malgaches de Cletus

1. Bord apical de la corie avec une ou deux petites taches rondes blanchâtre ou ivoire, ou avec une bande transverse arrondie blanchâtre ou ivoire **2**

– Bord apical de la corie sans tache blanchâtre ou ivoire, ronde ou transverse **5**

2. Bord apical de la corie avec une bande transverse distincte blanchâtre ou ivoire ..... ***pronus*** Bergroth

– Bord apical de la corie avec une ou deux petites taches arrondies blanchâtre ou ivoire **3**

3. Pronotum distinctement bicolore, avec un contraste marqué entre le lobe antérieur pâle et le lobe postérieur foncé ; mésopleure avec une grande tache noire arrondie ..... ***poikilus*** n. sp.

– Couleurs des lobes antérieur et postérieur du pronotum non contrastées ; mésopleure avec ou sans minuscule tache ronde brun clair à noir **4**

4. Angles huméraux obtus et mousses, ou effilés en une courte épine aiguë (Fig. 25a) ; face dorsale orange pâle ; petite espèce n'atteignant pas 8,4 mm ; coxae orange pâle dépourvues de tache noire arrondie ; moitié antérieure du bord externe de la corie jaune pâle ..... ***clavatus*** (Signoret)

– Angles huméraux du pronotum fortement proéminents, étirés, se terminant distinctement en pointe (Fig. 24b) ; couleur de la face dorsale brun rouge brillant ; grande espèce dépassant 9,5 mm de long ; coxae jaunâtre orangé avec des taches noires arrondies ; moitié antérieure du bord externe de la corie brun rougeâtre ..... ***presignus*** n. sp.

5. Connexivum des segments IV-V entièrement bun clair à foncé ; bord postéroventral du pygophore avec un lobe médian étroit, saillant et quadrangulaire (Fig. 27j) ; couleurs respectives des lobes antérieur et postérieur du pronotum non brusquement contrastées ..... ***ochraceus*** (Herrich-Schaeffer)

– Connexivum des segments IV-V jaune avec la marge antérieure ou postérieure, ou les deux marges, brun clair à foncé ; bord postéroventral du pygophore d'une autre forme (Fig. 27c, e) ; couleurs respectives des lobes antérieur et postérieur du pronotum nettement et brusquement contrastée **6**

6. Connexivum du segment IV jaune avec la marge postérieure brun clair ; connexivum du segment V brun clair avec une tache centrale irrégulière jaunâtre ; longueur de l'article I des antennes supérieure à 1,40 mm ; longueur de la tête supérieure à 1,20 mm ..... ***incultus*** n. sp.

– Connexivum des segments IV-V jaune pâle avec le bord antérieur et la marge postérieure brun foncé à clair ; longueur de l'article I des antennes inférieure à 1,25 mm ; longueur de la tête inférieur à 1,15 mm ..... ***capensis*** (Westwood)

Key to Malagasy species of Cletus

1. Apical edge of corium with one or two small whitish to ivory discoidal spots, or with distinct transverse whitish to ivory discoidal stripe **2**

– Apical edge of corium without rounded or transverse whitish to ivory spots or stripes **5**

2. Apical margin of corium with distinct transverse whitish to ivory stripe ..... ***pronus*** Bergroth

– Apical edge of corium with one or two small whitish to ivory discoidal spots **3**

3. Pronotal disk distinctly bicoloured, with sharp contrast between the pale anterior lobe, and the dark posterior lobe; mesopleura with large black discoidal spot ..... ***poikilus*** n. sp.

- Colours of anterior and posterior lobes of pronotal disk not contrasting with each other; mesopleura without or with tiny black to pale brown discoidal spot..... **4**

4. Humeral angles obtuse and blunt, or tapering into short acute spine (Fig. 25a); dorsal color pale orange; small species less than 8.4 mm long; coxae pale orange lacking a black discoidal spot; anterior half of costal margin of corium pale yellow..... ***clavatus*** (Signoret)

- Humeral angles of pronotum strongly produced, elangate, ending in a distinct sharp spine (Fig. 24b); dorsal color shiny reddish brown; large species, longer than 9.5 mm; coxae yellowish orange with black discoidal spots; anterior half of costal margin of corium reddish brown ..... ***presignus*** n. sp.

5. Connexival segments IV-V entirely dark to pale brown; posteroventral edge of male genital capsule with mesial lobe narrowed, protruding, and quadrate (Fig. 27j); colours of anterior and posterior lobes of pronotal disk not sharply contrasting with each other ..... ***ochraceus*** (Herrich-Schaeffer)

- Connexival segments IV-V yellow with anterior or posterior margin or both dark to pale brown; posteroventral edge of male genital capsule with other shape (Fig. 27c, e) colours of anterior and posterior lobes of pronotal disk clearly and sharply contrasted..... **6**

6. Connexival segment IV yellow with posterior margin pale brown; connexival segment V pale brown with yellowish centraland irregular spot; length of antennal segment I longer than 1.40 mm; head longer than 1.20 mm..... ***incultus*** n. sp.

- Connexival segments IV-V pale yellow with anterior border and posterior margin dark to pale brown; antennal segment I shorter than 1.25 mm; head shorter than 1.15 mm..... ***capensis*** (Westwood)

Cletus incultus n. sp.

(Figs 22e; 25e, f; 26c; 27c; 28e, f; 36)

Type material

Holotype ♂: MADAGASCAR: Prov. d'Analalava, Maromandia, 1923 *(R. DECARY)* (MNHN).

Paratypes: 3 ♂♂, 1 ♀, same data as holotype (MNHN, UNAM).

Derivatio nominis

From the Latin, *incultus*, for uncultivated, refering to the relatively non-distinct nature of the species.

Description

Male holotype

Measurements. Head: length 1.20 mm; width across eyes 1.48 mm; interocular space 0.82 mm; preocular distance 0.58 mm; length antennal segments: I, 1.44 mm, II, 1.56 mm, III,1.40 mm, IV, 1.28 mm. Pronotum: length 1.88 mm, width across humeral angles including the humeral spine 3.60 mm. Scutellum: length 1.04 mm, width 1.20 mm. Abdomen: maximum width 3.04 mm. Body length 7.73 mm.

Dorsal color. Head and anterior lobe of pronotal disk pale yellow with granules and narrow longitudinal black to reddish brown stripe behind eyes; antennal segments I to III pale yellowish orange, and IV dark brownish orange with basal joint and apex paler;

posterior lobe or pronotal disk pale brownish yellow, clearly contrasting with anterior lobe, with black to reddish brown punctures; scutellum dark yellow, punctures black to reddish brown, and apex pale yellow; clavus and corium dark yellow, densely suffused with pink marks, punctures black to reddish brown, and anterior half of costal margin of corium pale yellow; hemelytral membrane translucient with basal angle dark brown; connexival segment III yellow with inner margin pale brown, IV yellow with posterior margin pale brown, V pale brown with yellowish irregular central spot, and VI and VII yellow with anterior and posterior margins pale yellow; dorsal abdominal segments II to VI dark orange, and VII dark orange, and laterally black.

Ventral color. Pale yellow with following areas black: apex of rostral segment IV, scattered punctures on propleura, mesopleura, metapleura, and abdominal sterna, six rows of discoidal spots on abdominal sterna III to VII, and broad spot on abdominal sternite II; anterior and posterior lobe of metathoracic peritreme yellow; coxae yellow with two black discoidal spots; trochanter yellow; femora and tibiae yellow with some pale brown discoidal spots; tarsi yellowish orange.

Structure. Antennal segment I narrow at base, gradually incrassate to the apex, granulose; antennal segments II and III slender, cylindrical; antennal segment II the longest, IV the shortest, and I longer than III (Fig. 22e); rostrum reaching middle third of metasternum. Thorax. Pronotum. Humeral angles tapering into medium size spine, directed laterally and slightly posterior (Fig. 25e, f). Legs. Femora and tibiae densely granulose.

Genitalia. Genital capsule: Posteroventral edge with lateral angles straight, without expansions, mesally relatively elongate, with mesial lobe wide and apically rounded (Fig. 27c). Paramere: Fig. 28e, f.

Female paratype

Measurements. Head: length 1.22 mm; width across eyes 1.52 mm; interocular space 0.88 mm; preocular distance 0.69 mm; length antennal segments: I, 1.60 mm, II, 1.68 mm, III,1.44 mm, IV, 1.32 mm. Pronotum: length 2.16 mm, width across humeral angles including the humeral spine 4.40 mm. Scutellum: length 1.32 mm, width 1.50 mm. Abdomen: maximum width 3.28 mm. Body length 9.25 mm.

Habitus and color similar to male. Connexival segments VIII-IX dark yellow with inner margin dark yellowish orange; dorsal abdominal segments VIII-IX dark yellow; genital plates pale yellow (Fig. 26c). Humeral spines large and acute, directed outward and slightly backward (Fig. 25e, f).

Variation

1 - Antennal segments II-III shiny reddish orange. 2 - Claval and corial veins pink. 3 - Humeral angles of pronotum tapering into short and stout to large spine directed laterad and slightly posterior.

Comments

This species resembles *C. affinis* in having the color of the anterior lobe of pronotal disk clearly contrasting with the color of posterior lobe. In *C. incultus* n. sp., the propleura, mesopleura and metapleura lack a black discoidal spot; the abdominal sternite II has a broad black spot; the abdominal sterna III to VII have six rows of black discoidal spots; the anterior half of costal margin of corium narrowly yellow and impunctate; the humeral angles tapering into short stout spine directed laterad and slightly posterior (Fig. 25e, f); and the peculiar shape of the posteroventral edge of male genital capsule (Fig. 27c).

Distribution

Known only from Madagascar.

Cletus capensis (Westwood, 1842)

(Figs 22g; 24f; 25l; 27e; 28c, d; 33; 34)

Coreus capensis Westwood, 1842: 23.

Cletus capensis (Westwood): Stål 1873: 78.

Gonocerus caffer Stål, 1855: 31 *n. syn.*

Gonocerus varius Dallas, 1852: 496 *n. syn.*

Type material

Type ♂ *Cletus caffer*: South Africa: Caffraria (NRES).

Holotype ♂ *Cletus capensis* (Westwood): South Africa: Promont. Bon Spei (Cape of Good Hope) (OXUM).

Type ♂ *Cletus varius*: South Africa: Cape of Good Hope (BMNH).

Redescription

Male

Measurements. Head: length 1.06-1.10 mm; width across eyes 1.44-1.48 mm; interocular space 0.76-0.82 mm; preocular distance 0.56-0.60 mm; length antennal segments: I, 1.04 -1.24 mm, II, 1.40-1.60 mm, III, 1.28-1.44 mm, IV, 1.12-1.22 mm. Pronotum: length 1.80-1.82 mm, width across humeral angles including the humeral spine 3.24-3.72 mm. Scutellum: length 1.12-1.16 mm, width 1.22-1.24 mm. Abdomen: maximum width 2.88-2.96 mm. Body length 8.05-8.20 mm.

Dorsal color. Head pale yellow with punctures and narrow black longitudinal stripe behind eyes; antennal segments I to III pale yellowish orange, and IV pale brownish orange, with basal joint shiny dark orange; anterior lobe of pronotal disk pale yellow, scattered with black punctures; outer margin of calli with coarse punctures, anastomosing on blackish areas; posterior lobe of pronotal disk pale brown with reddish brown to black punctures; upper third of posterolateral margin of pronotum pale yellow; scutellum, clavus and corium pale yellow with black to reddish-brown punctures; apex of scutellum, and anterior half of costal margin of corium pale yellow; clavus and corial veins, and apical margin of corium plain yellow or yellow with irregular pink markings; hemelytral membrane pale ambarine with basal angle and veins darker; apical edge of corium lacking an ivory discoidal spot; connexival segments III to VII pale yellow with anterior border and posterior margin pale to dark brown; dorsal abdominal segments II to VI shiny orange, and VII shiny orange and laterally black.

Ventral color. Head, thorax, abdominal sterna, and genital capsule pale yellow with punctures reddish brown to black, and eventually with pink marks; rostral segment I pale yellow with black punctures, and segments II to IV pale yellow (apex of IV black); anterior and posterior lobes of metathoracic peritreme pale yellow; coxae pale yellow with punctures and two discoidal black spots; trochanter pale yellow; femora and tibiae pale yellow with granules and several minute discoidal reddish brown to black spots; tarsi dark orange; abdominal sterna with six rows of small reddish-brown to black discoidal spots; middle third of abdominal sterna VI and VII densely black; anterior angle of pleural margin black; abdominal spiracle yellow.

Structure. Antennal segment I narrow at base, gradually incrassate to the apex, granulose (Fig. 22g); antennal segments II and III slender, cylindrical; antennal segment II the longest, III longer than I, and I longer or subequal than IV; rostrum reaching anterior third of metasternum. Thorax. Pronotum. Humeral angles of variable shape, tapering into short stout spine or medium-sized acute spine directed laterad (Fig. 25i) or sometimes blunt (Fig. 24f). Legs. Femora and tibiae densely granulose.

Genitalia. Genital capsule: Posteroventral edge with lateral angles straight, without distinct expansions, mesally wide, with mesial lobe wider, large, occupying almost the entire space of the capsule, and apically barely sinuate and concave (Fig. 27e). Paramere: Fig. 28c, d.

Female

Measurements. Head: length 1.06-1.12 mm; width across eyes 1.48-1.52 mm; interocular space 0.60-0.82 mm; preocular distance 0.62-0.78 mm; length antennal segments: I, 1.10 -1.24 mm, II, 1.44-1.54 mm, III, 1.30-1.40 mm, IV, 1.06-1.20 mm. Pronotum: length 1.76-1.92 mm, width across humeral angles including the humeral spine 3.48-3.96 mm. Scutellum: length 1.12-1.24 mm, width 1.34-1.42 mm. Abdomen: maximum width 3.20-3.24 mm. Body length 8.09-8.80 mm.

Habitus and color similar to male. Connexival segments VIII and IX black with upper margin yellow; dorsal abdominal segments VIII and IX black with shiny orange longitudinal stripe on middle third; genital plates pale yellow with minute reddish-brown to black discoidal spots and pink marks.

Variation

A large series of specimens from Angola, Botswana, Madagascar, Republic of Congo, and South Africa, was examined and showed considerable variability in the shape of the humeral angles of the pronotum (phenotypic variation) (Figs 24f; 25i). Each form is connected by intermediates, and since the male and female *genitalia* are similar, they are undoubtedly conspecific. For this reason *C. caffer* (Stål) and *C. varius* (Dallas) are considered synonyms of *C. capensis* (Westwood). The type of each species was examined.

Comments

This species is diagnosed mostly on the basis of the shape of the humeral angles of the pronotum, the shape of the posteroventral edge of male genital capsule (Fig. 27e), and the color of the connexivum.

In *C. capensis,* the humeral angles taper into a short, stout spine or medium-sized acute spine directed outward (Figs 24f; 25i), and the connexival segments III to VII are pale yellow with anterior and posterior margin black. In *C. ochraceus* (Herrich-Schaeffer), the humeral angles taper into strongly large or medium-sized wide projection, directed outward, upward, and slightly backward (Fig. 24d), and the connexival segment III is pale yellow, IV and V pale yellow and densely punctate with reddish-brown to black punctures, and VI and VII pale yellow with reddish-brown to black punctures restricted to anterior and posterior border.

Distribution

This species was recorded from Madagascar, Malawi (Nyasaland), South Africa, South West Africa, Zaire, and Zimbabwe (Salisbury) (Dallas 1852; Distant 1902; Hesse 1925; Linnavuori 1978; Schouteden 1938; Stål 1858, 1865).

Specimens examined. MADAGASCAR: 2 ♂♂, S.O. Plaines de Fiherena, 1905 *(F. GEAY)* (MNHN); 1 ♂, Forêt Tanala, Région d'Ikongo, Ankarimbelo, 1901 *(Ch. ALLUAUD)* (MNHN); 1 ♂, 4 ♀♀, 1930 [without data] *(SICARD)* (MNHN, UNAM); 1 ♀, Baie d'Antongil [without date] *(MOCQUERYS)* (MNHN). MADAGASCAR: without data.

Cletus clavatus (Signoret, 1860)

(Figs 22h; 24g; 27h; 33)

Gonocerus clavatus Signoret, 1860: 943.

Cletus clavatus (Signoret): STÅL 1865: 76.

Redescription

Male

Measurements. Head: length 1.06-1.08 mm; width across eyes 1.28-1.40 mm; interocular space 0.76-0.80 mm; preocular distance 0.60-0.70 mm; length antennal segments: I, 1.04 - 1.16 mm, II, 1.44-1.68 mm, III, 1.44-1.70 mm, IV, 0.96-1.08 mm. Pronotum: length 1.64-1.92 mm, width across humeral angles including the humeral spine 2.40-3.28 mm. Scutellum: length 0.96-1.04 mm, width 1.08-1.10 mm. Abdomen: maximum width 2.88-3.00 mm. Body length 7.42-8.28 mm.

Dorsal color. Pale orange with scattered black punctures near eyes, and around ocelli; antennal segments I to III pale orange, and IV pale brownish orange; apex of scutellum, and anterior half of costal margin pale yellow; apical edge of corium with distinct whitish to ivory discoidal spot; hemelytral membrane pale ambarine.

Ventral color. Pale orange with following areas black to pale brown: apex of rostral segment IV, small discoidal spot on propleura, mesopleura, and metapleura, and six rows of small discoidal spots on abdominal sterna.

Structure. Antennal segment I uniformly wider, granulate; antennal segments II and III barely robust, cylindrical; antennal segment IV the shortest, II and III subequal, and I shorter than II (Fig. 22h); rostrum reaching anterior third of metasternum. Thorax. Pronotum. Humeral angles obtuse and blunt (Fig. 24g) or tapering into short, acute spine, directed laterad. Legs. Femora and tibiae minutely granulose.

Male *genitalia*. Genital capsule: posteroventral edge with lateral angles straight, without distinct expansions; mesally wide with mesial lobe wider, large, occupying almost the entire space of the capsule; apically rounded (Fig. 27h).

Female

Measurements. Head: length 1.06-1.09 mm; width across eyes 1.36-1.40 mm; interocular space 0.64-0.76 mm; preocular distance 0.62-0.68 mm; length antennal segments: I, 1.16 -1.24 mm, II, 1.48-1.64 mm, III, 1.48-1.60 mm, IV, 0.96-1.05 mm. Pronotum: length 1.76-1.84 mm, width across humeral angles including the humeral spine 2.44-3.24 mm. Scutellum: length 1.12-1.20 mm, width 1.18-1.30 mm. Abdomen: maximum width 3.18-3.24 mm. Body length 8.06-8.60 mm.

Habitus and color similar to male. Connexival segments VIII and IX, abdominal segments VIII and IX, and genital plates pale orange.

Comments

Small species, shorter than 8.4 mm, apical edge of corium with distinct ivory discoidal

spot, coxae pale orange lacking a black discoidal spot, humeral angles of pronotum obtuse, and blunt (Fig. 24g), rostral segment I and legs entirely pale orange, and propleura, mesopleura, and metapleura with minute, black to pale brown discoidal spot.

Distribution

This species was recorded from Comoro Archipelago (Mayotte) and Madagascar (SIGNORET 1860; STÅL 1865; WALKER 1871).

Specimens examined. MADAGASCAR: without data. MADAGASCAR: 1 ♂, 1 ♀, Forêt d'Ambre et Maevatanana, 1907 (*CERVONI*) (MNHN); 1 ♀, Tongobory, 12.IV.1953 (*A. R.*) (MNHN); 1 ♀, Isoanala, III.1937 (*SEYRIG*) (MNHN); 1 ♂, Reg. de Sakarami, 1906 (*M. DE ROTSCHILD*) (UNAM); 1 ♂, Prov. d'Analalava, Maromandia, 1923 (*DECARY*) (UNAM); 1 ♀, Majunga, IV (UNAM).

Cletus ochraceus (Herrich-Schaeffer, 1842)

(Figs 23e; 24d; 26d; 27j; 28g, h; 37)

Gonocerus ochraceus Herrich-Schaeffer, 1842: 7-8.

Cletus ochraceus (Herrich-Schaeffer): STÅL 1865: 77-78.

Cletus fuscescens Walker, 1871: 190-191 *n. syn.*

Cletus borealis Blöte, 1935: 204-205 *n. syn.*

Cletus madagascariensis Blöte, 1935: 206 *n. syn.*

Type material

Holotype ♂ *Cletus borealis* Blöte: ERYTHRAEA: Bahr el Abiad, 1934 (*STAUDINGER*) (RMNH).

Holotype ♂ *Cletus fuscescens* Walker: WEST AFRICA: came from an unspecified locality (BMNH).

Holotype ♂ *Cletus madagascariensis* Blöte: MADAGASCAR: Tananarivo, 1934 (*STAUDINGER*) (RMNH).

Redescription

Male

Measurements. Head: length 1.25-1.28 mm; width across eyes 1.48-1.54 mm; interocular space 0.86-0.88 mm; preocular distance 0.70-0.74 mm; length antennal segments: I, 1.74 -1.84 mm, II, 2.08-2.12 mm, III, 1.64-1.68 mm, IV, 1.52-1.56 mm. Pronotum: length 2.20-2.24 mm, width across humeral angles including the humeral spine 4.50-4.56 mm. Scutellum: length 1.28-1.32 mm, width 1.38-1.44 mm. Abdomen: maximum width 3.28-3.30 mm. Body length 8.72-8.94 mm.

Dorsal color. Head pale yellow, with narrow black longitudinal stripe behind eyes; antennal segments I to III pale yellow and IV dark yellowish orange with base and apex paler; anterior half of pronotum pale yellow, with reddish brown to black punctures forming indistinct markings; posterior half of pronotum dark yellowish orange not sharply contrasting with the anterior lobe, with reddish brown to black punctures, and humeral spines shiny dark orange; scutellum, clavus and corium dark yellow with punctures reddish brown to black; apex of scutellum, and anterior half of costal margin of corium narrowly pale yellow; apical edge of corium lacking an ivory discoidal spot; hemelytral membrane pale gray to pale ambarine with basal angle and veins darker; connexival

segment III pale yellow, IV and V pale to dark brown, densely punctate with reddish brown to black punctures, and VI and VII pale yellow with reddish brown to black punctures restricted to the anterior and posterior borders; dorsal abdominal segments II to VI pale yellow, and VII pale yellow with two elongate paramedial black spots.

Ventral color. Pale yellow, with scattered, irregular blackish spots on head, rostral segment I, propleura, mesopleura, and metapleura; anterior and posterior lobes of metathoracic peritreme yellow; coxae yellow with two black discoidal spots; trochanter yellow; femora and tibiae yellow with granules and several minute reddish-brown to black spots; tarsi dark yellow; abdominal sterna with six rows of small reddish-brown to black discoidal spots, and few scattered black punctures; abdominal spiracle yellow.

Structure. Antennal segment I gradually incrassate to the apex, granulose; antennal segments II and III slender, cylindrical; antennal segment II the longest, IV the shortest, and I longer or equal than III (Fig. 23e); rostrum reaching middle third of metasternum. Thorax. Pronotum. Humeral angles of variable shape, tapering into remarkably large or medium-sized, wide projection, directed outward, upward, and slightly backward (Fig. 24d). Legs. Femora and tibiae densely granulate.

Genitalia. Genital capsule: Posteroventral edge with lateral angles straight to sinuous, without expansions; mesally narrowed with the mesial lobe short, protruding, quadrate, apically truncate or rounded, and with low longitudinal sulcus on middle third (sometimes difficult to see) (Fig. 27j). Paramere: Fig. 28g, h.

Female

Measurements. Head: length 1.18-1.24 mm; width across eyes 1.46-1.52 mm; interocular space 0.84-0.86 mm; preocular distance 0.62-0.64 mm; length antennal segments: I, 1.48 -1.52 mm, II, 1.79-1.88 mm, III, 1.48-1.52 mm, IV, 1.40-1.44 mm. Pronotum: length 2.08- 2.12 mm, width across humeral angles including the humeral spine 4.30-4.36 mm. Scutellum: length 1.12-1.16 mm, width 1.25-1.32 mm. Abdomen: maximum width 3.22-3.28 mm. Body length 8.36-8.70 mm.

Habitus and color similar to male. Connexival segments VIII and IX, and dorsal abdominal segments VIII and IX yellowish orange; genital plates pale yellow (Fig. 26d).

Variation

A large series of specimens from Angola, Botswana, Comoro island, Kenya, Madagascar, Namibia, Zaire, South Africa, and Tanzania showed considerable variability in the shape of the humeral angles of the pronotum (phenotypic variation) (Figs 24d; 37). The two extreme forms are connected by intermediates, and since the male and female *genitalia* are similar, they are undoubtedly conspecific; for this reason *C. borealis* Blöte, *C. fuscenscens* (Walker), and *C. madagascariensis* Blöte are here considered synonyms of *C. ochraceus* (Westwood). The type of each species was examined.

The body also exhibits considerable color variation throughout the specimens examined: 1, antennal segments II and III pale yellow tinged with red to reddish orange marks, or entirely yellowish orange; 2, antennal segment IV shiny orange with apex pale yellow; 3, ocellar tubercle black or pale yellow; 4, rostral segment I entirely pale yellow; 5, endocorium, corial veins, and apical margin and apical angle of corium tinged with pink to reddish marks; 6, propleura, mesopleura, and metapleura with or lacking a single black discoidal spot; 7, posterior border of meta-acetabulae with outer third pale yellow and inner third black; 8, tarsi shiny orange; 9, dorsal abdominal segment VII entirely pale yellow.

Comments

A unique feature which inmediatly distinguishes *C. ocraceus* (Herrich-Schaeffer) is the color of the connexivum: connexival segment III is pale yellow, IV and V pale yellow and densely punctate with reddish-brown to black punctures, and VI and VII pale yellow with reddish-brown to black punctures restricted to anterior and posterior lobes.

Distribution

This species was recorded from Eritrea, Ethiopia, Liberia, Madagascar, Malawi (Nyasaland), Mauricius, South Africa, South West Africa, South West Arabia, Sudan, and Zaire (Blöte 1935; Distant 1902; Garcia Varela 1913; Herrich-Schaeffer 1842; Hesse 1925; Linnavuori 1978; Schouteden 1938; Stål 1865; Walker 1871).

Madagascar: Diego Suárez, and Tananarive.

Specimens examined. Madagascar: 1 ♂, Tananarive, Tsimbazaza, 7.I.1948 (*A. R.*) (MNHN); 1 ♂, Baie d'Antongil [without date] (*A. Mocquerys*) (MNHN); 1 ♀, S. O. Plaines d'Ambolisatra, 1905 (*F. Geay*) (MNHN); 7 ♂♂, 4 ♀♀, 1930 (MNHN); 1 ♂, 1 ♀, Région d'Antsirabe, 1912 (*A. Mathiaux*) (MNHN); 1 ♂, Antsingy, 63 km East Maintirano Foret, VII.1949 (*R. P.*) (MNHN); 1 ♀, Bekily, Région Sud de l'Isle, VI.1936 (*A. Seyrig*) (MNHN); 2 ♂♂, 1 ♀, Montagne d'Ambre, 1140 m, XII.1948 (*R. P.*) (MNHN); 1 ♀, Nord District d'Ambanja, Nord de Beangona-Ambery, Vallée d'Antremabe, 400 m, II.1964 (*P. Soga*) (MNHN); 1 ♂, 1 ♀, Ampefy, Itasy, II.1939 (ZMAS); 1 ♂, Mahajamba District, Mahajamba Env., 1-10.XII.1996 (*I. Janis*) (NMPC- Z. Jindra ex coll.); 1 ♂, 1 ♀, Andasibe, Park Perinet (Protect Area), 19-31.XII.2001 (*V. Dolin*) (EHCA); 1 ♂, 1 ♀, environs de Rogez [without date] (NMPC); 2 ♂♂, 4 ♀♀, Vohémar [without date] (NMPC, UNAM); 1 ♀, Ampanefena [without date] (NMPC); 1 ♂, Nanghoa, Itasy, II.1930 (ZMAS); 1 ♀, Ampety, Itasy, II.1930 (ZMAS); 1 ♀, Ranomafana, 90 km E Fianarantsoa, 1-5.XII.1949 (*L. Kantner*) (NMPC); 2 ♂♂, 1 ♀, Ambohimahasoa, N. W. von Fianarantsoa, 1195 m, 21°06'18"S-47°13'03"E, 2.XI.2003 (*U. Göllner*) (ZMHB); 1 ♂, 2.5 km NE von Anara, SW von Larintsena, *c.* 975 m, NN Buschtal, 21°51'03"S-46°50'34"E, 6.XI.2003 (*U. Göllner*) (ZMHB).

Cletus poikilus n. sp.

(Figs 22f; 25d; 26b; 27b; 28i, j; 38)

Type material

Holotype ♂: Madagascar: Tongobory, 12.IV.1953 (*A. R.*) (MNHN).

Paratypes: Madagascar: 1 ♂, Anjahantelo, près Amboasary, III.1969 (*Vadon et Peyrieras*) (UNAM); 1 ♀, S. O. Plaines de Fiherena, 1905 (*F. Geay*) (MNHN); 2 ♀♀, Analavelona, 1320 m [without date] (MNHN); 1 ♂, 1 ♀, Fiherenana, 27.III.1953 (*A. R.*) (MNHN, UNAM); 1 ♂, 1 ♀, Mangely bei Ifaty, 27 km N. Toliara, 7 m, NN sek. Trockenwald, a-d, kuste, 23°07'32"S-43°36'47"E, 9-10.XI.2003 (*U. Göllner*) (ZMHB).

Derivatio nominis

From the Greek, *Poikilus,* meaning spotted, refering to its variegated appearance.

Description

Male holotype

Measurements. Head: length 1.10 mm; width across eyes 1.34 mm; interocular space 0.72 mm; preocular distance 0.56 mm; length antennal segments: I, 1.24 mm,

II, 1.60 mm, III,1.46 mm, IV, 1.08 mm. Pronotum: length 1.68 mm, width across humeral angles including the humeral spine 3.40 mm. Scutellum: length 0.96 mm, width 1.12 mm. Abdomen: maximum width 2.35 mm. Body length 7.60 mm.

Dorsal color. Pale to dark yellow, with punctures, and narrow black to reddish-brown longitudinal stripe behind eyes; antennal segments I to III dark yellow with reddish-brown granules, and IV brownish orange with basal joint paler; apex of scutellum yellow; anterior half of costal margin of corium impunctate, and narrowly yellow; apical edge of corium with distinct whitish to ivory callose discoidal spot; hemelytral membrane pale ambarine with basal angle and veins darker; connexival segments III to VI pale yellow with upper margin on posterior third brown, and VII pale yellow with posterior third almost entirely brown; dorsal abdominal segments brown to dark brownish orange.

Ventral color. Pale yellow with punctures pale orange; following areas reddish brown to black: apex of rostral segment IV, single discoidal spot on metapleura, broad and elongate spot on abdominal sternite II, and six rows of discoidal spots on abdominal sterna III to VII; anterior and posterior lobes of metathoracic peritreme yellow; coxae yellow with two black discoidal spots; trochanters yellow; femora and tibiae pale yellow with granules and small discoidal brown spots; tarsi yellow.

Structure. Antennal segment I slightly narrow at base, gradually incrassate to the apex, granulose; antennal segments II and III slender, cylindrical; antennal segment II the longest, IV the shortest, and III longer than I (Fig. 22f); rostrum reaching anterior third of metasternum. Thorax. Pronotum. Humeral angles tapering into stout medium-sized spine, directed laterad, upward and slightly forward (Fig. 25d). Legs. Femora and tibiae granulate.

Genitalia. Genital capsule: Posteroventral edge with lateral angles straight, without distinct expansions; mesally wide with mesial lobe wider, large, occupying almost the entire space of the capsule; apically rounded (Fig. 27b). Paramere: Fig. 28i, j.

Female paratype

Measurements. Head: length 1.04 mm; width across eyes 1.38 mm; interocular space 0.76 mm; preocular distance 0.64 mm; length antennal segments: I, 1.32 mm, II, 1.62 mm, III, 1.44 mm, IV, 1.10 mm. Pronotum: length 1.92 mm, width across humeral angles including the humeral spine 3.60 mm. Scutellum: length 1.08 mm, width 1.20 mm. Abdomen: maximum width 2.72 mm. Body length 8.25 mm.

Habitus and color similar to male holotype. Connexival segments VIII and IX dark brownish orange, with upper margin yellow; dorsal abdominal segments VIII and IX dark brownish orange; genital plates yellow.

Variation

1 - Apical edge of corium with the whitish or ivory callose spot inconspicuous. 2 - Hind tibiae with two incomplete pale brown rings. 3 - Connexival segments III to VII entirely yellow, or pale yellow with posterior third brown. 4 - Connexival segment V brown with anterior border yellow. 5 - Abdominal sterna III to VII with six rows of minute or broad, pale brown to black discoidal spots.

Comments

Related to *C. clavatus* (Signoret) and *C. presignus* n. sp. here described, each recorded from Madagascar and characterized by having on the apical margin of the corium one

or two small whitish to ivory discoidal spots. The pronotal disk of *C. poikilus* n. sp. is clearly bicolored, with the anterior lobe paler than the posterior lobe, the mesopleura has a large black discoidal spot, and the humeral angles tapering into short stout medium sized spine, directed outward, upward, and slightly forward (Fig. 25d). On the other two species, the general color of anterior and posterior lobe of pronotal disk are not contrasting with each other, the mesopleura without or with tiny black to pale brown discoidal spot, and the humeral angles distinct (Fig. 24b, g).

Distribution

Known only from Madagascar.

Cletus presignus n. sp.

(Figs 23d; 24b)

Type material

Holotype ♂: MADAGASCAR: Perinet, Sahamaloto, 13-17.I.1949 (CACHAN) (MNHN).

Derivatio nominis

From the Latin *Presignus*, meaning distinguished or illustrious, refering to the conspicuous appearance of this species.

Description

Male holotype

Measurements. Head: length 1.20 mm; width across eyes 1.48 mm; interocular space 0.88 mm; preocular distance 0.74 mm; length antennal segments: I, 1.80 mm, II, 1.68 mm, III, 1.40 mm, IV, 1.64 mm. Pronotum: length 2.28 mm, width across humeral angles including the humeral spine 5.48 mm. Scutellum: length 1.32 mm, width 1.40 mm. Abdomen: maximum width 3.48 mm. Body length 10.00 mm.

Dorsal color. Shiny reddish orange with following areas black: narrow longitudinal stripe behind eyes, punctures, and humeral spine; antennal segments I to IV shiny reddish orange; apex of scutellum yellow; apical edge of corium with whitish to ivory callose discoidal spot; hemelytral membrane pale ambarine, veins darker; connexival segments II to VI and IX shiny reddish orange with scattered black punctures, and VII-VIII shiny reddish orange coarsely punctuate with punctures anastomosing on blackish areas; dorsal abdominal segments shiny orange.

Ventral color. Pale yellow, punctures black to reddish brown, and following areas suffused with shiny reddish orange: lateral margins of head, rostral segments (apex of IV black), outer margin of propleura, mesopleura, and metapleura, pleural margin of abdominal sterna III to VII, and upper margin of paratergite VIII and IX; anterior and posterior lobes of metathoracic peritreme yellow; coxae shiny orange with two black discoidal spots; trochanters shiny orange; femora and tibiae shiny orange with small pale brown discoidal marks; tarsi pale shiny reddish orange; abdominal sterna with six rows of black discoidal spots; abdominal sternite II with broad, elongate black spot.

Structure. Antennal segment I uniformly wide; antennal segments II and III slender, cylindrical; antennal segment I the longest, III the shortest, and II longer than IV (Fig. 23d); rostrum reaching anterior third of metasternum. Thorax. Pronotum. Humer-

al angles very strongly produced, elongate, ending in a distinct sharp spine, directed laterally and conspicuously upward (Fig. 24b). Legs. Femora and tibiae granulate.

Female

Unknown.

Comments

Like *C. clavatus* with the apical margin of the corium with one or two small, whitish to ivory discoidal spots, and the color of anterior and posterior lobes of pronotal disk not contrasting with each other. In *C. presignus* n. sp., the humeral angles of the pronotum are strongly produced, ending in a sharp spine (Fig. 24b), the coxae have two black discoidal spots, dorsally the body is shiny reddish orange, and the total body length more than 9.5 mm. *Cletus clavatus* has the humeral angles obtuse or slightly acute (Fig. 24g), the coxae unicolored, without black discoidal spots, dorsally the body pale orange, and the total body length less than 8.4 mm.

Distribution

Endemic to Madagascar.

Cletus pronus Bergroth, 1914

(Figs 23c; 24e; 27g; 29a, b; 39)

Cletus pronus Bergroth, 1914: 454-455.

Redescription

Male

Measurements. Head: length 1.06 mm; width across eyes 1.48 mm; interocular space 0.80 mm; preocular distance 0.60 mm; length antennal segments: I, 1.72 mm, II, 2.04 mm, III, 1.64 mm, IV, 1.52 mm. Pronotum: length 2.08 mm, width across humeral angles including the humeral spine 4.96 mm. Scutellum: length 1.24 mm, width 1.36 mm. Abdomen: maximum width 3.20 mm. Body length 8.50 mm.

Dorsal color. Head yellow, with punctures and narrow longitudinal stripe behind eyes black to reddish brown; antennal segments I to III yellow, and IV reddish orange with basal joint and apex dark yellow; anterior lobe of pronotal disk yellow with punctures reddish brown to dark orange; posterior lobe of pronotal disk dark yellow, clearly contrasted with anterior lobe, with punctures reddish brown, and humeral spine black; scutellum, clavus, and corium pale to dark yellow, suffused with pink marks, and reddish brown punctures; apex of scutellum, and anterior half of costal margin of corium pale yellow; apical edge of corium with a distinct transverse whitish callose band from base of medio-apical angle to or near the costal margin; hemelytral membrane pale ambarine, with veins darker, and basal angle pale brown; connexival segment III yellow, IV yellow with posterior margin pale brown, V pale brown, VI yellow with anterior and posterior borders pale brown, and VII yellow with anterior border pale brown; dorsal abdominal segments II to VI shiny yellowish orange, and VII shiny yellowish orange, with black lateral margins.

Ventral color. Pale yellow; following areas black to reddish brown: apex of rostral segment IV, scattered punctures on propleura, mesopleura, and metapleura, broad spot on abdominal sternite II, and six rows of discoidal spots on abdominal sterna III to VII;

anterior and posterior lobes of metathoracic peritreme yellow; coxae yellow with two black discoidal spots; trochanters yellow; femora and tibiae yellow with few granules and discoidal spots pale brown; tarsi yellow.

Structure. Antennal segment I slender, conspicuously large, incrassate to the apex, granulose; II and III slender, cylindrical; antennal segment II the longest, IV the shortest, and I longer or subequal than III (Fig. 23c); rostrum reaching anterior third of metasternum. Thorax. Pronotum. Humeral angles prominent, ending in a distinct sharp spine, conspicuously elongate, directed laterad and upward (Fig. 24e). Legs. Femora and tibiae granulose.

Genitalia. Genital capsule: Posteroventral edge with lateral angles straight, without expansions; mesally narrowed, with mesial lobe protruding, quadrate; apically truncated; middle third with low longitudinal sulcus (Fig. 27g). Paramere: Fig. 29a, b.

Female

Measurements. Head: length 1.22 mm; width across eyes 1.56 mm; interocular space 0.86 mm; preocular distance 0.70 mm; length antennal segments: I, 1.60 mm, II, 1.84 mm, III, 1.60 mm, IV, 1.48 mm. Pronotum: length 2.24 mm, width across humeral angles including the humeral spine 5.46 mm. Scutellùm: length 1.38 mm, width 1.44 mm. Abdomen: maximum width 3.40 mm. Body length 9.58 mm.

Habitus and color similar to male. Connexival segments VIII and IX dark yellow; dorsal abdominal segments VIII and IX dark yellowish orange; genital plates yellow.

Variation

1 - Ventral color pale yellowish orange. 2 - Apex of scutellum yellowish orange. 3 - Tibiae entirely yellow. 4 - Connexival segment V dark brown, and VI dark brown with posterior margin dark yellow.

Comments

Cletus pronus was described from Malawi (Nyasaland: Fort Mangoche, and Chikala Boma), later recorded from British East Africa (Mulange) (BLÖTE 1935), and from Zaire (LINNAVUORI 1978). LINNAVUORI (1978) described the subspecies *C. pronus simplex* from Chad and Sudan. *Cletus pronus* is here recorded for the first time to Madagascar, and is the only known species from that region with a distinct, transverse whitish to ivory callose band on the apical edge of the corium. On the other known Malagasy species, the apical edge of corium lacks a band or there are only one or two small whitish or ivory discoidal spots. Additional characters to recognize this species are: humeral angles of pronotum, prominent, ending in a distinct sharp spine, conspicuously elongate (Fig. 24e), and the shape of the posteroventral edge of male genital capsule (Fig. 27g).

Cletus ochraceus has the same pattern of color at connexival segments III to VII, and similar shape of the male genital capsule, but is readily distinguished from *C. pronus* by having on the mesopleura and occasionally on the propleura and metapleura a distinct black discoidal spot (absent in *C. pronus*), and the apical edge of the corium lack a transverse whitish to ivory band. The humeral angles of each species are quite different (Fig. 24d, e).

Distribution

Originaly described from Malawi (Nyasaland), and later recorded from Chad, Sudan, and Zaire (BERGROTH 1914; BLÖTE 1935; LINNAVUORI 1978; SCHOUTEDEN 1938). This is the first record from Madagascar.

Specimens examined. MADAGASCAR: 1 ♂, 2 ♀♀, Maroantsetra, Andalaka, II.1945 (*ABADIE*) (MNHN, UNAM); 1 ♂, Ifasy, Ambilobe, VI.1954 (*E. R.*) (MNHN); 1 ♂, Ambodivoniho, Env. de Vohémar [without date] (NMPC).

Cletoscellus n. gen.

Derivatio nominis

Named for its similarity in appearance to the genus *Cletus*; masculine.

Description

Body ovoid, laterally expanded.

Head

Wider than long, shorter than length of pronotum, subquadrate and abruptly bent down, or pentagonal and gradually bending, dorsally flat, barely produced forward between bases of antennae; tylus unarmed, apically globose, weakly raised, extending anteriorly to and laterally higher than juga; juga unarmed; antenniferous tubercles widely separated, with outer and inner borders armed, or only with outer border armed; outer border with single acute spine, clearly reaches base of antennal segment I; inner border with two bifid spines, reaching base of antennal segment I; preocular length shorter than 0.70 mm; antennal segment I thicker than segments II and III, narrow at base, gradually incrassate to the apex, curved outward, short or equal than total length of head, club-shaped, and granulose; antennal segments II and III slender, cylindrical, and IV fusiform and barely thicker than I; antennal segment III the longest, IV the shortest, and II longer than I; ocelli close to eyes, on an hypothetical line located slightly behind posterior margin of eyes; ocellar tubercle weakly raised; preocellar pit deep; eyes globose, upper margin located almost at same level of frons and vertex; postocular tubercle conspicuous; middle third of frons with deep longitudinal sulcus; vertex lacks a longitudinal sulcus; mandibular plate unarmed; buccula rectangular, raised, short, entire with more or less anterior free angle, not projecting beyond antenniferous tubercles, meeting posteriorly and closed; rostrum reaching posterior margin of mesosternum, or anterior to middle third of metasternum; rostral segment III the shortest, I the longest, and II longer than IV.

Thorax

Pronotum. Wider than long, trapeziform, declivent; collar wide; anterior border almost straight, smooth; frontal angles not exposed; anterolateral borders obliquely straight, crenulate to serrulate; humeral angles thick at base, tapering into stout large spine directed laterally and posteriorly; posterolateral borders with outer third vertical and straight, crenulated to serrulated, and inner third obliquely straight, smooth; posterior border straight; calli indistinct, not raised, with deep submedial longitudinal furrow; triangular process absent; pronotal disk without medial carina; posterior margin with low transverse ridge, between humeral angles (Fig. 25g).

Prosternum with deep excavation; mesosternum feebly sulcate; metasternum deeply sulcate; anterior margin of mesosternum in front of the area between fore legs produced into broad and blunt keel; distance between procoxae, and mesocoxae two times the diameter of procoxae; distance between mesocoxae and metacoxae equal or less than diameter of mesocoxae; anterior and posterior lobes of metathoracic peritreme raised, globose, almost same sized, close together; scent gland orifice small, rounded ; evaporative area poorly developed.

Legs. Unarmed; space between each hind coxae reduced, coxae almost contiguous separated by less than half the diameter of one coxae; hind femora not attaining the apex of abdomen; tibiae terete, sulcated.

Scutellum. Wider than long, triangular, flat, apically subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate, with anterior half straight, crenulate, and posterior half clearly laterally expanded, smooth; apical margin sinuous; apical angle obtuse, not reaching middle third of hemelytral membrane.

Abdomen

Laterally considerable expanded; connexivum distinctly raised above tergum with posterior angles of connexival segments IV-VI produced into short obtuse projections; upper margin of connexivum crenulate; abdominal sterna without medial furrow; abdominal spiracles circular, small, closer to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible.

Male *genitalia*. Genital capsule: posteroventral edge with lateral angles straight, without expansions; mesally wider, with mesial lobe wide, large, occupying almost the entire space of the capsule, or mesally wider, with mesial lobe clearly bulging, and laterally straight (Fig. 27a, i).

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica reduced, occupying the anterior border of the sternite, and feebly concave; fissura covers 2/3 or more of the total length of the sternite; gonocoxae I wide, enlarged antero-posteriorly, in caudal view closed, in lateral view convex, entire; paratergite VIII triangular small, with visible spiracle; paratergite IX broad, subquadrate.

Integument

Body surface dull, almost glabrous. Head, collar, pronotal disk including the calli, clavus, corium, acetabulae, propleura, mesopleura, metapleura, prosternum, mesosternum, metasternum, and connexivum strongly punctate; scutellar disk transversely wrinkled and strongly punctate; abdominal sterna, male genital capsule, and gonocoxae I finely punctate; femora and tibiae granulose.

Comments

Cletoscellus n. gen. appears to be closely related to *Cletus*, particularly due to the head wider than long, dorsally flat, frons with deep longitudinal sulcus, vertex without sulcus, preocular length shorter than than 0.70 mm, calli indistinct, not raised, legs unarmed, and scutellum wider than long. *Cletoscellus* n. gen. can be distinguished by having the body ovoid; the head subquadrate, abruptly bent down; the antenniferous tubercle with outer and inner borders armed or only the outer border armed; anterior and posterior lobe of metathoracic peritreme globose, almost equal in size; scent gland orifice small; abdomen laterally expanded; and posterior angles of connexival segments V and VI projected into short obtuse projections. In *Cletus*, the body is clearly parallel-sided; the head pentagonal, gradually bent; antenniferous tubercle unarmed; metathoracic peritreme with anterior lobe reniform, and posterior lobe shorter, each directed laterally, leaving the scent gland orifice wide apen; the connexival segments V and VI unarmed; and abdomen not laterally expanded.

Cletomorpha resembles *Cletoscellus* n. gen. in having the abdomen laterally expanded, and the connexival segments V and VI projected into short obtuse projections. In *Cleto-*

morpha the vertex has a deep longitudinal sulcus; the head elongate with the length of preocular region longer than 0.95 mm; the metathoracic peritreme with anterior lobe reniform, and posterior lobe shorter, each directed laterally, leaving the scent gland orifice wide opened; and paratergite VIII reduced, almost hidden by the lateral margin of abdominal sternite VII (Figs 23a; 24a, c; 26e; 27f; 28a, b). In *Cletoscellus* n. gen., the vertex lacks a longitudinal sulcus; the head is shorter, with the length of preocular region shorter than 0.70 mm; the anterior and posterior lobes of metathoracic peritreme globose, with the scent gland orifice small; and paratergite VIII not conspicuously reduced and hidden by abdominal sternite VII (Figs 22a-d; 23f; 25b, c, g; 27a; 29c-f).

Type species

Cletomorpha spinijugis Bergroth, 1905.

Clé des espèces malgaches de Cletoscellus *n. gen.*

1. Bord interne des tubercules antennifères armé de deux épines bifides (Fig. 32) ; article antennaire III plus long que les autres ; bord postéroventral du pygophore avec un lobe médian grand et large occupant presque toute la place (Fig. 27i) . ..... ***spinijugis*** (Bergroth) n. comb.

– Bord interne des tubercules antennifères non armé ; article antennaire II plus long que les autres ; bord postéroventral du pygophore avec un lobe médian globuleux (Fig. 27a) ..... ***delectabilis*** n. gen., n. sp.

Key to Malagasy species of Cletoscellus *n. gen.*

1. Inner border of antenniferous tubercles armed with two bifid spines (Fig. 32); antennal segment III the longest; posteroventral edge of male genital capsule with median lobe wide, large, occupying almost the entire space (Fig. 27i) .... ***spinijugis*** (Bergroth) n. comb.

– Inner border of antenniferous tubercles unarmed; antennal segment II the longest; posteroventral edge of male genital capsule with mesial lobe bulging (Fig. 27a) .... ***delectabilis*** n. gen., n. sp.

Cletoscellus spinijugis (Bergroth, 1905) n. comb.

(Figs 22a, d; 25g; 27i; 29e, f; 32)

Cletomorpha spinijugis Bergroth, 1905: 370-371.

Type material

Type ♀: MADAGASCAR: Nossi-bé: not examined.

Redescription

Male

Measurements. Head: length 0.92 mm; width across eyes 1.12 mm; interocular space 0.64 mm; preocular distance 0.52 mm; length antennal segments: I, 0.92 mm, II, 1.26 mm, III, 1.28 mm, IV, 0.74 mm. Pronotum: length 1.40 mm, width across humeral angles including the humeral spine 2.60 mm. Scutellum: length 0.80 mm, width 0.96 mm. Abdomen: maximum width 3.00 mm. Body length 6.48 mm.

Dorsal color. General color dark yellowish orange with punctures shiny dark orange; anterolateral margins of pronotum, apex of scutellum, and anterior half of costal margin of corium pale to dark yellow; antennal segments I to III pale yellowish orange, and IV dark brownish orange with basal joint lighter; hemelytral membrane pale ambarine with basal angle and veins darker; connexival segments III and IV dark yellowish orange with upper margin pale yellow, and segments V to VII dark yellowish orange with upper margin and broad longitudinal stripe close to the anterior margin pale yellow; dorsal abdominal segments II to VI shiny yellowish orange, and VII pale brown with lateral margin shiny yellowish orange.

Ventral color. General color pale yellow with reddish-brown to dark orange punctures; rostral segment I pale yellow with reddish-brown to dark orange punctures; apex of rostral segment IV black to dark brown; anterior and posterior lobes of metathoracic peritreme yellow; coxae pale yellow with punctures and two pale brown to reddish-brown discoidal spots; trochanters pale yellow; femora and tibiae pale yellow with granules and several minute discoidal spots reddish brown to black; tarsi dark yellow; abdominal sterna with six rows of small to broad reddish-brown to pale brown discoidal spots.

Structure. Antenniferous tubercles with outer and inner borders armed; outer border with single acute spine, and inner border with two bifid spines, reaching base of antennal segment I (Fig. 22a); antennal segment III the longest (Fig. 22d); rostrum reaching anterior or middle third of metasternum.

Genitalia. Genital capsule: Posteroventral edge with mesial lobe wide, large, occupying almost the entire space; apically rounded (Fig. 27i). Paramere: Fig. 29e, f.

Female

Measurements. Head: length 0.98 mm; width across eyes 1.24 mm; interocular space 0.70 mm; preocular distance 0.54 mm; length antennal segments: I, 0.94 mm, II, 1.30 mm, III, 1.34 mm, IV, 0.76 mm. Pronotum: length 1.52 mm, width across humeral angles including the humeral spine 2.92 mm. Scutellum: length 0.98 mm, width 1.16 mm. Abdomen: maximum width 3.52 mm. Body length 7.37 mm.

Habitus and color similar to male. Connexival segments VIII and IX pale brown to dark yellowish orange with upper margin and narrow longitudinal stripe close to the anterior margin pale yellow; dorsal abdominal segment VIII dark brown with pale yellow central stripe, and IX dark brown; genital plates yellow.

Comments

This species is recognized by having the inner borders of antenniferous tubercles armed with two bifid spines, reaching the base of antennal segment I, the antennal segment III the longest, and the shape of the posteroventral edge of male genital capsule (Fig. 27i).

Distribution

Endemic to Madagascar (Bergroth 1905). Madagascar: Nossi-Bé.

Specimens examined. Madagascar: 2 ♂♂, 1 ♀, Rég. Sud de l'île, Bekily, I.1932 *(A. Seyrig)* (MNHN, UNAM); 2 ♂♂, 1 ♀, Morondava, Forêt sud de Befasy, I.1956 *(R. P.)* (MNHN); 1 ♀, Station agricole du Bas Mangoky [without date] (MNHN); 1 ♀, Prov. d'Analalava, Maromandia, 1923 *(R. Decary)* (MNHN).

Cletoscellus delectabilis n. gen., n. sp.
(Figs 22b, c; 23f; 25b, c; 27a; 29c, d; 31)

Type material

Holotype ♂: MADAGASCAR: Rogez [without date] (NMPC).

Paratypes: MADAGASCAR: 3 ♂♂, 2 ♀♀, Rogez [without date] (NMPC, UNAM); 8 ♂♂, 9 ♀♀, Vohémar [without date] (NMPC, UNAM); 1 ♀, Ampanefena [without date] (NMPC); 2 ♀♀, Ambanja [without date] (NMPC); 1 ♂, La Mandraka, 4.XII.1946 (*R. P.*) (MNHN); 1 ♀, Ranomafana, Ifanadiana [without date] (MNHN); 1 ♀, Rég. sud de l'île, Bekily, I.1932 (*A. SEYRIG*) (MNHN); 1 ♂, Dist., Mananara, N. Seranambe, VII.1965 (*VADON et PEYRIERAS*) (MNHN).

Derivatio nominis

From the Latin, *delectabilis,* meaning agreable, pleasant.

Description

Male holotype

Measurements. Head: length 1.10 mm; width across eyes 1.32 mm; interocular space 0.68 mm; preocular distance 0.60 mm; length antennal segments: I, 1.56 mm, II, 1.80 mm, III,1.36 mm, IV, 1.20 mm. Pronotum: length 1.60 mm, width across humeral angles including the humeral spine 3.36 mm. Scutellum: length 1.00 mm, width 1.04 mm. Abdomen: maximum width 3.04 mm. Body length 7.60 mm.

Dorsal color. Dark orange, punctures reddish brown, and following areas black: narrow longitudinal stripe behind eyes, and outer margin of calli; antennal segment I pale yellowish orange, with reddish- brown granules, segments II and III pale yellowish orange, and IV dark reddish brown with apex dark yellowish orange; apex of scutellum yellow; anterior half of costal margin of corium narrowly yellow; anterolateral border, humeral spine, and outer margin of posterolateral margin of pronotum pale yellow; hemelytral membrane pale ambarine with basal angle and veins darker; connexival segments III to V dark brown, punctures reddish brown, and anterior and posterior border pale yellow; segments VI and VII with anterior half pale yellow (anterior border dark brown), and posterior half dark brown; dorsal abdominal segments dark orange.

Ventral color. Pale yellow with following areas reddish brown to black: apex of rostral segment IV, punctures of thorax, and midline of abdominal sterna III to VII; anterior and posterior lobes of metathoracic peritreme pale yellow; coxae yellow, with punctures and two discoidal spots black; trochanters yellow; femora yellow with granules and discoidal spots dark reddish brown; tibiae yellow with three pale brown rings; tarsi yellow; middle third of abdominal sternite II with large, elongate black spot; abdominal sternites V to VII with one row of black discoidal spots.

Structure. Head nearly pentagonal, gradually bent down; antenniferous tubercles widely separated, with outer border armed with short single acute spine barely reaching base of antennal segment I, and inner border unarmed; antennal segment II the longest, IV the shortest, and I longer than III (Figs 22b, c; 23f); postocular tubercle slightly exposed; rostrum reaching posterior third of mesosternum.

Genitalia. Genital capsule: Posteroventral edge mesally wider; mesial lobe clearly bulging, and laterally straight (Fig. 27a). Paramere: Fig. 29c, d.

Female paratype

Measurements. Head: length 1.20 mm; width across eyes 1.38 mm; interocular space 0.80 mm; preocular distance 0.66 mm; length antennal segments: I, 1.56 mm, II, 1.74 mm, III,1.52 mm, IV, 1.18 mm. Pronotum: length 1.76 mm, width across humeral angles including the humeral spine 3.62 mm. Scutellum: length 1.16 mm, width 1.24 mm. Abdomen: maximum width 3.68 mm. Body length 8.20 mm.

Habitus and color similar to male. Connexival segments VIII and IX yellow; dorsal abdominal segments VIII and IX dark orange to black; genital plates yellow, with scattered black punctures.

Variation

1 - Apical joint of antennal segments II and III reddish brown to black. 2 - Antennal segment IV black with basal and apical joint castaneous orange. 3 - Tibiae scattered with reddish-brown granules. 4 - Outer border of antenniferous tubercles unarmed.

Comments

Very similar to *Cletoscellus spinijugis* n. comb. (in general habitus and coloration). *Cletoscellus delectabilis* n. gen., n. sp. is distinguished by having the inner border of the antenniferous tubercles unarmed, antennal segment II longer than the other segments, and by the shape of the posteroventral edge of the male genital capsule (Figs 22b; 27a). In *C. spinijugis* n. comb., the inner border of antenniferous tubercles is armed with two bifid spines, and the antennal segment III is the longest (Figs 22a; 27i).

Distribution

Known only from Madagascar.

Cletoliturus n. gen.

Derivatio nominis

Named for its similarity of appearance to the genus *Cletus*; masculine.

Description

Body ovoid, laterally expanded.

Head

Wider than long, shorter than length of pronotum, pentagonal, elongate, bending, dorsally flat, and conspicuously surpassing the antenniferous tubercles; tylus unarmed, apically globose, barely raised, extending anteriorly to and laterally higher than juga; juga unarmed; preocular length longer than 1.00 mm; antenniferous tubercles armed with short spine on outer border, or unarmed, continuous, almost circular, not prominent, and widely separated; antennal segment I thicker than segments II and III, and barely thicker than IV, narrow at base, gradually incrassate to the apex, curved outward, longer than head, and granulose; antennal segments II and III slender, cylindrical, and IV fusiform; length of antennal segments variable through the species; ocelli close to eyes, on an hypothetical line located slightly behind posterior margin of eyes; ocellar tubercle weakly raised; preocellar pit deep; eyes globose, upper margin located almost at same level of frons and vertex; postocular tubercle conspicuous; middle third of frons, and vertex with deep longitudinal sulcus; mandibular plate unarmed; buccula rectangular, raised, short, entire with more or

less anterior free angle, not projecting beyond antenniferous tubercles, meeting posteriorly and closed; rostrum reaching anterior or posterior third of metasternum; rostral segment I reaching the base of the head, or extending to the anterior border of prosternum; rostral segment III the shortest, IV shorter than I, and II longest or subequal to I.

Thorax

Pronotum. Wider than long, trapeziform, declivent; collar wide; anterior border almost straight, smooth; frontal angles not exposed; anterolateral borders obliquely straight, crenulate to serrulate; humeral angles thick at base, with the projection variable throughout the species; posterolateral borders sinuous, outer third crenulated to serrulated, inner third smooth; posterior border straight; calli indistinct, not raised, with deep submedial longitudinal furrow; triangular process absent; pronotal disk without medial carina; posterior margin with low transverse ridge, between humeral angles.

Prosternum with deep excavation; mesosternum feebly sulcate; metasternum deeply sulcate; anterior margin of mesosternum in front of the area between fore legs produced into broad and blunt keel; distance between procoxae, and mesocoxae twice the diameter of procoxae; distance between mesocoxae and metacoxae equal or less than diameter of mesocoxae; anterior lobe of metathoracic peritreme raised, reniform, posterior lobe raised, shorter, and each directed laterally; scent gland orifice widely open; evaporative area poorly developed.

Legs. Unarmed; space between each hind coxae reduced; coxae almost contiguous, separated by less than half diameter of one coxae; hind femora not attaining the apex of abdomen; tibiae terete, sulcate.

Scutellum. Wider than long, triangular, flat, apically subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment or extending slightly beyond the abdomen; costal margin emarginated, almost parallel-sided, basal half crenulated, and posterior half entire; apical margin sinuous; apical angle obtuse, not reaching middle third of hemelytral membrane.

Abdomen

Laterally expanded; connexivum distinctly raised above tergum; posterior angles of connexival segments IV to VI or V to VI produced into short spines; upper margin of connexivum crenulate; abdominal sterna without medial furrow; abdominal spiracles circular, small, closer to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible.

Male *genitalia*. Genital capsule. Posteroventral edge with broad and large tongue-shaped median lobe (Fig. 27d).

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica reduced, occupying the anterior border of the sternite, and barely concave; fissura covers 2/3 or more of the total length of the sternite; gonocoxae I wide, enlarged antero-posteriorly, in caudal view closed, in lateral view convex, entire; paratergite VIII conspicuously reduced, almost hidden by outer margin of abdominal sternite VII, spiracle visible; paratergite IX broad, subquadrate (Fig. 26a).

Integument

Body surface dull, almost glabrous. Head, collar, posterior lobe of pronotal disk, clavus, corium, acetabulae, propleura, mesopleura, metapleura, connexival segments III-IV, and

anterior and posterior margins of V strongly punctate; scutellar disk transversely wrinkled and strongly punctate; calli, male genital capsule, and female genitalia with punctation sparse; middle third of head ventrally, prosternum, mesosternum, and metasternum smooth; abdominal sterna finely punctate; femora and tibiae usually granulose.

Comments

This genus resembles *Cletus* by having the anterior lobe of the metathoracic peritreme reniform, the posterior lobe shorter, each directed laterally, and leaving the scent gland orifice widely open. In *Cletoliturus* n. gen., the frons and vertex have a deep longitudinal sulcus, the head elongate, with the preocular length longer than 1.00 mm, the posterior angles of connexival segments IV to VI or V and VI armed with short and obtuse projections, the abdomen more rounded on each side, and distinctly broader than the hemelytra, and paratergite VIII reduced, almost hidden by the lateral margins of abdominal sternite VII (Fig. 26a). In *Cletus*, the frons has a deep longitudinal sulcus, and the vertex usually lacks a sulcus, the head is smaller, abruptly bent down, with the preocular length shorter than 0.70 mm, the connexival segments always unarmed, the abdomen parallel-sided, never expanded, and not distinctly broader than hemelytra, and paratergite VIII triangular, exposed, and well developed (Fig. 26b, c).

Type species

Gonocerus lituripennis Stål, 1855.

Cletoliturus lituripennis (Stål, 1855) n. comb.

(Figs 23b; 25h; 26a; 27d; 30)

Gonocerus lituripennis Stål, 1855: 30.

Gonocerus lineatus Signoret, 1860: 942-943. Synonymized by Stål 1865: 80.

Cletus decoratus Distant, 1902: 249. Synonymized by Bergroth 1913: 153.

Cletomorpha sjoestedti Schouteden, 1912: 53 *n. syn.*

Redescription

Male

Measurements. Head: length 1.58 mm; width across eyes 1.72 mm; interocular space 1.08 mm; preocular distance 1.06 mm; length antennal segments: I, 1.87 mm, II, 2.64 mm, III, 1.90 mm, IV mm, 2.04. Pronotum: length 2.36 mm, width across humeral angles including the humeral spine 4.24 mm. Scutellum: length 1.48 mm, width 1.60 mm. Abdomen: maximum width 3.72 mm. Body length 11.12 mm.

Dorsal color. Head pale yellow with broad pale brown longitudinal stripe bordering the medial yellow stripe; punctures, and narrow longitudinal stripe behind eyes reddish brown; antennal segments I to IV orange; anterior lobe of pronotal disk dark yellow, punctures reddish brown, and anterolateral margins a distinct inverted-T shaped median pale yellow figure; posterior lobe of pronotal disk pale brown, clearly contrasting with the anterior lobe, with punctures reddish brown, and inner third of posterolateral border and posterior border yellow; scutellum pale yellow, with broad pale brown longitudinal stripe bordering the medial yellowish stripe, punctures reddish brown; clavus and corium pale brown, punctures reddish brown, and following areas pale yellow: claval and corial veins, apical margin, and anterior half of costal margin of corium; hemelytral membrane pale ambarine, with basal angle darker; connexival segment III yellow, IV yellow with posterior margin dark brown, V dark brown,

VI yellow with anterior border dark brown, and VII yellow with inner margin dark brown; dorsal abdominal segments II to VI dark yellow and VII dark orange, and laterally darker.

Ventral color. Pale yellow with apex of rostral segment IV and scattered punctures throughout black to reddish brown; propleura, mesopleura, and metapleura with transverse pale yellowish white line; mesopleura and metapleura with single large black discoidal spot; anterior and posterior lobe of metathoracic peritreme pale yellow; coxae pale yellow with two black discoidal spots; trochanters pale yellow; fore femora pale yellow with granules reddish brown; middle and hind femora pale yellow with granules and one row of ventral discoidal reddish brown spots; tibiae pale yellow with reddish-brown granules; tarsi yellow; abdominal sterna with 10 rows of small to medium-sized black to reddish-brown discoidal spots, as well as few scattered punctures.

Structure. Body almost parallel-sided. Head. Antenniferous tubercles widely separated with outer border armed with short subacute spine; antennal segment I narrow at base, gradually incrassate to the apex, granulose (Fig. 23b); antennal segment II the longest, III the shortest, and I equal than IV; rostrum reaching posterior third of mesosternum, or anterior third of metasternum. Thorax. Pronotum. Humeral angles thick at base, with the projection short, stout, directed slightly laterad (Fig. 25h); distance between procoxae and mesocoxae 2.5 times the diameter of procoxa; anterior lobe of metathoracic peritreme raised, reniform, posterior lobe raised, shorter, and each directed laterally; scent gland orifice widely open; evaporative area poorly developed. Abdomen. Posterior angle of connexival segments V-VI produced into short obtuse projections. Integument. Head, pronotal disk including the calli, clavus, corium, acetabulae, propleura, mesopleura, metapleura, connexival segments III-IV, and anterior and posterior margins of V strongly punctate; head ventrally and near middle third, male genital capsule, female genital plates, and abdominal sterna finely punctate; prosternum, mesosternum, metasternum almost smooth; femora and tibiae densely granulose.

Male *genitalia*. Genital capsule: posteroventral edge with broad large tongue-shaped median lobe; lateral lobes blunt, not exposed; apically rounded (Fig. 27d).

Female

Measurements. Head: length 1.62 mm; width across eyes 1.84 mm; interocular space 1.16 mm; preocular distance 1.08 mm; length antennal segments: I, 1.80 mm, II, 2.62 mm, III, 1.84 mm, IV mm, 1.96. Pronotum: length 2.52 mm, width across humeral angles including the humeral spine 4.68 mm. Scutellum: length 1.68 mm, width 1.84 mm. Abdomen: maximum width 4.40 mm. Body length 11.90 mm.

Habitus and color similar to male. Connexival segments VIII and IX dark to pale orange, with upper margin yellow; dorsal abdominal segment VIII dark orange, and IX pale yellow with punctures reddish brown; genital plates pale yellow with few reddish brown punctures on gonocoxae I.

Variation

1 - Corial veins with pink marks. 2 - Outer half of apical margin of corium black, and inner half yellow. 3 - Ventral face of middle femora with two rows of reddish-brown discoidal spots. 4 - Posterior border of connexival segment VI dark brown.

Comments

Cletoliturus lituripennis n. comb. was originally placed in the gonocerini genus *Gonocerus*, later transferred to *Cletus*, then to *Cletomorpha*, and in this contribution as a new genus to accommodate this peculiar species.

Cletoliturus lituripennis n. comb. is easily distinguished by having the antenniferous tubercles widely separated with the outer border unarmed or armed with a short, subacute spine; the antennal segment I pale orange to pale yellowish orange and lacking reddish-brown to black granules; the middle third of the anterior lobe of the pronotal disk with pale yellowish, inverted-T figure; the humeral angles thick at base, with the projection short and stout (Fig. 25h); the posterior angles of connexival segments V and VI produced into short obtuse projections, the connexival segment V dark brown; the propleura, mesopleura, and metapleura with a transverse, pale yellowish-white line; the abdominal sterna with 10 rows of black discoidal spots, and the posteroventral edge of male genital capsule with a large, tongue-shaped expansion (Fig. 27d).

Distribution

Described from South Africa, and later recorded from Comoro Archipelago (Mayotte), Madagascar, Malawi (Nyasaland), South West Arabia, South West Africa, Tanzania, Zaire, and Zimbabwe (Salisbury, Mashonaland) (DISTANT 1902; HESSE 1925; LINNAVUORI 1978; SCHOUTEDEN 1938; SIGNORET 1860; STÅL 1855, 1865; WALKER 1871).

Specimens examined. MADAGASCAR: without specific distribution. MADAGASCAR: 1 ♂, Diego Suárez, 2.V.1893 *(CH. ALLUAUD)* (MNHN); 1 ♂, 2 ♀♀, S. O. Plaines de Fiherena, 1905 *(F. GEAY)* (MNHN); 1 ♂, Forêt d'Ambre et Maevatanana, 1907 *(CERVONI)* (MNHN).

Plinachtus Stål, 1859

Plinachtus Stål, 1859b: 470.

Redescription

Body almost parallel-sided.

Head

Wider than long, or as longer as wide, shorter than length of pronotum, pentagonal, gradually bending down, dorsally flat, vertex slightly elevated behind the eyes, elongated and surpassing the antenniferous tubercles; tylus unarmed, apically globose or flat, barely raised, extending anteriorly to and laterally higher than juga; juga unarmed; preocular length more than 1.00 mm; antenniferous tubercles widely separated, almost circular, not prominent, unarmed, borders entire, continuous; antennal segment I thicker than segments II and III, and slightly thicker than IV, base slender, gradually incrassate to the apex, curved outward, longer than head, and granulose; antennal segment II slender, cylindrical, slightly broader apically; antennal segment III slender, cylindrical, apical third slightly broader, or with narrowly elliptical dilation or clearly obovate; antennal segment IV fusiform; antennal segment II the longest, III the shortest, and I longer than IV; ocelli close to eyes, an an hypothetical line located slightly behind posterior margin of eyes; ocellar tubercle weakly raised; preocellar pit deep; eyes globose, upper margin located almost at same level af frons and vertex; postocular tubercle conspicuous; middle third of frons with deep longitudinal sulcus; vertex without longitudinal sulcus; mandibular plate unarmed; buccula rectangular, raised, shart, entire with more or less anterior free angle, not prajecting beyond antenniferous tubercles, meeting posteriorly and closed; rostrum reaching posterior third of metasternum or middle third of abdominal sternite III; rostral segment I reaching the base of head, or extending to the anterior border of prosternum; rostral segment III the shortest, IV shorter than I, and II longest or subequal to I.

Thorax

Pronotum. Wider than long, trapeziform, declivent; collar not clearly defined; anterior border almost straight, smooth; frontal angles not exposed; anterolateral borders obliquely straight, crenulated to serrulated; humeral angles thick at base, with the projection variable throughout the species; posterolateral borders sinuous, outer third crenulated to serrulated, inner third smooth; posterior border straight; calli indistinct, not raised, with deep submedial longitudinal furrow; triangular process absent; pronotal disk without medial carina; posterior margin with low transverse ridge, between humeral angles.

Prosternum with deep excavation; mesosternum feebly sulcate; metasternum deeply sulcate; anterior margin of mesosternum in front of the area between fore legs produced into broad and blunt keel; distance between procoxae, and mesocoxae two times the diameter of procoxae; distance between mesocoxae and metacoxae almost equal or less than diameter of mesocoxae; anterior lobe of metathoracic peritreme raised, reniform, posterior lobe raised, shorter, and each directed laterally; scent gland orifice widely open; evaporative area poorly developed.

Legs. Unarmed; distance between each hind coxae 1 or 1.5 times the diameter of one coxae; hind femora not attaining the apex of abdomen; tibiae terete, sulcate.

Scutellum. Wider than long, triangular, flat, apically subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment or extending slightly beyond the abdomen; costal margin emarginated, almost parallel-sided, entire; apical margin sinuous; apical angle obtuse, not reaching middle third of hemelytral membrane.

Abdomen

Weakly dilated at connexival segments IV-V; connexivum distinctly raised above tergum with posterior angles unarmed, not produced into short spines; upper margin of connexivum weakly crenulated or entire; abdominal sterna without medial furrow; abdominal spiracles circular, small, closer to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible.

Male *genitalia*. Genital capsule. Posteroventral edge with prominent medial lobe, bordered on each side by symmetrical shoulders; the medial lobe is differentiated in two symmetrical secondary lobes located laterally with a medial tiny concavity or open V-shaped or U-shaped indentation between them.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica reduced, occupying the anterior border of the sternite, and barely concave; fissura covers 2/3 or more of the total length of the sternite; gonocoxae I quadrate, smaller than paratergite IX, in caudal view closed, in lateral view weakly convex, entire; paratergite VIII triangular small, with visible spiracle; paratergite IX broad, subquadrate, wider than gonocoxae I.

Integument

Body surface dull, almost glabrous. Head, collar, posterior lobe of pronotal disk, clavus, corium, acetabulae, propleura, mesopleura, and metapleura strongly punctate; scutellar disk transversely wrinkled and strongly punctate; calli, male genital capsule, and gonocoxae I with punctation less dense; middle third of head ventrally, prosternum, mesosternum, metasternum, and connexival segments smooth; abdominal sterna finely punctate; femora and tibiae usually not granulose.

Comments

The genus *Plinachtus* is characterized by having the vertex slightly elevated behind the eyes, the head clearly elongated in front of the antenniferous tubercles, antennal segment III apically slightly broad, or with narrowly elliptical dilation, or clearly obovate, the costal margin of the corium smooth and unserrated, the space between each hind coxae 1 to 1.5 times the diameter of one coxa, the upper border of connexivum smooth or weakly crenulated, and the posteroventral edge of male genital capsule with prominent medial plate. In *Cletus*, the vertex is not raised above the eyes, the head abruptly bent down, less elongate in front of the antenniferous tubercles, antennal segment III uniformly slender, cylindrical, the costal margin of the corium crenulated, the space between hind coxae less than 0.5 times the diameter of one coxae, the upper border of connexivum crenulate, and the posteroventral edge of male genital capsule simple, without median plate.

Type species

Plinachtus falcatus Distant, 1892.

Clé des espèces malgaches de Plinachtus

1. Tiers postérieur de l'article antennaire III, noir ; marge postérieure de la région pleurale des sternites II à IV, noire **2**

– Tiers postérieur de l'article antennaire III rougeâtre orangé ou jaune ; marge postérieure de la région pleurale des sternites II à IV, jaune **3**

2. Articles II à IV du rostre, noirs ; tiers postérieur de l'article antennaire II, rougeâtre ; moitié basale du bord externe de la corie, noire ; stigmates abdominaux jaunes ..... ***scitulus*** Brailovsky et Barrera

– Articles II à IV du rostre, jaunes (sauf l'apex du IV noir) ; tiers postérieur de l'article antennaire II, noir ; moitié basale du bord externe de la corie, jaune ; stigmates abdominaux, noirs ..... ***vermiculus*** Brailovsky et Barrera

3. Sternite abdominal V avec une tache noire arrondie ; angles huméraux du pronotum aplatis et relativement étroit à la base..... ***madagascariensis*** (Kiritshenko)

– Sternite abdominal V sans tache noire arrondie ; angles huméraux du pronotum large à la base ..... ***contortus*** Brailovsky et Barrera

Key to Malagasy species of Plinachtus

1. Distal third of antennal segment III black; posterior margins of pleural abdominal sterna II to IV blak **2**

– Distal third of antennal segment III reddish orange or yellow; posterior margins of pleural abdominal sterna II to IV yellow **3**

2. Rostral segments II to IV black; distal third of antennal segment II reddish; basal half of costal margin of corium black; abdominal spiracles yellow..... ..... ***scitulus*** Brailovsky et Barrera

– Rostral segments II to IV yellow (apex of IV black); distal third of antennal segment II black; basal half of costal margin of corium yellow; abdominal spiracles black ..... ***vermiculus*** Brailovsky et Barrera

3. Abdominal sternite V with black discoidal spot; humeral angles of pronotum flattened, and relatively thin at base ..... ***madagascariensis*** (Kiritshenko)

– Abdominal sternite V without black discoidal spot; humeral angles of pronotum not flattened, thick at base ..... ***contortus*** Brailovsky et Barrera

Plinachtus contortus Brailovsky et Barrera, 2006

Plinachtus contortus Brailovsky et Barrera, 2006: 37-39.

Type material

Holotype ♂: MADAGASCAR: Ambanja [without data] (NMPC).

Paratypes: MADAGASCAR: 1 ♀, Tulear Province, St. Augustine S. L., 29.III.1968 (*K. M. G. et P. D.*) (BMNH); 4 ♂♂, 7 ♀♀, 1930 (*SICARD*) [without data] (MNHN, UNAM).

Redescription

Male

Measurements. Head: length 1.70 mm; width across eyes 1.75 mm; interocular space 0.97 mm; preocular distance 1.10 mm; length antennal segments: I, 2.50 mm, II, 3.15 mm, III, 2.00 mm, IV, 2.10 mm. Pronotum: length 2.60 mm, width across humeral angles including the humeral spine 4.10 mm. Scutellum: length 1.20 mm, width 1.40 mm. Body length 12.40 mm.

Dorsal color. Shiny orange with the following areas black: head with two longitudinal stripes running between eye and ocellus, ocellar tubercle, space between antenniferous tubercle and eye, inner face of postocular tubercle, anterolateral margins of pronotum, humeral projections, middle third of anterior lobe of pronotal disk, lateral area of upper third of posterior lobe of pronotal disk, and apex of scutellum; antennal segments I to III shiny orange, IV dull orange suffused with brown, with basal and apical thirds pale yellowish orange; humeral expansion reddish orange; anterior half of costal margin of corium pale yellow; basal quarter to half of costal margin bordered medially by a brownish-black stripe; hemelytral membrane pale translucient yellow, basal angle darker; connexivum pale yellow; abdominal segments shiny yellowish orange.

Ventral color. Pale yellow with large black discoidal spot on metapleura; rostral segment I pale yellow, II and III shiny orange, IV shiny orange with apex black; coxae, trochanters, and femora pale yellow; tibiae pale yellow with distal half shiny orange; tarsi shiny orange.

Structure. Rostrum reaching posterior margin of metasternum. Humeral angles thick at base, slightly exposed, and apically truncated.

Genital capsule: posteroventral border laterally differentiated into prominent asymmetrical arms; inner arms covered by large, stout, dark orange setae-like hairs; middle third with stout short lobe.

Female

Measurements. Head: length 1.72 mm; width across eyes 1.72 mm; interocular space 0.97 mm; preocular distance 1.08 mm; length antennal segments: I, 2.25 mm, II, 2.70 mm, III, 1.87 mm, IV, 1.72 mm. Pronotum: length 2.60 mm, width across humeral angles including the humeral spine 4.05 mm. Scutellum: length 1.30 mm, width 1.60 mm. Body length 11.85 mm.

Habitus and color similar to male. Connexival segments VIII and IX pale yellow, posterior margins shiny orange; dorsal abdominal segments VIII to IX shiny yellowish orange, lateral margins black; genital plates yellow.

Comments

This species belongs to the *dubius*-group characterized by having the posterior third of antennal segment III yellow or reddish orange (never black); the abdominal sternite V lacks a black discoidal spot; the abdominal sterna without black spots surrounding the spiracles; the humeral angles of pronotum are thick at base, and tapering into sharp or truncate apical spine; and the male genital capsule usually with prominent lateral arms (VAN REENEN 1981). *Plinachtus contornus* has the humeral angles almost blunt, never ending as sharp spine; ventrally pale yellow with only one large black discoidal spot on the mesopleuron; head dorsally with two black longitudinal stripes running between eye and ocellus; the anterolateral margins of pronotum black to dark brown; and the posteroventral edge of male genital capsule laterally differentiated into prominent asymmetrical arms, and the inner arms covered with large, stout, dark orange setae-like hairs. In *P. schoutedeni*, recorded from South Africa, the anterolateral margins of the pronotum are pale yellow to pale yellowish orange, and the posteroventral edge of male genital capsule has a median lobe more or less rectangular, its lateral angles short, and the external shoulders conical without setae-like hairs.

Distribution

This species is known only from Madagascar. MADAGASCAR: Ambanja, Ampasimpolaka, Andrahomana, and St. Augustine (BRAILOVSKY & BARRERA 2006).

Plinachtus madagascariensis (Kiritshenko, 1916)

(Figs 29i, j; 40)

Gonocerus madagascariensis Kiritshenko, 1916: 72-73.

Plinachtus madagascariensis (Kiritshenko): Brailovsky et Barrera, 2002: 193.

Type material

Holotype ♀: MADAGASCAR: Toliara Province, Fort Dauphin, 1899 (*SIKORA*) (ZMAS).

Redescription

Male

Measurements. Head: length 1.78 mm; width across eyes 1.82 mm; interocular space 1.02 mm; preocular distance 1.04 mm; length antennal segments: I, 2.44 mm, II, 3.16 mm, III, 2.16 mm, IV, 2.02 mm. Pronotum: length 2.64 mm, width across humeral angles including the humeral spine 4.04 mm. Scutellum: length 1.36 mm, width 1.58 mm. Body length 12.82 mm.

Dorsal color. Pale yellowish orange with the following areas black: head with two longitudinal stripes, ocellar tubercle, space between antenniferous tubercles and eye, inner face of postocular tubercle, anterolateral margin of pronotum, humeral projections, and apex of scutellum; antennal segments I and II pale yellowish orange, III pale yellowish orange with apical third darker, and IV pale brown with apical third yellowish orange; clavus pale yellowish orange, punctures dark orange; corium pale yellowish orange, tinged with reddish at apical third, punctures dark orange; hemelytral membrane pale

ambarine, translucient; connexivum pale yellow; abdominal segments pale yellow, suffused with pale reddish orange marks, and posterior margin with black irregular spots on lateral third.

Ventral color. Overall color including rostral segments (apex of IV black), legs and anterior and posterior lobes of metathoracic peritreme pale yellow; mesopleura, metapleura, and abdominal sternite V with black discoidal spots.

Structure. Antennal segment III with narrowly elliptical dilation; rostrum reaching middle third of mesosternum. Humeral angles thin at base, with the spine relatively short, slender, acute, pointing strongly upward and less forward.

Genitalia. Genital capsule: Posteroventral edge with lateral arms wide, stout, gently conical, with large but not deep U-shaped mesial concavity; outer shoulders relatively small. Paramere: Fig. 29i, j.

Female

Measurements. Head: length 1.94 mm; width across eyes 2.04 mm; interocular space 1.16 mm; preocular distance 1.22 mm; length antennal segments: I, 2.64 mm, II, 3.20 mm, III, 2.08 mm, IV, 1.96 mm. Pronotum: length 3.12 mm, width across humeral angles including the humeral spine 4.52 mm. Scutellum: length 1.68 mm, width 1.80 mm. Body length 14.50 mm.

Habitus and color similar to male. Connexival segments VIII and IX pale yellow; dorsal abdominal segments VIII and IX pale yellowsih orange and laterally black; genital plates pale yellow. Antennal segment III with narrowly elliptical dilation.

Variation

1 - Anterolateral margins of pronotum black, bordered inside with pale reddish marks. 2 - Connexivum pale reddish orange. 3 - Lateral margins of abdominal sterna III to VII entirely pale reddish orange.

Comments

This species is included in the *falcatus*-group recognizable by having the posterior third of antennal segment III reddish orange to orange yellow, never black; the humeral angles of pronotum thin at the base with the spine relatively short and pointing strongly upward and less forward; the abdominal sternite V has a black discoidal spot; and the abdominal spiracles and the posterior margin of lateral abdominal sterna II to IV yellow, without black marks (Van Reenen 1981). Like *P. falcatus* with a black spot on both sides of each of mesopleura and metapleura, and antennal segment IV shorter than III. In *P. falcatus*, recorded from Namibia, Zaire, South Africa and Zimbabwe, the black spots on the mesopleura and metapleura are smaller, and the apical third of antennal segment III almost cylindrical. In *P. madagascariensis*, endemic to Madagascar, the black spot on mesopleura and metapleura are large, and the antennal segment III has a narrow elliptical dilation on the apical third.

Distribution

This species is known only from Madagascar. Madagascar: Fort Dauphin, and St. Augustine (Kiritshenko 1916; Brailovsy & Barrera 2002).

Specimens examined. Madagascar: 1 ♂, Plaines d'Ambolisatra, 1905 [without data] (*F. Geay*) (MNHN); 1 ♀, Plaines de Ranobe, 1905 [without data] (*F. Geay*) (MNHN);

1 ♀, Plateau Mahafaly, env. d'Ankalirano, 17.I.1974 (*A. Peyrieras* et *P. Viette*) (MNHN); 1 ♀, Maroantsetra, Ambodivoangy, X.1951 (*J. Vadon*) (UNAM); 2 ♂♂, 1 ♀, S.E. de Tranomaro, Androatsabo, 400 m, XII.1971 (*Peyrieras*) (MNHN).

Plinachtus scitulus Brailovsky et Barrera, 2002
(Fig. 29h)

Plinachtus scitulus Brailovsky et Barrera, 2002: 193-196.

Type material

Holotype ♂: Madagascar: 1930 [without data] (*Sicard*) (MNHN).

Paratype: 1 ♀, same data as holotype (UNAM).

Redescription

Male

Measurements. Head: length 1.95 mm; width across eyes 2.20 mm; interocular space 1.15 mm; preocular distance 1.20 mm; length antennal segments: I, 3.65 mm, II, 4.50 mm, III, 2.75 mm, IV, missing. Pronotum: length 2.80 mm, width across humeral angles including the humeral spine 5.10 mm. Scutellum: length 1.65 mm, width 1.80 mm. Body length 14.30 mm.

Dorsal color. Shiny to dark orange with the following areas black: head with two longitudinal paramedian stripes obliquely directed, short stripe running between eye and antenniferous tubercle, postocular tubercle, anterolateral margin of pronotum including humeral angles and the spine, basal discoidal spot on midline and close to the anterior border of pronotal disk, apex of scutellum, and basal half of costal margin of corium; antennal segment I shiny reddish, and basally black, segment II shiny reddish, and III with basal half shiny reddish and distal half black (IV missing); hemelytral membrane pale yellow with basal angle darker; connexivum shiny dark orange, with posterior margin black; abdominal segments shiny dark orange.

Ventral color. Shiny yellow, with the following areas black: large discoidal spot on mesopleura and metapleura, and posterior margin of lateral abdominal sterna II to VI; rostral segment I yellow, II to IV black; coxae shiny yellow; trochanters shiny yellow with dark brown diffuse reflections; femora and tarsi dark reddish brown; tibiae dark reddish brown with apical third almost black.

Structure. Rostrum reaching middle third of abdominal sternite III. Humeral angles thick at base, tapering into large spine pointing strongly upward, slightly outward, but not forward.

Genitalia. Genital capsule: posteroventral edge with median lobe more or less rectangular, not wider than body of pygophore, differentiated into lateral arms, with prominent U-shaped mesial concavity, and strongly pointed outside; shoulders absent. Paramere: Fig. 29h.

Female

Measurements. Head: length 2.00 mm; width across eyes 2.25 mm; interocular space 1.25 mm; preocular distance 1.25 mm; length antennal segments: I, 3.35 mm, II, 4.30 mm, III, 2.65 mm, IV, missing. Pronotum: length 2.70 mm, width across humeral angles including the humeral spine 5.05 mm. Scutellum: length 1.60 mm, width 1.85 mm.

Body length 15.20 mm.

Habitus and color similar to male. Connexival segments VIII and IX black with anterior border shiny dark orange; abdominal segment VIII shiny dark orange, and IX black with anterior margin shiny dark orange; genital plates shiny yellow. Antennal segment III with basal half cylindrical and slender, and distal half broadly obovate, with inner and outer face dilated.

Comments

This species belongs to the *pungens*-group characterized by having the distal third of antennal segment III black; the abdominal sterna with black spots surrounding the spiracles or at least with two to five black spots on the lateral abdominal sterna; and the posteroventral edge of male genital capsule without shoulders (Van Reenen 1981). *Plinachtus scitulus* is recognized by having the rostral segments II to IV black, the connexival segments yellow with posterior margin black, the anterior margin of pronotal disk with a black discoidal spot on the middle third; the humeral angles black; and the posterior third of antennal segment III of the female cylindrical on the basal half, and broadly obovate on the distal half. In *P. pungens*, widely distributed throughout Kenya, Ruanda, Uganda, Zambia and South Africa, the rostral segments II to IV are yellow (apex of IV black), the connexival segments uniformly yellow, and the anterior margin of pronotal disk lacks a black discoidal spot.

Distribution

This species is known only from Madagascar. Madagascar: without data (Brailovsky & Barrera 2002).

Plinachtus vermiculus Brailovsky et Barrera, 2002

(Figs 29g; 41)

Plinachtus vermiculus Brailovsky et Barrera, 2002: 196-198.

Type material

Holotype ♂: Madagascar: Antsiranana Province, Diego Suárez, 1893 (*Ch. Alluaud*) (MNHN).

Paratypes: 4 ♀♀, same data as male holotype (MNHN, UNAM). New records. Madagascar: 1 ♀, Antsirabe, I.1953 (*Bouvet*) (MNHN).

Redescription

Male

Measurements. Head: length 1.90 mm; width across eyes 2.00 mm; interocular space 1.10 mm; preocular distance 1.15 mm; length antennal segments: I, 3.50 mm, II, 4.20 mm, III, 2.75 mm, IV, 3.05 mm. Pronotum: length 2.50 mm, width across humeral angles including the humeral spine 6.90 mm. Scutellum: length 1.60 mm, width 1.75 mm. Body length 13.65 mm.

Dorsal color. Overall color pale ochraceous with the following areas black: head with two longitudinal stripes running between eye and ocelli, ocellar tubercle, space between antenniferous tubercle and eye, inner face of postocular tubercle, anterolateral margin of pronotum, spine of humeral angle, and apex of scutellum; antennal segment I reddish,

segment II pale ochraceous with distal third black, III with basal half pale ochraceous and distal half black, and IV dark brown with basal and distal third dark orange; basal half of costal margin of corium pale yellow; hemelytral membrane pale ambarine with basal angle darker; connexival segments III to VI yellow with posterior margin black, and VII yellow with inner margin yellow; dorsal abdominal segments shiny yellowish orange; punctures black to dark brown on a pale ochraceous background.

Ventral color. Pale yellow with the following areas black: large discoidal spot on mesopleura and metapleura, abdominal spiracle, and posterior margin of lateral abdominal sterna II to VI; rostral segments yellow (apex of IV black); coxae and trochanters yellow; femora dark brown with basal third yellow; tibiae dark orange with apical third dark brown; tarsi dark reddish brown.

Structure. Rostrum reaching posterior margin of metasternum. Humeral angles thick at base, tapering into remarkably large and acute spine, pointing strongly upward and slightly backward.

Genitalia. Genital capsule: posteroventral edge with median lobe rectangular, not wider than body of pygophore, and lateral arms truncated without deep medial concavity; shoulders absent. Paramere: Fig. 29g.

Female

Measurements. Head: length 2.15 mm; width across eyes 2.25 mm; interocular space 1.20 mm; preocular distance 1.37 mm; length antennal segments: I, 3.50 mm, II, 4.05 mm, III, 2.70 mm, IV, 3.05 mm. Pronotum: length 2.85 mm, width across humeral angles including the humeral spine 8.80 mm. Scutellum: length 1.80 mm, width 2.15 mm. Body length 16.37 mm.

Habitus and color similar to male. Distal third of antennal segment III slightly expanded on outer face. Connexival segments VIII and IX yellow with inner face black; abdominal segment VIII yellowish orange with lateral margins black, and IX almost black; genital plates yellow.

Comments

This species also belongs to the *pungens*-group, and is characterized by having the rostral segments II to IV yellow (apex of IV black); the distal third of antennal segments II and III black; the humeral spine strongly large and acute, directed upward, outward, and slightly backward; the anterior border of pronotal disk without a black discoidal spot; the posterior lobe of pronotal disk with a broad impunctate line running medio-longitudinally; and the black posterior margins of lateral abdominal sterna II to IV (Brailovsky & Barrera 2002). In *P. pungens*, the humeral spine is shorter, pointing upward, outward and slightly forward; the posterior lobe of pronotal disk with a vague impunctate and irregular line running medio-longitudinally; and the posterior margins of lateral abdominal sterna II to VI yellow to orange.

Distribution

This species is known only from Madagascar. Madagascar: Diego Suárez (Brailovsky & Barrera 2002).

Tribe Hydarini Stål, 1873

Body dull colored, small to medium-sized.

Head

Wider than long, anterior portion porrect, surpassing the antenniferous tubercles; tylus not compressed; antenniferous tubercles not prominent; antennae usually cylindrical, if triangular in cross section then antennal segment IV shorter than III; antennal segment I apically clavate; postocular tubercle indistinct; rostrum slender, extending beyond mesosternum.

Thorax

Fore femora unarmed; hind femora on both sexes not incrassate, apically slightly thickened, and not reaching abdominal apex; hind tibiae cylindrical, not expanded, and not sulcate dorsally; claval commissure not longer than apical corial margin.

Abdomen

Usually not dilated; abdominal sternites without lateral discoidal glandular capsules.

Two genera, one subgenus and three species are known to Madagascar.

Clé des genres et sous-genres malgaches d'Hydarini

1. Marge apicale de la corie sinusoïdale ; article I des antennes plus long que les autres ; article IV fusiforme, allongé ; corps allongé, robuste ..... ***Hydara*** Dallas

– Marge apicale de la corie rectiligne et oblique; article III des antennes plus long que les autres ; article IV court, claviforme ; corps allongé, étroit à bords parallèles ..... ***Corduba (Acanthocorduba)*** Linnavuori

Key to Malagasy genera and subgenera of Hydarini

1. Apical border of corium at outer third strongly concave; antennal segment I the longest; antennal segment IV fusiform, elongate; body elongate, robust ..... ***Hydara*** Dallas

– Apical border of corium obliquely straight; antennal segment III the longest; antennal segment IV short, clavate; body elongate, narrowed, parallel-sided ..... ***Corduba (Acanthocorduba)*** Linnavuori

Corduba (Acanthocorduba) Linnavuori, 1978

Corduba Stål, 1862: 20.
Corduba (Acanthocorduba) Linnavuori, 1978: 33.

Redescription

Body elongated, narrow, broadening distinctly caudad.

Head

Subquadrate, without spines, wider than long across eyes, anterior portion moderately

produced, not abruptly bent downwards; tylus protruding, unarmed; juga swollen; antenniferous tubercle with short external expansion; antennal segment I long, slender, cylindrical, apically clavate; antennal segment III the longest, IV the shortest, and I longer than II; buccula rounded, short, elevated, not projected beyond the posterior margin of eyes; rostrum reaching posterior border of metasternum; rostral segment I reaching posterior gular region, distant from prosternum.

Thorax

Pronotum. Trapezoidal, wider than long, moderately declivent; anterolateral margins straight, crenulated; posterolateral margins rounded, smooth; posterior margin concave in middle third; humeral angles with straight, long spine, directed obliquely backwards; anterior lobe of metathoracic peritreme elongated, apically globose, posterior lobe short.

Legs. Slender, unarmed; apex of femora moderately thickened.

Scutellum. Triangular, longer than wide, apically subacute.

Hemelytra. Macropterous, reaching apex of last abdominal segments; costal margin serrate; apical margin slightly sinuous.

Abdomen

Connexival segments with upper border crenate.

Male *genitalia*. Genital capsule: posteroventral edge with middle lobe broad, globose and exposed, and lateral lobes short, flat (Fig. 42b).

Female *genitalia*. Posterior angle of abdominal segment VIII long, acute; abdominal segment IX longer than broad, with posterior margin clearly bifid; gonocoxae I short, obliquely directed, with external surface entire; paratergite VIII triangular, spiracle visible; paratergite IX longer, rectangular (Fig. 41c).

Integument

Head, pronotum, scutellum, thorax, and abdominal sterna granulose; pronotum, scutellum, clavus, and corium densely and coarsely punctate.

Comments

LINNAVUORI (1978) described the subgenus *Acanthocorduba* to include *C.* (*A.*) *echinops* (Chad, Ethiopia, Senegal, Somalia, Tanzania, Yemen), *C.* (*A.*) *maynei* (Zaire), and *C.* (*A.*) *umbrina* (Sudan), leaving *C.* (*C.*) *macra* (Democratic Republic of the Congo, Sierra Leone) as the only species in the nominate subgenus *Corduba* (*Corduba*). BRAILOVSKY & ORTEGA LEÓN (1998) added two new species *C.* (*A.*) *spiculata* from Tanzania, and *C.* (*A.*) *baniana* from Madagascar, later BRAILOVSKY (1998) described *C.* (*A.*) *lurida* from Namibia, South Africa, Zambia, and Zimbabwe, and MOULET (2004) *C.* (*A.*) *streitoi* from Burkina Faso.

Corduba, like *Hydara*, has antennal segment I slender, cylindrical and apically clavate. In *Corduba* the apical border of corium is obliquely straight to slightly sinuous, the body elongate, narrowed and parallel-sided, antennal segment IV short, and the posterior border of abdominal segment IX of female concave or bifid. In *Hydara*, the apical border of corium has the posterior third conspicuously concave, the body elongated and robust, antennal segment IV longer, fusiform, and posterior border of abdominal segment IX of female truncated.

Only one species, *C.* (*A.*) *baniana*, is known from Madagascar.

Type species
Corduba macra Stål, 1862.

Corduba (*Acanthocorduba*) *baniana* Brailovsky et Ortega León, 1998
(Fig. 42a-c)

Corduba (*Acanthocorduba*) *baniana* Brailovsky et Ortega-Leon, 1998: 29-32.

Type material
Holotype ♂: MADAGASCAR SOUTH WEST: Banian, Ankazoabo, 22°18'S-44°31'E, 70 m, 14.VII.1957 (*R. ANDREA*) (AMNH).

Paratypes: MADAGASCAR SOUTH WEST: 1 ♂, 2 ♀♀, same data as holotype (AMNH, BMNH, UNAM).

Redescription

Male

Measurements. Head length 0.84 mm; width across eyes 0.96 mm; interocular distance 0.58 mm; interocellar distance 0.32 mm; length antennal segments: I, 2.94 mm, II, 1.12 mm, III, 3.26 mm, IV, 0.96 mm. Pronotum: length 1.28 mm, width across humeral angles (without spine) 1.32 mm. Scutellum: length 0.70 mm; width 0.50 mm. Body length 7.12 mm.

Color. Including antennal segments I to III, and rostral segments I to IV (apex of IV black) pale yellow; antennal segment IV reddish brown with apex yellow; anterolateral margins of pronotum, apical angle of corium, anterior third of connexival segments V and VI, and anterior and posterior angles of VII pale brown; hemelytral membrane translucient, with basal veins darker; dorsal abdominal segments shiny orange, with pale yellow spots irregularly distributed.

Female

Measurements. Head: length 0.90 mm; width across eyes 0.98 mm; interocular distance 0.60 mm; interocellar distance 0.34 mm; length antennal segments: I, 2.76 mm, II, 1.04 mm, III, 3.08 mm, IV, 0.84 mm. Pronotum: length 1.26 mm, width across humeral angles (without spine) 1.44 mm. Scutellum: length 0.76 mm; width 0.48 mm. Body length 7.92 mm.

Habitus and color similar to male.

Comments
This species is very similar in general habitus and color to *C.* (*A.*) *umbrina*, including the unarmed head and tylus. In *C.* (*A.*) *baniana*, however, antennal segments I and III are longer (I, 2.76-2.94 mm, III, 3.08-3.26 mm); antennal segment II is shorter (1.04-1.12 mm); the humeral spine projected into a long and slender spine; and connexival segments V to VII having a pale brown spot, not darker as in *C.* (*A.*) *umbrina*. In the later, antennal segments I and III are shorter (I, 2.58 mm, III, 3.04 mm); antennal segment II longer (1.28 mm); and humeral spine shorter.

Distribution

This species, recently described from Madagascar, is endemic to that region (BRAILOVSKY & ORTEGA LEÓN 1998). MADAGASCAR SOUTH WEST: Banian (Ankazoabo).

Genus *Hydara* Dallas, 1852

Hydara Dallas, 1852: 492-493.

Redescription

Body elongated, relatively robust, broadening distinctly caudad.

Head

Subquadrate, wider than long across eyes, unarmed, anteriorly slightly produced, not abruptly bent downwards; tylus protruding, apically rounded; juga swollen; antenniferous tubercle with short external plate; antennal segment I long, slender, cylindrical, densely granulose, apically clavate; antennal segments II and III slender, cylindrical, and IV short, fusiform; antennal segment I the longest, IV the shortest, and III longer than II; ocelli distant, placed near eyes; buccula short, rounded, not extending beyond antenniferous tubercle; rostrum reaching posterior margin of metasternum; rostral segment I reaching anterior margin of prosternum.

Thorax

Pronotum. Trapezoidal, wider than long, moderately declivent; collar broad; anterolateral margins obliquely straight, crenulated; posterolateral margins sinuous, outer third crenulated, inner third smooth or finely crenulate; posterior margin slightly concave, smooth; humeral angles with medium-sized spine directed obliquely backwards or with large and acute spine directed laterally and weakly backwards.

Legs. Slender, unarmed; femora apically clavate.

Scutellum. Triangular, longer than wide, apically subacute.

Hemelytra. Macropterous, reaching or extending beyond the apex of last abdominal segment (male), or reaching anterior margin of abdominal segment IX (female).

Abdomen

Connexivum with upper border crenate.

Male *genitalia*. Genital capsule: Posteroventral edge with middle lobe broad, globose, slightly raised, and enclosed by two short subquadrate arms, or with middle lobe broad, short, weakly raised, and enclosed by two large subglobose arms.

Female *genitalia*. Gonocoxae I enlarged antero-posteriorly, opened in caudal view, apically rounded, with outer margin weakly convex or straight; paratergite VIII triangular, spiracle visible; paratergite IX projected as a broad and large subquadrate lobe, conspicuously longer than paratergite VIII.

Integument

Body surface glabrous. Head, antennal segments I to III, anterior and anterolateral margins of pronotum, femora, tibiae, and pleural margins of abdominal sterna III to VII densely granulate; pronotum behind calli strongly punctate, each puncture small; scutellum moderately punctate, each puncture large; prosternum, mesosternum, metasternum, connexivum, and abdominal sterna impunctate.

Comments

The genus *Hydara* includes three species, *H. kmenti* Brailovsky recorded from Madagascar, *H. nigrofasaciata* Garcia Varela recorded from Cameroon, and Spanish Guinea, and *H. tenuicornis* (Westwood) widely distributed throughout Sub-Saharan Africa, including Madagascar (Brailovsky 2006).

The relationship between *Hydara* and *Corduba* was discussed in the treatment of the latter.

Type species

Coreus tenuicornis Westwood, 1842.

*Clé des espèces malgaches d'*Hydara

1. Articles antennaires I à III, fémurs et tibias, jaunâtre pâle marqué de noir ; épines humérales du pronotum courtes, obliques, dirigées vers l'arrière ..... ***kmenti*** Brailovsky

– Articles antennaires I à III, fémurs et tibias entièrement jaunâtre pâle à orangé pâle ; épines humérales du pronotum longues, droites, légèrement dirigées vers l'arrière ..... ***tenuicornis*** (Westwood)

Key to Malagasy species of Hydara

1. Antennal segments I to III pale yellowish with black marks; femora and tibiae pale yellowish with black marks; humeral spine of pronotum short, directed obliquely backwards ..... ***kmenti*** Brailovsky

– Antennal segments I to III entirely pale yellowish to pale yellowish orange, without black marks; femora and tibiae entirely pale yellowish to pale yellowish orange; humeral spine of pronotum large, directed laterally and slightly backwards..... ***tenuicornis*** (Westwood)

Hydara kmenti Brailovsky, 2006

(Figs 43b, d, f; 44)

Hydara kmenti Brailovsky, 2006: 16-18.

Type material

Holotype ♂: Madagascar: Ampanefena [without date] (NMPC).

Paratypes: Madagascar: 3 ♂♂, 2 ♀♀, same data as holotype (NMPC, UNAM); 1 ♀, Diego Suárez, 1893 (*Ch. Alluaud*) (MNHN).

Redescription

Male

Measurements. Head: length 1.20 mm; width across eyes 1.36 mm; interocular distance 0.82 mm; interocellar distance 0.54 mm; length antennal segments: I, 4.48 mm, II, 2.68 mm, III, 3.96 mm, IV, 2.00 mm. Pronotum: length 2.28 mm, maximal width of posterior lobe including humeral spine 3.04 mm. Scutellum: length 1.48 mm; width 1.04 mm. Body length 11.65 mm.

Dorsal color. Dark orange; antennal segment I dark orange with granules and apex

almost entirely dark brown; antennal segments II and III dark yellow with dark brown granules; antennal segment IV dark castaneus orange, apex pale yellowish orange; posterior angle of claval commissure black; hemelytral membrane pale ambarine; dorsal abdominal segments shiny orange with yellowish marks.

Ventral color. Pale yellow with small black discoidal spot on mesopleura, and abdominal sterna III to VII; coxae pale yellow; trochanters pale yellow scattered with dark brown spots; femora pale yellow with granules and apices almost entirely dark brown; tibiae pale yellow with granules, apices and two or three incomplete dark brown rings; tarsi with basal and middle segments yellow, apices castaneus orange, and apical segment castaneus orange; genital capsule pale yellow with dark brown irregular marks.

Structure. Pronotum. Humeral angles with medium-sized spine directed obliquely backwards (Fig. 43b). Genital capsule: posteroventral edge with middle lobe broad, globose, and enclosed by two short subquadrate arms (Fig. 43d).

Female

Measurements. Head: length 1.18 mm; width across eyes 1.38 mm; interocular distance 0.88 mm; interocellar distance 0.54 mm; length antennal segments: I, 4.60 mm, II, 2.72 mm, III, 3.96 mm, IV, 1.93 mm. Pronotum: length 2.14 mm, maximal width of posterior lobe including humeral spine 3.16 mm. Scutellum: length 1.60 mm; width 1.20 mm. Body length 12.20 mm.

Habitus and color similar to male. Connexival segments VIII and IX, and dorsal abdominal segments VIII and IX yellowish orange; genital plates pale yellow. Genital plates: Fig. 43f.

Variation

1 - Anterior third of anterolateral margins of pronotum pale dark brown. 2 - Granules of head, anterior and anterolateral margins of pronotum, and pleural margins of abdominal sterna III to VII yellowish white. 3 - Connexivum yellow. 4 - Upper margin of connexival segments IV and V with black diffuse marks.

Comments

Hydara kmenti is easily distinguished by having the antennal segments I to III, and the femora and tibiae pale yellowish with black to dark brown marks, the propleura and mesopleura lack a black discoidal spot, and the humeral spine of pronotum is shorter and directed obliquely backwards. In *H. tenuicornis*, antennal segments I to III, and the femora and tibiae are entirely pale yellowish to pale yellowish orange, the propleura and mesopleura each has a small black discoidal spot, and the humeral spine is large, and directed laterally and slightly backwards. In *H. nigrofasciata* Garcia Varela, the posterior margin of the pronotal disk has a wide transverse black stripe absent, in the previously mentioned species.

Distribution

This species recently described from Madagascar, is endemic to that region (Brailovsky 2006). Madagascar: Ampanefena, Ambodivoniho (Env. de Vohémar), Vohémar, Rogez, Ambanja, Diego Suárez, Ambilobe, Ampijoroa and Tsaramandroso.

Hydara tenuicornis (Westwood, 1842)

(Figs 43a, c, e, g-i; 45)

Coreus tenuicornis Westwood, 1842: 24.

Hydara tenuicornis (Westwood): Dallas 1852: 493.

Redescription

Male

Measurements. Head: length 1.10 mm; width across eyes 1.28 mm; interocular distance 0.80 mm; interocellar distance 0.48 mm; length antennal segments: I, 3.80 mm, II, 2.48 mm, III, 3.44 mm, IV, 1.80 mm. Pronotum: length 1.84 mm, maximal width of posterior lobe including humeral spine 3.80 mm. Scutellum: length 1.40 mm; width 1.04 mm. Body length 11.60 mm.

Color. Pale yellow to pale yellowish orange with small black discoidal spot on propleura, mesopleura, metapleura, and abdominal sterna III to VII; antennal segment IV dark brown, apically pale yellow; apex of rostral segment IV black to dark brown; anterolateral margins of pronotal disk including the humeral spine brown; apical margin of corium creamy yellow; punctures of pronotum, scutellum, clavus and corium castaneus orange; granules creamy yellow.

Structure. Pronotum. Humeral angles with large and acute spine directed laterally and slightly backwards (Fig. 43a).

Genitalia. Genital capsule: Posteroventral edge with middle lobe broad, short, weakly raised, and enclosed by two large subglobose arms (Fig. 43c). Paramere: Fig. 43g, h.

Female

Measurements. Head: length 1.14 mm; width across eyes 1.36 mm; interocular distance 0.84 mm; interocellar distance 0.52 mm; length antennal segments: I, 3.40 mm, II, 2.28 mm, III, 3.16 mm, IV, 1.72 mm. Pronotum: length 1.88 mm, maximal width of posterior lobe including humeral spine 3.56 mm. Scutellum: length 1.40 mm; width 1.12 mm. Body length 11.95 mm.

Color and habitus similar to male. Genital plates: Fig. 43e.

Variation

1 - Antennal segments I to III with shiny reddish reflections. 2 - Apex of clavus black. 3 - Corial veins reddish pink. 4 - Apical angle of corium pale yellow to pale reddish pink. 5 - Apex of femora with shiny reddish reflections.

Comments

The relationship with *H. kmenti* the other Malagasy species was discussed in the latter.

Distribution

This is the most widely distributed species in the genus. According to the extensive material examined, it is distributed through Botswana, Cameroon, Central African Republic, Côte d'Ivoire, Dahomey, Democratic Republic of Congo, Ghana, Liberia, Madagascar, Mauritius Island, Namibia, Nigeria, Rwanda, Senegal, Seychelles Islands, Sierra Leone, South Africa, Spanish Guinea, Tanzania, Uganda, Zaire, and Zambia (Brailovsky 2006).

MADAGASCAR: Vohémar, Ampanefena, Ambanja, Ambilobe, Baie d'Antongil, Antanambe, Vallée du Fanjahira, Nosy-Komba, Maevatanana, and Ifasy.

Specimens examined. MADAGASCAR: 6 ♂♂, 10 ♀♀, Baie d'Antongil [without date] (*A. MOCQUERYS*) (MNHN); 5 ♂♂, 7 ♀♀, Antanambe [without date] (*A. MOCQUERYS*) (MNHN, UNAM).

TRIBE LATIMBINI STÅL, 1859

Head

Quadrate, short, wider than long, bending downward at the level of the antenniferous tubercles; antenniferous tubercles protruding forward, occupying almost the intertubercular space; antennal segment I strongly long, slender, and always longer than II; juga expanded anteriorly as a quadrate plate, projected below the antenniferous tubercles, with inner borders contiguous or subcontiguous; buccula short, not extending beyond antenniferous tubercles; rostrum wide, short, not extending beyond mesosternum.

Thorax

Pronotal disk with narrow, impunctate and somewhat callose pale median longitudinal stripe; prosternum flat, not excavated.

Genus *Latimbus* Stål, 1859

Latimbus Stål, 1859b: 466.

Redescription

Body medium-sized, relatively slender.

Head

Quadrate, wider than long across eyes, bending downward at the level of antenniferous tubercles; tylus blunt, not raised, and not extending past juga; juga anteriorly expanded like quadrate plate, projected below the antenniferous tubercles, with inner borders contiguous or subcontiguous, and surrounding the antennal bases; antenniferous tubercles protruding forward, occupying almost the intertubercular space, with outer angle lobuliform; post-tylar depression with single sulcus; antennal segment I much longer than head, slighter thicker than succeding segments, and slightly curving; antennal segments II and III cylindrical, and IV fusiform; antennal segment I the longest, III the shortest, and II subequal to IV; preocellar pit deep; ocelli not elevated; eyes hemispherical, protuberant; postocular tubercle absent; buccula unarmed, short, not projecting beyond antenniferous tubercles; rostrum reaching middle third of mesosternum.

Thorax

Pronotum. Wider than long, trapeziform, gradually declivent; anterolateral borders obliquely straight or sinuous, with few tiny teeths; humeral angles subacute (Fig. 46g), or rounded and obtuse (Fig. 46e); posterolateral borders sinuous, entire; posterior border entire, straight; triangular process short, acute; calli flat; pronotal disk posteriorly with

low median longitudinal carina; prosternum flat; mesosternum barely rounded, without longitudinal groove; anterior margin of mesosternum at middle third with short plate projected between fore coxae; posterior margin of mesosternum at middle third bilobed; metasternum slightly convex, entire; anterior lobe of metathoracic peritreme raised, reniform, posterior lobe small, subacute.

Legs. Male. Femora ventrally armed with two rows of acute spines, the subapical spines the longest (genus *Latimbus*), or unarmed or with only two tiny subapical spines (genus *Ptyctus*). Female. Femora unarmed, or with fore and middle femora armed with two tiny or large subapical spines. Tibiae of both sexes sulcate, and unarmed.

Scutellum. Triangular, flat, in males usually as long as wide, in females usually wider than long; apex subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate; apical margin sinuous.

Abdomen

Connexivum higher than margin of hemelytron at rest; posterior angle of each connexival segments unarmed; abdominal spiracle close to anterior border.

Male *genitalia*. Genital capsule: posteroventral edge sinuous, with lateral angles rounded (Fig. 46j), or straight, with lateral angles convex (Fig. 46l).

Female *genitalia*. Abdominal sternite VII entire, without plica or fissura, and with posterior margin V-shaped (*Latimbus*), or with plica and fissura (*Ptyctus*); gonocoxae I enlarged anteroposteriorly, in caudal view closed, in lateral view raised, convex; paratergite VIII triangular, short, with spiracle visible; paratergite IX subquadrate, longer than paratergite VIII.

Integument

Surface mostly glabrous; pronotum, clavus, corium, propleura, mesopleura, metapleura, acetabulae, abdominal sterna, male genital capsule, and female genital plates strongly punctated; head dorsally, and connexivum minutely or densely punctated; head ventrally, prosternum, mesosternum, and metasternum smooth; scutellum transversely striated, and punctated; antennal segments and legs minutely granulose, covered with long and erect bristle-like hairs.

Comments

The tribe Latimbini, represented by two genera *Latimbus* and *Ptyctus*, is widespread in the Ethiopian region and has not been recorded from Madagascar (Blöte 1936; Schouteden 1938; Linnavuori 1971). In the material studied four new species belonging to *Latimbus* were dicovered.

In *Latimbus* the jugum anteriorly are expanded as a quadrate plates, projected below the antenniferous tubercles, with the inner borders contiguous or subcontiguous and cross above the tylus, which is partially covered; antennal segment I is longer and slender, the body not dorsoventrally depressed; abdominal sternite VII of female entire, without plica or fissura, and the male fore femora ventrally armed with two rows of spines, the subapical spines the largest. In *Ptyctus*, the juga anteriorly are expanded as a quadrate plate, projected below the antenniferous tubercles, restricted to that area, with the inner borders not contiguous, and leaving the tylus free; antennal segment I is usually short and stout, the body generally dorsoventrally depressed, abdominal sternite VII of female with plica and fissura, and the fore femora of male unarmed, or with two tiny subapical spines.

Type species
Latimbus armipes Stål, 1859.

Clé des espèces malgaches de Latimbus

1. Pro-, méso- et métapleures avec une petite tache noire arrondie ; face dorsale principalement orange ; angles huméraux obtus, arrondis (Fig. 46f) ..... ***refulgens*** n. sp.

– Pro-, méso-, et métapleures dépourvus de tache noire arrondie ; face dorsale jamais orangée ; angles huméraux saillants, subaigus, dirigés vers l'extérieur (Fig. 46e, g-h) **2**

2. Bord des stigmates abdominaux brun rougeâtre ; marges latérales antérieures du pronotum nettement crénelées (Fig. 46g) ..... ***stereus*** n. sp.

– Bord des stigmates abdominaux jaune ; marges latérales antérieures du pronotum pourvues de minuscules dents **3**

3. Article antennaire IV jaune orangé foncé, teinté de taches arrondies brun rougeâtre ; angles huméraux nettement proéminents et dirigés vers le haut (Fig. 46h) ; apex des angles huméraux noir ; tergites abdominaux III à VI noirs ..... ***saphisus*** n. sp.

– Article antennaire IV bicolore, orange foncé noisette avec le tiers basal jaune pâle ; angles huméraux subaigus, non dirigés vers le haut (Fig. 46e) ; apex des angles huméraux jaune ; tergites abdominaux III à VI jaune pâle marqués de taches dispersées brun clair ..... ***naevillus*** n. sp.

Key to Malagasy species of Latimbus

1. Propleura, mesopleura and metapleura with a small black discoidal spot; dorsal color mostly orange; humeral angles obtuse, rounded (Fig. 46f) ..... ***refulgens*** n. sp.

– Propleura, mesopleura, and metapleura lacking a black discoidal spot; dorsal color never orange; humeral angles produced into subacute expansion, directed laterally (Fig. 46e, g-h) **2**

2. Rim of abdominal spiracle reddish brown; anterolateral borders of pronotum clearly crenulate (Fig. 46g) ..... ***stereus*** n. sp.

– Rim of abdominal spiracle yellow; anterolateral borders of pronotum minutely serrate **3**

3. Antennal segment IV dark yellowish orange, tinged with reddish-brown discoidal spots; humeral angles clearly expanded and directed upward; apex of humeral angles black; abdominal segments III to VI dorsally black..... ***saphisus*** n. sp.

– Antennal segment IV bicolor, dark orange hazel with basal third pale yellow; humeral angles subacute, flat, and not directed upward; apex of humeral angles yellow; abdominal segments III to VI dorsally pale yellow, scattered with pale brown marks ..... ***naevillus*** n. sp.

Latimbus refulgens n. sp.

(Figs 46f, j, m, n; 47)

Type material

Holotype ♂: MADAGASCAR: Ampijoroa, Tsaramandroso [without date] (MNHN).

Paratypes: MADAGASCAR: 2 ♂♂, 1 ♀, Ampijoroa, Tsaramandroso [without date] (MNHN, UNAM); 1 ♀, Ambodimanga, Région de Majunga [without date] (MNHN); 1 ♂, Majunga, S. l., 25.II-3.III. 1968 (*K. M. GUICHARD*) (BMNH); 1 ♀, Mahajanga Prov., Mahajamba Riv., Ampatoko Env., 10-12.XII.1996 (*I. JENIS*) (ex. collection Z. Jindra) (NMPC); 1 ♂, Anjiro Env., I.1966 (ex. collection Z. Jindra) (NMPC); 1 ♀, Sakaraha, Zombitsy, 11-12. IV.1956 (MNHN); 1 ♀, Antsingy de Bekopaka Forêt, VII.1949 (MNHN); 2 ♂♂, 2 ♀♀, Forêt de Zombitsy, near Sakaraha, 650 m, 16.XII.1959 (*E. S. ROSS*) (CASC, UNAM); 1 ♀, Province d'Antsiranana, 7 km N of Joffreville, 360 m, dry forest, malaise trap, 12°20'S-49°15'E, 6-20.III.2001 (*R. HARINHOLA*) (CASC).

Derivatio nominis

The name refers to the unusually shiny coloration of this species.

Description

Male holotype

Measurements. Head: length 1.12 mm; width across eyes 1.67 mm; interocular space 0.97 mm; preocular distance 0.67 mm; length antennal segments: I, 3.80 mm, II, 2.85 mm, III, 2.65 mm, IV, 2.70 mm. Pronotum: length 2.65 mm, width across humeral angles 4.00 mm. Scutellum: length 1.60 mm, width 1.60 mm. Body length 13.27 mm.

Dorsal color. Mostly orange; anterolateral margins of pronotum, and upper border of connexival segments III to VI reddish brown; antennal segments I to III shiny orange, and IV pale yellowish orange, with apical third darker; hemelytral membrane yellow, translucent; dorsal abdominal segments shiny orange.

Ventral color. Pale yellowish orange, with following areas black to reddish brown: apex of rostral segment IV, and one small discoidal spot at propleura, mesopleura, and metapleura; legs shiny orange, except the yellowish orange coxae; rim of abdominal spiracles yellow.

Structure. Juga anteriorly expanded, inner borders contiguous; humeral angles rounded, obtuse (Fig. 46f); femur armed ventrally with two rows of spines, the subapical spines longest.

Genitalia. Genital capsule: Posteroventral edge weakly sinuous, lateral angles rounded (Fig. 46j). Paramere: Fig. 46m, n.

Female paratype

Measurements. Head: length 1.25 mm; width across eyes 1.80 mm; interocular space 1.05 mm; preocular distance 0.70 mm; length antennal segments: I, 3.85 mm, II, 2.95 mm, III, 2.70 mm, IV, 2.75 mm. Pronotum: length 3.40 mm, width across humeral angles 4.60 mm. Scutellum: length 1.95 mm, width 2.00 mm. Body length 15.40 mm.

Habitus and color similar to male holotype. Connexival segments VIII and IX, and dorsal abdominal segments VIII and IX shiny orange; genital plates pale yellowish orange.

Structure. Femora unarmed, or fore and middle femora ventrally armed with two large or tiny subapical spines.

Variation

1 - Dorsal color mostly orange with more or less extensive yellowish orange marks.
2 - Upper border of connexivum shiny orange.

Comments

This species can be distinguished from the other described species of *Latimbus* by having the dorsal surface mostly orange; the propleura, mesopleura and metapleura with one small, black, discoidal spot; the humeral angles rounded, obtuse (Fig. 46f); the hemelytral membrane yellow, translucent, and the rim of abdominal spiracle yellow.

Distribution

This species is known only from Madagascar.

Latimbus stereus n. sp.

(Fig. 46b-d, g, k, o, p)

Type material

Holotype ♂: MADAGASCAR EAST: Mananara Dist., N Mont Antampona, VII.1965 (*VADON ET PEYRIERAS*) (MNHN).

Paratypes: MADAGASCAR EAST: 5 ♂♂, 6 ♀♀, Mananara Dist., N Mont Antampona, VII.1965 (*VADON ET PEYRIERAS*) (MNHN, UNAM); 1 ♂, 2 ♀♀, Mananara Dist., N Seranambe, VII.1965 (*VADON ET PEYRIERAS*) (MNHN). MADAGASCAR: 1 ♀, Maroantsetra, Antakotako, 100 m, 15.II.1949 (*VADON*) (MNHN); 1 ♂, Ambila, III.1951 (*A. R.*) (MNHN); 2 ♀♀, Baie d'Antongil [without date] (*A. MOCQUERYS*) (ex. coll. Noualhier 1898) (MNHN); 1 ♂, Bezanozano [without date] (ex. coll. Noualhier 1898) (MNHN); 3 ♂♂, 6 ♀♀, Madagascar [without data] (ex. coll. Noualhier 1898) (MNHN, UNAM); 1 ♂, Madagascar S. E., 1926 (*R. DECARY*) (MNHN); 1 ♀, Madagascar [without data] (NMPC); 8 ♂♂, 8 ♀♀, Perinet, Analamazotra, XI-XII.1930 and 12-20.XII.1930 (UNAM, ZMAS); 2 ♂♂, 1 ♀, Fanovana, 25 km W Perinet, 10.III.1934 (*ROBINSON*) (ZMAS); 1 ♀, Ambontoaka, 450 m, 4-14.II.1934 (ZMAS); 2 ♂♂, Perinet, 26.II.1935, 4.III.1935 (ZMAS); 2 ♀♀, Environs de Rogez [without date] (NMPC); 1 ♂, Vohémar [without date] (NMPC).

Derivatio nominis

From the Greek, *steros*, meaning robust, refering to the solid build of this species.

Description

Male holotype

Measurements. Head: length 1.20 mm; width across eyes 1.82 mm; interocular space 0.97 mm; preocular distance 0.72 mm; length antennal segments: I, 3.70 mm, II, 2.65 mm, III, 2.60 mm, IV, 3.00 mm. Pronotum: length 2.60 mm, width across humeral angles 4.50 mm. Scutellum: length 1.65 mm, width 1.65 mm. Body length 13.24 mm.

Dorsal color. Head dark orange; antennal segments I to III dark yellow, granules reddish brown, and segment IV dark reddish brown with basal third dark yellow (Fig. 46b); anterior lobe of pronotal disk dark orange, posterior lobe dark yellow,

and each with reddish-brown punctures; pronotal disk with narrow, pale, median longitudinal stripe; scutellum, clavus and corium dark yellow, punctures reddish brown; apex of scutellum pale yellow; middle third of endocorium with yellowish-white irregular spot; hemelytral membrane dark brown; connexival segments III to VII with anterior half dark yellow, posterior half pale brown, and upper border dark reddish brown; dorsal abdominal segments shiny yellowish orange, with posterior margin of VII dark brown.

Ventral color. Mostly yellowish orange, with apex of rostral segment IV and rim of abdominal spiracles reddish brown; legs dark orange hazel, and coxae yellowish orange; pleural abdominal sterna with anterior half yellow and posterior half reddish brown.

Structure. Juga anteriorly expanded, inner borders contiguous; humeral angles produced into subacute expansion directed outward, and slightly upward; anterolateral borders of pronotum clearly crenulate (Fig. 46g); femora armed ventrally with two rows of spines, the subapical spines longest.

Genitalia. Genital capsule: Posteroventral edge sinuous, lateral angles convex (Fig. 46k). Paramere: Fig. 46o, p.

Female paratype

Measurements. Head: length 1.30 mm; width across eyes 1.90 mm; interocular space 1.05 mm; preocular distance 0.75 mm; length antennal segments: I, 4.05 mm, II, 3.00 mm, III, 2.80 mm, IV, 3.35 mm. Pronotum: length 3.45 mm, width across humeral angles 5.35 mm. Scutellum: length 1.95 mm, width 2.00 mm. Body length 15.72 mm.

Habitus and color similar to male holotype. Connexival segments III to VI dark brown, with upper border of anterior third yellow, segment VII dull orange with upper border on anterior third yellow, and on posterior third brown, and segments VIII and IX dull orange; dorsal abdominal segments III to IX shiny yellowish orange; genital plates yellowish orange, punctures pale brown.

Variation

1 - Pronotal disk with the narrow, impunctate, pale median longitudinal stripe hard to see. 2 - Ventrally yellowish orange, punctures pale brown, and some brownish scattered marks.

Comments

Easily separable from others members of *Latimbus* by having the humeral angles produced into subacute expansions directed laterally (Fig. 46g), the anterolateral borders of pronotum clearly crenulate, the hemelytral membrane dark brown, the propleura, mesopleura, and metapleura without black discoidal spots, the rim of abdominal spiracle reddish brown, and the connexival segments III to VII bicolorous. In *L. refulgens* n. sp., previously described, the humeral angles are rounded and not exposed (Fig. 46f), the anterolateral borders of the pronotum minutely serrate, the propleura, mesopleura and metapleura with one small and black discoidal spot, the rim of abdominal spiracle yellow, the hemelytral membrane yellow and translucent, and the connexival segments orange and not bicolorous.

Distribution

Known only from Madagascar.

Latimbus naevillus n. sp.
(Fig. 46e, i)

Type material

Holotype ♂: MADAGASCAR: Ampijoroa, Tsaramandroso [without date] (MNHN).

Paratypes: MADAGASCAR: 2 ♂♂, 3 ♀♀, Ambilobe, IV.1951, I.1952 (*R. P.*) (MNHN, UNAM).

Derivatio nominis

From the Latin, *naevus*, meaning mark, and the diminutive suffix, *illus*, refering to the smaller spots on the body.

Description

Male holotype

Measurements. Head: length 1.07 mm; width across eyes 1.67 mm; interocular space 0.90 mm; preocular distance 0.65 mm; length antennal segments: I, 3.75 mm, II, 2.85 mm, III, 2.50 mm, IV, 2.90 mm. Pronotum: length 2.55 mm, width across humeral angles 3.65 mm. Scutellum: length 1.45 mm, width 1.45 mm. Body length 12.16 mm.

Dorsal color. Dark yellow, punctures orange hazel; antennal segments I to III dark yellow, granules reddish brown, and segment IV dark hazel with basal third pale yellow; pronotal disk with narrow, impunctate, pale median longitudinal stripe; anterolateral and posterolateral borders, and posterior border of pronotum pale yellow; apex of scutellum pale yellow; middle third of endocorium with yellowish white irregular spot; costal and apical margin pale yellow; hemelytral membrane pale brown; connexivum pale yellow with posterior border of segments V and VI pale brown; dorsal abdominal segments pale yellow with scattered pale brown marks.

Ventral color. Pale yellowish orange, tinged with pale reddish spots; punctures dark hazel; apex of rostral segment IV reddish brown; anterior and posterior lobe of metathoracic peritreme, and rim of abdominal spiracles pale yellow; legs pale yellowish orange; genital capsule dark orange, punctures reddish brown.

Structure. Juga anteriorly expanded, inner borders contiguous; humeral angles produced into subacute expansions, directed laterally (Fig. 46e); anterolateral borders of pronotum minutely serrrate; femora ventrally armed with two rows of large spines.

Genital capsule: Posteroventral edge sinuous, lateral angles convex (Fig. 46i).

Female paratype

Measurements. Head: length 1.15 mm; width across eyes 1.75 mm; interocular space 0.97 mm; preocular distance 0.67 mm; length antennal segments: I, 3.95 mm, II, 2.85 mm, III, 2.50 mm, IV, 2.90 mm. Pronotum: length 3.00 mm, width across humeral angles 4.25 mm. Scutellum: length 1.67 mm, width 1.75 mm. Body length 14.16 mm. Habitus and color similar to male holotype. Connexival segments III-IV, and VII-IX pale yellow, and V-VI pale yellow suffused with pale brown marks; dorsal abdominal segments III-V pale yellow, and VI-IX dark brown; genital plates pale yellow, punctures reddish brown to orange hazel. Structure. Femora ventrally armed with two short and acute anteapical spines (hind femora sometimes unarmed).

Comments

Like *L. stereus* n. sp., previously described with antennal segment IV bicolorous, the humeral angles produced into subacute expansions directed laterally (Fig. 46e), and the middle third of endocorium with yellowish-white irregular spot. In *L. noevillus* n. sp., the male femora are ventrally armed with two rows of long and acute spines, and the rim of the abdominal spiracles are yellow, as well as connexival segments III to V. In *L. stereus* n. sp., the male femora are ventrally armed with two rows of acute spines, both only the subapicol spines are longer, the rims of the abdominal spiracles are reddish brown, and connexival segments III to V are bicolorous.

Distribution

This species is known only from Madagascar.

Latimbus saphisus n. sp.

(Fig. 46a, h, l)

Type material

Holotype ♂: MADAGASCAR: Madagascar, 1930 *(SICARD)* (MNHN).

Paratype: MADAGASCAR: 1 ♂, Madagascar, 1930 [without data] *(SICARD)* (UNAM).

Derivatio nominis

From the Greek, *sophis*, meaning distinct, refering to the peculiar delimited color pattern on the humeral angles of the pronotum.

Description

Mole holotype

Measurements. Head: length 1.40 mm; width across eyes 1.72 mm; interocular space 0.97 mm; preocular distance 0.72 mm; length antennal segments: I, 3.85 mm, II, 2.90 mm, III, 2.55 mm, IV, 2.70 mm. Pronotum: length 2.50 mm, width across humeral angles 4.15 mm. Scutellum: length 1.45 mm, width 1.60 mm. Body length 13.12 mm.

Dorsal color. Head, pronotum, scutellum, clavus and corium dark yellowish orange, with hazel to pale reddish brown punctures; antennal segments I to III dark yellow, granules reddish brown, and IV dark yellowish orange tinged with reddish brown discoidal spots (Fig. 46a); pronotal disk with narrow, impunctate, pale median longitudinal stripe; apex of humeral angles black; apex of scutellum yellowish white; middle third of endocorium with yellowish-white irregular spot; hemelytral membrane pale brown; connexival segments III to V dark yellow, VI dark yellow with posterior half on upper margin black, and VII with anterior half dark yellow, and posterior holf black; dorsal abdominal segments black with posterior margin of VII dark yellow.

Ventral color. Head, propleura, mesopleura, ond metapleura dark yellowish orange with hazel to reddish brown punctures; rostral segments dark yellow (apex of IV reddish brown); prosternum, mesosternum, metasternum, and anterior and posterior lobes of metathoracic peritreme pale yellow; mesosternum and metasternum laterally pale brown; legs dark yellow; abdominal sterna III to VI dark yellowish orange, with wide paramedian orange hazel longitudinal stripe; abdominal sternite VII, and genital capsule dark brown; pleural margin of abdominal sterna III to VI dark yellowish orange, VI dark yellowish orange with posterior border dark brown, and VII with

anterior half dark yellowish orange and posterior half dark brown; rim of abdominal spiracles yellow.

Structure. Juga anteriorly expanded, inner borders contiguous; anterolateral borders of pronotum minutely serrated; humeral angles produced into subacute expansion, directed outward and upward (Fig. 46h); femora armed ventrally with two rows of spines, the subapical spines the longest.

Genital capsule. Posteroventral edge weakly sinuous, lateral angles rounded (Fig. 46l).

Female

Unknown.

Comments

This new species is similar to *L. naevillus* n. sp., and *L. stereus* n. sp. by having the humeral angles produced into subacute expansion, directed laterally (Fig. 46h), and the middle third of the endocorium with a yellowish-white irregular spot.

In *L. saphisus* n. sp., the apex of humeral angles is black, the dorsal abdominal segments black with posterior margin of VII dark yellow, the antennal segment IV dark yellowish orange tinged with reddish-brown discoidal spots, and the abdominal sternite VII and male genital capsule dark brown. In the other two species, the apex of humeral angles is yellow, the dorsal abdominal segments shiny yellowish orange with posterior margin of VII dark brown or pale yellow suffused with pale brown marks, the antennal segment IV clearly bicolorous, and the abdominal sternite VII and male genital capsule yellowish orange.

Distribution

This species is known only from Madagascar.

Tribe Mictini Amyot et Audinet-Serville, 1843

Body large to very large, usually over 20 mm.

Head

Quadrate to subquadrate, short, wider than long, apex strongly bending downward at the antenniferous tubercles; antenniferous tubercles protruding forward, almost occupying the intertubercular space; tylus not protracted; juga anteriorly not expanded; buccula short, situated before or reaching anterior margin of eye; rostrum wide, short, not extending beyond mesosternum.

Thorax

Pronotum steeply declivent, and very often with wing-like lateral expansions; hind coxa relatively separated, space between each coxae 1 to 1.5 times the diameter of one coxa; all femora usually at least slightly incrassate; male and female fore femora ventrally armed with one or two sharp, subapical, spines; hind femora very incrassate on male, more slender on female, and usually spinose or dentate; hind tibiae sometimes dilated ventrally and dorsally; abdominal sterna of male, rarely of female, sometimes armed medially and or laterally with tubercles or spines.

Abdomen

Abdominal spiracles circular, closest to anterior edge, and far from lateral edge.

Features in common of the Mictine genera from Madagascar

Head

Antenniferous tubercles unarmed, situated fairly close together, projecting anteriorly to tylus; antennae shorter than body; antennal segment I stouter than segments II to IV; segments II and III cylindrical, robust, and IV robustly fusiform; post-tylar sulcus deeply cleft medially; preocellar pit well developed; ocelli not raised, close to eyes; eyes protuberant, hemispheric; postocular tubercle not evident; buccula uniformly rounded, elevated, unarmed.

Thorax

Pronotum wider than long; posterior border straight, smooth; callar region flat, not clearly differentiated; posterior margin with transversal ridge. Prosternum with deep concavity; mesosternum anteriorly tuberculate between fore coxa; anterior lobe of metathoracic peritreme reniform, posterior lobe small, subacute; metathoracic scent gland orifice placed relatively laterally.

Legs. Fore and middle femora in both sexes robust, ventrally armed with two broad subapical spines; dorsal surface smooth

Scutellum. Triangular, flat, wider than long, transversely striated; apex subacute.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; costal margin emarginate; apical margin sinuous; apical angle almost reaching the middle third of hemelytral membrane.

Male *genitalia*. Genital capsule simple; posteroventral edge usually entire.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica raised, sharply angular to rounded; fissura short; gonocoxae I enlarged anteroposteriorly; paratergite VIII with spiracle visible; paratergite IX subquadrate.

Clé des genres malgaches de Mictini

1. Face ventrale de l'abdomen du mâle pourvue d'une forte protubérance formée par les sternites II et III ..... ***Dianomictis*** O'Shea

– Face ventrale de l'abdomen du mâle dépourvue de forte protubérance formée par les sternites II et III **2**

2. Fémur postérieur du mâle avec une dilatation médiane triangulaire et anguleuse très évidente (moins évidente chez la femelle) ; tibia postérieur de la femelle dilaté sur la face inférieure mais non sur la face supérieure ..... ***Anoplocnemis*** Stål

– Fémur postérieur du mâle sans dilatation médiane triangulaire ; tibia postérieur de la femelle dilaté sur les faces inférieure et supérieure **3**

3. Sternites abdominaux III et IV formant à leur jonction une remarquable protubérance bifide ; tibia postérieur du mâle dilaté sur les faces supérieure et inférieure ..... ***Mygdonia*** Stål

– Sternites abdominaux III et IV formant à leur jonction une petite protubérance bifide distincte ; tibia postérieur du mâle avec la face supérieure non dilatée mais sulciforme, et la face inférieure dilatée..... ***Elasmocniella*** n. gen.

Key to Malagasy genera of Mictini

1. Male abdominal sterna armed with large median tubercle formed by sternites II and III..... ***Dianomictis*** O'Shea

– Male abdominal sterna not armed with large median tubercle formed by sternites II and III **2**

2. Male hind femora with conspicuously large and sharply angular triangular dilation near mid point (less in female); female hind tibiae dilated at inner but not at outer surface ..... ***Anoplocnemis*** Stål

– Male hind femora withaut sharply triangular dilation near mid point; female hind tibiae dilated at inner and outer surface..... **3**

3. Junction between abdominal sternite III and IV raised into a strongly bifid, large tubercle; male hind tibia dilated dorsal and ventrally..... ***Mygdonia*** Stål

– Junction between abdominal sternite III and IV gently raised into a distinct bifid tubercle; male hind tibiae with dorsal surface sulcated and not dilated, and inner surface dilated..... ***Elasmocniella*** n. gen.

Genus *Anoplocnemis* Stål, 1873

Anoplocnemis Stål, 1873: 39.

Redescription

Body medium to large sized.

Head

Quadrate; ratios of antennal segments variable, usually antennal segment I the longest, or subequal or shorter than IV, III the shortest, and II shorter than IV; buccula not projecting beyond antenniferous tubercles; rostrum reaching middle third of mesosternum.

Thorax

Pronotum. Narrowed anteriorly, and weakly or conspicuously diverging posteriorly; frontal angles rounded or with tiny spine projection; collar not distinctly differentiated; anterolateral margins obliquely straight, slightly nodulose; humeral angles varying from rounded and not produced laterally, to armed with a narrow, sharp, lateraly produced spine; posterolateral margins with outer half finely nodulose, and inner half smooth. Mesosternum and metasternum flat, non-sulcate.

Legs. Hind trochanters armed or unarmed with blunt subapical teeth; male hind femora varying from markedly to extremely incrassate, strongly recurved or not, sometimes ventrally armed with small basal spine, and very large sharply angular, triangular dilation, near mid point, and sometimes armed with small teeth or denticles on ventral and dorsal surfaces; female hind femora varying from slightly and rather gracile to markedly incrassate (less than males), ventrally armed with two broad subapical spines, and one or two rows of stout teeth or denticles, and sometimes

ventrally armed with a small basal spine; fore and middle tibiae in both sexes slightly flattened, sulcate, apically unarmed; male hind tibiae with outer surface sulcate, and inner surface flattened to markedly dilated; apex with one or two apical spines; female hind tibiae with outer surface sulcate, and inner surface flattened to slightly dilated (less than male); apex unarmed or with one short stout spine.

Abdomen

Connexivum slightly elevated, with posterior angles unarmed, and upper border with two rows of short denticles; male abdominal sterna varying from unarmed, or with posterior margin of abdominal sternite III produced posteriorly into sternite IV, forming a ventral abdominal tubercle; female abdominal sterna unarmed, or with posterior margin of abdominal sternite III flat, and produced posteriorly into sternite IV.

Male *genitalia*. Posteroventral edge entire.

Female *genitalia*. Gonocoxae I in caudal view closed; paratergite VIII subtriangular, slightly shorter than paratergite IX.

Integument

Surface covered with decumbent to suberect silver to golden yellow pubescence.

Comments

Anoplocnemis is the largest and most widespread mictine genus with around 60 species occurring from South Africa, through the Ethiopian Region to Yemen, and from India to Southeast Asia and north to Korea and Japan (O'SHEA 1980). Five of them (*A. brevicornis*, *A. brevicrus*, *A. distincta*, *A. luctuosa*, and *A. madagascariensis*) have been previously reported from Madagascar. In this contribution, one new species is added.

The species are very variable morphologically and much of the variation may be allometric; however, the stout antennae, the shape of the humeral angles, the development of male the hind femora and male hind tibiae, and the presence or absence of tubercles on the abdominal sterna define the species concept. Species with spines on the humeral angles are all large (22-33 mm), with more pronounced incrassate hind femora in both sexes (*A. distincta*, *A. luctuosa*, *A. madagascariensis*).

Species with humeral angles rounded, obtuse, are all medium-sized (18-20 mm), with less pronounced incrassate femora (*A. brevicornis* and *A. brevicrus*). Primarily males are decisive for the fixation of the species.

Anoplocnemis resembles *Mygdonia* in size, shape and color, but is easily distinguished because the hind tibiae of *Mygdonia* are dilated on the inner and outer surface in both sexes, the male hind femora are not strongly recurved, and without sharply triangular projection at mid point, and male abdominal sternite III with lateral tubercles; whereas in *Anoplocnemis* only the inner surface of the hind tibiae is dilated, the male hind femora strongly recurved with strongly triangular projection at mid point, and male abdominal sternite III without lateral tubercles or bulges.

Type species

Cimex curvipes Fabricius, 1781.

*Clé des espèces malgaches d'*Anoplocnemis

1. Grande espèce, dépassant 24 mm de long ; fémur postérieur du mâle courbe et fortement épaissi, avec à sa base, ventralement, une forte épine, courte ou longue (Fig. 49e) **2**

– Petite espèce, n'atteignant pas 20 mm de long ; fémur postérieur du mâle beaucoup plus gracile, non recourbé, et sans épine robuste à sa base **5**

2. Couleur générale orange pâle terne ..... ***distincta*** (Brancsik)

– Couleur générale noir à brun noirâtre **3**

3. Articles antennaires I à III noirs ..... ***curvipes*** (Fabricius)

– Articles antennaires I à III orange brillant **4**

4. Angles huméraux peu saillants, se terminant en courte pointe dirigée vers l'arrière et non vers le haut (Fig. 48d) ; longueur de l'article antennaire I supérieure à 6 mm ; largeur maximale entre les angles huméraux inférieure à 11 mm ..... ***luctuosa*** (Stål)

– Angles huméraux saillants, se terminant en une grande pointe nettement dirigée en arrière et vers le haut (Fig. 48e) ; longueur de l'article antennaire I inférieure à 6,8 mm ; largeur maximale entre les angles huméraux supérieure à 12 mm ... ***madagascariensis*** (Signoret)

5. Pro-, méso- et métapleure avec une bande tomenteuse longitudinale jaunâtre clair ; angles huméraux arrondis, non saillants (Fig. 48b) ; chez le mâle, protubérance médiane des sternites abdominaux III et IV faiblement proéminente ..... ***consociatus*** n. sp.

– Pro-, méso- et métapleure sans bande tomenteuse longitudinale jaunâtre ; angles huméraux arrondis, faiblement saillants, tronqués (Fig. 48a) ; chez le mâle, protubérance médiane des sternites III and IV fortement proéminente **6**

6. Tiers apical des fémurs et des tibias noir ; marges antéro-latérales du pronotum noires ..... ***brevicrus*** Bergroth

– Tiers apical des fémurs et des tibias châtain orangé à orange rougeâtre sombre ; marges antéro-latérales du pronotum châtain orangé à orange rougeâtre sombre ..... ***brevicornis*** Bergroth

Key to Malagasy species of Anoplocnemis

1. Larger species, length over 24 mm; male hind femora strongly incrassate, and recurved; male hind femora ventrally with a small or elongate stout basal spine **2**

– Smaller species, length less than 20 mm; male hind femora considerably more gracile, not recurved; male hind femora ventrally without a stout basal spine **5**

2. General color pale dull orange ..... ***distincta*** (Brancsik)

– General color black to blackish brown **3**

3. Antennal segments I to III black ..... ***curvipes*** (Fabricius)

– Antennal segments I to III shiny orange **4**

4. Humeral angles basally not broadly expanded, tapering into short spine directed outward, backward, and not upward (Fig. 48d); total length of antennal segment

I less than 6 mm; maximum width across humeral angles shorter than 11 mm..... ..... ***luctuosa*** (Stål)

- Humeral angles broadly expanded at base, tapering into large spine directed outward, and clearly upward and backward (Fig. 48e); total length of antennal segment I longer than 6.8 mm; maximum width across humeral angles longer than 12 mm ..... ***madagascariensis*** (Signoret)

5. Propleura, mesopleura and metapleura, with a longitudinal stripe of pale yellowish tomentum; humeral angles rounded, not exposed (Fig. 48b); male median hump of abdominal sternite III and IV only faintly elevated ..... ***consociatus*** n. sp.

- Propleura, mesopleura and metapleura without a longitudinal stripe of pale yellowish tomentum; humeral angles rounded, slightly exposed, truncate (Fig. 48a); male median hump of abdominal sternite III and IV strongly raised.....**6**

6. Apical third of femora and tibiae black; anterolateral margins of pronotum black ..... ***brevicrus*** Bergroth

- Apical third of femora and tibiae chestnut orange to dark reddish orange; anterolateral margins of pronotum chestnut orange to dark reddish orange..... ..... ***brevicornis*** Bergroth

Anoplocnemis brevicornis Bergroth, 1910
(Figs 49a; 50a; 51a; 52a; 53a, b; 54a, b)

Anoplocnemis brevicornis Bergroth, 1910: 231.

Redescription

Male

Measurements. Head: length 1.37 mm; width across eyes 1.95 mm; length antennal segments: I, 3.10 mm, II, 2.65 mm, III, 2.15 mm, IV, 3.10 mm. Pronotum: length 3.90 mm, width across humeral angles 6.00 mm. Scutellum: length 2.15 mm, width 2.25 mm. Body length 17.90 mm. Body medium-sized, length 16 to 20 mm,

Body parallel-sided, relatively slender, and covered with short, decumbent to suberect goldy pubescence. Overall color pale chestnut orange to dark reddish orange; antennal segments I to III shiny orange, and IV yellowish orange with basal joint dark orange; apex of scutellum yellow; hemelytral membrane pale brown; apex of rostral segment IV black; anterior and posterior lobes of metathoracic peritreme and adjacent areas pale yellow; dorsal abdominal segments shiny orange, scattered with black marks.

Structure. Humeral angles bluntly rounded, slightly exposed, and truncate; hind femora moderately incrassate, gradually broadening, non-curved, ventrally without basal spine, and with low subtriangular to convex spinous expansion near mid point; hind tibiae gracile, inner face weakly dilated, and spinous (Fig. 49a); with a distinctly raised median hump between abdominal sterna III and IV, occuping the basal third of sternite IV (Figs 50a; 51a; 54b).

Genitalia. Genital capsule: Fig. 52a. Páramere: Fig. 53a, b.

Female

Measurements. Head: length 1.26 mm; width across eyes 2.15 mm; length antennal segments: I, 3.10 mm, II, 2.40 mm, III, 2.12 mm, IV, 3.15 mm. Pronotum: length 3.90 mm,

width across humeral angles 6.25 mm. Scutellum: length 2.37 mm, width 2.55 mm. Body length 19.85 mm.

Habitus and color similar to male. Hind femora relatively gracile (less than male), gradually broadening, non-curved, apically with a couple of strong subapical spines on ventral surface, as well as a low convex spinous expansion near mid point; inner face of hind tibiae weakly dilated, and uniformly spinous.

Variation

1 - Dorsal abdominal segments entirely shiny orange or entirely black with posterior margin of segment VII shiny orange.

Comments

Similar to *A. brevicrus*, with total body length less than 22 mm, the general color chestnut orange to dark reddish orange, and the abdominal sternites III to IV armed with strongly raised median hump. *Anoplocnemis brevicornis* is recognized by having the anterolateral margins of pronotum, and the apex of femora and tibiae chesnut orange to dark reddish orange, and not black like in *A. brevicrus*.

Distribution

This species described from Madagascar is endemic to that region (Bergroth 1910; O'Shea 1980).

Specimens examined. Madagascar: without data. Madagascar: 1 ♀, Fanovana, 25 km W Perinet, 10.III.1934 *(Robinson)* (UNAM); 1 ♂, Perinet, Sahamoloto, 13-17.I.1949 (UNAM); 1 ♂, Fort Dauphin, VIII.1948 (MNHN); 1 ♀, Tananarive [without date] (MNHN); 1 ♀, Forêt Tanala, Rég. de Ranomafana, between Savondro and Andranomafana, 1901 *(Ch. Alluaud)* (MNHN); 1 ♀, Fianarantsoa Prov., Ranomafana National Park, Talatakely area, 900 m, 21°14.3'S-47°26'E, 22.IV.1998 *(J. S. Schweikut)* (CASC); 1 ♂, 1 ♀, Environs de Rogez (NMPC); 1 ♂, 1 ♀, Ambontoaka, 450 m, 4-14.II.1934 (ZMAS).

Anoplocnemis brevicrus Bergroth, 1910

(Figs 48a; 50b; 51b; 52b; 53c, d)

Anoplocnemis brevicrus Bergroth, 1910: 231.

Redescription

Male

Measurements. Head: length 1.50 mm; width across eyes 2.05 mm; length antennal segments: I, 3.40 mm, II, 2.95 mm, III, 2.45 mm, IV, 3.35 mm. Pronotum: length 4.00 mm, width across humeral angles 6.25 mm. Scutellum: length 2.50 mm, width 2.77 mm. Body length 19.05 mm. Body medium-sized, length 18 to 20 mm,

Body parallel-sided, relatively slender, and covered with dense, short, decumbent to suberect yellowish pubescence. Overall color chestnut orange to dark orange; antennal segments I to III shiny orange, and IV pale yellowish orange, with basal joint dark orange; anterolateral margins of pronotum, apex of rostral segment IV, outer margin of coxae, outer face of trochanters, apical third of femora, apical third of fore tibiae, apex of middle tibiae, apex of hind tibiae (except lateral margins entirely dark orange), and

basal tarsi black; apex of scutellum yellow; hemelytral membrane pale brown; anterior and posterior lobes of metathoracic peritreme and adjacent areas pale yellow.

Structure. Humeral angles bluntly rounded, slightly exposed, and truncate (Fig. 48a); hind femora moderatly incrassate, gradually broadening, non-curved, ventrally without basal spine, and with low subtriangular to convex spinous expansion near mid point; inner face of hind tibiae spinous, and narrowed dilated; abdominal sterna with a distinctly raised median hump between sternite III and IV, occupying the basal third of sternite IV (Figs 50b; 51b).

Genitalia. Genital capsule: Fig. 52b. Paramere: Fig. 53c, d.

Female

Measurements. Head: length 1.55 mm; width across eyes 2.10 mm; length antennal segments: I, 2.95 mm, II, 2.70 mm, III, 2.25 mm, IV, 3.15 mm. Pronotum: length 4.30 mm, width across humeral angles 6.35 mm. Scutellum: length 2.30 mm, width 2.60 mm. Body length 19.80 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates dark orange.

Structure. Hind femur relatively gracile (less than males), gradually broadening apically, non-curved, with a couple of strong subapical spines on ventral surface, as well as low convex spinous expansion near mid point; inner face of hind tibiae narrowly dilated, and uniformly spinous; abdominal sterna with posterior margin of sternite III flat, and produced posteriorly into sternite IV.

Variation

1 - Apical joint of antennal segment III dark brown. 2 - Hind tibiae dark orange with apical third black. 3 - Tarsi black. 4 - Dorsal abdominal segments black or shiny orange except segment VII black, with posterior margin shiny orange.

Comments

This species is similar to *A. brevicornis* but can be distinguished by having the apex of femora and tibiae black, not pale chestnut orange to dark reddish orange.

Distribution

Endemic to Madagascar (Bergroth 1910; O'Shea 1980).

Specimens examined. Madagascar: without data. Madagascar: 3 ♀♀, Andasibe, Park Perinet, Protect area, 19-31.XII.2001 *(V. Dolin)* (EHCA, UNAM); 1 ♂, East of District Mananara, N Mont Antampona, VII.1965 *(Vadon et Peyrieras)* (UNAM); 1 ♂, East of Mangindrano Res., Apec de l'Ambohimirahavary, 1800 m, VIII.1971 *(P. Soga)* (MNHN); 2 ♀♀, Perinet Forêt, 4.III.1950 (MNHN); 1 ♀, East of District Mananara, N Seranambe, VII.1965 *(Vadon et Peyrieras)* (MNHN); 1 ♀, Perinet, Sahamalota, 13.I.1917 (MNHN); 1 ♀, Andringitra, Forêt de Vakoana, 2100 m, 2.IX.1949 *(A. R.)* (MNHN); 3 ♂♂, 1 ♀, Antasinave, I.1953 *(Bouvet)* (MNHN); 1 ♂, Ankaratra, I.1952 (MNHN); 1 ♂, Nosivole, R. N. (MNHN); 4 ♂♂, 3 ♀♀, Tananarive [without date] (MNHN, UNAM); 2 ♀♀, Maroantsetra (MNHN); 1 ♀, Ranomafana, Ifanadana (MNHN); 1 ♂, Tananarive, I.II-XII (ZMAS); 1 ♂, Forêt Tanala, Région d'Ikongo, Vinanitelo, 1901 *(Ch. Alluaud)* (UNAM).

Anoplocnemis consociatus n. sp.
(Figs 48b; 50c; 51c; 52c; 53e, f)

Type material

Holotype ♂: MADAGASCAR: Madagascar, XII.1953 (*BOIVIN*) (MNHN).

Paratypes: MADAGASCAR: 1 ♂, 3 ♀♀, Madagascar, XII.1953 (*BOIVIN*) (MNHN, UNAM); 1 ♀, 20 km S of Betroka, 750 m, 10.XII.1959 (*E. S. ROSS*) (CASC).

Derivatio nominis

From the Latin *consociatus*, meaning united.

Description

Male

Measurements. Head: length 1.35 mm; width across eyes 2.05 mm; length antennal segments: I, 3.50 mm, II, 3.05 mm, III-IV broken. Pronotum: length 4.50 mm, width across humeral angles 5.95 mm. Scutellum: length 2.50 mm, width 2.45 mm. Body length 19.90 mm. Body medium-sized, length 19 to 20 mm.

Body parallel-sided, and covered by short decumbent to suberect goldy to yellowish pubescence. Overall color dark orange; antennal segments I to III shiny orange, and IV pale yellowish orange; apex of scutellum yellow; hemelytral membrane pale brown; dorsal abdominal segments shiny orange with scattered black marks; anterior and posterior lobe of metathoracic peritreme, and adjacent areas pale yellowish orange; propleura, mesopleura and metapleura with a longitudinal stripe of pale golden yellowish tomentum.

Structure. Humeral angles rounded, not exposed (Fig. 48b); hind femora moderately incrassate, gradually broadening, non-curved, ventrally without basal spine, and with low convex, spinous expansion near mid point; inner face of hind tibiae spinous, and narrowly dilated. Abdomen. Abdominal sterna III and IV with small elevation (Figs 50c; 51c).

Genitalia. Genital capsule: Fig. 52c. Paramere: Fig. 53c, d.

Female

Measurements. Head: length 1.40 mm; width across eyes 2.05 mm; length antennal segments: I, 3.45 mm, II, 3.00 mm, III, 2.30 mm, IV, 3.75 mm. Pronotum: length 4.45 mm, width across humeral angles 5.75 mm. Scutellum: length 2.75 mm, width 2.60 mm. Body length 20.00 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates pale orange.

Structure. Hind femora moderately incrassate (less than males), gradually broadening, non-curved, apically with a couple of strong spines on ventral surface, as well as low convex spinous expansion near mid point; inner face of hind tibiae narrowly dilated, and uniformly spinous.

Comments

Like *A. brevicornis* and *A. brevicrus*, the humeral angles are obtuse, without a spine, the total body length less than 22 mm, the body color orange to chestnut orange or reddish orange, never black, and male hind femora never strongly incrassate and recurved.

The male abdominal sterna III and IV of *A. brevicornis* and *A. brevicrus* have a strong raised hump, and the humeral angles are obtuse and slightly exposed (Figs 48a; 50a, b; 51a, b). In *A. consociatus* n. sp., the abdominal sterna III and IV have a small elevation (Figs 50c; 51c), the humeral angles are obtuse, and not exposed (Fig. 48b), and the propleura, mesopleura and metapleura have a longitudinal stripe of pale goldy yellowish tomentum, absent on the other two species.

Anoplocnemis gracilicornis can be distinguished from it by having antennal segment I longer than 4.00 mm in each sex, the pronotal disk covered by golden, yellowish, erect setae, and the male abdominal sternite III and IV with a strongly raised hump. In *A. consociatus* n. sp., antennal segment I on each sex is shorter than 3.60 mm. and the pronotal disk lacks golden, yellow setae.

Distribution

Known only from Madagascar.

Anoplocnemis curvipes (Fabricius, 1781)

(Figs 48c, h; 49e; 50d; 51d; 52d; 53g, h)

Cimex curvipes Fabricius, 1781: 351.

Redescription

Male

Measurements. Head: length 1.70 mm; width across eyes 2.50 mm; length antennal segments: I, 4.80 mm, II, 4.05 mm, III, 3.35 mm, IV, 5.15 mm. Pronotum: length 6.15 mm, width across humeral angles including the humeral spine 10.00 mm. Scutellum: length 3.30 mm, width 3.50 mm. Body length 27.20 mm. Body large sized, length 26 to 28 mm, parallel-sided, and robust.

Overall color black, suffused with dark reddish brown at clavus and corium; antennal segments I to III black, and IV shiny yellowish orange; apex of scutellum dark yellow; hemelytral membrane dark brown, with basal angle darker; abdominal sternites entirely shiny orange or black with lateral margins shiny to dark orange.

Structure. Humeral angle not broadly expanded at base, tapering into short to medium sized acute spine, directed laterally, and sometimes outward and forward (Fig. 48c, h); hind femora strongly incrassate, recurved, ventrally with elongate and stout basal spine, and a very large sharply triangular expansion near mid point; inner face of hind tibiae slightly dilated (Fig. 49e); abdominal sterna entire, without median hump (Figs 50d; 51d).

Genitalia. Genital capsule: Fig. 52d. Paramere: Fig. 53g, h.

Female

Measurements. Head: length 2.05 mm; width across eyes 2.60 mm; length antennal segments: I, 4.80 mm, II, 4.05 mm, III, 3.55 mm, IV, 5.40 mm. Pronotum: length 5.85 mm, width across humeral angles including the humeral spine 10.90 mm. Scutellum: length 3.50 mm, width 4.00 mm. Body length 27.60 mm.

Habitus and color similar to male. Hind femora relatively gracile (less incrassate than on male), gradually broadening, with a couple of strong spines on ventral surface; inner face of hind tibiae slightly dilated.

Comments

This species belongs to a group within the genus *Anoplocnemis*, which includes *A. luctuosa* and *A. madagascariensis*, all of them black species, and total body length greater than 25 mm. *Anoplocnemis curvipes* can be recognized by having the antennal segments I to III black and the humeral angles tapering into a short, acute spine directed laterally or laterally and forward (Fig. 48c, h). In the other two species, antennal segments I to III are shiny orange and the humeral angles taper into a large or medium, sized spine directed laterally and backward (Fig. 48d, e).

Distribution

This is one of the most common and widespread species, recorded throughout the Ethiopian Region, Madagascar, Seychelles, and Yemen (O'Shea 1980; Signoret 1860).

Specimens examined. Madagascar: without data. Madagascar: 1 ♂, 1 ♀, Antsirabe, 2.I.1953 (*Bouvet*) (MNHN).

Anoplocnemis distincta (Brancsik, 1893)

(Fig. 53i, j)

Mictis distincta Brancsik, 1893: 249.

Anoplocnemis distincta (Brancsik): Bergroth 1894b: 547.

Redescription

Male

Measurements. Head: length 1.90 mm; width across eyes 2.50 mm; length antennal segments: I, 5.80 mm, II, 4.50 mm, III, 3.80 mm, IV, 5.25 mm. Pronotum: length 6.00 mm, width across humeral angles including the humeral spine 10.55 mm. Scutellum: length 3.10 mm, width 3.30 mm. Body length 26.80 mm. Body large above 24 mm, parallel-sided, robust.

Overall color pale dull orange; antennal segments I to III pale dull orange, and IV yellow with basal joint dull orange; humeral angles suffused with dark reddish brown; apex of scutellum yellow; anterior and posterior lobes of metathoracic peritreme and adjacent areas yellowish white; hemelytral membrane dark brown with basal angle darker; connexivum dull orange; dorsal abdominal segments black with scars of scent glands on IV-V and V-VI yellow.

Structure. Humeral angles broadly expanded at base, tapering into large acute spine, directed outward, upward and backward; hind femora with large, elongated and stout basal spine; abdominal sterna entire, without elevated median hump; inner face of hind tibiae narrowly dilated.

Genitalia. Paramere: Fig. 53i, j.

Female

Measurements. Head: length 2.00 mm; width across eyes 2.60 mm; length antennal segments: I, 5.55 mm, II, 4.35 mm, III, 3.65 mm, IV, 5.35 mm. Pronotum: length 6.04 mm, width across humeral angles including the humeral spine 11.14 mm. Scutellum: length 3.55 mm, width 3.78 mm. Body length 27.30 mm.

Habitus and color similar to male. Connexival segments III to IX dull orange; dorsal abdominal segments like male or light brown with scars of scent glands on IV-V and V-VI yellow; genital plates orange; tibiae orange or apically suffused with black.

Comments

The general body plan resembles *A. madagascariensis*. *Anoplocnemis distincta* is slightly smaller, ranging from 24 to 28 mm (versus 30 to 33 mm), the overall color is dull to pale orange (versus black), and the length of antennal segments I to IV distinctly shorter.

Distribution

Endemic to Madagascar (BERGROTH 1894b; BRANCSIK 1893; O'SHEA 1980).

Specimens examined. MADAGASCAR: without date. MADAGASCAR: 1 ♀, Bemokotay, Antsirabe, VII.1951 *(DIETRICH)* (MNHN); 2 ♀♀, La Dakoa [without date] *(R. G. CATTALA)* (MNHN); 1 ♂, Mahambo, VIII.1962 *(P. MALZY)* (MNHN); 1 ♂, Mahafaly, Côte Tulear, 1899 *(G. ANDIDIER)* (MNHN); 1 ♂, Tamatave Province, 3.3 km N Ambabasoratra, 30.VIII.1962 *(E. D. CASHAT)* (UNAM); 1 ♂, Sambava Province, Marojejy, Ambinanitelo, 500 m, XII.1958 *(RAHARIZONINA)* (MNHN); 1 ♀, Toliara Province, Parc Nat. de Tsimanampetsotsa, Forêt du Bemanateza, 20.7 km, 81°E Efoetse, SE Beheloka, 90 m, 23°51'32"S-43°52'50"E, at light, 22-26.III.2002 *(FISHER ET GRISWOLD)* (CASC); 1 ♂, Toliara Province, on Plateau, 30 m, 23°00'17"S-43°42'22"E, 26.II-8V.2003 *(GRISWOLD)* (CASC); 1 ♂, Toliara Province, Parc Nat. de Tsimanampetsotsa, Mitoho Cave, 6.4 km, 77° ENE Efoetse, 17.4 km S Beheloka, 40 m, 24°02'50"S-43°45'11"E, 18-22.III.2002 *(FISHER ET GRISWOLD)* (CASC).

Anoplocnemis luctuosa (Stål, 1865)

(Figs 48d; 52e)

Mictis luctuosa Stål, 1865: 27.

Anoplocnemis luctuosa (Stål): STÅL 1873: 47.

Redescription

Male

Measurements. Head: length 1.60 mm; width across eyes 2.64 mm; length antennal segments: I, 5.70 mm, II to IV broken. Pronotum: length 5.47 mm, width across humeral angles including the humeral spine 10.60 mm. Scutellum: length 3.04 mm, width 3.18 mm. Body length 26.50 mm. Body large, above 25 mm, parallel-sided, and robust.

Overall color black suffused with dark reddish-brown at calli, clavus, corium, and lateral margins of abdominal sterna III to VII; antennal segments I shiny orange (II to IV broken) (on the male lectotype examined, antennal segments I to III are shiny orange, and IV black with basal joint shiny orange); anterior and posterior lobes of metathoracic peritreme, and adjacent areas pale yellowish orange; apex of scutellum dark yellow; hemelytral membrane dark brown with basal angle darker.

Structure. Humeral angles not broadly expanded at the base, tapering into short spine, directed outward, not upward, and clearly backward (Fig. 48d); hind femora strongly incrassate, recurved, ventrally with small, stout basal spine, and a very large and sharply triangular expansion near mid point; inner face of hind tibiae slightly dilated.

Genital capsule: Fig. 52e.

Female

Not available.

Comments

This species is very similar in general habitus and color, including antennal segments I to III shiny orange, to *A. madagascariensis*, but it is separable from the latter in having the humeral angles not broadly expanded at the base, and tapering into short spine directed outward, clearly backward, and not upward (Fig. 48d). In *A. madagascariensis*, the humeral angles are broadly expanded at the base and tapering into a large spine directed outward, clearly upward, and backward (Fig. 48e).

Distribution

Previous to this contribution only known from Madagascar (O'Shea 1980; Stål 1865).

Madagascar: without data. Lectotype: ♂, Madagascar: without data (NRES).

Specimens examined. New records. Madagascar: 1 ♂, Mayotte, Combani, II.1956 (*A. R.*) (MNHN).

Anoplocnemis madagascariensis (Signoret, 1860)

(Figs 48e; 52f; 53k, l; 55)

Mictis madagascariensis Signoret, 1860: 938-939.

Anoplocnemis madagascariensis (Signoret): Stål 1873: 47.

Redescription

Male

Measurements. Head: length 1.92 mm; width across eyes 2.90 mm; length antennal segments: I, 7.45 mm, II, 5.72 mm, III, 4.50 mm, IV, 6.50 mm. Pronotum: length 7.00 mm, width across humeral angles including the humeral spine 12.70 mm. Scutellum: length 3.70 mm, width 4.00 mm. Body length 33.00 mm. Body large, length 29 to 34 mm, parallel-sided, and robust.

Overall color black suffused with reddish brown on pronotum, clavus, corium, and abdominal sterna; antennal segments I to IV, anterior and posterior lobes of metathoracic peritreme, and adjacent areas shiny orange; tarsi reddish brown; apex of scutellum yellow; hemelytral membrane dark brown with basal angle darker.

Structure. Humeral angles broadly at base, tapering into large spine directed outward, upward, and clearly backward (Fig. 48e); male hind femora strongly incrassate, recurved, ventrally with small and stout basal spine, and very large and sharply triangular expansion near mid point; inner face of hind tibiae with medium-sized expansion.

Genitalia. Genital capsule: Fig. 52f. Paramere: Fig. 53k, l.

Female

Measurements. Head: length 1.84 mm; width across eyes 2.73 mm; length antennal segments: I, 6.90 mm, II, 5.18 mm, III, 4.20 mm, IV, 6.60 mm. Pronotum: length 6.73 mm, width across humeral angles including the humeral spine 14.08 mm. Scutellum: length 4.20 mm, width 4.38 mm. Body length 30.00.

Habitus and color similar to male. Hind femora relatively gracile, gradually broadening, with a couple of strong spines on ventral surface; inner face of hind tibiae slightly dilated.

Comments

In size (longer than 25 mm), general shape and color similar to *A. curvipes*. Distinguished from the latter by having antennal segments I to III shiny orange, and the humeral angles broadly expanded at the base, and tapering into large spine (Fig. 48e). In *A. curvipes*, antennal segments I to III are black, and the humeral angles not broadly expanded at the base, and taper into short acute spine (Fig. 48c, h).

Distribution

This is the most common and widespread species of *Anoplocnemis* in Madagascar.

MADAGASCAR: Nossi-bé (BRANCSIK 1893; O'SHEA 1980; SIGNORET 1860).

Specimens examined. MADAGASCAR: 3 ♂♂, 1 ♀, Plateau Mahafaly, env. d'Ankalirano, 17.I.1974 (*A. PEYRIERAS et P. VIETTE*) (MNHN); 1 ♂, 4 ♀♀, District d'Ambanja, N de Beangona-Ambevy, Vallée d'Antremabe, 4000 m, II.1964 (*P. SOGA*) (MNHN, UNAM); 1 ♀, Morondava, Mahavo [without date] (MNHN); 1 ♂, Betsimisaraka du Centre, Fauchere, 1910 (*NICOLAS et MOVREAU*) (MNHN); 1 ♂, Ambositra, 1907 (MNHN); 1 ♀, Moheli, III. 1960 (*R. LEGRAND*) (MNHN); 1 ♂, Baie d'Antongil (*A. MOCOVERYS*) (MNHN); 6 ♂♂, 6 ♀♀, Diego Suárez, 1939-1941 (MNHN, UNAM); 3 ♂♂, 3 ♀♀, Antsirave, 2.I.1953 (*BOUVET*) (MNHN); 3 ♂♂, 2 ♀♀, Tananarive, Tsimbazaza, X.1962 (*P. MALZY*) (MNHN); 1 ♂, Betioky, XI.1970 (*A. S. BALACHOWSKY*) (MNHN); 3 ♂♂, 3 ♀♀, Ampijoroa, Tsaramandrosa [without date] (MNHN, UNAM); 1 ♀, Hera, Ankazoabo [without date] (MNHN); 1 ♂, 1 ♀, Tsivory, 1906 (*FAUCHER*) (MNHN); 1 ♂, Prov. de Fenerive, Région de Soanierana, 1905 (*A. MATHIAUX*) (MNHN); 1 ♂, 1 ♀, Prov. de Tulear, Androke, 1913 (*GAUDRON*) (MNHN); 1 ♀, Reg. de Tamatave, Andevorante et Beforona, 1905 (*C. BOVET*) (MNHN); 3 ♂♂, 1 ♀, Tananarive, 3 mi W, 6.I.1971 (*H. V. DALY*) (CASC); 1 ♂, 1 ♀, Tulear Prov., Zombitse Nature Reserve, 16 km E Sakaraha, 825 m, 23°88'22"S-06°70'44"E, 13.XII.1999 (*M. E. IRWIN et E. I. SCHLINGER*) (CASC); 1 ♀, Fianarantsoa Prov., Ranomafana, 655 m, 12.IV.1998 (*M. E. IRWIN et E. I. SCHLINGER*) (CASC); 1 ♀, Toliara Prov., 16 km E Sakaraha, Zombitse Nature Reserve, 22°53'S44°42'E, 825 m, 20.IV.1998 (*M. E. IRWIN et E. I. SCHLINGER*) (CASC); 1 ♂, Toliara Prov., Forêt de Mahavelo, Isantoria river, 24°45'30"S-46°09'26"E, 110 m, 28.I-1.II.2002 (*FISHER et GRISWOLD*) (CASC); 1 ♂, Tulear Prov., 1 km N of Andranovelona, hand net, lush Ravine, 03°44'23"S-06°70'44"E, 13.XII.1999 (*M. E. IRWIN et E. I. SCHLINGER*) (CASC); 2 ♂♂, 2 ♀♀, Tananarive, 1.XI-XII. 1925 (ZMAS); 1 ♂, Tulear Prov., Betioky, 275 m, 14.III.1968 (K. M. G.) (BMNH); 1 ♂, 1 ♀, Ranomafana env., 90 km E of Fianarantsona, 1-5.XII.1999 (*F. et L. KANTER*) (NMPC); 3 ♂♂, 1 ♀, Ampanefena [without date] (NMPC); 2 ♂♂, 1 ♀, Vohémar [without date] (NMPC); 5 ♂♂, 1 ♀, Ifanidiana [without date] (NMPC); 1 ♀, Antsiranana Prov., Ankarana, Ambondromifehy, 5-6.XII.1996 (*I. JENIS*) (NMPC); 1 ♂, Tamatave Prov., Ambodinifody, 26.XII.1996 (*I. JENIS*) (NMPC); 9 ♂♂, 7 ♀♀, Madagascar [without data] (NMPC, UNAM).

Genus *Dianomictis* O'Shea, 1980

Dianomictis O'Shea, 1980: 308-310.

Redescription

Body large, broad.

Head

Antennal segment I the longest, III the shortest, and IV longer than II; buccula reaching anterior margin of eye; rostrum reaching posterior margin of mesosternum.

Thorax

Pronotum. Narrowed anteriorly, and diverging posteriorly to form prominent humeral expansions; frontal angles with tiny spinouse projection; collar not clearly demarcated; anterolateral margins sharply concave, uniformly spinouse, with short and stout spines; humeral angles produced laterally into broad, wing-like sharp expansion, apically subacute; posterolateral margins with outer half serrate, and inner half smooth (Fig. 48f, g).

Mesosternum and metasternum flat, non-sulcate.

Legs. Male hind femora conspicuously incrassate, subbasally curved, armed ventrally with two broad subapical spines, and one row of strong and stout short spines, and dorsally with one row of small tubercles; fore and middle tibiae in both sexes cylindrical, robust, sulcate, apically unarmed; male hind tibia with outer surface sulcate, apically provided with an stout spine, and inner surface dilated, armed with one row of short and broad denticles, and near mid-point strongly expanded on a triangular acute dilation; female hind femora incrassate (less than males), subbasally not curved, armed ventrally with two broad subapical spines, and one row of tiny denticles, and dorsally almost smooth; female hind tibiae with outer surface sulcate, apically unarmed, and inner surface flattened, slightly dilated (Fig. 49c, d).

Abdomen

Male. Abdominal sterna armed with large, stout median tubercle, formed from sternite II and III; posterior margin of abdominal sternite IV with two small tubercles near middle; lateral margins of abdominal sterna smooth; connexival segments slightly elevated, with posterior angles armed with two short and stout tubercles (Figs 50f; 51e; 56b).

Male *genitalia*. Genital capsule: Fig. 52g. Paramere: Fig. 53m, n. Posteroventral edge entire.

Female. Abdominal sterna unarmed; connexival segments unarmed.

Female *genitalia*. Gonocoxae I in caudal view closed; paratergite VIII quadrate, slightly longer than paratergite IX.

Integument

Surface covered with decumbent to suberect silver and golden yellowish pubescence.

Comments

The large and stout median tubercle at the juncture of abdominal sterna II and III (absent in females) is unique, and coupled with the unarmed hind trochanters and the expanded humeral angles, serves to separate this genus from *Anoplocnemis*.

Dianomictis, endemic to Madagascar, is represented by only one species, *D. expansa*.

Type species

Mictis expansa Distant, 1879.

Dianomictis expansa (Distant, 1879)

(Figs 48f, g; 49c, d; 50f; 51e; 52g; 53m, n; 56a, b)

Mictis expansa Distant, 1879: 212-213.

Dianomictis expansa (Distant): O'Shea 1980: 310.

Type material

Lectotype ♂: MADAGASCAR: Antananarivo [without date] (BMNH).

Paratype ♀: MADAGASCAR: Antananarivo [without date] (BMNH).

Redescription

Male

Measurements. Head: length 1.75 mm; width across eyes 2.72 mm; length antennal segments: I, 7.50 mm, II, 4.73 mm, III, 3.95 mm, IV, 5.45 mm. Pronotum: length 5.75 mm, width across humeral angles including the humeral spine 14.10 mm. Scutellum: length 3.45 mm, width 3.80 mm. Body length 27.30 mm.

Dorsal color. Head black with antenniferous tubercles and postocular area yellow; antennal segments I to III shiny orange, and IV black with basal joint shiny orange; pronotum reddish orange with anterior margin including the calli black; scutellum reddish orange with apex yellowish white; clavus black with outer margin reddish orange; corium reddish orange with 2/3 of basal costal margin black; hemelytral membrane brown with basal angle darker; connexivum and dorsal abdominal segments black.

Ventral color. Head black with buccula and middle third yellow; rostral segments black; propleura, mesopleura, and metapleura reddish orange with acetabulae black; prosternum, and mesosternum black, and metasternum and anterior and posterior lobes of metathoracic peritreme reddish orange; coxae black with upper margin yellow; fore trochanters black with basal margin yellow; middle, hind trochanters and tibiae black; femora reddish orange with apical third black; tarsi yellow; abdominal sterna reddish orange with following areas black: median hump of sterna II and III, pleural margins of sterna III to VII, middle third of posterior margin of sternite IV, small discoidal spot at mid point of sternite VI, posterior margin of sternite VII, and genital capsule; abdominal spiracle yellow with or without thin black halo.

Female

Measurements. Head: length 2.10 mm; width across eyes 2.68 mm; length antennal segments: I, 6.00 mm, II, 4.10 mm, III, 3.47 mm, IV, 4.83 mm. Pronotum: length 6.25 mm, width across humeral angles including the humeral spine 13.10 mm. Scutellum: length 3.05 mm, width 3.75 mm. Body length 26.85.

Habitus and color similar to male. Connexival segments VIII and IX, and dorsal abdominal segments VIII and IX black; abdominal sterna reddish orange, with middle third, pleural margins, and posterior margin of each sternite black; abdominal spiracle yellow with or without thin black halo; genital plates black with outer margin of gonocoxae I reddish orange.

Distribution

This species described from Madagascar is endemic to the region (DISTANT 1879; O'SHEA 1980).

MADAGASCAR: Antananarivo.

Specimens examined. MADAGASCAR: 1 ♂, Tananarive, Mahamasina, VII.1932 (ZMAS); 1 ♀, Mandraka, XII.1934 (ZMAS); 1 ♀, Mandraka, I.1953 (MNHN); 1 ♀, Tamatave Prov., 7 km N Didy, 24.IX.1962 *(E. D. CASHATT)* (USNM); 4 ♀♀, Ambanja (NMPC); 1 ♀, Perinet, 7.XI.1959 *(E. S. ROSS)* (CASC); 1 ♂, 1 ♀, Andringitra Centre Plateau, Andohari-

ana, 2000-2100 m, 10.XII.1970 (Madagascar Centre Mission, CNRS) (MNHN); 1 ♂, 1 ♀, Andringitra East, Ambalamarovandana, 1500-1600 m, 15-25.I.1971 (FDHMA Madagascar Centre Mission, CNRS) (MNHN); 1 ♂, East of Mangindrano Res., Opec de l'Ambohimirahavavy, Ambinanitel, Bemafo, 1800 m, VIII.1971 *(M. P. Soga)* (MNHN); 2 ♀♀, Manankazo Station, km 130 route Majanga, 6.II.1948 (MNHN); 1 ♂, 2 ♀♀, Fianarantsoa, Ranomafana Nat., Park, Talatakely, Trail FF, 915-1000 m, 4-20.XI.1998 *(V. F. Lee et K. Ribardo)* (CASC, UNAM); 1 ♂, 1 ♀, Fianarantsoa Prov., Manombo Special Reserve, 20 km SSW Farafangana, X.1999 *(M. Irwing et E. I. Schlingeer)* (CASC); 1 ♂, Tenerive Prov., Région de Soanierana, 1905 *(A. Mathiau)* (MNHN); 2 ♀♀, Mahitsikazo, Ambodikakazo, 28.VIII.1951 *(J. Dietrich)* (UNAM); 1 ♂, 1 ♀, Ambatofitorahana, km 303 Route de Mananjary [without date] (MNHN).

Elasmocniella n. gen.

Derivatio nominis

The generic name refering to the close relation with the genus *Elasmocnema*.

Description

Body large, elongate, length shorter than 25 mm.

Head

Quadrate, apically strongly bent downward at the antenniferous tubercles; antennal segment I the longest, III the shortest, and IV longer than II; buccula reaching anterior margin of eye; rostrum reaching posterior margin of mesosternum.

Thorax

Pronotum. Narrowed anteriorly, diverging posteriorly; collar distinctly differentiated; frontal angles obtuse, not produced; anterolateral margins obliquely straight, weakly concave, nodulose; humeral angles produced laterally into wing-like relatively narrowed lobes; posterolateral margins with outer half finely nodulose, and inner half smooth (Fig. 48j); mesosternum and metasternum flat, non sulcate.

Legs. Hind trochanters in both sexes unarmed; male hind femora gradually incrassate, subbasally gently curved, ventrally armed with single and broad subapical spine, and two rows of tiny denticles or nodular expansions; female hind femora gradually incrassate (less than males), subbasally gently curved, ventrally with two subapical spines, and one row of tiny denticles; fore and middle tibiae in both sexes cylindrical, robust, sulcate, apically unarmed; male hind tibiae with outer surface sulcate, inner surface dilated, sharply angulate with triangular expansion near mid point, and distal spine on dorsal surface larger and similar-sized to ventral spine; female hind tibiae with outer and inner surfaces dilated, apically unarmed (Fig. 49b).

Abdomen

Male. Connexivum slightly raised, posterior angle unarmed, and upper margin with two rows of short nodules; junction between abdominal sterna III and IV slightly raised into distinct bifid tubercle (Fig. 57b).

Male *genitalia*. Genital capsule: Posteroventral edge straight, laterally rounded.

Female. Connexivum slightly raised; posterior angle of connexival segments IV to VI armed with two short and stout tubercles or bulges; abdominal sterna unarmed.

Female *genitalia*. Gonocoxae I in caudal view open; paratergite VIII triangular, shorter than paratergite IX.

Integument

Body surface covered with decumbent to suberect silvery pubescence.

Comments

Elasmocniella n. gen., like *Elasmocnema*, with male hind femora gradually incrassate, subbasally gently curved, without sharply angular triangular projection near mid-point; male hind tibiae dilated ventrally but not dorsally, with ventral expansion sharply angular, like triangular expansion near mid point; abdominal sternite III with two ventral spines close together, and almost forming a single tubercle, and abdominal sterna lackings lateral tubercles or bulges. In *Elasmocnema*, recorded from Cameroon, the humeral angles are rounded and the rostrum rather short, not reaching mesosternum. In *Elasmocniella* n. gen., endemic to Madagascar, the humeral angles clearly produced laterally into wing-like narrowed lobes and rostrum reaching posterior margin of mesosternum. In *Mygdonia*, the male hind tibiae are dilated dorsally and ventrally, the junction between abdominal sternite III and IV is produced into a distinct, bifid, large tubercle, and abdominal sternite III with small lateral tubercles (sometimes absent or hard to see).

Type species

Elasmocniella gloriosus n. gen., n. sp.

Elasmocniella gloriosus n. gen., n. sp.

(Figs 48j; 49b; 57a, b)

Type material

Holotype ♂: MADAGASCAR: Baie d'Antongil [without date] (*A. MOCQUERYS*) (MNHN).

Paratype. MADAGASCAR: 1 ♀, Baie d'Antongil [without date] (*A. MOCQUERYS*) (MNHN).

Derivatio nominis

Referring to the attractive appearance of this species.

Description

Male holotype

Measurements. Head: length 1.85 mm; width across eyes 2.35 mm; length antennal segments: mutilated. Pronotum: length 4.15 mm, width across humeral angles including the humeral spine 9.80 mm. Scutellum: length 2.40 mm, width 2.60 mm. Body length 21.40.

Overall color reddish brown; postocular area pale yellow; hemelytral membrane dark brown; dorsal abdominal segments black, posterior margin of VII reddish brown, and scars on IV-V and V-VI dark yellow; anterior and posterior lobes of metathoracic peritreme and adjacent areas yellow to pale orange.

Female paratype

Measurements. Head: length 1.80 mm; width across eyes 2.45 mm; length antennal segments: I, 4.70 mm, II, 3.90 mm, III, 3.20 mm, IV, 4.45 mm. Pronotum: length 4.65 mm,

width across humeral angles including the humeral spine 10.70 mm. Scutellum: length 2.90 mm, width 3.20 mm. Body length 23.90.

Habitus and color similar to male holotype. Antennal segments I to IV shiny orange; connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates black.

Distribution

This species is known only from Madagascar.

Mygdonia Stål, 1865

Mygdonia Stål, 1865: 16-17.

Redescription

Body large, stout, elongate-rectangular.

Head

Quadrate; antennal segment I subequal to IV, III the shortest, and II shorter than I and IV; buccula not projected beyond antenniferous tubercle; rostrum reaching middle third of mesosternum.

Thorax

Pronotum. Narrowed anteriorly, and diverging posteriorly; disk granulose and rugulose; frontal angles produced forward as acute and elongate conical lobes; collar narrow; anterolateral margins obliquely straight, slightly nodulose; humeral angles transversely broad, laterally produced, subacute to obtuse and rounded; posterolateral margins with outer half slightly nodulose, and inner half smooth (Fig. 48i).

Mesosternum slightly sulcate; metasternum flat, non-sulcate.

Scutellum. Transversely and irregularly rugulose.

Legs. Male hind femora gradually incrassate, subbasally curved, ventrally armed with two rows of tiny denticles, or nodular expansions, lacking one or two broad subapical spines; female hind femora incrassate (less than males), subbasally slightly curved, ventrally with one broad subapical spine, and two rows of tiny denticles; fore and middle tibiae in both sexes cylindrical, robust, sulcate, apically unarmed; male hind tibia dilated on each side; inner dilation with very large and sharp triangular expansion near midpoint; outer dilation narrow; outer and inner surfaces apically with broad spine; female hind tibiae with outer and inner surfaces dilated, and apically unarmed (Fig. 49f, g).

Hemelytra. Clavus and corium thickly and finely punctate.

Abdomen

Male. Connexivum slightly elevated; connexival segments IV to VI with posterior angle armed with two short, and stout tubercles; junction between abdominal sternite III and IV produced into a distinct bifid, large tubercle; abdominal sternite III with small lateral tubercles (Figs 50e; 51f).

Male *genitalia*. Posteroventral edge almost straight; laterally convex with shallow median sulcus (Fig. 52h). Paramere: Fig. 53o, p.

Female. Connexivum slightly elevated; connexival segments IV to VI with posterior angles armed with two short, stout tubercles; abdominal sterna unarmed.

Female *genitalia*. Gonocoxae in caudal view opened; paratergite VIII subtriangular, shorter than paratergite IX.

Integument

Surface covered with decumbent to suberect silver and golden yellowish pubescence.

Comments

Mygdonia is most similar in general aspect to *Anoplocnemis*, but it can be distinguished from the latter by having the hind tibiae dilated on each side, and the male hind femora gradually incrassate, not strongly recurved, and without a sharp triangular projection near the mid point. In *Anoplocnemis* the hind tibiae is only dilated on the inner surface, and the male hind femora strongly incrassate, and recurved, with a conspicuous triangular projection near the mid-point.

Type species

Mictis tuberculosus Signoret, 1851.

Mygdonia elongata Distant, 1879

(Figs 48i; 49f, g; 50e; 51f; 52h; 53o, p; 58)

Mygdonia elongata Distant, 1879: 211-212.

Type material

Lectotype ♂: MADAGASCAR: Antananarivo [without date] (BMNH).

Paratype ♀: MADAGASCAR: Antananarivo [without date] (BMNH).

Redescription

Male

Measurements. Head: length 1.75-1.85 mm; width across eyes 2.45-2.62 mm; length antennal segments: I, 5.90-6.30 mm, II, 4.95-5.05 mm, III, 3.75-3.80 mm, IV, 5.65-5.95 mm. Pronotum: length 4.60-6.25 mm, width across humeral angles including the humeral spine 8.50-11.05 mm. Scutellum: length 3.00-3.50 mm, width 3.10-3.95 mm. Body length 24.80-30.60 mm.

Overall color black; clavus, corium, and abdominal sterna suffused with reddish brown; antennal segments I to III shiny orange, and IV dull orange; antenniferous tubercles hazel orange; postocular space with an elongate yellow mark; anterior and posterior lobes of metathoracic peritreme yellow; legs black with distal third of tibiae and tarsi shiny hazel orange; apex of scutellum yellow; hemelytral membrane dark brown, with basal angle black.

Female

Measurements. Head: length 1.80-2.05 mm; width across eyes 2.58-2.65 mm; length antennal segments: I, 5.35-6.10 mm, II, 4.15-4.85 mm, III, 3.35-4.00 mm, IV, 5.00-6.25 mm. Pronotum: length 6.00-6.18 mm, width across humeral angles including the humeral spine 11.40-13.85 mm. Scutellum: length 3.50-3.75 mm, width 3.90-4.05 mm. Body length 28.47-31.00 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates black; posterior margin near middle third of abdominal sternite VII, and basal third of gonocoxae I shiny orange.

Variation

1 - Pronotal disk suffused or not with reddish-brown marks. 2 - Hemelytral membrane pale brown with basal angle darker. 3 - Connexivum shiny reddish brown to hazel orange. 4 - Dorsal abdominal segments with scent glands scars on IV-V, and V-VI hazel orange. 5 - Abdominal sterna shiny reddish orange. 6 - Femora with ventral surface dark reddish brown, and dorsally pale reddish. 7 - Gonocoxae I entirely black.

Comments

Mygdonia tuberculosa, widespread in the continental portion of Africa, is the other only previously known species included on the genus *Mygdonia*. It is distinguished by having a broad and conspicuous tubercles on the posterior pronotal lobe, clavus, and corium; the anterolateral margins of pronotum with large and stout spines; the male junction between abdominal sternite III and IV produced with small and narrow raised median hump, and the inner expansion of male hind tibiae subtriangular, and shorter than in *M. elongata*, which is endemic to Madagascar, on which the male junction between abdominal sternite III and IV is produced into a distinct bifid and large median tubercle, the anterolateral margins of pronotum without large and stout spines, and the pronotal disk, clavus and corium without broad tubercles.

Distribution

This species described from Madagascar in endemic to that region (DISTANT 1879; O'SHEA 1980).

MADAGASCAR: Antananarivo.

Specimens examined. MADAGASCAR: 1 ♀, Andringitra South, Andrianony Cirque, Manjari, 1650 m, 26.X-3.XI.1970 (MNHN); 1 ♂, 1 ♀, Perinet, Analamasotra Prov., 20.XII.1930 (MNHN); 1 ♂, Andringitra East, Ambala, Marovandana, 1500-1600 m, 15-25.I.1971 (FDHMA, Madagascar Centre Mission, CNRS) (MNHN); 1 ♀, Perinet, Revenala, VIII.1949 (*A. R.*) (MNHN); 1 ♂, Chaînes Anosyennes, Massif Nord, Moyenne Ranomandry, 1050 m, 23.XII.1971 (*SOYOE*) (MNHN); 1 ♀, 2 km of Ambalamarovandana, 1500-1600 m, 15-25.I.1971 (MNHN); 1 ♀, Marojejy Res. Nat., Beondroka, 1200 m, XII.1960 (*P. SOGA*) (MNHN); 6 ♂♂, 5 ♀♀, Andohahelo, 1800 m, I.1954 (*R. P.*) (MNHN, UNAM); 1 ♂, 2 ♀♀, Baie d'Antongil, Anandrivola, X.1970 (*A. VILLIERS*) (MNHN); 1 ♀, Beparasy, 12.X.1970 (*A. DESCARPENTRIES*) (MNHN); 1 ♀, Baie d'Antongil, Nosy, Mangabe, 14.X.1970 (*A. VILLIERS*) (MNHN); 1 ♂, 1 ♀, Sahafanjana, Manambate (Anobe) [without date] (MNHN); 1 ♀, Ambila, III.1951 (*A. R.*) (MNHN); 1 ♂, Ivohibe, Forêt Cold, XI.1950 (*A. R.*) (MNHN); 2 ♂♂, Hera, Ankazoabo [without date] (MNHN, UNAM); 1 ♂, Région de Tamatave, Andevorante et Beforona, 1905 (*G. BOUET*) (MNHN); 1 ♂, Moramanoa env., 17-24.XII.1998 (*J. MORAVEC*) (NMPC); 1 ♂, 1 ♀, 30 km SEE of Betroka, Vohitrosa Forest, 1400-1670 m [without date] (*P. BULIRSCH*) (NMPC); 1 ♀, Toamasina Prov., 7 km SE of Andasibe National Park, headquarters, 1050 m, 18°57'S-48°07'E, 9-23.IV.2001 (*R. HARIN'HOLA*) (CASC); 1 ♀, Fianarantsoa Prov., Manombo Special Reserve, 20 km SSW Farafangana,60 m, X.1999 (*M. E. IRWIN et E. I. SCHLINGER*) (CASC); 1 ♀, Toamagina Prov., Andasibe National Park (Perinet), 19 km E of Moramanga, 1000 m, 24.XII.1999 (*M. E. IRWIN et H. H. RASOLONDALAO*) (CASC); 1 ♀, Fianarantsoa Prov., Ranomafana National Park, Talatakely area, 900 m, 21°14'S-47°25'E, 7.IV.1998 (*J.*

S. Schweikert) (CASC); 1 ♀, Antsiranana Prov., Forêt d'Anabohazo, 21.6 km WSW of Maromandia, 1200 m, 14°18'32"S-47°54'52"E, 11-16.III.2002 (Fisher et Griswold) (CASC); 1 ♂, 1 ♀, Perinet, Analamazotra, XI.1939 (ZMAS).

Tribe Petascelini Stål, 1873

Body large to very large, usually over 20 mm.

Head

Subquadrate, short, wider than long, bent downward at the antenniferous tubercles; antenniferous tubercles protruding forward, almost occupying the intertubercular space; tylus not protracted; juga anteriorly not expended; buccula short, situated before anterior margin of eye; rostrum wide, short, not extending beyond mesosternum.

Thorax

Hind coxae conspicuously separated, space between each coxae 3 to 3.5 times the diameter of one coxa; fore femora ventrally armed with two large and stout subapical projections; hind femora incrassate, usually spinose or dentate; hind tibiae only dilated at inner surface.

Abdomen

Abdominal spiracle rather large, transversely elliptical, located close to anterior margin of the sternite.

Genus *Oxypristis* Signoret, 1860

Oxypristis Signoret, 1860: 937

Redescription

Body large, broad, not depressed.

Head

Subquadrate, wider than long, apex strongly bent downward at the antenniferous tubercles; antenniferous tubercles protruding, unarmed; posttylar sulcus deeply cleff medially; antennae shorter than body; antennal segment I stouter than segments II to IV; antennal segment II cylindrical, robust, segment III dilated, dilation symmetrical, obovate in outline, not notched apically, and segment IV fusiform, relatively slender; antennal segment I the longest, III the shortest, and IV longer than II; ocelli not raised, close to eyes; eyes elongate, not protuberant; postocular tubercle forming contiguous curve with eyes; buccula uniformly quadrate to rounded, short, elevated, not projecting beyond antenniferous tubercles; rostrum short, not extending beyond posterior margin of mesosternum.

Thorax

Pronotum. Steeply declivent, wider than long, narrowed anteriorly, and diverging posteriorly to form a prominent spinose humerus; frontal angles marked by two or more spinose projection; collar not clearly demarcated; anterolateral margins sharply concave, re-

markably spinose, each spine-like projection apically acute; humeral angles produced laterally, forming wing-like projections, varying throughout the genus; posterolateral margins with outer half roughly serrate to nodulose, and inner half smooth; posterior margin straight and smooth; callar region flat, not clearly differentiated; posterior lobe of pronotal disc with shallow median longitudinal sulcus.

Prosternum deeply concave; mesosternum and metasternum flat, non-sulcate; mesosternum anteriorly tuberculate between fore coxae; anterior lobe of metathoracic peritreme elongate, slender, and posterior lobe small, subacute.

Legs. Intermetaxocal space wide open (Fig. 60h); fore and middle femora robust, ventrally armed with two broad subapical spines; dorsal surface smooth, scarcely undulate; hind femora incrassate, much more so in males, ventrally armed with two broad subapical spines, and two rows of strong denticles, and dorsally smooth, and scarcely undulate; hind femora in males provided with inner strongly developed and broad spine (female lacking that strong spine); fore and middle tibiae cylindrical, robust, sulcate, and apically with tiny spine; hind tibiae with outer surface sulcate, gently curved, not dilated, and unarmed, and inner surface dilated, armed with one row of short and broad denticles, and basally remarkably expanded on a triangular dilation.

Scutellum. Wider than long, triangular, flat, and apically subacute; basal third transversely elevated.

Hemelytra. Macropterous, reaching or extending beyond the apex of the last abdominal segment; apical margin sinuous; costal margin emarginated; apical angle relatively short, not reaching the middle third of the hemelytral membrane.

Abdomen

Broad, conspicuously dilated, widest point at segments III-IV, much wider than hemelytra, with outer side strongly convex; connexivum elevated, upper surface with two rows of short and broad denticles, and posterior angles unarmed; abdominal spiracle large, transversely oblongate-oval, elliptical and closer to anterior edge, and far from lateral edge of the sternite (Fig. 60g).

Male *genitalia*. Genital capsule: Simple; posteroventral edge entire, weakly convex. Parameres: Fig. 60a-f.

Female *genitalia*. Abdominal sternite VII with plica and fissura; plica short, quadrate, with lateral expansions obliquely directed; fissura overlapping; gonocoxae I enlarged anteroposteriorly, in caudal view closed, in lateral view with outer face entire; paratergite VIII triangular, longer than paratergite IX, with spiracle visible; paratergite IX subquadrate.

Integument

Surface densely covered with decumbent to suberect silver to golden yellowish pubescence.

Comments

This is the only known genus of the tribe Petascelini recorded from Madagascar. It is easily distinguished by having the humeral angles of pronotum strongly produced, the anterolateral borders of pronotum sharply concave and conspicuously spinose, and each spine-like projection apically acute (Fig. 60h), and antennal segment III dilated. The species of *Oxypristis* are notably uniform in appearance, and the most reliable differences

between species are found in the humeral angles, and the development of the dilated portion of antennal segment III.

The genus *Oxypristis*, endemic to Madagascar was erected by SIGNORET (1860) to include one species *O. leroyi*, and later BLÖTE (1938) added the second species *O. modestus*. In this contribution two new species are described.

Type species
Oxypristis leroyi Signoret, 1860.

*Clé des espèces malgaches d'*Oxypristis

1. Angles huméraux projetés vers l'avant, quadrangulaires (Fig. 59h) ; longueur totale du corps inférieure à 27 mm ..... ***modestus*** Blöte

– Angles huméraux projetés vers l'avant, triangulaires (Fig. 59g), ou remarquablement allongés (Fig. 59e) ; longueur totale du corps supérieure à 29 mm **2**

2. Angles huméraux projetés vers l'avant, triangulaires (Fig. 59g) ; longueur de l'article antennaire I inférieure à 7 mm ; longueur de l'article antennaire IV inférieure à 6,10 mm ; longueur maximale du disque du pronotum inférieure à 7,80 mm ..... ***augurium*** n. sp.

– Angles huméraux remarquablement projetés vers l'avant (Fig. 59f) ; longueur de l'article antennaire I supérieure à 7,70 mm ; longueur de l'article antennaire IV supérieure à 7,00 mm ; longueur maximale du disque du pronotum supérieure à 8,20 mm **3**

3. Dilatation de l'article antennaire III plus large (Fig. 59a) ; angles huméraux remarquablement projetés et nettement dirigés vers l'extérieur et le haut (Fig. 59e) ..... ***conspicuus*** n. sp.

– Dilatation de l'article antennaire III relativement étroite (Fig. 59b) ; angles huméraux remarquablement projetés, dirigés vers l'extérieur et à peine vers le haut (Fig. 59f) ..... ***leroyi*** Signoret

Key to Malagasy species of Oxypristis

1. Humeral angles produced medially, quadrate (Fig. 59h); total body length less than 27 mm ..... ***modestus*** Blöte

– Humeral angles produced medially, triangular (Fig. 59g), or remarkably elongate (Fig. 59e); total body length over 29 mm **2**

2. Humeral angles produced medially, triangular (Fig. 59g); antennal segment I shorter than 7.00 mm; antennal segment IV shorter than 6.10 mm; maximum length of pronotal disk shorter than 7.80 mm ..... ***augurium*** n. sp.

– Humeral angles strongly produced (Fig. 59f); antennal segment I longer than 7.70 mm; antennal segment IV longer than 7.00 mm; maximum length of pronotal disk longer than 8.20 mm **3**

3. Dilation of antennal segment III wider (Fig. 59a); humeral angles strongly produced, and conspicuously directed outward and upward (Fig. 59e) ..... ***conspicuus*** n. sp.

– Dilation of antennal segment III relatively narrowed (Fig. 59b); humeral angles less strongly produces, directed outward, and scarcely upward (Fig. 59f)... ***leroyi*** Signoret

Oxypristis augurium n. sp.
(Figs 59c, g; 60c, d; 62)

Type material

Holotype ♀: MADAGASCAR: Vohibory, 21.V.1941 (*M. ABADIE*) (MNHN).

Paratypes: MADAGASCAR: 5 ♂♂, 6 ♀♀, Vohibory, 21.V.1941 (*M. ABADIE*) (MNHN, UNAM); 2 ♂♂, 1 ♀, Betioky [without date] (*M. ABADIE*) (MNHN); 1 ♀, Pays Mahafaly, 1900 (*BASTARD*) (MNHN); 1 ♀, Tulear Prov., Betioky, 275 m, 14.III.1968 (*K. M. G.*) (BMNH).

Derivatio nominis

From the Latin, *augurium*, meaning premonition or sign, refering to the characteristic shape of pronotum in this species.

Description

Female holotype

Measurements. Head: length 2.30 mm; width across eyes 2.90 mm; length antennal segments: I, 6.90 mm, II, 5.25 mm, III, 4.60 mm, IV, 6.00 mm. Pronotum: length 7.75 mm, width across humeral angles including the humeral spine 17.00 mm. Scutellum: length 3.60 mm, width 4.20 mm. Abdomen: maximum width 16.80 mm. Body length 29.80 mm.

Color. Overall color reddish brown; antennal segment I and II shiny orange, III with basal half shiny orange and distal half dark brownish orange, and IV pale yellowish orange; hemelytral membrane dark brownish hazel; connexivum reddish brown, with scattered small black discoidal spots, and tinged with dark brownish orange marks; upper border of connexivum black; dorsal abdominal segments shiny orange, suffused with black scattered marks; rostral segments reddish brown (apex of IV black); anterior and posterior lobes of metathoracic peritreme and adjacent areas pale orange (anterior lobe with dark brown mark); legs reddish brown; tibiae with black longitudinal stripe; abdominal sterna III to VII reddish brown, laterally with small black discoidal spot, and at middle third with black narrow longitudinal stripe; genital plates reddish brown.

Structure. Distal third of antennal segment III wide (Fig. 59c); humeral angles medially produced, triangular, narrowed, directed outward, apically acute, and slightly turned backward (Fig. 59g).

Male paratype

Measurements. Head: length 2.40 mm; width across eyes 2.80 mm; length antennal segments: I, 5.86 mm, II, 4.80 mm, III, 4.10 mm, IV, 5.40 mm. Pronotum: length 7.80 mm, width across humeral angles including the humeral spine 17.10 mm. Scutellum: length 3.70 mm, width 4.50 mm. Abdomen: maximum width 16.22 mm. Body length 31.10 mm.

Habitus and color similar to female holotype. Dorsal abdominal segments shiny orange with posterior margin of VII dark brown; genital plates reddish brown.

Genitalia. Paramere: Fig. 60c, d.

Variation

1 - Antennal segments I and II pale reddish brown. 2 - Antennal segment III pale brownish

orange with basal joint orange. 3 - Antennal segment IV shiny orange. 4 - Clavus and corium dark reddish.

Comments

In size (longer than 28.50 mm), shape and color, similar to *O. leroyi* also recorded from Madagascar. *Oxypristis augurium* n. sp. is separable from the latter by having the humeral angles of the pronotum medially produced, triangular, narrowed, directed outward, apically acute and slightly turned backward (Fig. 59g), the length of antennal segment I shorter than 7 mm, and the length of antennal segment IV shorter than 6.10 mm in both sexes. In *O. leroyi*, the humeral angles are conspicuously produced, directed outward, and scarcely upward (Fig. 59f), and the length of antennal segments I and IV over 7 mm.

In *O. modestus* recorded from Madagascar, the total body length is less than 27 mm, the humeral angles medially produced and quadrate (Fig. 59h), and the total length of antennal segments I and IV less than 6.10.

Distribution

Known only from Madagascar.

Oxypristis conspicuus n. sp.

(Fig. 59a, e)

Type material

Holotype ♂: MADAGASCAR: 1939 [without data] *(SICARD)* (MNHN).

Paratypes: 1 ♀, MADAGASCAR: Antsiranana Prov., Ankarana, Ambondromifehy (at light), 2-6.XII.1996 *(I. JENIS)* (NMPC) (ex collection Z. Jindra).

Derivatio nominis

From the Latin, *conspicuus*, meaning distinguished, outstanding, refering to the remarkable shape of pronotum.

Description

Male holotype

Measurements. Head: length 2.35 mm; width across eyes 2.85 mm; length antennal segments: I, 9.50 mm, II, 7.45 mm, III, 6.10 mm, IV, 8.40 mm. Pronotum: length 8.90 mm, width across humeral angles including the humeral spine 22.50 mm. Scutellum: length 4.32 mm, width 5.08 mm. Abdomen: maximum width 20.14 mm. Body length 37.80 mm.

Color. Overall color reddish brown, with following areas black: anterolateral (including the spines), posterolateral, and posterior margin of pronotum, claval veins, costal border of corium, upper margin of connexivum, scutellum, apex of rostral segment IV, posterior margin of trochanters, inner and outer margin of tibiae, upper margin of metapleura, small discoidal spots at connexivum, and abdominal sterna, and narrow longitudinal stripe at middle third of abdominal sterna; antennal segments I and II reddish brown, III with basal half reddish brown, and distally black, and IV shiny orange; corial veins darker; hemelytral membrane dark brownish hazel; anterior and posterior lobes of metathoracic peritreme, and adjacent areas pale yellowish white.

Structure. Distal third of antennal segment III wide (Fig. 59a); humeral angles remarkably produced, triangular, directed outward, conspicuously upward, apically acute, and slightly turned backward (Fig. 59e).

Female paratype

Measurements. Head: length 2.40 mm; width across eyes 3.10 mm; length antennal segments: I, 8.50 mm, II, 6.40 mm, III, 5.60 mm, IV, 7.50 mm. Pronotum: length 9.00 mm, width across humeral angles including the humeral spine 22.30 mm. Scutellum: length 4.10 mm, width 5.08 mm. Abdomen: maximum width 20.22 mm. Body length 37.80 mm.

Habitus and color similar to male holotype. Connexival segments shiny reddish orange, with upper margin black; dorsal abdominal segments shiny orange; genital plates shiny orange with outer margin of paratergites VIII and IX black.

Comments

This new species is very similar in general habitus and body size (larger species over 30 mm) to *O. leroyi* Signoret, but it is separable from the latter in having the humeral angles strongly produced, and conspicuously directed upward (Fig. 59e), the distal third of antennal segment III wider (Fig. 59a), and antennal segment I and II reddish brown. In *O. leroyi* the humeral angles are conspicuously produced but shorter (Fig. 59f), the distal third of antennal segment III is relatively narrowed (Fig. 59b), and antennal segments I and II are yellowish orange.

Distribution

This species is known only from Madagascar.

Oxypristis leroyi Signoret, 1860

(Figs 59b, f; 60a, b, g, h)

Oxypristis leroyi Signoret, 1860: 937.

Type material

♂: MADAGASCAR: no locality given. Not examined.

Redescription

Male

Measurements. Head: length 2.20 mm; width across eyes 2.80 mm; length antennal segments: I, 8.80 mm, II, 6.70 mm, III, 5.50 mm, IV, 7.40 mm. Pronotum: length 9.15 mm, width across humeral angles including the humeral spine 20.70 mm. Scutellum: length 4.00 mm, width 4.70 mm. Abdomen: maximum width 20.10 mm. Body length 33.00 mm.

Color. Overall color reddish brown; head yellowish orange; antennal segments I, II, and IV yellowish orange, and III with basal half yellowish orange, and distal half (including the dilated portion) pale brown; hemelytral membrane dark yellowish brown; connexivum reddish brown with upper border darker, and tinged with small black discoidal spots; dorsal abdominal segments dark reddish brown suffused with shiny orange marks; rostral segments reddish brown (apex of IV black); legs reddish brown; tarsi dark yellowish orange; anterior and posterior lobes of metathoracic peritreme pale yellowish orange

(anterior lobe with dark brown mark); abdominal sterna III to VII laterally with small black discoidal spots.

Structure. Distal third of antennal segment III dilated, obovate in outline, its greatest width 1.5 mm (Fig. 59b); humeral angles conspicuously produced, triangular, narrowed, directed outward, scarcely upward, apically acute and slightly turned backward (Fig. 59f).

Genitalia. Paramere: Fig. 60a, b.

Female

Measurements. Head: length 2.25 mm; width across eyes 2.70 mm; length antennal segments: I, 7.90 mm, II, 6.10 mm, III, 5.40 mm, IV, 7.14 mm. Pronotum: length 8.40 mm, width across humeral angles including the humeral spine 19.80 mm. Scutellum: length 4.10 mm, width 5.00 mm. Abdomen: maximum width 19.20 mm. Body length 34.00 mm.

Habitus and color similar to male. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates reddish brown.

Variation

1 - Antennal segments I, II, and IV pale yellow. 2 - Basal half of antennal segment III pale yellow and distal half brown. 3 - Dorsal abdominal segments shiny orange.

Comments

Oxypristis leroyi, the type species of the genus, is easily recognized by having the humeral angles conspicuously expanded, triangular, and apically acute (Fig. 59f), and the head and antennal segments I, II, and IV pale yellowish orange. Specimens of large size, over 32 mm.

Distribution

This species described from Madagascar is endemic to that region. MADAGASCAR: Nossibé, and Vohémar (BLÖTE 1938; BRANCSIK 1893; SIGNORET 1860; STÅL 1865).

Specimens examined. MADAGASCAR: 1 ♀, Baie d'Antongil [without date] (*A. MOCQUERYS*) (MNHN); 1 ♂, Antalaha, Maroantsetra, II.1945 (*M. ABADIE*) (UNAM); 1 ♀, Ambodivoangy, R. Maroantsetra, X.1951 (*J. VADON*) (MNHN); 1 ♂, Diego Suárez [without date] (MNCN); 3 ♂♂, 1 ♀, without data (BMNH, MNHN, UNAM).

Oxypristis modestus Blöte, 1938

(Figs 59d, h; 60e, f; 61)

Oxypristis modestus Blöte, 1938: 285.

Type material

Holotype ♀: MADAGASCAR: Tamatave [without data] (*E. LE MOULT*) (RMNH).

Redescription

Male

Measurements. Head: length 1.50 mm; width across eyes 2.10 mm; length antennal segments: I, 5.30 mm, II, 4.40 mm, III, 3.70 mm, IV, 5.00 mm. Pronotum: length 5.50 mm, width across humeral angles including the humeral spine 11.60 mm.

Scutellum: length 2.90 mm, width 3.45 mm. Abdomen: maximum width 13.50 mm. Body length 25.00 mm.

Color. Overall color reddish brown; antennal segments I and II with inner face dark orange, III with basal half reddish brown with inner face dark orange, and distal half including the dilation dark brown, and IV shiny orange; hemelytral membrane dark yellowish brown; connexivum reddish brown with small black discoidal spots; dorsal abdominal segments shiny orange with brown irregular marks; rostral segments reddish brown (apex of IV black); legs reddish brown; apical third of tibiae black; anterior and posterior lobes of metathoracic peritreme pale yellowish white to pale yellowish orange; abdominal sterna III to VII laterally with small black discoidal spots, and on middle third with narrow and diffuse black longitudinal stripe.

Structure. Distal third of antennal segment III narrower, obovate in outline, and its greatest width 1.0 mm on males, and 1.2 mm on females (Fig. 59d); humeral angles medially produced, quadrate, braad, directed outward, apically straight, and subacute (Fig. 59h).

Genitalia. Paramere: Fig. 60e, f.

Female

Measurements. Head: length 1.83 mm; width across eyes 2.50 mm; length antennal segments: I, 5.60 mm, II, 4.40 mm, III, 3.80 mm, IV, 5.30 mm. Pronotum: length 6.20 mm, width across humeral angles including the humeral spine 13.20 mm. Scutellum: length 3.00 mm, width 3.50 mm. Abdomen: maximum width 13.70 mm. Body length 27.00 mm.

Habitus and color similar to male.

Variation

1 - Antennal segments I to III shiny orange. 2 - Head, pronotum, and scutellum shiny orange. 3 - Clavus and corium reddish brown with shiny yellowish-hazel marks. 4 - Upper margin of connexivum reddish brown to black. 5 - Legs shiny orange. 6 - Anterior margin of metapleura black to dark brown. 7 - Humeral angles shorter and more rounded.

Comments

Related to *O. leroyi* and both species described from Madagascar. *Oxypristis modestus* is an smaller species 25.00 to 27.00 mm, with the humeral angles medially produced and quadrate (Fig. 59h), the head reddish brown, antennal segments I and II reddish brown with inner face dark orange, and the total length of antennal segment IV less than 6 mm in both sexes. *Oxypristis leroyi* is a larger species, longer than 32.00 mm, the humeral angles more strongly expanded and triangular (Fig. 59f), the head, and antennal segments I and II pale yellowish orange, and the total length of antennal segment IV over 7 mm.

Distribution

Endemic to Madagascar (Blöte 1938). Madagascar: Tamatave.

Specimens examined. New records. Madagascar: 2 ♀♀, Ampijoroa, Tsaramandroso [without date] (MNHN, UNAM); 1 ♂, 1 ♀, Majunga, 1899 *(G. Grandidier)* (MNHN); 1 ♂, 1 ♀, Sakaraha, Lambomakandro, and Zombitsy [without date] *(P. Griveaud)* (MNHN); 2 ♂♂, 2 ♀♀, Hera, Ankazoabo [without date] (MNHN, UNAM); 1 ♂, Tulear Prov., Zombitse Nature Reserve, 16 km E Sakaraha, 22°88'23''S-44°70'06''E, 825 m, 16.XII.1999 *(M. E. Irwin et E. Schlinger)* (CASC).

Tribe Phyllomorhini Stål, 1873

Head. Comparatively long; anterior portion porrect, surpassing the antenniferous tubercles; antennal segments and legs slender and partially spinose; tylus not protracted; antenniferous tubercles not prominent; rostrum slender, reaching or extending beyond mesosternum.

Thorax

Lateral margin of pronotum and connexival segments foliated to lobated, with long, narrow, acute spines; mesosternum sulcated; apical angle of corium conspicuously elongate, and narrowly produced.

Genus *Craspedum* Rambur, 1839

Craspedum Rambur, 1839: 138-139.

Redescription

Body foliate.

Head

Longer than wide, almost parallel-sided, convex above, specially in middle, distinctly produced in front of antenniferous tubercles, and shorter than total length of pronotum; dorsally with dense and long spines, with spines elongate, acute, and directed upward and forward or backward; ventrally unarmed, except by one elongate, acute spine between buccula and base of antennal segment I; antenniferous tubercles widely separated, with outer border armed with single acute spine, clearly reaching the base of antennal segment I; antennae shorter than total body length; antennal segment I moderately thickened, strongly longly spinose, the long spines curved; antennal segments II and III slender, cylindrical, unarmed, and IV fusiform, unarmed; antennal segment III the longest, IV the shortest, and II shorter than I; preocellar pit deep; ocelli slightly raised, close to eyes; buccula rectangular, raised, short, upper border crenulated, anterior angle free, projecting beyond antenniferous tubercles, and posterior third opened; rostrum reaching posterior margin of metasternum.

Thorax

Pronotum wider than long, widely and irregularly expanded on each side, its margins with long spines, the anterior angles produced forward beyond the anterior margin of eyes, the lateral margins sinuous, and the posterior angles truncately rounded; anterior border slightly concave, smooth; posterior border almost straight, spinose; collar present; calli weakly raised, spinose, with deep submedial longitudinal furrow; pronotal disk armed with large and acute spines, and well demarcated, and reticulated veins-like lines.

Prosternum feebly excavated; mesosternum deeply sulcate; metasternum straight; propleura, mesopleura, and metapleura unarmed; metathoracic peritreme raised, small, not bilobed; scent gland opening wide; evaporative area moderately developed.

Legs. Coxae armed with one or two large acute spines; trochanters armed with two or three large to medium-sized acute spines; femora strongly spinose, the long spines curved; tibiae non sulcate, unarmed, except for one large and acute spine near the basal

joint; tarsi unarmed; distance between procoxae and mesocoxae less than two times the diameter of procoxae; distance between mesocoxae and metacoxae less than one time the diameter of mesocoxae; distance between procoxae, mesocoxae, and metacoxae less than one time the diameter of each coxae.

Scutellum. Wider than long, subtriangular, apically rounded; scutellar disk armed with six large, acute spines; apical margin weakly excavated.

Hemelytra. Macropterous, reaching the apex of last abdominal segment; clavus and corium unarmed; costal margin emarginated.

Abdomen

Laterally expanded, forming four prominent lobes, their margins with long spines, and surface with reticulate veins-like lines; basal lobe the shortest, sublobate on three rounded expansions; second and third lobes prominent, wing-shaped, and distal lobe subquadrate, ampliated, and posteriorly truncate; abdominal sterna unarmed, except the middle third of abdominal sterna III to VI which have a double row of large, acute spines; abdominal spiracle circular, small, closer to anterior border, and remote from upper border of connexivum; abdominal spiracle II not visible; abdominal sternite III uniformly developed, and IV to VII folded at midline.

Male *genitalia*. Genital capsule: Simple; posteroventral edge with small, shallow "V"-shaped concavity; lateral angles obliquely straight. Paramere: Fig. 63b, c.

Female *genitalia*. Abdominal sternite VII folded, opened at midline; gonocoxae I rectangular, enlarged antero-posteriorly, folded at midline; paratergite VIII not visible; paratergite IX subquadrate, folded at midline.

Comments

Pephricus Amyot et Audinet-Serville, 1843 is distinguished from *Craspedum* Rambur by having the apical lobes of the abdomen narrowed, and clearly wide open, in *Craspedum* they are subquadrate, ampliated, and close together. *Craspedum* includes seven species, only one of which, *C. madagascariense* is recorded for Madagascar.

Type species

Syromastes phyllomorphum Latreille, 1829.

Craspedum madagascariense (Coquerel, 1848)

(Fig. 63a-c)

Phyllomorpha madagascariensis Coquerel, 1848: 185.

Craspedum madagascariense (Coquerel): Stål 1873: 81.

Type material

Type (sex not mentioned): North West of Madagascar: Baie de Passandava (île de Mamoukou). Not examined.

Redescription

Male

Measurements. Head: length 1.30 mm; width across eyes 1.06 mm; interocular distance 0.55 mm; length antennal segments: I, 1.69 mm, II, 1.58 mm, III, 2.21 mm, IV,

0.97 mm. Pronotum: length 1.50 mm, maximum width including the pronotal lobes 4.10 mm. Scutellum: length 0.43 mm, width 0.60 mm. Body length 9.12 mm.

Dorsal color. Head yellowish white with median creamy-white longitudinal stripe, and with scattered pale brown marks; antennal segment I yellowish white with two or three incomplete pale brown longitudinal stripes; antennal segments II to IV castaneus; pronotal disk yellowish white with dark to pale brown marks at calli and at posterior half; anterior half of pronotal disk with cremy white longitudinal stripe; scutellum, clavus, and corium yellowish white, with paler reticulations and dark brown marks scattered through; hemelytral membrane translucent; abdomen yellowish white, with scattered pale to dark brown discoidal spots; posterior margin of dorsal abdominal segment V with narrow dark brown transverse fascia; abdominal lobes suffused with pale to dark brown reticulat.

Ventral color. Head yellowish white with creamy-white, longitudinal stripe and pale brown spots; rostral segments yellowish castaneus; thorax yellowish white; mesopleura and metapleura with single, black irregular spot; coxae, trochanters, tibiae, and tarsi yellowish white, and femora yellowish white with two or three incomplete pale brown longitudinal stripes; abdominal sterna yellowish white, strongly suffused with pale to dark brown spots.

Female

Measurements. Head: length 1.30 mm; width across eyes 1.17 mm; interocular distance 0. 56 mm; length antennal segments: I, 1.58 mm, II, 1.40 mm, III, 1.98 mm, IV, 0.84 mm. Pronotum: length 1.58 mm, maximum width including the pronotal lobes 3.52 mm. Scutellum: length 0.46 mm, width 0.70 mm. Body length 9.08. mm.

Habitus and color similar to male.

Genital plates yellowish white, strongly suffused with pale to dark brown spots.

Variation

1 - Head dorsally with anterior half yellowish white, and posterior half black. 2 - Head ventrally yellowish white with two broad dark brown longitudinal stripes. 3 - Thorax and abdominal sterna yellowish white, strongly suffused with dark brown areas, and several compacted discoidal spots.

Comments

In color and habitus this species is allied to *C. phyllomorpha* recorded from Namibia, Senegal, South Africa and Zambia. *Craspedum madagascariense*, endemic to Madagascar, differs in having the apices of antennal segments II and III unarmed, the head ventrally unarmed, except for one large acute spine located between the buccula and the base of antennal segment I, the thorax unarmed, the abdominal sterna unarmed except by the double rows of large and acute spines on middle third of abdominal sternites III to VI, and the posteroventral edge of the male genital capsule with small V-shaped concavity.

In *C. phyllomorpha* the apices of antennal segments II and III have a crown of short spines, the head ventrally, as well as the thorax, abdominal sterna, male genital capsule, and female genital plates densely spinose, and the posteroventral edge of male genital capsule entire.

Distribution

Endemic to Madagascar. MADAGASCAR: without formal records (COQUEREL 1848; SIGNORET 1860; STÅL 1865).

Specimens examined. MADAGASCAR: 1 ♀, Nossi-Bé, 5.VII.1900 *(CH. ALLUAUD)* (MNHN); 1 ♀, Maevatanana, 1900 *(CH. ALLUAUD)* (MNHN); 1 ♀, Région du Nord-Ouest, Majunga, 3-4.VII.1901 *(CH. ALLUAUD)* (MNHN); 16 ♂♂, 16 ♀♀, Ambodimanga, Majunga [without date] (MNHN); 16 ♂♂, 14 ♀♀, Ampijoroa, Tsaramandroso [without date] (MNHN, UNAM); 1 ♀, Morondava, Forêt Sud de Befasy, I.1956 *(R. P.)* (MNHN); 1 ♂, 1 ♀, Miandrivago, VI.1943 *(J. HERRMANN)* (MNHN); 2 ♂♂, 1 ♀, Diego Suárez, 5.XII.1898 *(MARTIN)* (MNHN); 3 ♂♂, 3 ♀♀, Région du Sud-Est, Vallée du Fanjahira, Isaka, XII.1901 *(CH. ALLUAUD)* (MNHN); 2 ♂♂, 5 ♀♀, Fort Dauphin, 1903 *(COL. BLOUDLAT)*, 15.X.1900 *(J. DECORSE)* (MNHN); 2 ♂♂, Sakaraha, Lambomakandroso [without date] *(F. GRIVEAUD)* (MNHN); 1 ♂, Ambanja (NMPC); 1 ♂, Ambodivoniho, env. de Vohémar [without date] (NMPC); 2 ♂♂, Ampanefena [without date] (NMPC); 1 ♂, 5 ♀♀, Vohémar [without date] (NMPC); 1 ♂, 2 ♀♀, Rogez [without date] (NMPC); 1 ♀, Tamatave District, Andarive Env., 17-30.XII.2001 *(J. HORAK)* (NMPC); 2 ♂♂, 4 ♀♀, Tananarive, Tsimbazaza, 28.IX.1932 (ZMAS); 3 ♀♀, 2.5 km NE von Anara, SW von Larintsena, 975 m, NN Buschtal, 21°51'03"S-46°50'34"E, 6.XI.2003 *(U. GÖLLNER)* (ZMHB); 1 ♀, Ifaty, *c.* 25 km N von Toliara, NN Saline Sek, Trockenwald, 7 m, 23°08'31"S-43°36'57"E, 11.XI.2003 *(U. GÖLLNER)* (ZMHB); 3 ♂♂, 2 ♀♀, Tananarive [without date] (ZSMC).

SUBFAMILY PSEUDOPHLOEINAE STÅL, 1867

The Pseudophloeinae can be distinguished by having the tibiae cylindrical without dorsal sulcus; lack of median dorsal impression on the head; the prominent and gently declivent tylus and juga; the prominent posterior angles of the abdominal segment VII on both sexes; paratergite VIII without functional spiracle; and by the structure of the scent gland auricle, in which the peritreme has a dorsal ridge entire or gently bilobed, nat Y-shaped. The subfamily includes 28 genera and aproximatly 166 species distributed in all geographical areas except non-tropical Australia (DOLLING 1978, 1986; SCHUH & SLATER 1995).

DOLLING (1978, 1979, 1986) revised the tribes Clavigrallini and Pseudophloeini, and described or redescribed all the species, including the measurements, color pattern, general morphology, and genitalic structures af both sexes. In this treatment concerning the Malagasy coreids, I have not found any reason to modify Dolling's taxonomic work. Therefore I will briefly comment on the diagnostic features of each species, and their Malagasy distribution.

Clé des tribus malgaches de Pseudophloeinae

1. Base du fémur postérieur sans petit tubercule près du trochanter ; disque scutellaire convexe ; pygophore non bi-émarginé postérieurement ..... **Clavigrallini**

– Base du fémur postérieur avec un petit tubercule près du trochanter ; disque scutellaire plat ou presque plat ; pygophore bi-émarginé postérieurement..... ..... **Pseudophloeini**

Key to Malagasy tribes of Pseudophloeinae

1. Base of hind femora without small tubercle near trochanter; scutellar disk convex; male genital capsule not biemarginate posteriorly..... **Clavigrallini**

– Base of hind femora with small tubercle near trochanter; scutellar disk flat or almost flat; male genital capsule biemarginate posteriorly..... **Pseudophloeini**

TRIBE CLAVIGRALLINI STÅL, 1873

Scutellum convex; hind femora without tubercle at the base on its posterior face and close to the apex of trochanter; antennal segment II equalling or exceeding the length of III; posterior border of male genital capsule not emarginate posteriorly.

Small to medium sized (length usually less than 11 mm), generally spiny outline, and the characteristically spined, clavate hind femora; hind femora without tubercle at the base on its posterior face and close to the apex of the trochanter.

Head

Short to moderately elongate; antennae inserted at sides of head just above an imaginary line joining centre of eye to apex of tylus; antennal segments I to III elongate and IV usually fusiform; midline of frons with a pair of deep, narrow, parallel, longitudinal pits; ocelli raised on prominent tubercles; preocellar pit usually small and indistinct; buccula short, almost semicircular, rarely angular; rostrum moderately long, reaching to but not beyond metasternum; rostral segment III always the shortest.

Thorax

Pronotum usually hexagonal, width of anterior margin approximately half the width of posterior margin; posterolateral angles slightly to strongly prominent; posterior margin almost straight or slightly concave in front of scutellum. Mesosternum and metasternum shallowly, longitudinally sulcate throughout; metathoracic peritreme orifice situated laterally and surrounded by a small evaporative area. All femora clavate, especially the hind pair, which lack a basal tubercle; fore and middle femora with one or more small spines on ventral surface near apex; hind femora with a row of spines on ventral surface, typically with two major spines with some smaller spines, and usually with tubercles or granules between them. Scutellum with disk convex, often strongly so, with midline depressed and flanked by a row of granules. Hemelytron narrow, apex of corium distinctly produced along costal margin (DOLLING 1986).

The tribe Clavigrallini, distributed on the Old World, includes four genera and 63 species, the majority of the species restricted to the Ethiopian Region and adjacent islands, and few are present in the Oriental Region from Pakistan and Sri-Lanka to China and Java.

Previously, only two genera and eight species were known from Malagasy. In this contribution, one genus and two species are added, raising the total number to three genera and 10 species.

Clé des genres malgaches de Clavigrallini

1. Présence d'une épine dressée de chaque côté de la tête, au-dessus de la base du l'antennifère ; pronotum sans grande épine ni tubercule sur le disque ou près des marges latérales ..... ***Oncaspidia*** Stål

– Absence d'épine de chaque côté de la tête, au-dessus de la base de l'antennifère ; pronotum avec une paire de grands tubercules sublatéraux derrière les calli, ou avec des tubercules en demi-cercle sur le disque ..... ***Clavigralla*** Spinola

Key to Malagasy genera of Clavigrallini

1. Side of head bearing an erect spine above base of antennifer; pronotum without large spines or tubercles on disk or near lateral margins..... ***Oncaspidia*** Stål

– Side of head without spine above base of antennifer; pronotum with a pair of large tubercles sublaterally behind calli or a semicircle of tubercles on disc..... ..... ***Clavigralla*** Spinola

Genus *Clavigralla* Spinola, 1837

Clavigralla Spinola, 1837: 200.

Redescription

Body small to medium sized, oblong, and robust (rarely somewhat depressed); connexivum broadest in middle; aspect slightly or strongly spinose.

Head

Side of head without spine in front of eye; head between one half and three-quarters as long as pronotum; antenniferous tubercles weakly to strongly divergent; process at outer apical angle of antennifer short and porrect, or broad and strongly deflexed with its apex in contact with maxillary plate; antennal segment I or IV the longest, II or III the shortest; bucculae occupying about one-third of length of ventral midline of head; rostrum reaching metasternum.

Thorax

Pronotum strongly to very strongly declivent anteriorly; posterolateral angles weakly to very strongly produced, each bearing apically a slender spine; pronotal disk frequently with tubercles and spines, never with a group of four stout, blunt tubercles in middle, usually with a stout, blunt tubercle or spine close to lateral margin about half way between posterolateral and anterolateral angles, and often with a more or less regular, anteriorly concave semicircle of spines or tubercles posterior to this pair; posterior margin in front of scutellum straight; triangular process marked by a short spine; pubescence variable throught the species.

Mesosternum and metasternum broadly sulcate in midline; metathoracic peritreme with dorsal ridge entire and shortly reniform or bilobed.

Legs. Fore and middle femora without or with one or two small subapical spines on ventral side; hind femora with two or three major subapical spines beneath, some small tubercles or spines or granules between them and a terminal series of four spines.

Scutellum. Equilateral or slightly longer than its basal width; disk flat to strongly convex; midline impressed in convex forms.

Hemelytra. Macropterous; corium with apex scarcely to distinctly produced, reaching posteriorly to laterotergite V or VI at rest.

Abdomen

Posterolateral angles of sternites III to VII usually prominent, often strongly and spinously produced or weakly prominent.

Male *genitalia*. Genital capsule with lip narrow or broad, filling or not the posterior emargination of the capsule; tongue entire or apically bifid or trifid.

Female *genitalia*. Tergum IX usually in horizontal plane, rarely apically deflexed; spermatheca with bulb narrowly lunate; duct looped to strongly convoluted (Dolling 1979).

Comments

This genus is related to *Clavigralloides* by having the side of head without spine above base of antennifer, and with large tubercles on the pronotal disk or sublaterally; if without pronotal tubercles, then the pubescene of anterior two-thirds of pronotum strikingly different in colour and texture from that of posterior third. In *Clavigralloides*, the pronotal disk has a group of four large tubercles and its distribution includes the Oriental Region eastward to New Guinea and northern tropical Australia. In *Clavigralla*, the pronotal disk has a pair of large tubercles sublaterally behind level of calli or a semicircle of tubercles on disk, but never with a group of four large tubercles. *Clavigralla* is recorded from Africa, with few species in the Oriental Region eastward to China and Java.

Clavigralla is represented by 63 species, and previously, only seven were known from Madagascar. In this contribution one species recorded from the African Continent is added to Malagasy.

Type species

Clavigralla gibbosa Spinola, 1837.

Clé des espèces malgaches de Clavigralla

1. Tubercule antennifère avec un processus apical externe court, rectiligne vers l'avant (**groupe *tuberculicollis***) ..... ***tuberculicollis*** (Reuter)

– Tubercule antennifère avec un processus apical externe recourbé vers le bas..... **2**

2. Pubescence de la partie antérieure déclive du pronotum presque semblable en couleur et texture à celle de la partie postérieure ; épine humérale du pronotum fortement développée (**groupe *elongata***) **3**

– Pubescence de la partie antérieure déclive du pronotum différant sensiblement en couleur et texture de celle de la partie postérieure ; épine humérale du pronotum en général moins développée (**groupe *tomentosicollis***) **6**

3. Épines des angles postérieurs des sternites abdominaux longues, presque perpendiculaires aux marges latérales de l'abdomen ; scutellum dépourvu de pubescence longue et dressée ; disque du scutellum légèrement à modérément convexe **4**

– Épines des angles postérieurs des sternites abdominaux plus courtes, en général distinctement dirigées vers l'arrière ; scutellum avec au moins quelques longues soies dressées ; disque du scutellum fortement convexe **5**

4. Longueur de l'article antennaire I inférieure à 1,4 fois la largeur de la tête, yeux compris ; épines humérales et abdominales robustes ..... ***asterix*** Dolling

– Longueur de l'article antennaire I supérieure à 1,4 fois la largeur de la tête, yeux compris ; épines humérales et abdominales plus effilées ..... ***madagascariensis*** Dolling

5. Scutellum modérément convexe et fortement tuberculé ..... ***ankatsoensis*** Dolling

– Scutellum fortement convexe et faiblement tuberculé ..... ***elongata*** Signoret

6. Membrane de l'hémélytre uniformément envahie de coloration brune, sauf la cellule basale non colorée ; pygophore avec une languette apicalement trifide ; pubescence sur le pronotum en arrière des épines humérales : une bande sombre presque entièrement divisée médio-longitudinalement par une étroite bande pâle en « V » (**sous-groupe *tomentosicollis***) ..... ***annulipes*** Signoret

– Membrane de l'hémélytre en grande partie non colorée ou très faiblement d'un blanc laiteux, avec une à cinq taches brunes ou noires entre les nervures longitudinales lorsqu'elles émergent des cellules basales ; languette du pygophore jamais trifide 7

7. Pygophore avec une étroite languette triangulaire non bifide ; épine humérale du pronotum moins proéminente (***spiniscutis*-subgroup**) ..... ***pusilla*** Dolling

– Pygophore avec une languette apicalement bifide, chaque lobe en lamelle recourbée à l'apex latéralement ; épine humérale du pronotum fortement proéminente (**sous-groupe *wittei***) ..... ***wittei*** (Schouteden)

Key to Malagasy species of Clavigralla

1. Antennifer tubercle with outer apical process short, porrect (***tuberculicollis*-group**)..... ***tuberculicollis*** (Reuter)

– Antennifer tubercle with outer apical process long, deflexed..... **2**

2. Pubescence of anterior declivent part of pronotum of almost uniform color and texture with that of posterior part; posterolateral angles of pronotum strongly produced (***elongata*-group**).....**3**

– Pubescence of anterior declivent part of pronotum differing markedly in color and texture from that of posterior part; posterolateral angles of pronotum usually slightly prominent (***tomentosicollis*-group**) **6**

3. Spines of posterolateral angles of abdominal sternites long, almost perpendicular to lateral margins of abdomen; scutellum without long erect pubescence; scutellar disk moderately to slightly convex **4**

– Spines of posterolateral angles of abdominal sternites shorter, usually distinctly deflected posteriad; scutellum with at least some long, erect pubescence; scutellar disk strongly convex **5**

4. Antennal segment I shorter than 1.4 times width of head including eyes; produced posterolateral angles of pronotum and of abdominal sternites stouter..... ..... ***asterix*** Dolling

– Antennal segment I longer than 1.4 times width of head including eyes; produced posterolateral angles of pronotum and of abdominal sternites more slender..... ..... ***madagascariensis*** Dolling

5. Scutellum moderately convex and strongly tuberculate ..... ***ankatsoensis*** Dolling

– Scutellum strongly convex with less prominent tuberculation..... ***elongata*** Signoret

6. Disk of hemelytral membrane evenly suffused with brown coloration, except for colourless basal cells; male genital capsule with tongue apically trifid; band of dark pubescence on pronotum posterior to posterolateral angles almost completely divided into two by a narrow "V-shaped", median longitudinal band of pale pubescence (***tomentosicollis*-subgroup**) ..... ***annulipes*** Signoret

– Disk of hemelytral membrane largely colourless or very faintly milky white, with one to five brown or piceous spots between bases of longitudinal veins where these emerge from basal cells; tongue of male genital capsule never trifid..... **7**

7. Male genital capsule with tongue narrowly triangular, apically entire; posterolateral angles of the pronotum less prominent (***spiniscutis*-subgroup**) ..... ***pusilla*** Dolling

– Male genital capsule with tongue apically bifid, each lobe laminar, and externally and apically deflexed; posterolateral angles of the pronotum strongly prominent (***wittei*-subgroup**) ..... ***wittei*** (Schouteden)

Clavigralla ankatsoensis Dolling, 1979

Clavigralla ankatsoensis Dolling, 1979: 31.

Type material

Holotype ♀: MADAGASCAR: Ankatso, II.1921 (*R. DECARY*) (MNHN).

Paratype: MADAGASCAR: 1 ♀, Ankatso, II.1921 (*R. DECARY*) (MNHN).

Redescription

Female

Measurements: see DOLLING (1979).

Color. Overall color reddish brown; hemelytral membrane whitish with yellowish-brown veins.

Structure. Elongate-oblong, aspect spinose.

Head about as long as wide; antenniferous tubercles moderately divergent, with apical process long, deflexed.

Thorax. Pronotum strongly declivent; disk typically with an often irregular semicircle of about six large and stout spine-like tubercles, the anterior pair close to mid point; posterolateral angles strongly produced, elevated, and directed slightly forward, each ending in a slender, very gently and acute spine; pubescence of pronotal disk almost uniform; dorsal ridge of metathoracic peritreme entire, reniform. Legs. Fore and middle femora each with a single, moderate sized subapical spine ventrally; hind femora with three major spines, three or four minor spines between them, and an apical series of four spines; hind tibiae almost straight. Scutellum. Moderately convex, with two lateral rows of prominent tubercles; disk with at least some long, erect pubescence. Hemelytra. Corium with apex narrowly produced, at rest reaching anterior or middle third of connexival segment VI.

Abdomen. Posterolateral angles of abdominal sternites III to VII produced into spines which stand almost perpendicular to lateral margin of abdomen, and usually deflected posteriad.

Male

Unknown.

Comments

Belonging to the *elongata*-group and related to *C. asterix* and *C. madagascariensis* by having the scutellum convex, elevated above level of posterior margin of pronotum when viewed in profile; the pubescence of anterior, declivent part of pronotum of almost uniform color and texture with that of posterior horizontal part; and posterolateral angles of pronotum strongly produced, passing gradually into posterolateral spines. In *C. ankatsoensis*, the spines at posterolateral angles of abdominal sternites are shorter, usually distinctly deflected posteriad, and the scutellar disk has at least some long, erect pubescence. In the other two species, the spines at the posterolateral angles of abdominal sternites are long, almost perpendicular to lateral margins of abdomen, and the scutellar disk without long, erect pubescence.

In *C. elongata*, the scutellum is strongly convex with two rows of weak tubercles lateral to midline and pubescence of the scutellar disk conspicuously dense. In *C. ankatsoensis*, the scutellum is moderately convex, with two lateral rows of prominent tubercles, and the scutellar disk with some long erect pubescence.

Distribution

This species is known only from Madagascar. The only known record is from the original description.

Clavigralla annulipes Signoret, 1860

(Fig. 64)

Clavigralla annulipes Signoret, 1860: 943-944.

Redescription

Male

Measurements: see DOLLING (1979).

Color and pilosity. Antennal segment I entirely brown; area of brown pubescence of posterior lobe of pronotum almost completely divided into two triangular areas by a band of pale, silvery hairs extending posteriorly from declivent area along raised midline of posterior lobe and enclosing a tuft of erect, brown hairs between the apices of the two lateral triangles; scutellar disk with erect, slightly tomentose, pale golden to silvery pubescence; tibiae without median brown ring, or ring present but faint; hemelytral membrane evenly suffused with brown except for colourless basal cells.

Structure. Body robust, oblong.

Head anteriorly declivent at an angle of about 45° to the vertical; antenniferous tubercles scarcely divergent, with apical process broad, deflexed.

Thorax. Pronotum strongly declivent, with a pair of short, blunt, sublateral tubercles; posterolateral angles not prominent, each bearing a short slightly posteriorly directed spine; pronotal disk with few, short, blunt, projecting tubercles; posterior lobe with a low transverse keel in middle, bisected by a more prominent longitudinal keel; pubescence of anterior part of pronotum differing markedly in color and texture from that of posterior

part; dorsal ridge of metathoracic peritreme entire. Legs. Fore and middle femora each with a single, moderate sized, subapical spine ventrally; hind femora with two major spines, four to five minor spines between them and an apical series of four to five spines; hind tibiae distinctly arcuate in basal third. Scutellum. Moderately convex, midline depressed, and apex slightly produced. Hemelytra. Corium with apex slightly produced, at rest reaching posteriorly to level between connexival segments V and VI.

Abdomen. Posterolateral angles of sterna III to VII with short, subacute, slightly prominent spine directed backwards.

Genital capsule. Lip filling posterior emargination; tongue trifid.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

Within the *tomentosicollis*-subgroup this species seems to be more closely allied to *C. curvipes*, and *C. simillima* by reason of the distinctly curved hind tibiae, the hemelytral membrane with disk evenly suffused with pale to median brown coloration, and patterns of pronotal pubescence. *Clavigralla annulipes*, endemic to Madagascar, differs by its large size (greater than 8.5 mm), and hind tibiae weakly arcuate at base. The other two species are only known from Continental Africa, the total body length is less than 8.5 mm, and the hind tibiae are strongly arcuate at base.

Distribution

This species is known only from Madagascar. MADAGASCAR: Région Sud de l'île, Bekily; Ampandrandava; Région du Sud, Andrahomana (DOLLING 1979).

Specimens examined. MADAGASCAR: 1 ♀, Tamatave, Ivolonia, 8-12.V.1932 (UNAM); 5 ♂♂, 6 ♀♀, Tananarive, III.1933 (ZMAS); 2 ♂♂, 1 ♀, Tananarive, Mahamasina, VII.1932 (ZMAS); 2 ♂♂, 2 ♀♀, Tananarive, Tsimbazaza [without date] (ZMAS).

Clavigralla asterix Dolling, 1979

(Fig. 65)

Clavigralla asterix Dolling, 1979: 33-34.

Type material

Holotype ♂: MADAGASCAR: Ambohimitombo, 1894 *(FORSYTH-MAJOR)* (BMNH).

Paratypes: 1 ♂, 1 ♀, MADAGASCAR: Ambohimitombo, 1894 *(FORSYTH-MAJOR)* (BMNH). New records. MADAGASCAR: 1 ♂, Forêt d'Ambohitatntely, 21-23.XII.1947 (UNAM).

Redescription

Male

Measurements: see DOLLING (1979).

Color. Overall color greyish yellow; hemelytral membrane whitish with veins yellowish golden.

Structure. Elongate-oblong, aspect spinose.

Head about as long as wide; antenniferous tubercles moderately divergent, with apical process long, deflexed.

Thorax. Pronotum strongly declivent; pronotal disk typically with an often irregular semicircle of about six large spine-like tubercles, the anterior pair situated close to mid-point of lateral margins; posterolateral angles produced into long, very broadly based, laterally directed spines; pubescence of pronotum almost uniform; dorsal ridge of metathoracic peritreme entire, reniform. Legs. Fore and middle femora each with a single, moderate sized, subapical spine ventrally; hind femora with two major spines, four to six minor spines between then, and an apical series of four spines; hind tibiae very weakly curved at base. Scutellum. Moderately convex, without outstanding spines or tubercles lateral to midline; disk without long erect pubescence. Hemelytra. Corium with apex at rest reaching basal half of connexival segment VI.

Abdomen. Posterolateral angles of sterna III to VII produced into long, broadly based spines, perpendicular to abdominal margin.

Genital capsule. Lip narrowly rounded; tongue acutely pointed, entire.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

Resembles *C. madagascariensis* in most of the features by which it differs from *C. elongata*; readily distinguished from all its relatives (*elongata*-group) by the stouter aspect of the posterolateral angles of pronotum and the abdominal sternites. In *C. madagascariensis* the posterolateral angles are more slender.

Distribution

Known only from Madagascar. MADAGASCAR: Ambohimitombo (DOLLING 1979).

Clavigralla elongata Signoret, 1860

(Fig. 66)

Clavigralla elongata Signoret, 1860: 944-945.

Redescription

Male

Measurements: see DOLLING (1979).

Color. Overall color greyish yellow to reddish brown; hemelytral membrane whitish with veins yellowish golden.

Structure. Elongate-oblong, spinose aspect.

Head

About as long as wide; antenniferous tubercles moderately divergent, with apical process long, deflexed.

Thorax

Pronotum strongly declivent; disk typically with an often irregular semicircle of about six large, spine-like tubercles, the anterior pair situated close to mid-point of lateral margins; posterolateral angles strongly produced, elevated, and directed slightly forward, each ending in a slender, very gently and acute spine; pubescence of pronotum almost uniform; dorsal ridge of metathoracic peritreme entire, reniform. Legs. Fore and middle femora each with a single, moderate sized, subapical spine ventrally; hind femora with two major spines, four minor spines between them, and an apical series of four spines; hind tibiae almost straight. Scutellum. Strongly convex, without outstanding spines or tubercles lateral to middle line; disk densely pubescent. Hemelytra. Corium with apex narrowly produced, at rest reaching middle or posterior third of connexival segment VI.

Abdomen

Posterolateral angles of abdominal sterna III to VII with slender spine directed obliquely posteriad. Genital capsule. Lip narrowly rounded; tongue acutely pointed, entire.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

Belongs to the *elongata*-group, and like *C. shadabi*, recorded from West and Central Africa, has the scutellum strongly convex, the tubercles weakly prominent, and tibiae without dark median ring. In *C. elongata* the semicircle of spines on pronotal disk has the first two pairs of similar size, and in *C. shadabi* the anterior pair is considerable more prominent than the pair behind them.

Distribution

Widespread throughout African Continent, Canary Islands, Cape Verde Islands, Mauritius, Principe, Réunion, Rodriguez, São Tomé, Seychelles, Yemen, and Madagascar. Absent from the mainland of West Africa (DOLLING 1979).

MADAGASCAR: Lac Alaotra, Centre Fermede Nanisana, Baie d'Antongil, Fénérive, Soaniérana, Diego Suárez, Andrahomana, Bekily, Amparafaravola (E of Lake Alaotra), Antanambé, and Plaines d'Ambolisatra (DOLLING 1979).

Specimens examined. MADAGASCAR: 1 ♂, Sambava, P. K. 42, route Voheman, II.1968 *(PEYRIERAS/VADON)* (MNHN); Marojejy, Res. Nat. Int. XII, Anjanaharibe N, 1750 m, II.1960 *(P. SOGA)* (UNAM); 1 ♀, Anjouan M'Remani, 800 m, IX.1958 *(RAHARIZONINA)* (UNAM); 3 ♂♂, 1 ♀, Tananarive, III.1933 (ZMAS); 1 ♂, Tananarive, Tsimbazaza, IV.1935 (ZMAS); 1 ♀, Tsinjoarivo, 40 km N Ambatolampy, 21.II.1932 (ZMAS); 1 ♂, Fort Dauphin, 1899 *(SIKORA)* (ZMAS); 1 ♀, Antananarivo, Manankazo Env., 20-22. XI.1996 *(I. JENIS)* (NMPC); 1 ♀, Rogez [without date] (NMPC). MADAGASCAR EAST: 1 ♀, District Mananara, N. Antanambe, VII *(VADON et PEYRIERAS)* (MNHN).

Clavigralla madagascariensis Dolling, 1979

(Fig. 67)

Clavigralla madagascariensis Dolling, 1979: 31-33.

Type material

Holotype ♂: MADAGASCAR: Antalaha, XII.1935 (*VADON*) (MNHN).

Redescription

Male

Measurements: see DOLLING (1979).

Color. Overall color greyish yellow; hemelytral membrane whitish with veins yellowish golden.

Structure. Elongate-oblong, aspect spinose.

Head

About as long as wide; antenniferous tubercles moderately divergent, with apical process long, deflexed.

Thorax

Pronotum strongly declivent; disk typically with an often irregular semicircle of about six large spine-like tubercles, the anterior pair situated close to mid-point of lateral margins; posterolateral angles strongly produced, elevated, and directed slightly forward, each ending in a slender, very gentle and acute spine; pubescence of pronotum almost uniform; dorsal ridge of metathoracic peritreme entire, reniform. Legs. Fore and middle femora each with a single, moderate sized subapical spine ventrally; hind femora with two major spines, four to six minor spines between them, and an apical series of four spines; hind tibiae almost straight. Scutellum. Moderately to slightly convex, without outstanding spines or tubercles lateral to midline, and depressed in midline; disk without long erect pubescence. Hemelytra. Corium with apex at rest reaching middle third of connexival segment VI.

Abdomen

Posterolateral angles of abdominal sterna III to VII drawn out into long spines, the spines almost perpendicular to abdominal margin, and rather slender. Genital capsule. Lip narrowly rounded; tongue acutely pointed, entire.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

Differs from *C. elongata* in having longer pronotal posterolateral spines, in the arrangement of spines on pronotal disk, in having the scutellum moderately convex without long erect pubescence, and in the spines at the connexival segments of the abdominal sterna which are almost perpendicular. In *C. elongata* the spines of the connexival segments are deflected posteriorly, and the scutellum is strongly convex, with long, erect pubescence.

Distribution

Known only from Madagascar. MADAGASCAR: Antalaha, Tananarive and Fampanambo (DOLLING 1979).

Specimens examined. New records. MADAGASCAR: 7 ♂♂, 4 ♀♀, Perinet, XI.1930,

I.1935, 22.II.1935, 4.III.1935, I.1932, II.1932, XII.1932 *(Robinson)* (UNAM, ZMAS); 1 ♂, Tsinjoarivo, 40 km N Ambatolampy, 21.II.1932 (ZMAS); 3 ♀♀, Ambontoaka, 450 m, 4-14. II.1934 (ZMAS); 2 ♀♀, Province Manjakatompo, Ambatolampy, 6.III.1932 (ZMAS); 2 ♀♀, Province Perinet, Analamasotra, XII.1930 (ZMAS); 1 ♀, Mandoka, 60 km WW Tananarive, 7.II.1932 (ZMAS); 1 ♀, Environs de Rogez [without date] (NMPC). Madagascar East: 2 ♂♂, District Mananara, N Seranambe, VII.1965 *(Peyrieras et Vadon)* (MNHN).

Clavigralla pusilla Dolling, 1979

(Figs 68; 69)

Clavigralla pusilla Dolling, 1979: 56-57.

Type material

Holotype ♂: Madagascar: Tulear Province, Betioky, 275m, 15.III.1968 *(K.M.G. et P.D.)* (BMNH).

Paratypes: Madagascar: 1 ♂, Région du Sud, Andrahomana, VII.1901 *(Ch. Alluaud)* (MNHN); 1 ♂, Région Sud de l'île, Bekily, VI.1936 *(A. Seyrig)* (MNHN); 1 ♀, Belumbe, 1900 *(Fairmaire)* (MNHN).

Redescription

Male

Measurements: see Dolling (1979).

Color. Ground color pinkish brown, suffused with yellowish marks. Head with black granules, laterally and ventrally almost entirely black and stramineous bucculae; antennae stramineous, suffused with pink; legs yellowish with black patches and reddish-brown marks; tibiae usually with basal and apical reddish-brown rings; clavus and corium yellowish, suffused with pinkish brown especially on veins and on apical one-third of corium; granules black; hemelytral membrane colourless except for a row of black spots between bases of longitudinal veins parallel to apical margin of corium, and black marks on two veins where they enter membrane from corium.

Structure. Small, and rather slender.

Head

With antenniferous tubercles almost parallel, with apical process deflexed.

Thorax

Pronotum strongly declivent; centre of posterior lobe with a short longitudinal ridge intersecting a similar transverse one; spines of posterolateral angles long, acute, laterally directed, straight or gently upcurved; posterolateral angles just anterior to base of each spine with a pair of short, stout spines; pair of sublateral spines of disk very prominent; pubescence of anterior part of pronotum differing markedly in color and texture from that of posterior part; dorsal ridge of metathoracic peritreme entire, reniform. Legs. Fore and middle femora each with a single, moderate sized, subapical spines ventrally; hind femora with two major spines, four minor spines between them, and an apical series of four spines; hind tibiae gently curved near base. Scutellum. Moderately convex, midline slightly depressed; apex slightly produced. Hemelytra. Corium narrow, its apex slightly produced, at rest reaching suture between connexival segments V and VI.

Abdomen

Abdominal sterna III to VII with posterolateral angles produced into strong and large spines.

Genital capsule: lip rounded, filling posterior emargination; tongue entire, narrowly triangular.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

Like *C. annulipes*, belongs to the *tomentosicollis*-group and differs in the smaller size, less than 7.00 mm, the body rather slender, the hind tibiae less strongly curved, the pigmentation of the hemelytral membrane, the tongue of male genital capsule entire, and by having at the posterolateral angles of pronotum just anterior to base of each spine a pair of short stout spines, which are absent in *C. annulipes*, a species larger than 9.00 mm, with the tongue of male genital capsule apically trifid.

Distribution

This species is known only from Madagascar. The only previously record came from the original description. MADAGASCAR: Tulear Province (Betioky); Région Sud de l'île Bekily; Région du Sud (Andrahomana, Ambovombé, and Androy, between Antanimora and Ifokata); Belumbe (DOLLING 1979).

MADAGASCAR: 4 ♂♂, 5 ♀♀, Tananarive, Tsimbazaza, 28.IX.1932, IV.1935 (UNAM, ZMAS); 1 ♂, Forêt de Lambomakandro, 29.IX.1934 (*U. C.*) (ZMAS); 1 ♀, Sakaraha Env., 30.I.1935 (*L. MISKO*) (NMPC); 2 ♂♂, 1 ♀, Province Mahajanga, Mahavauy River, 6.2 km, 145°SE Mitsinjo, 20 m, 16°03'06"S-04°54'30"E, 1-5.XII.2002 (*FISHER et GRISWOLD*) (CASC).

Clavigralla tuberculicollis (Reuter), 1887

(Fig. 70)

Acanthomia tuberculicollis Reuter, 1887: 90.

Clavigralla tuberculicollis (Reuter): DOLLING 1979: 12.

Type material

Holotype ♀: MADAGASCAR (destroyed) no locality given (after DOLLING 1979: 12).

Redescription

Male

Measurements: see DOLLING (1979).

Color. Overall color dark brown to black; antennae pale brown with yellowish rings hard to see; legs black with followings areas yellowish: basal and apical half of each femora, two broad rings on each tibiae, and tarsi; clavus and corium brown; apex of corium black with small cream spots, and apical margin of corium cream with black spots.

Structure. Robust, connexivum broad.

Head with antenniferous tubercles strongly declivent, with outer apical process short, porrect.

Thorax. Pronotum strongly declivent; disk tuberculate, sublateral pair of spines very prominent and robust, posteriorly with raised ridge parallel to posterior margins, and the ridge medially expanded to form a low protuberance; disk behind calli with scattered low tubercles; posterolateral angles produced into stout, very broadly based laterally directed spine; dorsal ridge of metathoracic peritreme bilobed. Legs. Fore and middle femora each with a single, strong, subapical spine ventrally; hind femora subapically with a larger major spine, before them rather small spine and after a terminal series of four spines decreasing in length towards apex; hind tibiae almost straight. Scutellum. Strongly convex; disk densely pubescent, with a pair of prominent tubercles lateral to midline. Hemelytra. Corium at rest reaching level of suture between connexival segments V and VI.

Abdomen. Abdominal sterna III to VII with posterolateral angles produced into broad triangular teeth. Genital capsule: lip small, not filling posterior emargination; tongue long and narrowly triangular.

Female

Measurements: see DOLLING (1979).

Habitus and color similar to male.

Comments

It is the only *Clavigralla* species belonging to the *tuberculicollis*-group recorded from Madagascar, and characterized by having a short, non-deflexed process at the apex of the antenniferous tubercles, and the dorsal ridge of metathoracic peritreme bilobed. In the other Malagasy species, the antenniferous tubercles have a long and deflexed apical process, and the dorsal ridge of metathoracic peritreme entire.

Distribution

So far known only from Madagscar. MADAGASCAR: Diego Suárez; Région du Sud (Andrahomana and Ambovombe); Région du Sud de l'île (Bekily); and Bezanozano (DOLLING 1979).

Specimens examined. MADAGASCAR: 1 ♂, Anjouan, M'Remani, 800 m, IX.1958 *(RAHARIZONINA)* (MNHN); 1 ♀, Tananarive, Mahatsinjo Pres, Clermont Vend [without date] (ZMAS); 1 ♂, Ankarafantsika Protect Area, 10.XII.2001 *(V. DOLIN)* (EHCA); 1 ♀, Diego Suárez, 1939 *(J. J. PRIMOT)* (MNHN); 2 ♂♂, 1 ♀, Ambodivoniho, env. de Vohémar [without date] (NMPC); 2 ♂♂, 3 ♀♀, Ampanefena [without date] (NMPC, UNAM); 6 ♀♀, Vohémar [without date] (NMPC, UNAM); 4 ♂♂, Rogez [without date] (NMPC). MADAGASCAR NORTH: 1 ♂, 1 ♀, District Ambanja N de Beangona, Ambevy, Vallée d'Antremabe, 400 m, II.1964 *(P. SOGA)* (MNHN); 1 ♂, 3 ♀♀, Ambanja [without date] (NMPC).

Clavigralla wittei (Schouteden), 1938

(Figs 71; 72)

Acanthomia wittei Schouteden, 1938: 291-292.

Clavigralla wittei (Schouteden): DOLLING 1979: 74.

Type material

Lectotype ♂: Zaïre, Stanleyville (= Kisangani), V.1926, on *Schotia* (*Lt. J. Ghesquière*) (MRAC).

Redescription

Male

Measurements: see Dolling (1979).

Color. Ground color dark yellowish suffused with dark brown marks and pink spots; coxae, trochanters, and femora dark yellowish and usually mottled with brown or black markings; tibiae with brown irregular rings; hemelytral membrane milky hyaline with two to four discrete brown spots between bases of longitudinal veins; bases of two veins where they enter membrane from corium brown.

Structure. Small and rather slender.

Head with antenniferous tubercles slightly divergent.

Thorax. Pronotum strongly declivent; posterolateral angles prominent with the spine slender, curved slightly upwards and forward, usually long; margins of pronotum behind spines with a few prominent tubercles; pubescence of anterior part of pronotum differing markedly in color and texture from that of posterior part. Legs. Fore femora without subapical spines beneath or rarely with a single, very small one; middle femora usually with a single, small, subapical spine ventrally (sometimes absent); hind femora with 2 to 4 small spines between the two major spines; hind tibiae almost straight. Scutellum. Strongly convex. Hemelytra. Corium with apex distinctly produced, at rest reaching middle third of connexival segment VI.

Abdomen. Abdominal sterna III to VII with posterolateral angles produced into short, triangular spines.

Genital capsule: lip short; tongue deeply bifid, each half of tongue laminar, distinctly deflexed apically and laterally.

Female

Measurements: see Dolling (1979).

Habitus and color similar to male.

Comments

Clavigralla wittei, like *C. annulipes* and *C. pusilla*, belongs to the *tomentosicollis*-group by having the apical process of the antenniferous tubercles clearly deflexed, and the pubescence of anterior part of pronotum differing markedly in color and texture from that of posterior part. *Clavigralla annulipes* belongs to the *tomentosicollis*-subgroup by having the disk of the hemelytral membrane evenly suffused with brown coloration, except for colourless basal cells, and the tongue of male genital capsule is clearly trifid. In the other two species the disk of the hemelytral membrane is largely colourless or very faintly milky white, with one to five brown or black spots between bases of longitudinal veins where these emerge from basal cells, and the tongue of male genital capsule is never trifid. *Clavigralla pusilla* is included in the *spiniscutis*-subgroup by having the tongue of male genital capsule apically entire, and *C. wittei* in the *wittei*-subgroup by having the tongue apically bifid.

Additionally the posterolateral angles of the pronotum are more prominent in *C. wittei* than in any other members of the *tomentosicollis*-group, and the hemelytral membrane has a very distinct spots on the disk.

Distribution

Widespread in Africa, recorded from Botswana, Ivory Coast, Ghana, Kenya, Malawi, Nigeria, South Africa, Tanzania, Uganda, Zaire, Zambia and Zimbabwe (DOLLING 1979). This is the first record in Madagascar.

Specimens examined. MADAGASCAR: 1 ♂, 1 ♀, Ampety, Itasy, I.1930 (ZMAS); 1 ♂, 2 ♀♀, Nanghoa, Itasy, I-III.1939 (UNAM, ZMAS); 7 ♂♂, 5 ♀♀, Tananarive, VI-VII.1932, III.1933 (UNAM, ZMAS); 3 ♂♂, 1 ♀, Fort Dauphin, 1899 (*SIKORA*) (UNAM, ZMAS); 1 ♀, Vohémar [without date] (NMPC); 1 ♂, 1 ♀, 5 km W Ranohera, Isalo Gebirg, 785 m, NN Feuchtwiese, 22°33'50"S-45°23'34"E, 7.XI.2003 (*U. GÖLLNER*) (ZMHB).

Genus *Oncaspidia* Stål, 1873

Oncaspidia Stål, 1873: 81, 83.

Redescription

Body medium sized, robust.

Head

Side of head in front of each side just above base of antenniferous tubercles with an erect, slender, and curved spine; antenniferous tubercles with outer apical process porrect; antennal segment I the longest, III the shortest, and IV shorter than II; rostrum reaching the metasternum; bucculae small, occupying about one-third of length of ventral midline of head.

Thorax

Pronotum strongly declivent; posterolateral angles produced, directed outward; pronotal disk without large tubercles or spines; triangular process short.

Mesosternum and metasternum longitudinally sulcate along midline; dorsal ridge of metathoracic peritreme entire, not bilobed.

Legs. Fore and middle femora each with 0-1 subapical spine beneath; hind femora with two major spines and a terminal series of short ones; hind femora without basal tubercle; tibiae not arcuate basally.

Scutellum. Convex with a pair of small knobs at base.

Hemelytra. Corium with apex slightly produced, at rest reaching the basal third of connexival segment VI.

Abdomen

Abdominal sterna III to VII with posterolateral angles prominent.

Male *genitalia*. Genital capsule closed posteriorly; lip distinctly produced and pouched; tongue triangular; parameres obliquely capitate (DOLLING 1979).

Comments

Only one species is known in this genus and is for the first time recorded from Madagascar. Distinguished from other genera of the tribe Clavigrallini by having

the side of head above base of antenniferous tubercles bearing an erect spine, and pronotum without large spines or tubercles on pronotal disk or near lateral margins. In *Clavigralla*, the other Clavigrallini genus recorded from Malagasy, the side of head lacks the spine, and the pronotum is adornment with large tubercles on disk and sublaterally.

Type species

Clavigralla pilosicollis Stål, 1855.

Oncaspidia pilosicollis (Stål, 1855)

(Fig. 73)

Clavigralla pilosicollis Stål, 1855: 31.

Clavigralla similis Signoret, 1860: 944. Synonymy by Stål 1866: 107.

Type material

Lectotype ♀: South Africa (NRES). Not examined.

Redescription

Male

Measurement: see Dolling (1979).

Color. Ground color light brownish yellow with following areas black: ocellar tubercles, anterior midline of pronotum, posterolateral spines of pronotum, base of scutellum, ventral surface of head, spots on coxae, centre of abdominal sterna II and III, and parts of dorsal abdominal segments; antennal segments I to III (except apices), bases of femora, tibiae (except basal, apical and sometimes median ring), parts of tarsi, connexival segment VI, and abdominal segment VII yellow; clavus and basal half of corium yellowish, with few spots on anterior veins brown; apical half of corium suffused with pale and dark brown; hemelytral membrane colourless, hyaline.

Female

Measurement: see Dolling (1979).

Habitus and color similar to male.

Comments

A distinctive species, recorded for the first time to Madagascar.

Distribution

Widely distributed in tropical and Southern Africa throughout Cameroon, Ghana, Kenya, Malawi, Nigeria, South Africa, Tanzania, Uganda, Zaire, Zanzibar and Zimbabwe. This is the first record of this species from Madagascar.

Specimens examined. Madagascar: 1 ♂, Tananarive, Nanisana, I.1932 (ZMAS); 1 ♀, Betioky, XII.1932 *(Seyrig)* (UNAM).

Tribe Pseudophloeini Stål, 1873

Scutellum flat or almost flat; hind femora with tubercle at the base on the posterior face and close to the apex of trochanter; hind tibiae not or slightly shorter than hind femora; antennal segment II shorter than III; male genital capsule biemarginate posteriorly with the emargination filled by the apices of the parameres (Dolling 1986).

The tribe Pseudophloeini distributed on the Old and New World, includes 24 genera and 104 species, and only one genus and one species are recorded from Madagascar.

Genus *Mevanidea* Reuter, 1883

Mevanidea Reuter, 1883: 11-12.

Redescription

Body not depressed, connexivum moderately expanded; head and pronotum conspicuously spinose.

Head

Slightly shorter than pronotum, dorsally with several, long, spine-like tubercles; eyes small, prominent; antenniferous tubercles moderately divergent, external apical process porrect and directed slightly downwards; antennal segment I strongly clavate, bearing numerous spine-like tubercles; antennal segments I and IV subequal in length, and II subequal to or slightly longer than I, and III the longest; bucculae occupying about one-quarter of ventral midline; rostrum reaching the metasternum.

Thorax

Pronotum strongly declivent; posterolateral angles slightly produced, the spines arising abruptly from them, directed laterally and slightly anteriorly; posterior margin straight or slightly convex; triangular process well developed; mesosternum deeply sulcate throughout; metasternum sulcate; metathoracic peritreme with its dorsal ridge simple or bilobed.

Legs. Fore and middle femora with two rows of tubercles and granules beneath; hind femora with basal tubercle and ventrally with three major subapical spines, and usually three minor spines between the largest ones and an apical series of four; hind tibiae short, and conspicuously curved near base.

Scutellum. Equilateral, slightly convex, its apical one-third conspicuously swollen.

Hemelytra. Hemelytral membrane of forewing translucent, with some darker markings along veins.

Abdomen

Sterna III to VI with posterolateral angles produced into broad, triangular spines; lateral margins of sterna granulose.

Comments

Distinguished from other Pseudophloeini genera by a combination of the following characters: hind femora with tubercle adjacent to base of trachanters, antennal segment I strongly clavate with many long spines and tubercles, antennal segment II more than half

as long as segment III, triangular process of pronotum, elongate, slender, and projecting backwards over bases of clavus, head dorsally and pronotum laterally with long spines, and apex of scutellum swollen.

Two species are recognized in the genus, and only one recorded from Malagasy.

Type species

Mevanidea granulifera Reuter, 1883.

Mevanidea spiniceps (Signoret, 1860)

(Fig. 74)

Clavigralla spiniceps Signoret, 1860: 944.

Mevanidea spiniceps (Signoret): Dolling 1986: 190.

Type material

Lectotype ♀: Madagascar: no locality given (NHMW). Not examined.

Redescription

Male

Measurements: see Dolling (1986).

Color. Overall color dark to pale brown, suffused with yellowish areas; hemelytral membrane translucent, with some darker marking along veins and sometimes with dark amber shading area between veins, but never with an opaque spot; apex of scutellum creamy yellow; connexival segments III to V largely darker, with pale band anteriorly, and VI and VII largely pale.

Female

Measurements: see Dolling (1986).

Habitus and color similar to male.

Comments

Mevanidea hystrix, the other known species of this genus, is widespread in Sub-Saharan Africa, and recognized by having on the hemelytral membrane an irregular, opaque, black or dark brown spot occupying about half of its area. *Mevanidea spiniceps* endemic to Madagascar, has the hemelytral membrane translucent, without black or dark brown spot near middle third.

Distribution

Known only from Madagascar.

Madagascar: Tulear Province, Tongobory; Baie de Baly, Plateau de Soalala, Fort Dauphin, Ivondro, Vallée du Fanjahira, Isaka; Nossi-Bé, Forêt de Loukoubé, Sahambava, and Fianarantsoa (Dolling 1986; Signoret 1860).

Specimens examined. Madagascar: 1 ♂, 2 ♀♀, Ambodimanga, Majunga [without date] (MNHN, UNAM); 1 ♀, Perinet, I.1934 (*Robinson*) (ZMAS); 1 ♀, Tananarive, Nanisana, II-III.1932 (ZMAS); 1 ♀, Tananarive, Tsimbazaza, 23.XII.1933 (ZMAS); 2 ♂♂, Mahajanga Province, Mahavavy River, 6.2 km 145° SE Mitsinjo, 20 m, 16°03'06"S-

45°54'30"E, 1-5.XII.2002 *(Fisher, Griswold et al.)* (CASC); 1 ♂, Mahajanga Province, Mahajanga Riv., Ampatika Env., 10-12.XII.1996 *(I. Jenis)* (NMPC); 1 ♂, Rogez [without date] (NMPC); 1 ♂, Ampijoroa, Tsaramandroso [without date] (UNAM); 1 ♀, Ampijoroa, Ankarafantsika, I.1957 *(R. E.)* (UNAM). Madagascar North: 2 ♂♂, District d'Ambanja de Beangona-Ambevy, Vallée d'Antremabe, 400 m, II.1964 *(P. Soga)* (MNHN). Madagascar East: 1 ♀, Marojejy, Res. Nat. Int. XII, Anjanaharibe N, 1750 m, II.1960 *(P. Soga)* (MNHN).

Incertae sedis, genus and species inquirenda

Rhombolaparus tardigradus Bergroth, 1906

Bergroth description (1906) is very general and does not contain sufficient information or figures to distinguish this genus or the only included species, *Rhombolaparus tardigradus*, from other Malagasy Coreidae. In addition, there is no mention of the type depository by Bergroth (1906) and I have been unable to locate his specimens after searching most of the European and American museums likely to contain type material of this species. Without being able to study Bergroth's original specimens, it is impossible to be certain of the identity of his genus and species, and as a consequence the genus and species remain *incertae sedis and inquirenda*.

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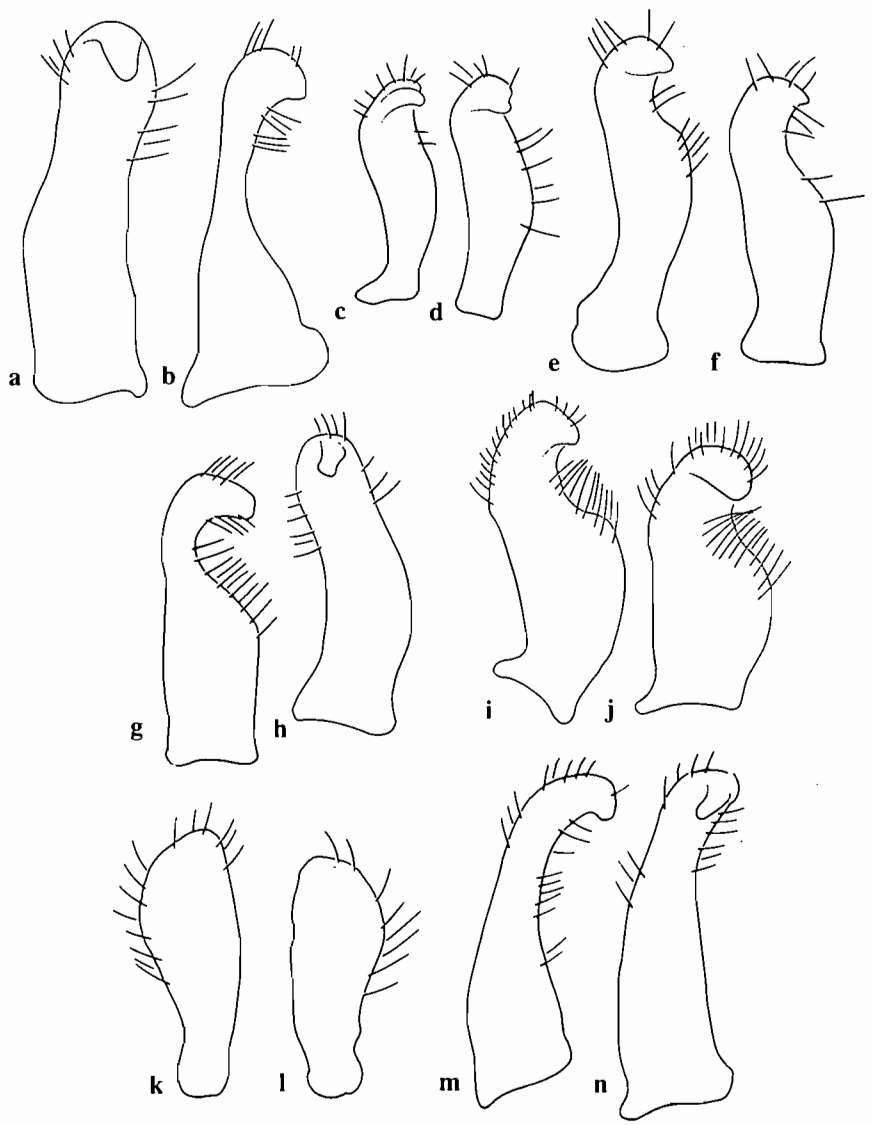

Fig. 1: Parameres:
a, b, *Acanthocoris tibialis* Signoret, 1860;
c, d, *Choerommatus argillaceus* Stål, 1865;
e, f, *Choerommatus decoratus* n. sp.;
g, h, *Choerommatus linnavuori* n. sp.;
i, j, *Phelaus dilaticornis* (Signoret, 1860);
k, l, *Petalocnemis inconditus* n. sp.;
m, n, *Petalocnemis dilatatus* (Garcia Varela, 1913).

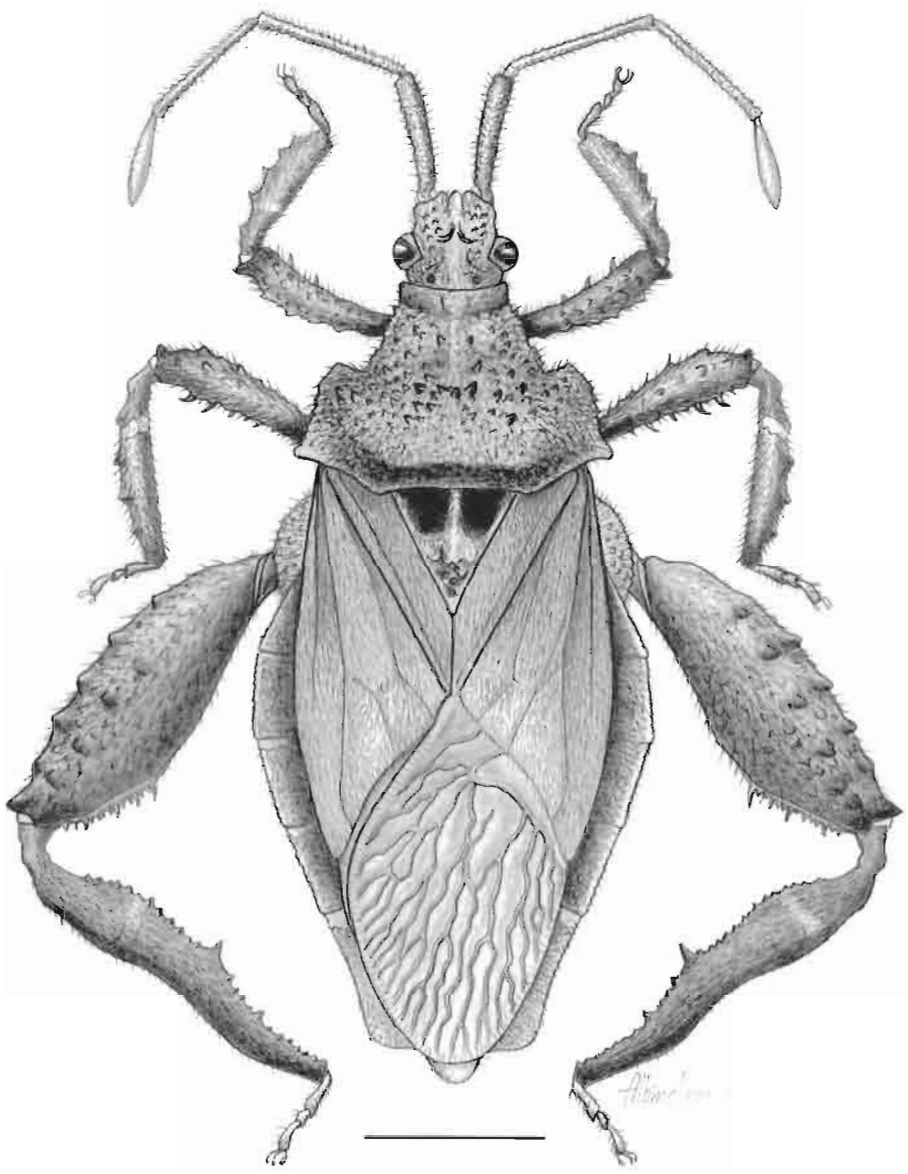

Fig. 2: Dorsal view of *Acanthocoris tibialis* Signoret, 1860.
Scale: 2 mm.

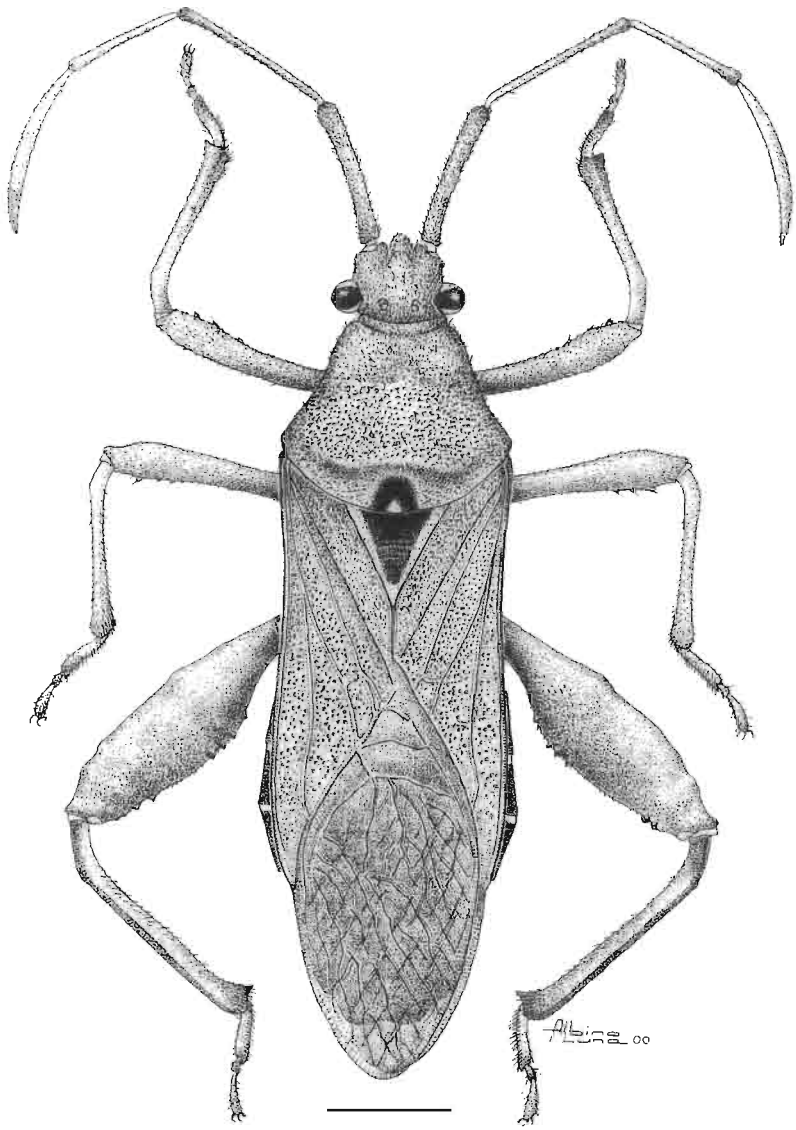

Fig. 3: Dorsal view of *Antanambecoris pronotalis* Brailovsky, 2001. Scale: 2 mm.

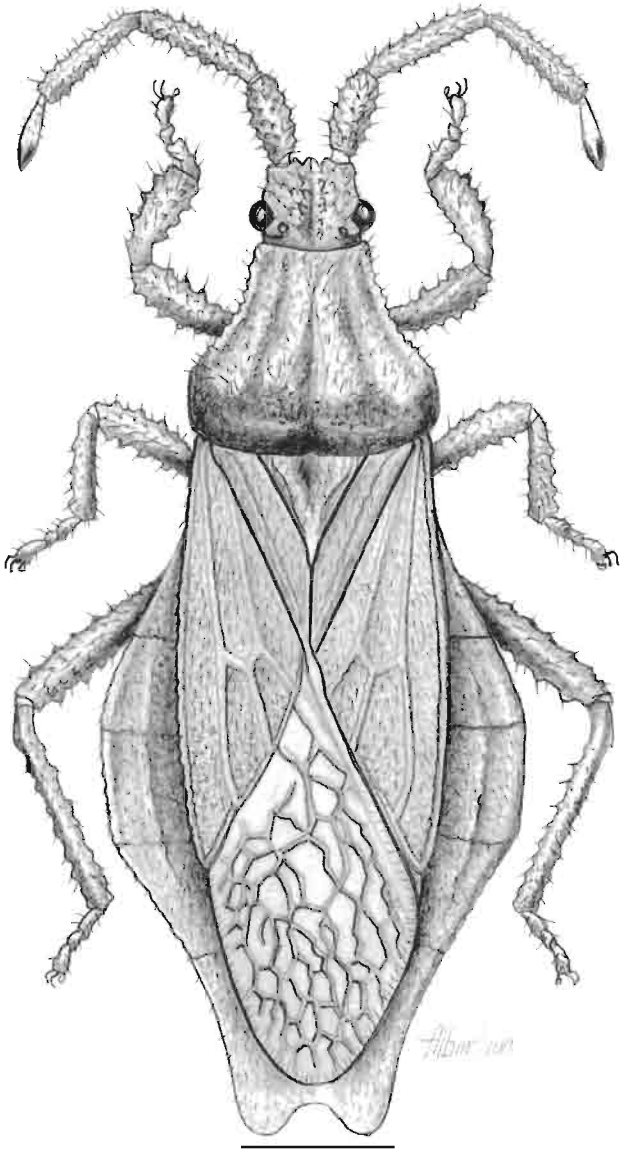

Fig. 4: Dorsal view of *Choerommatus linnavuorii* n. sp.
Scale: 2 mm.

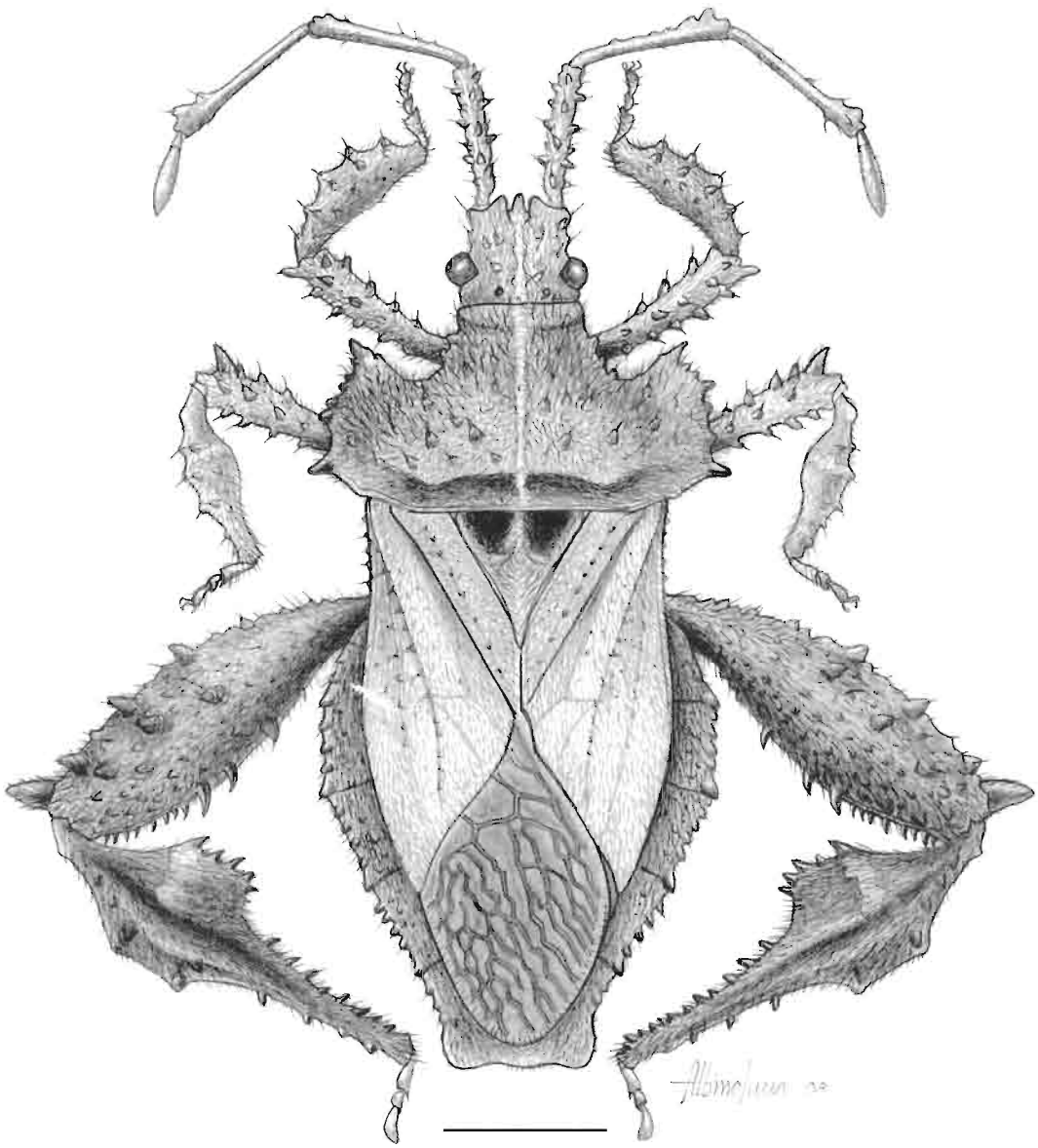

Fig. 5: Dorsal view of *Petalocnemis dilatatus* (Garcia Varela, 1913) n. comb. Scale: 2 mm.

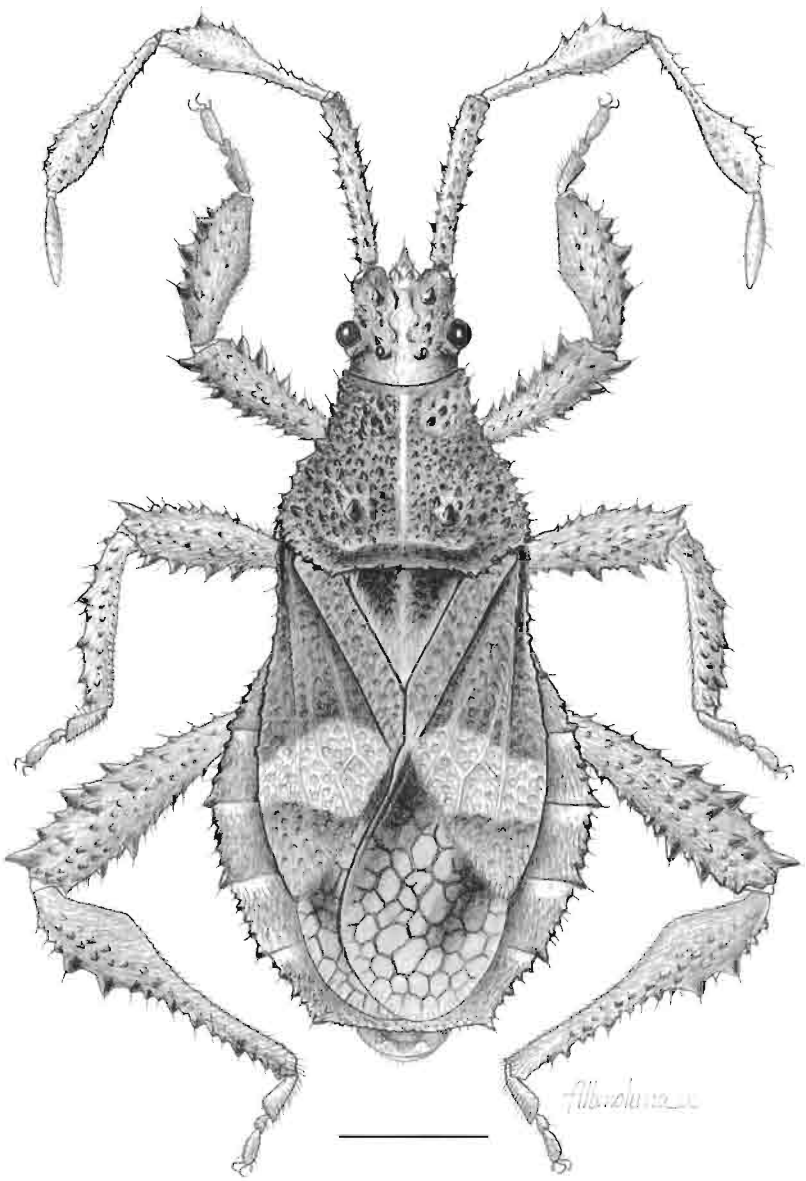

Fig. 6: Dorsal view of *Petalocnemis inconditus* n. sp.
Scale: 2 mm.

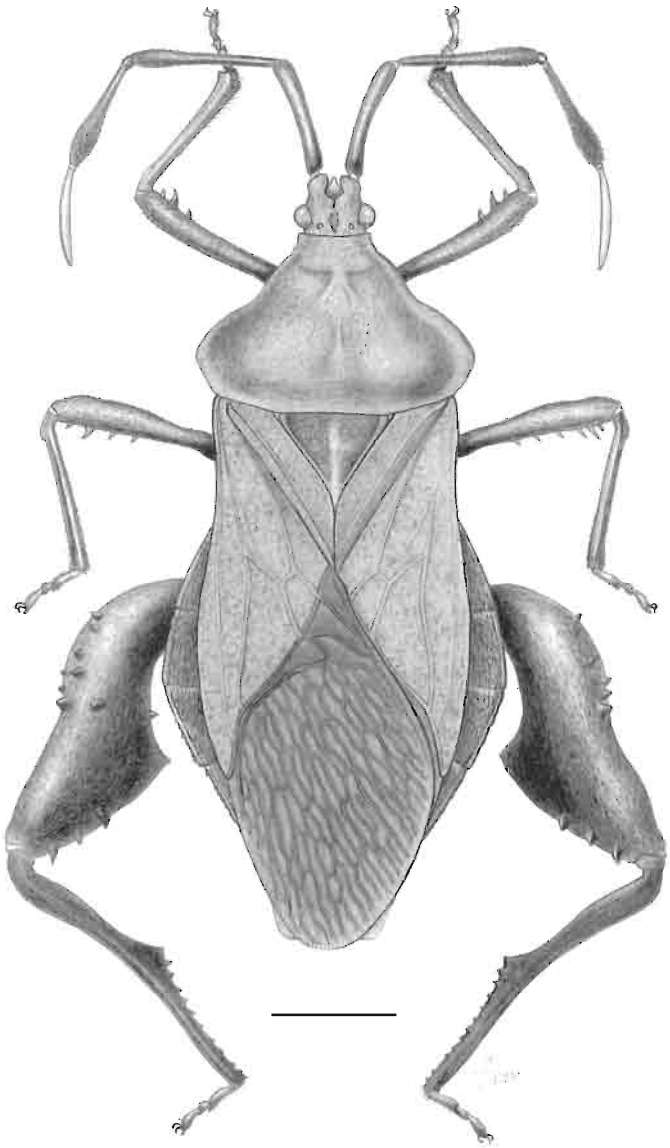

Fig. 7: Dorsal view of *Phelaus dilaticornis* (Signoret, 1860). Scale: 5 mm.

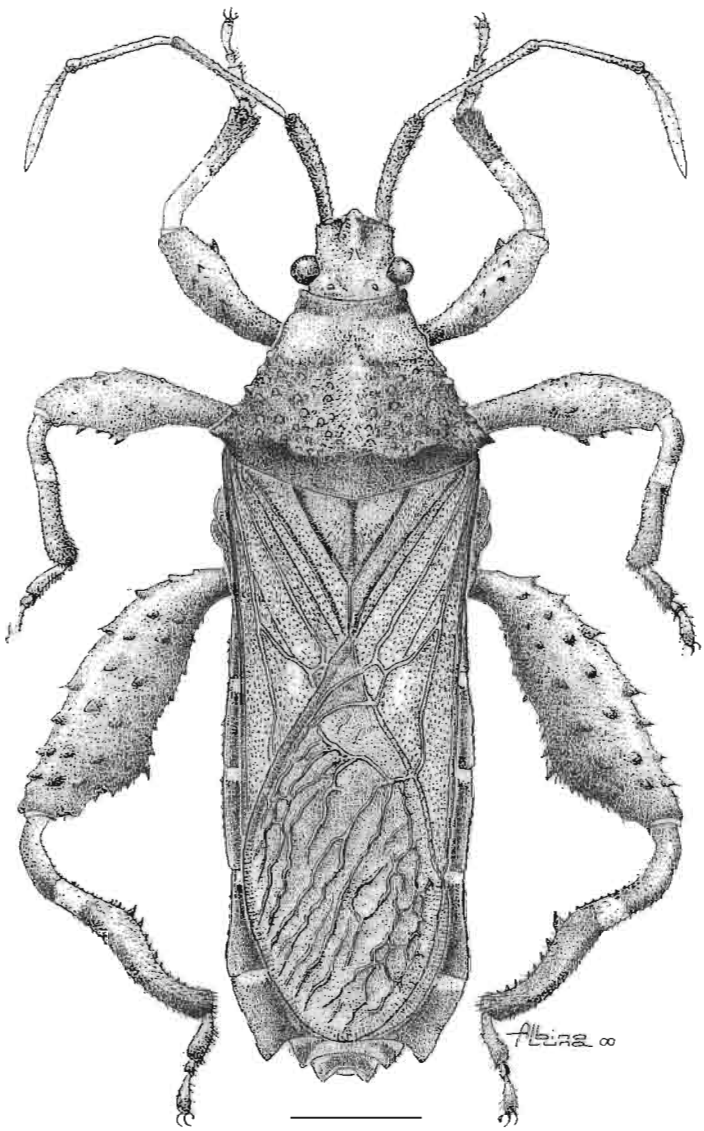

Fig. 8: Dorsal view of *Pluotenia pulla* Brailovsky, 2001.
Scale: 2 mm.

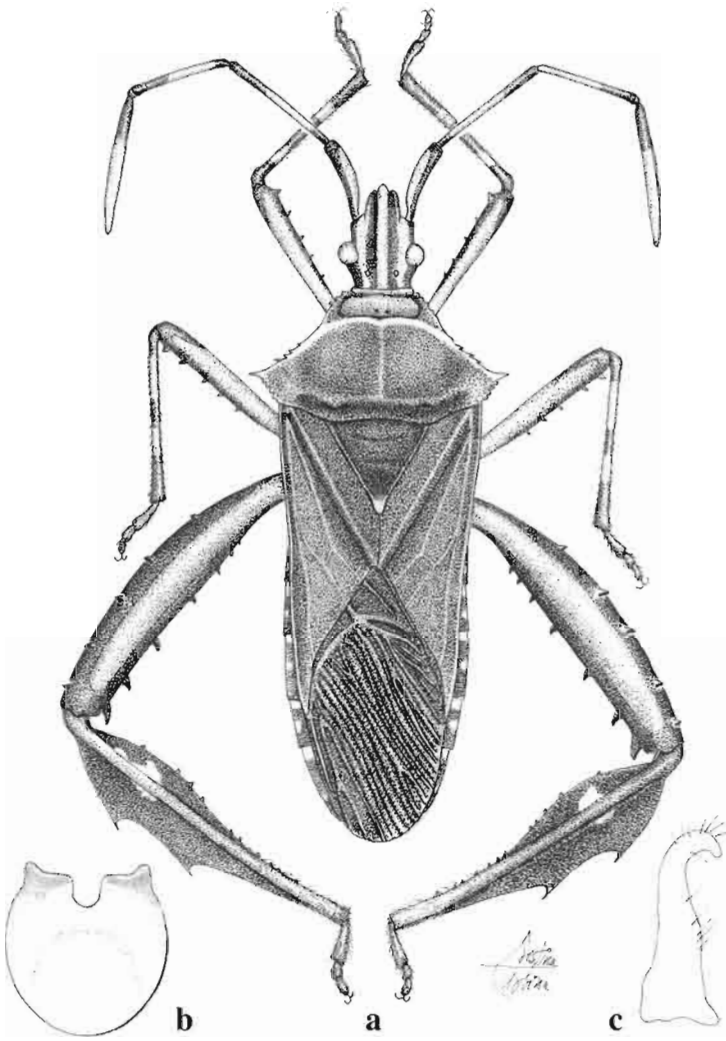

Fig. 9: *Leptoglossus gonagra* (F., 1775):
a, dorsal view;
b, male genital capsule in caudal view;
c, paramere.

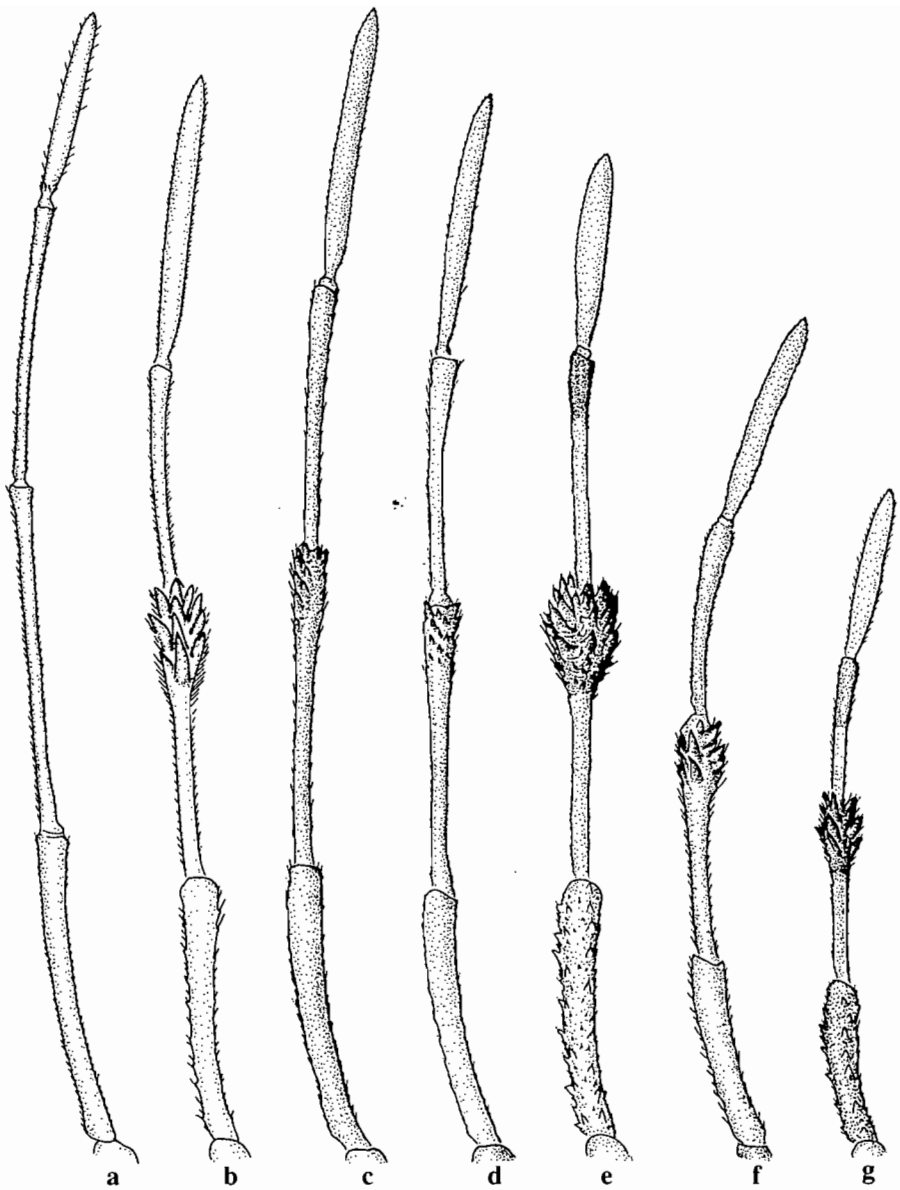

Fig. 10: Antennae:
a, *Kerzhnercryptes perinetus* Brailovsky, 2002;
b, *Odontorhopala callosa* Stål, 1873;
c, *Parabrachytes longicornis* Garcia Varela, 1913;
d, *Parabrachytes antsalovus* Brailovsky, 2002;
e, *Parabrachytes morondavus* Brailovsky, 2002;
f, *Parabrachytes coloratus* Distant, 1879;
g, *Parabrachytes obscurus* Distant, 1879.

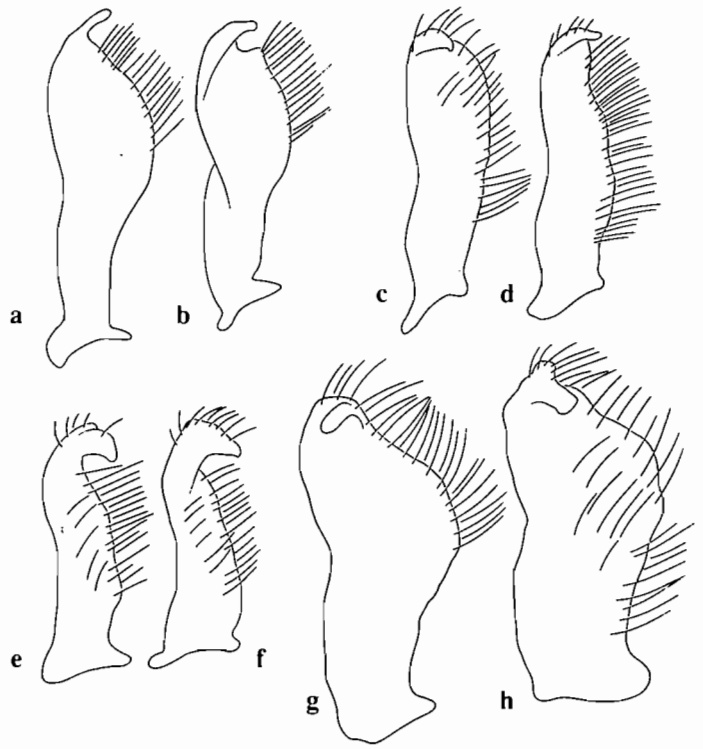

Fig. 11: Parameres: a, b, *Kerzhnercryptes perinetus* Brailovsky, 2002; c, d, *Odontorhopala callosa* Stål, 1873; e, f, *Odontocurtus consociatus* n. sp.; g, h, *Parabrachytes antsalovus* Brailovsky, 2002.

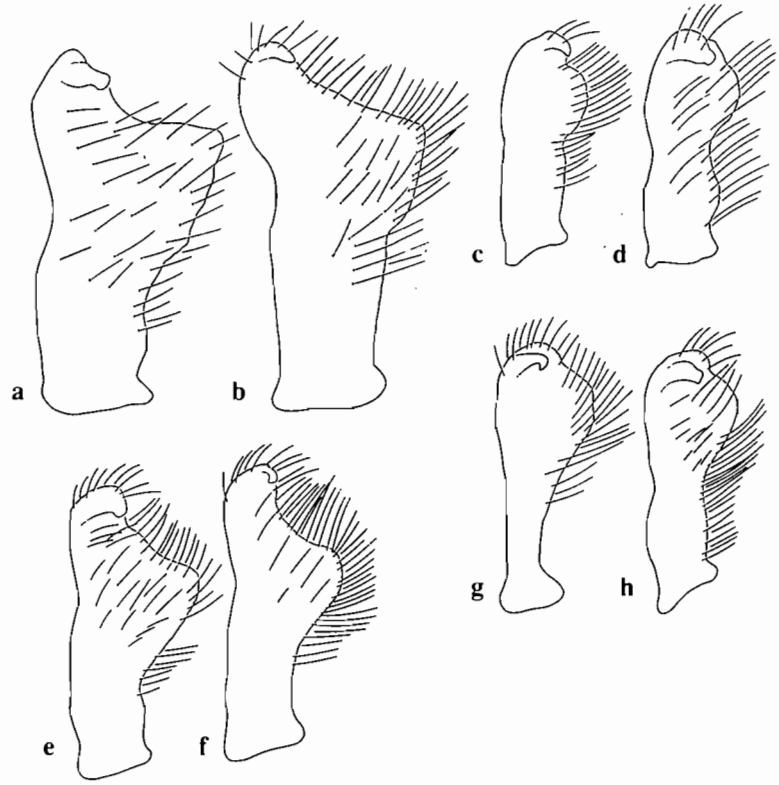

Fig. 12: Parameres: a, b, *Parabrachytes coloratus* Distant, 1879; c, d, *Parabrachytes obscurus* Distant, 1879; e, f, *Parabrachytes inornatus* n. sp.; g, h, *Parabrachytes morondavus* Brailovsky, 2002.

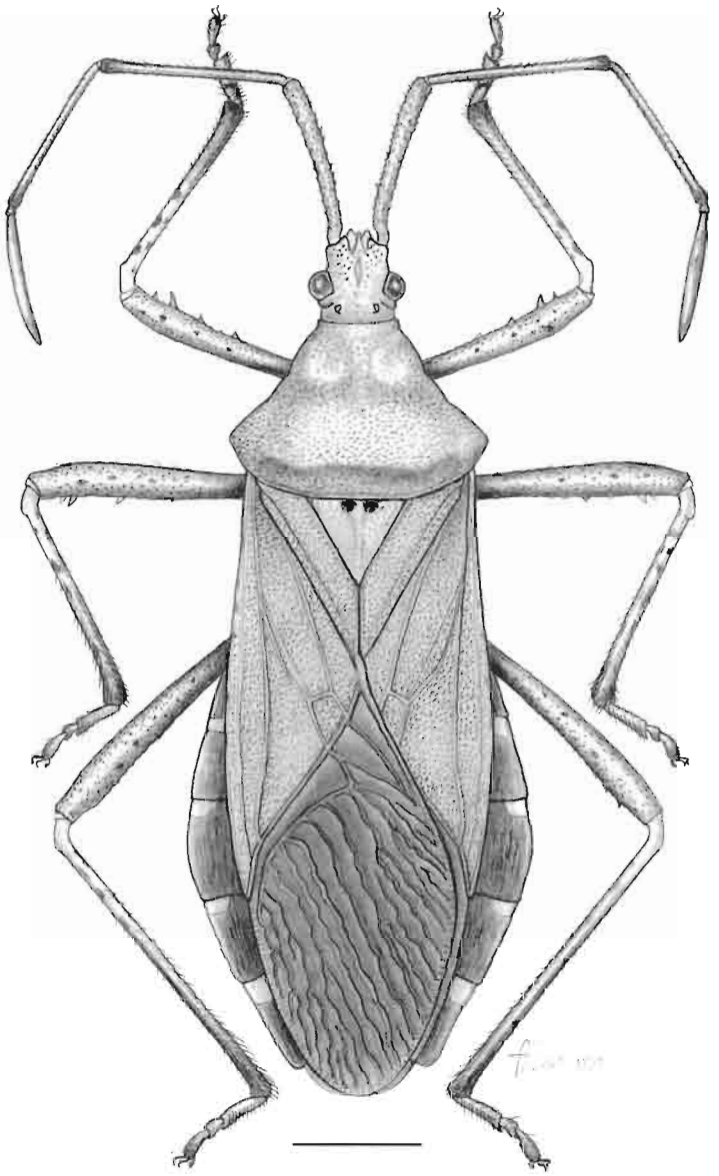

Fig. 13: Dorsal view of *Kerzhnercryptes couturieri* n. sp.
Scale: 3 mm.

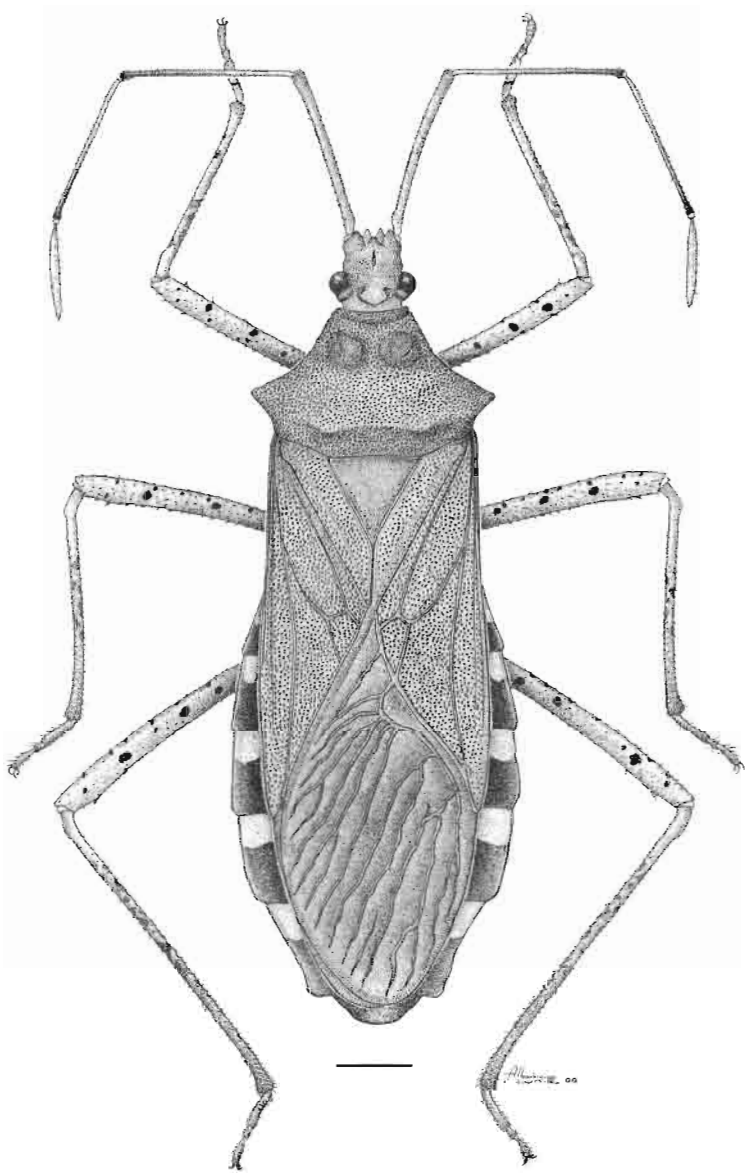

Fig. 14: Dorsal view of *Kerzhnercryptes perinetus* Brailovsky, 2002. Scale: 2 mm.

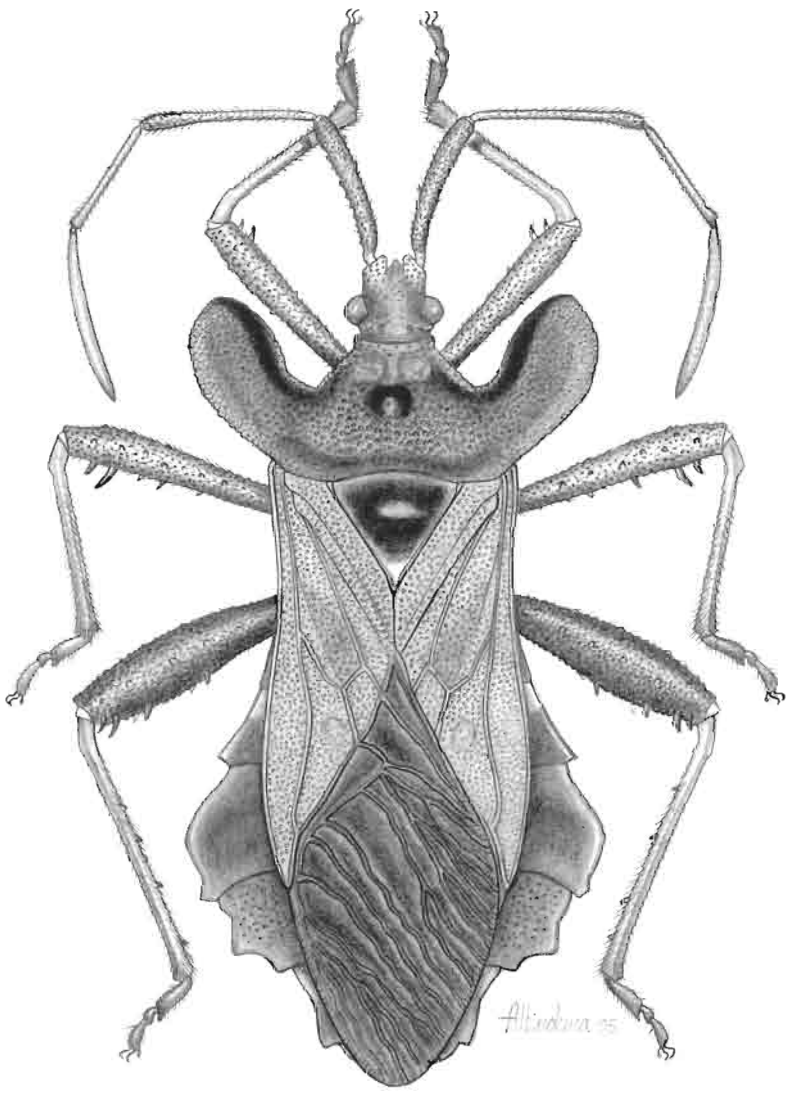

Fig. 15: Dorsal view of *Odontorhopala pallescens* n. sp.
Scale: 4 mm.

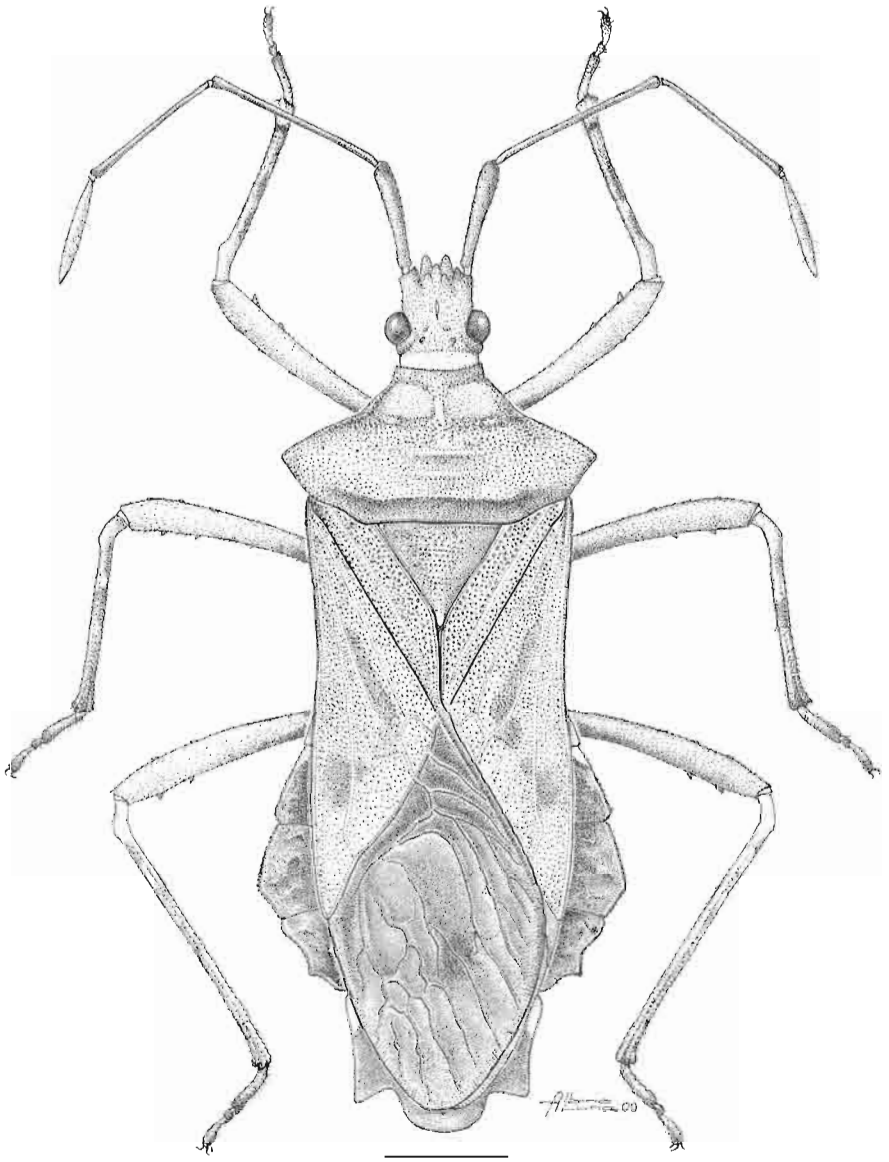

Fig. 16: Dorsal view of *Odontocurtus consociatus* n. sp.
Scale: 2 mm.

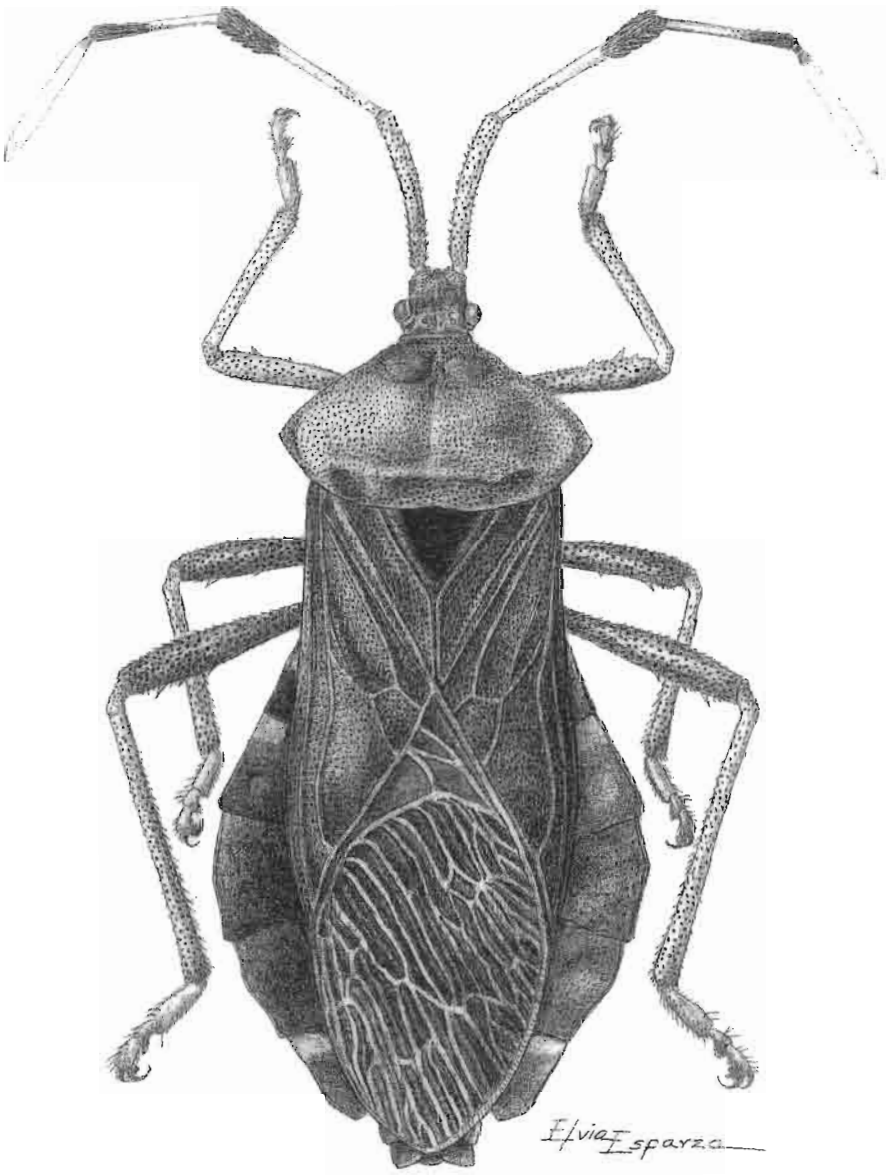

Fig. 17: Dorsal view of *Parabrachytes antsalovus* Brailovsky, 2002. Scale: 1 mm.

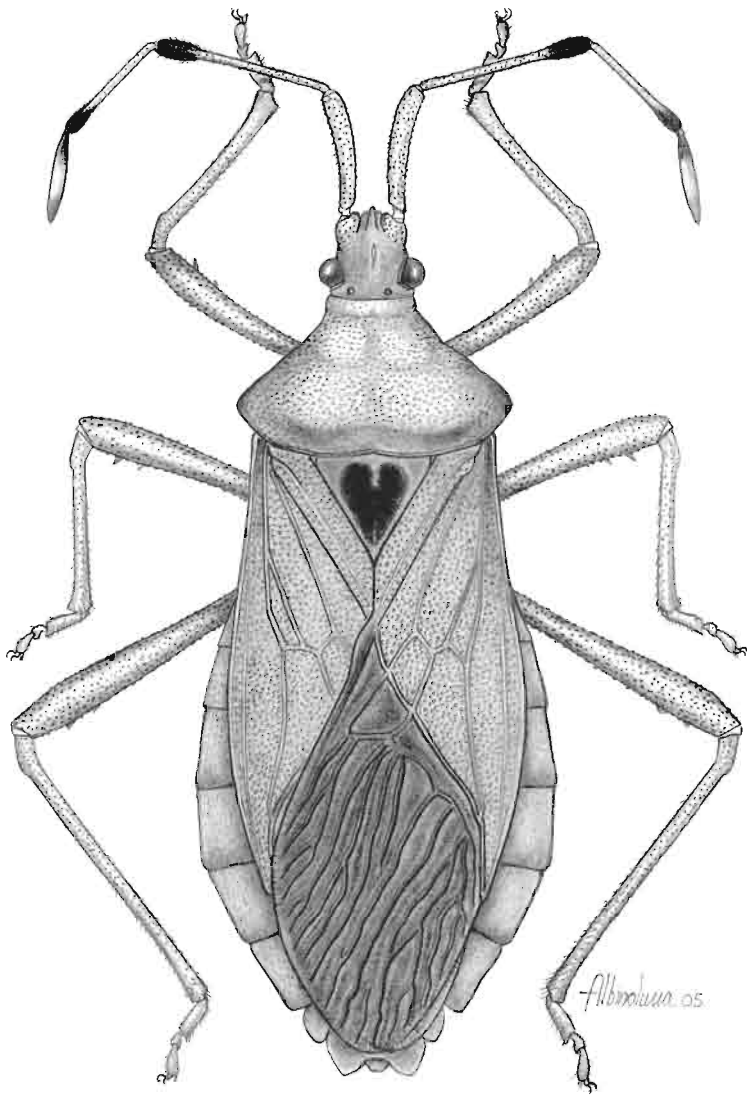

Fig. 18: Dorsal view of *Parabrachytes inornatus* n. sp.
Scale: 3 mm.

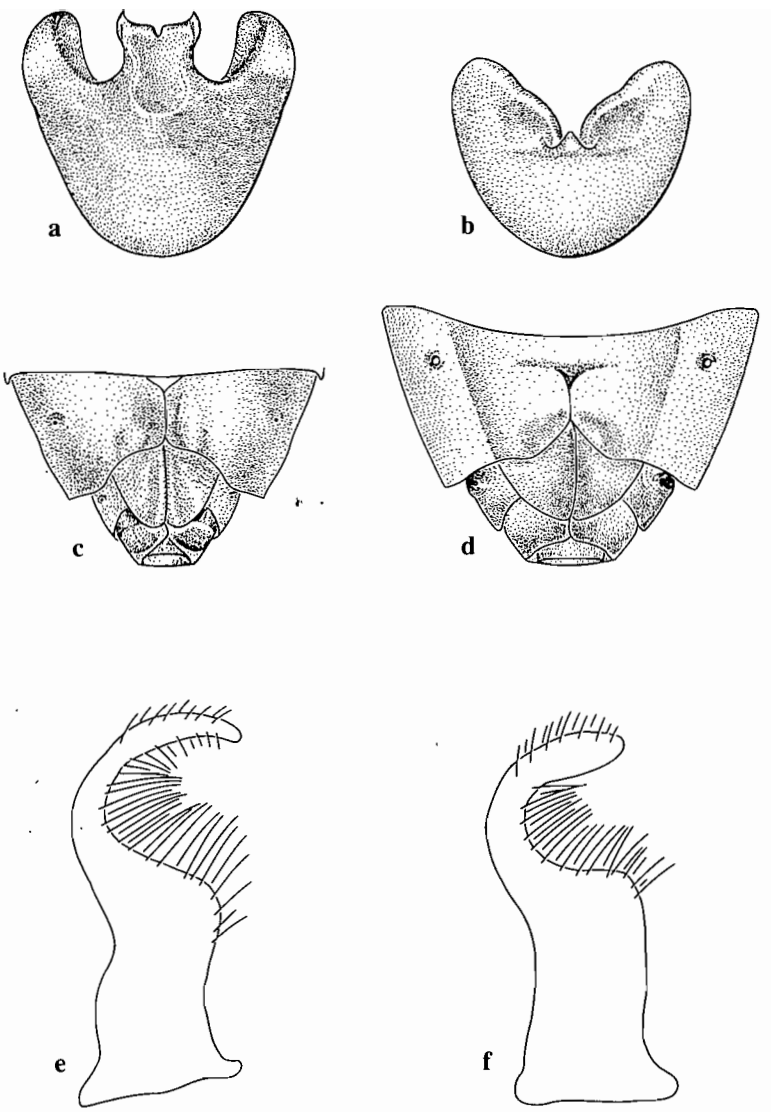

Fig. 19: *Madagalaesus* spp.:
a, b, male genital capsule in caudal view:
a, *M. garciai* Brailovsky, 2007; b, *M. notios* Brailovsky, 2007;
c, d, female genital plates:
c, *M. notios* Brailovsky, 2007; d, *M. garciai* Brailovsky, 2007;
e, f, parameres: *M. garciai* Brailovsky, 2007.

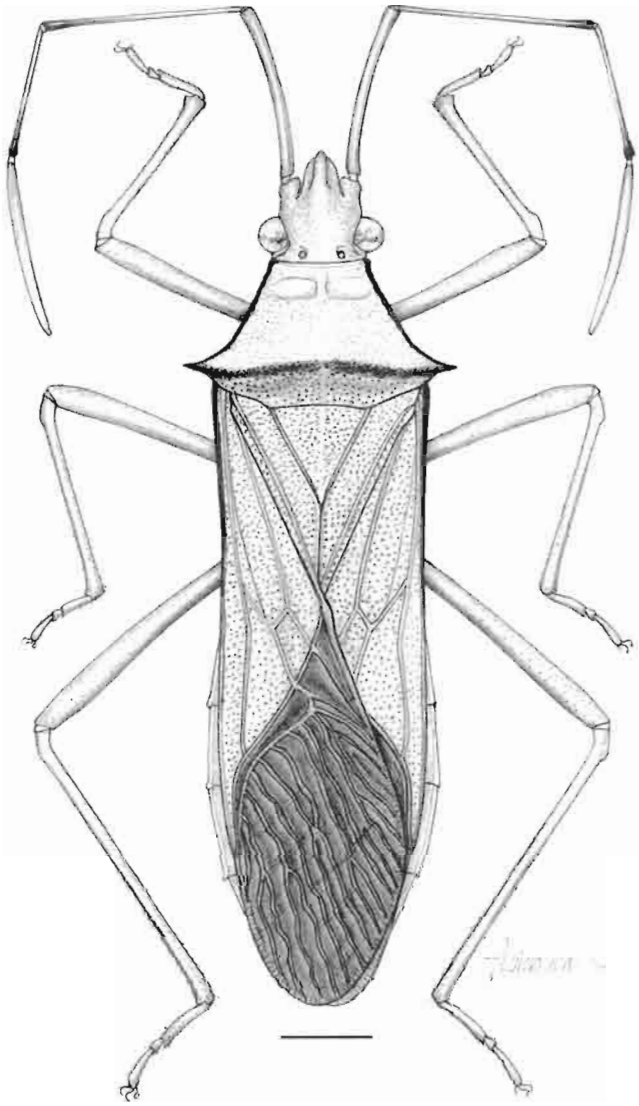

Fig. 20: Dorsal view of *Madagalaesus notios* Brailovsky, 2007. Scale: 2 mm.

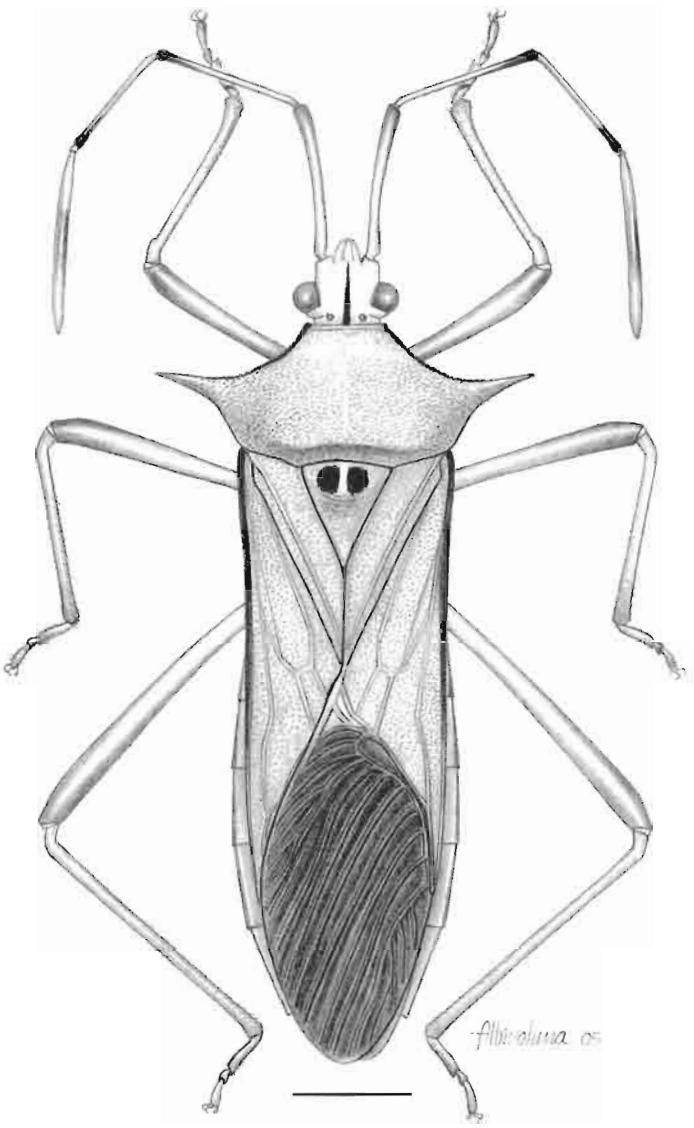

Fig. 21: Dorsal view of *Madagalaesus garciai* Brailovsky, 2007. Scale: 3 mm.

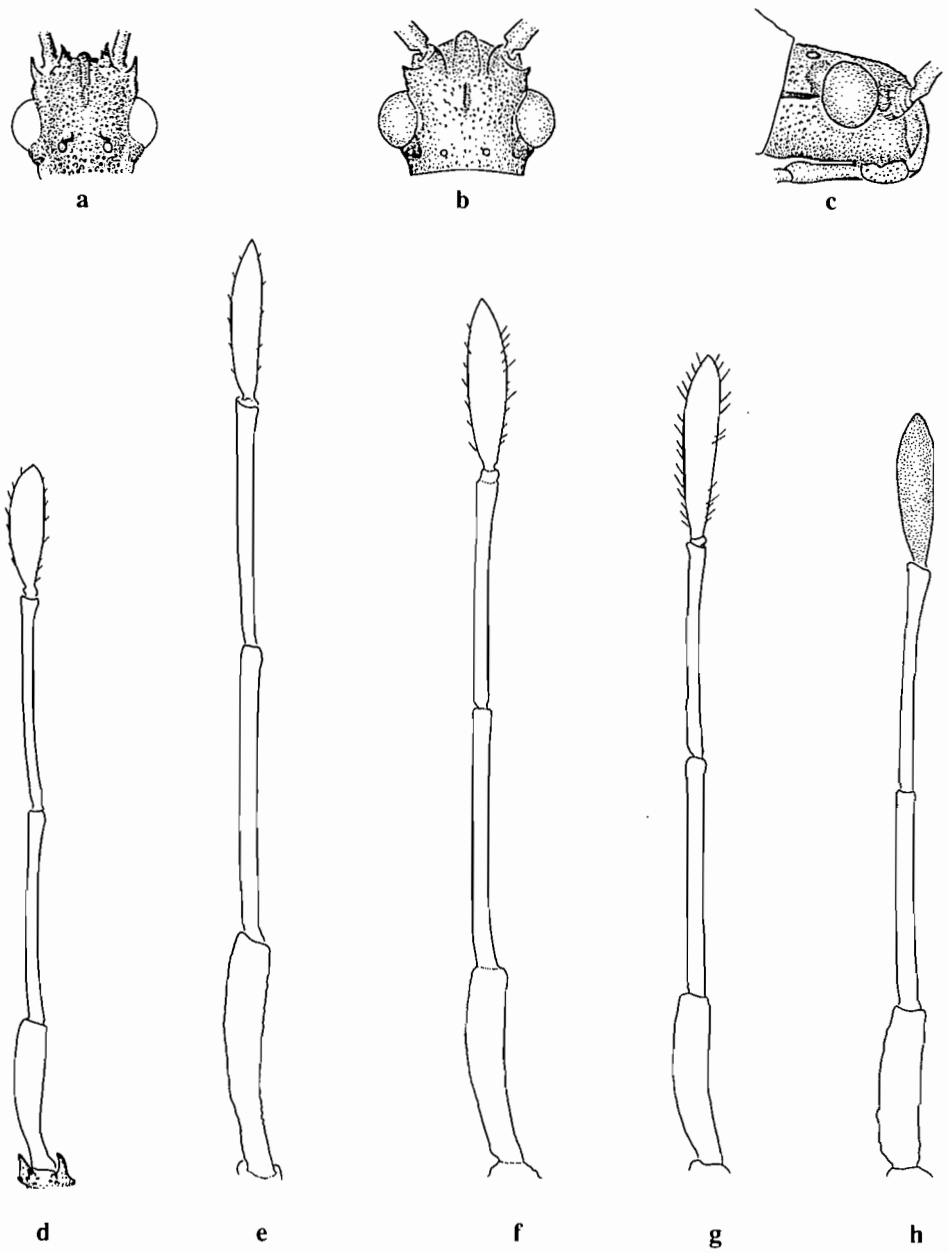

Fig. 22: a-c, head: a, b, dorsal view:
a, *Cletoscellus spinijugis* (Bergroth, 1905); b, *Cletoscellus delectabilis* n. sp.;
c, lateral view of *Cletoscellus delectabilis* n. sp.;
d-h, antennae:
d, *Cletoscellus spinijugis* (Bergroth, 1905); e, *Cletus incultus* n. sp.;
f, *Cletus poikilus* n. sp.; g, *Cletus capensis* (Westwood, 1842);
h, *Cletus clavatus* (Signoret, 1860).

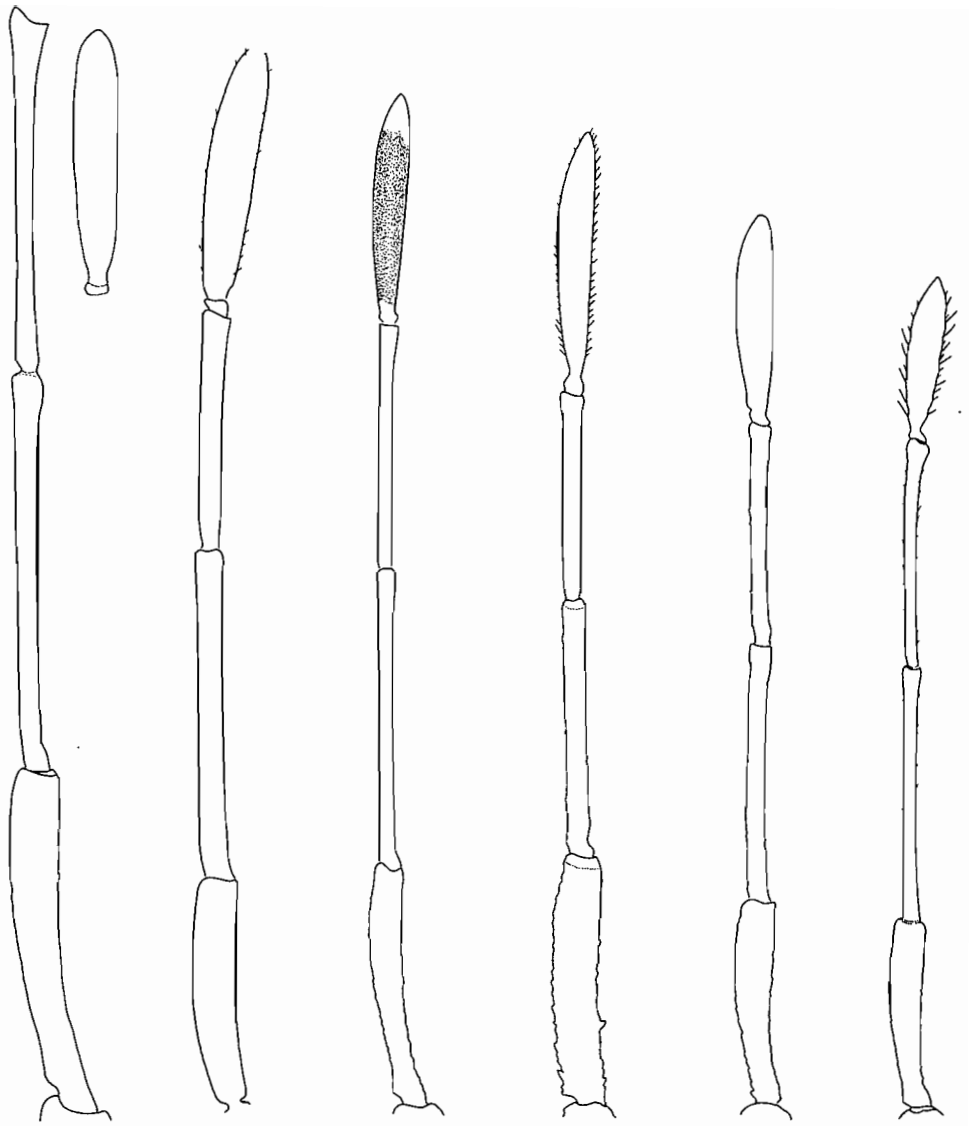

Fig. 23: Antennae:
a, *Cletomorpha nyasana* Bergroth, 1914;
b, *Cletoliturus lituripennis* (Stål, 1855);
c, *Cletus pronus* (Bergroth, 1914);
d, *Cletus presignus* n. sp.;
e, *Cletus ochraceus* (Herrich-Schaeffer, 1842);
f, *Cletoscellus delectabilis* n. sp.

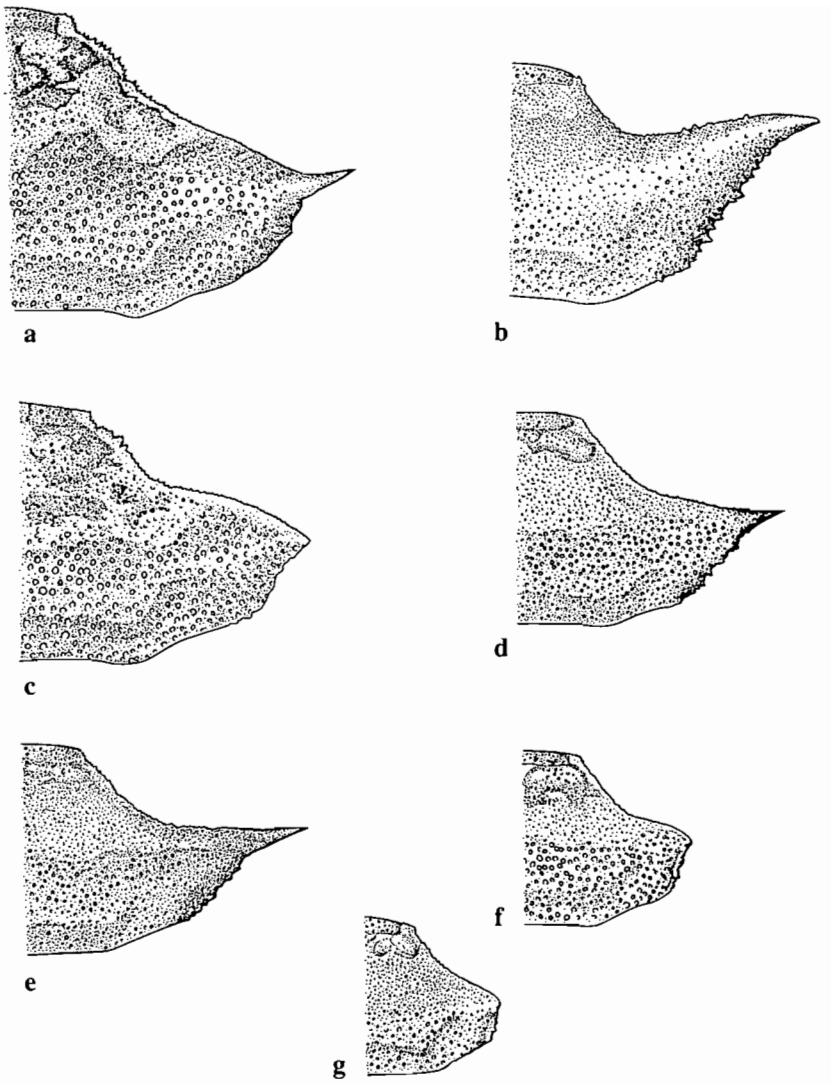

Fig. 24: Pronotum:
a, *Cletomorpha nyasana* Bergroth, 1914 (female);
b, *Cletus presignus* n. sp.;
c, *Cletomorpha nyasana* Bergroth, 1914 (male);
d, *Cletus ochraceus* (Herrich-Schaeffer, 1842);
e, *Cletus pronus* n. sp.;
f, *Cletus capensis* (Westwood, 1842);
g, *Cletus clavatus* (Signoret, 1860).

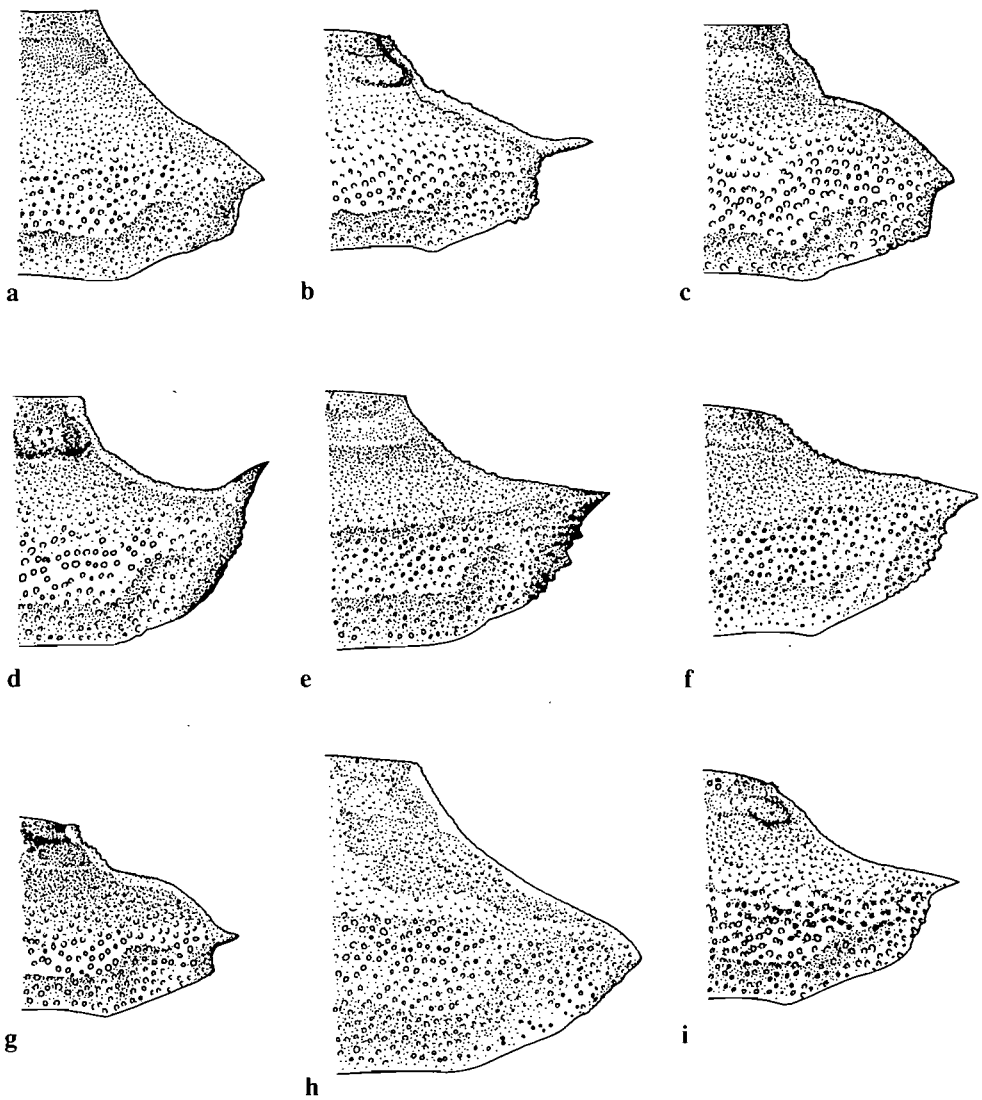

Fig. 25: Pronotum:
a, *Cletus clavatus* (Signoret, 1860);
b, c, *Cletoscellus delectabilis* n. sp.;
d, *Cletus poikilus* n. sp.;
e, f, *Cletus incultus* n. sp.;
g, *Cletoscellus spinijugis* (Bergroth, 1905);
h, *Cletoliturus lituripennis* (Stål, 1855);
i, *Cletus capensis* (Westwood, 1842).

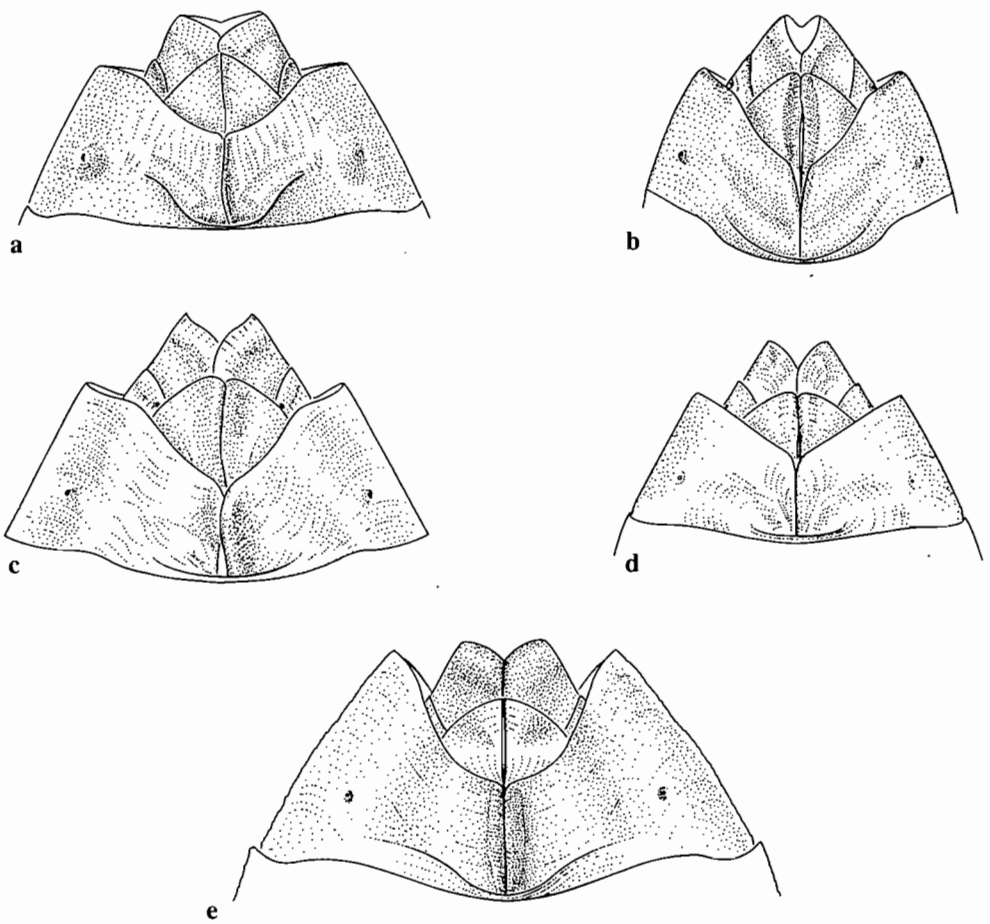

Fig. 26: Female genital plates:
a, *Cletoliturus lituripennis* (Stål, 1855);
b, *Cletus poikilus* n. sp.;
c, *Cletus incultus* n. sp.;
d, *Cletus ochraceus* (Herrich-Schaeffer, 1842);
e, *Cletomorpha nyasana* Bergroth, 1914.

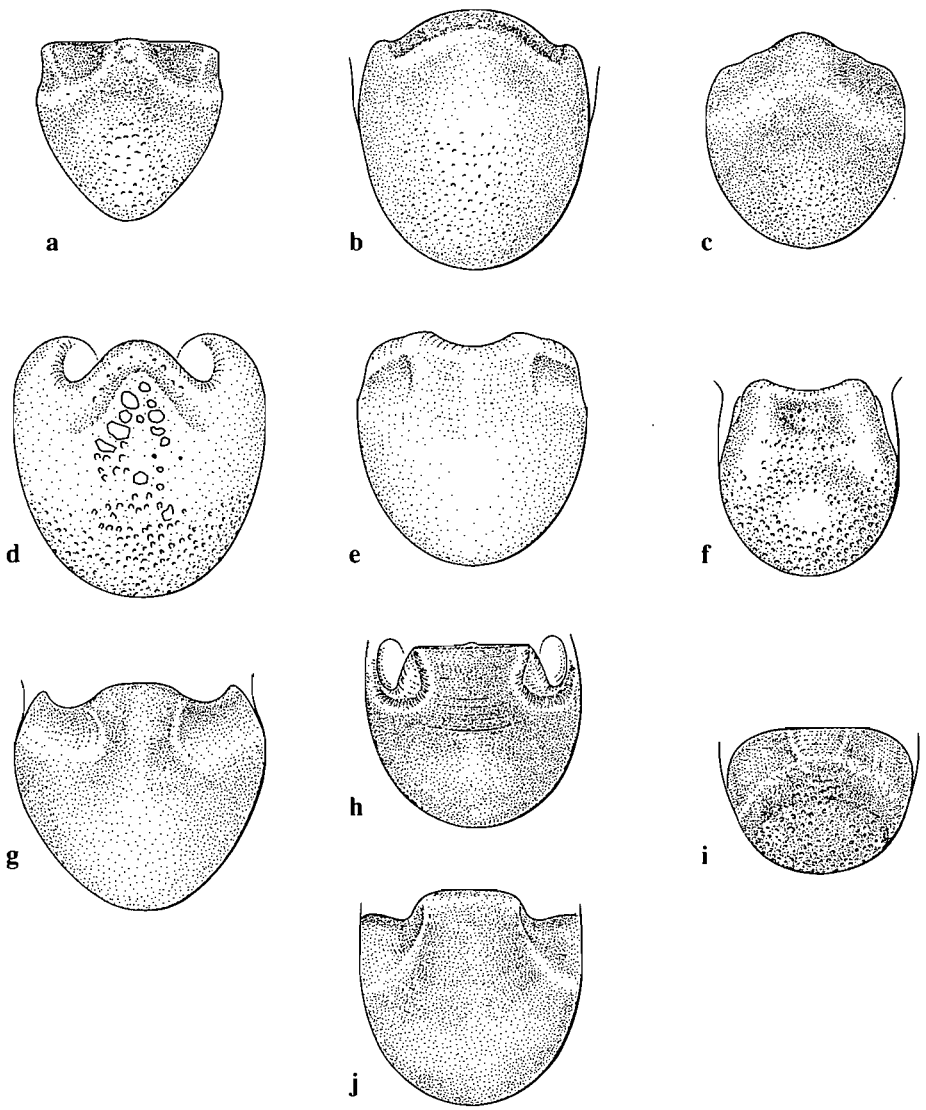

Fig. 27: Male genital capsule in caudal view:
a, *Cletoscellus delectabilis* n. sp.;
b, *Cletus poikilus* n. sp.;
c, *Cletus incultus* n. sp.;
d, *Cletoliturus lituripennis* (Stål, 1855);
e, *Cletus capensis* (Westwood, 1842);
f, *Cletomorpha nyasana* Bergroth, 1914;
g, *Cletus pronus* n. sp.;
h, *Cletus clavatus* (Signoret, 1860);
i, *Cletoscellus spinijugis* (Bergroth, 1905);
j, *Cletus ochraceus* (Herrich-Schaeffer, 1842).

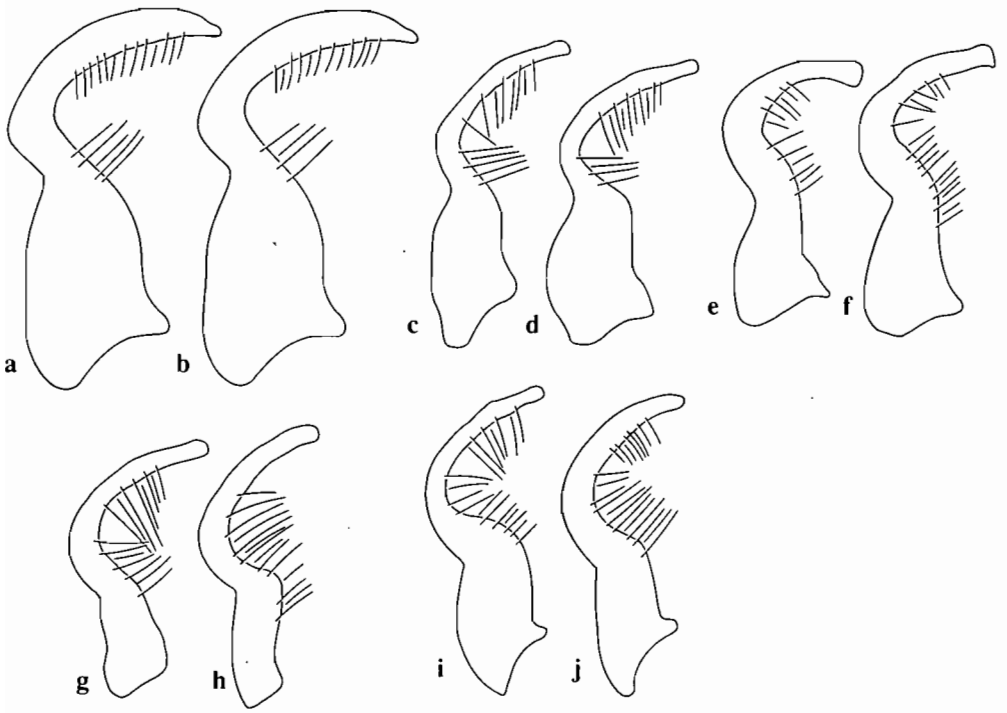

Fig. 28: Parameres: a, b, *Cletomorpha nyasana* Bergroth, 1914; c, d, *Cletus capensis* (Westwood, 1842); e, f, *Cletus incultus* n. sp.; g, h, *Cletus ochraceus* (Herrich-Schaeffer, 1842); i, j, *Cletus poikilus* n. sp.

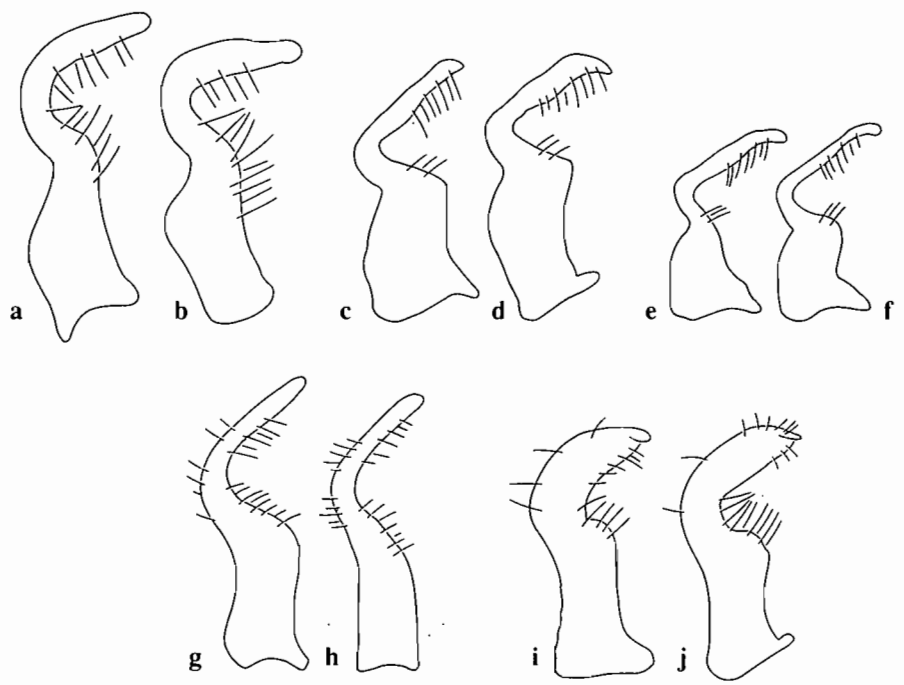

Fig. 29: Parameres: a, b, *Cletus pronus* n. sp.; c, d, *Cletoscellus delectabilis* n. sp.; e, f, *Cletoscellus spinijugis* (Bergroth, 1905); g, *Plinachtus vermiculus* Brailovsky et Barrera, 2002; h, *Plinachtus scitulus* Brailovsky et Barrera, 2002; i, j, *Plinachtus madagascariensis* (Kiritshenko, 1916).

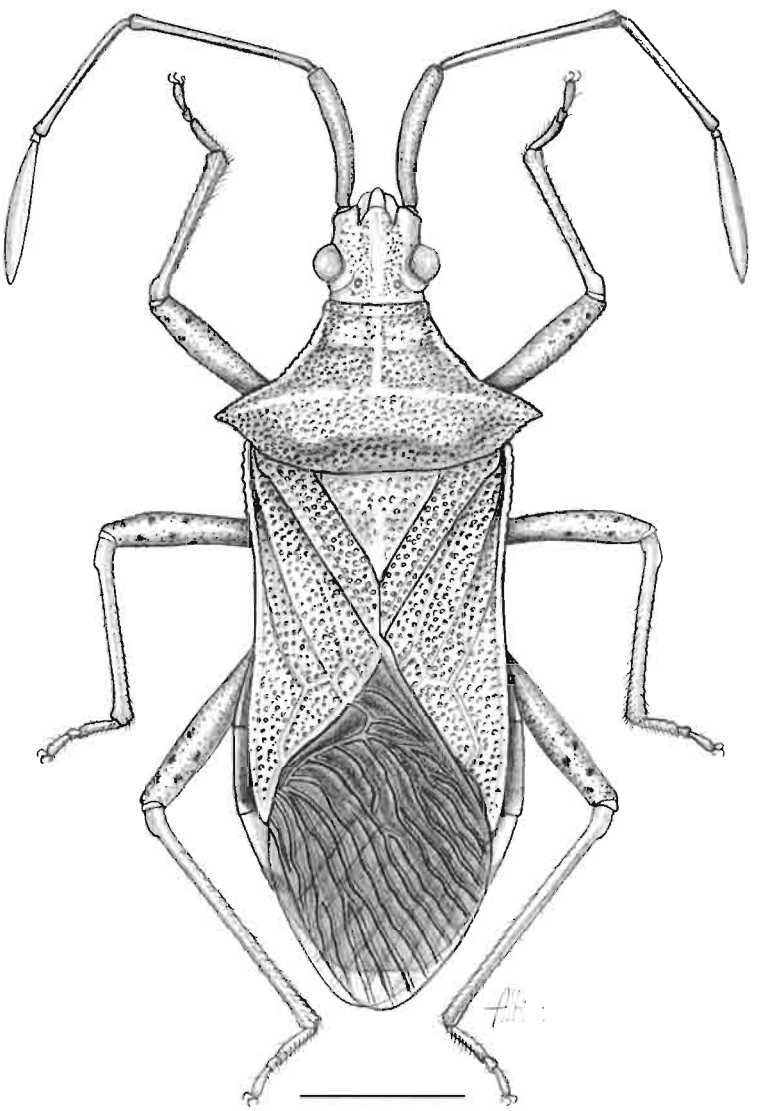

Fig. 30: Dorsal view of *Cletoliturus lituripennis* (Stål, 1855). Scale: 2 mm.

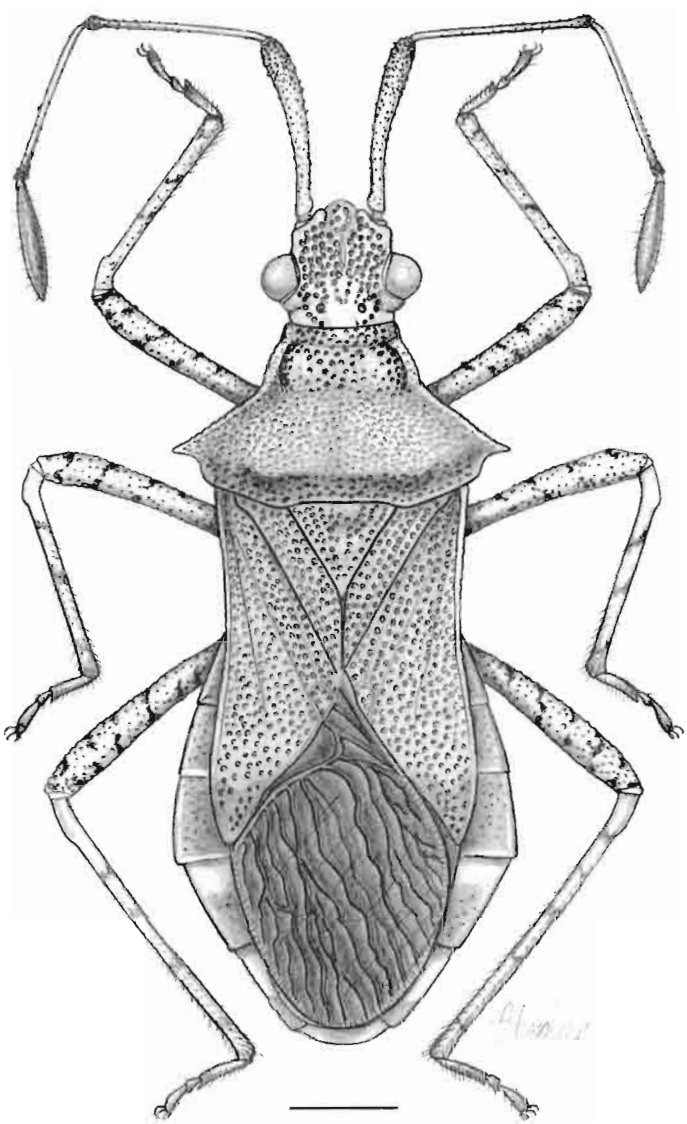

Fig. 31: Dorsal view of *Cletoscellus delectabilis* n. sp.
Scale: 1 mm.

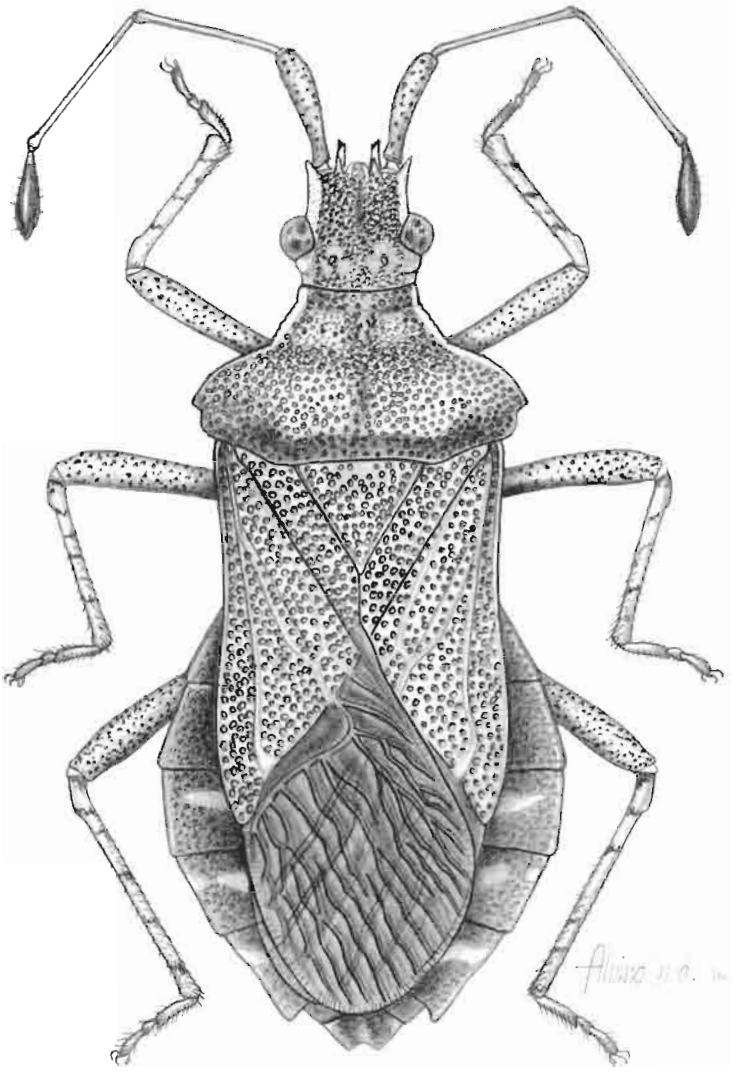

Fig. 32: Dorsal view of *Cletoscellus spinijugis* (Bergroth, 1905) n. comb. Scale: 1 mm.

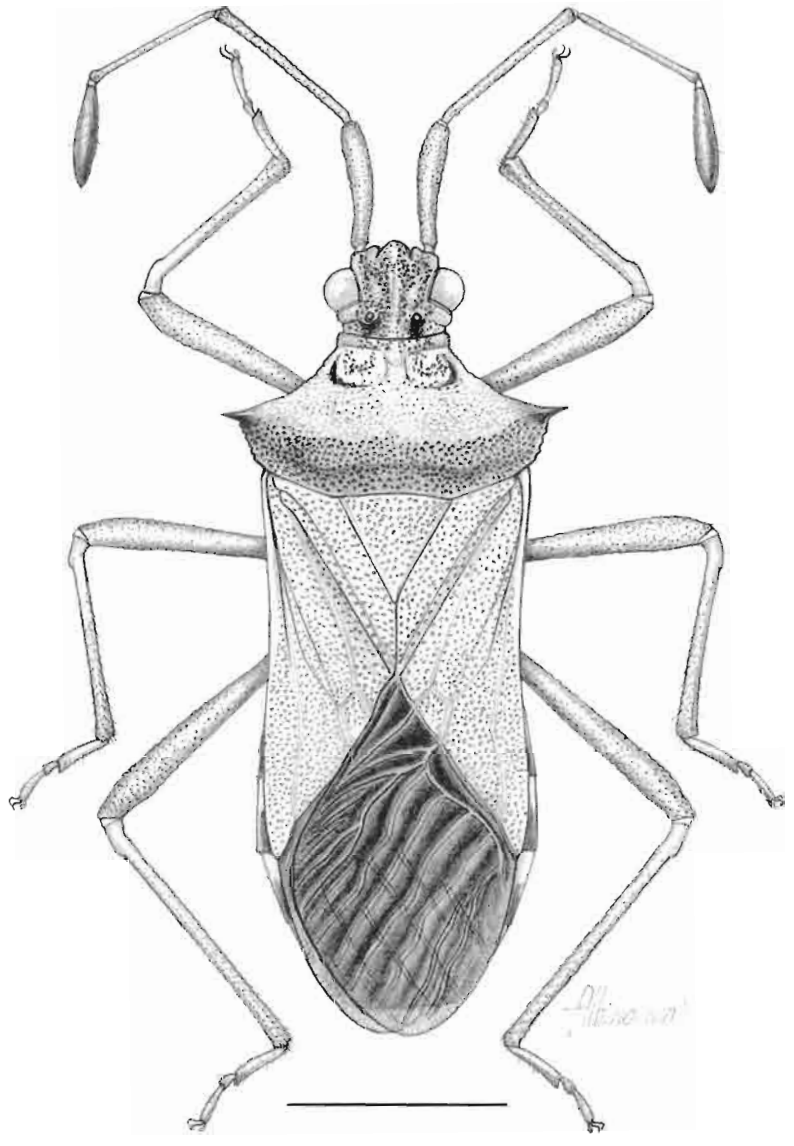

Fig. 33: Dorsal view of *Cletus capensis* (Westwood, 1842). Scale: 2 mm.

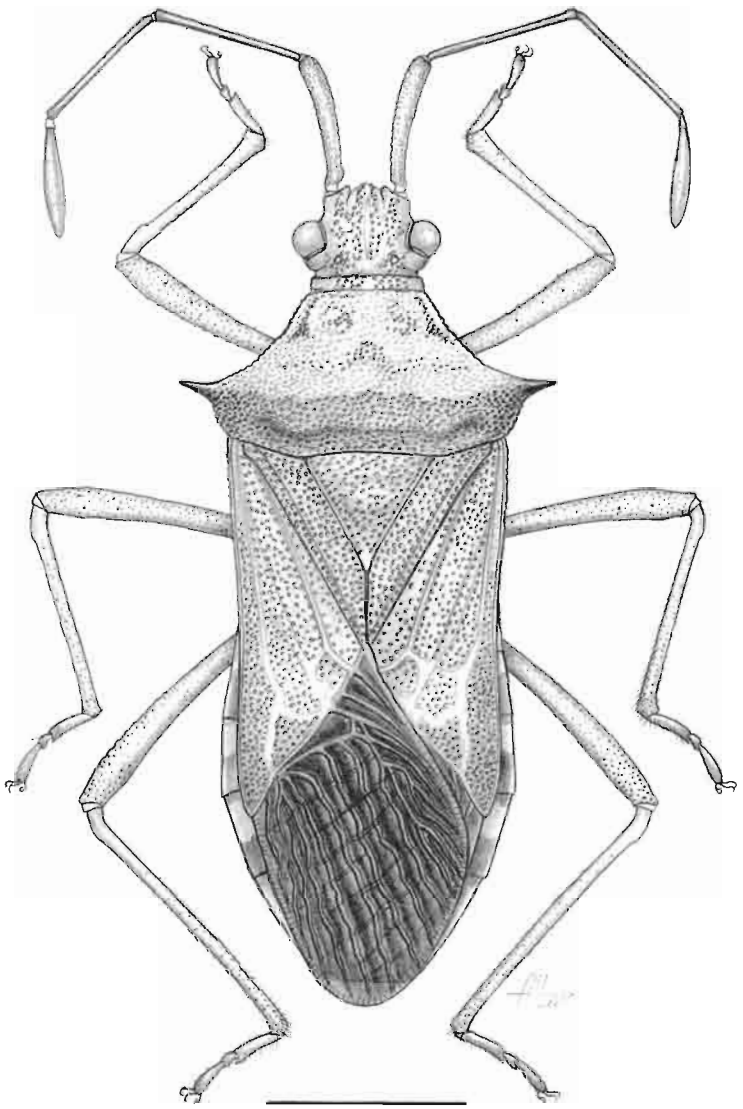

Fig. 34: Dorsal view of *Cletus capensis* (Westwood, 1842). Scale: 2 mm.

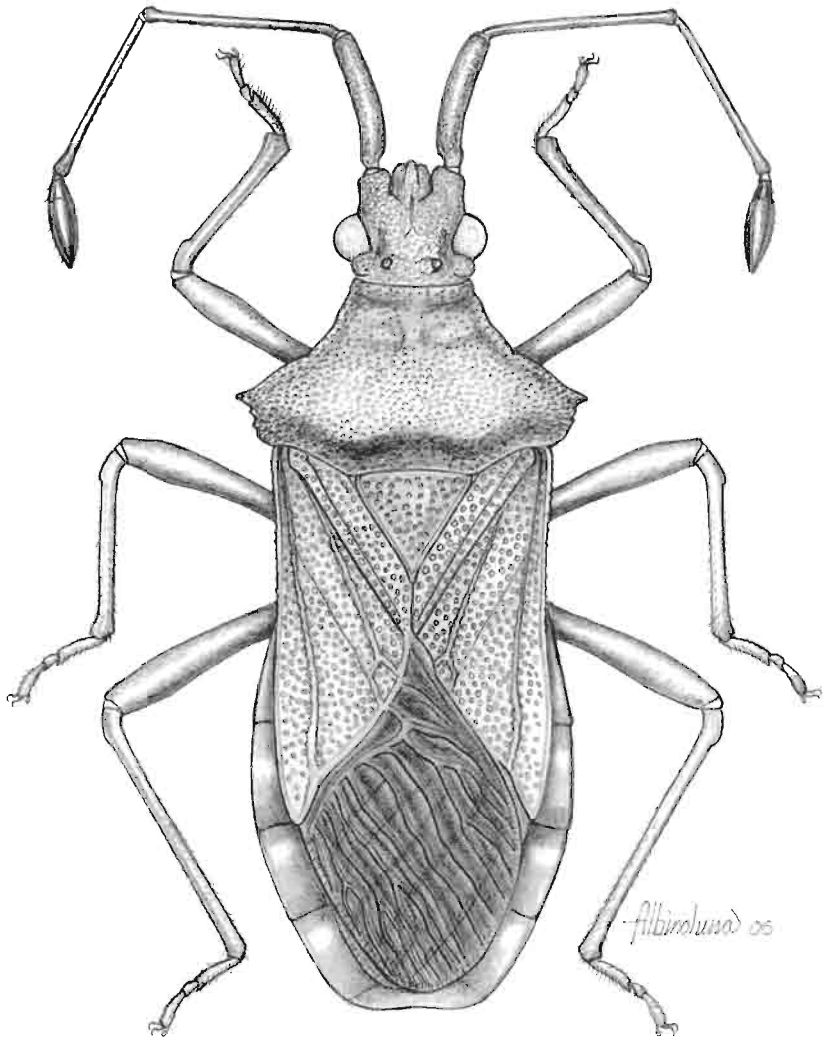

Fig. 35: Dorsal view of *Cletus clavatus* (Signoret, 1860). Scale: 1 mm.

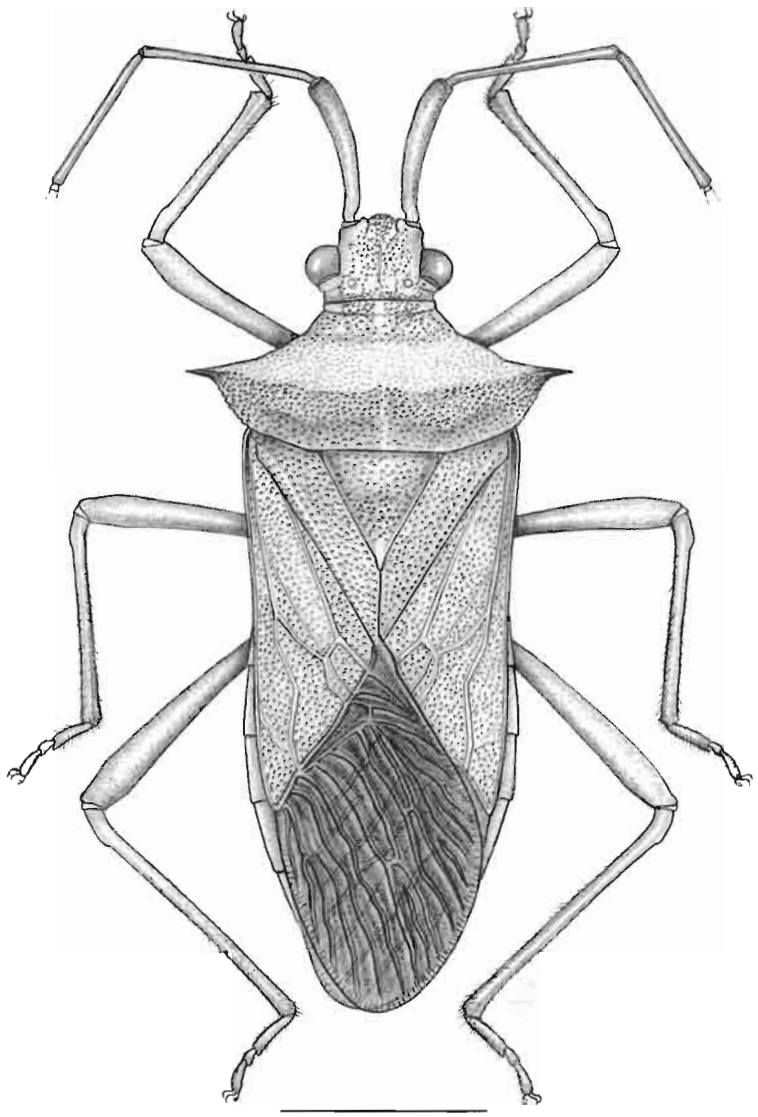

Fig. 36: Dorsal view of *Cletus incultus* n. sp.
Scale: 2 mm.

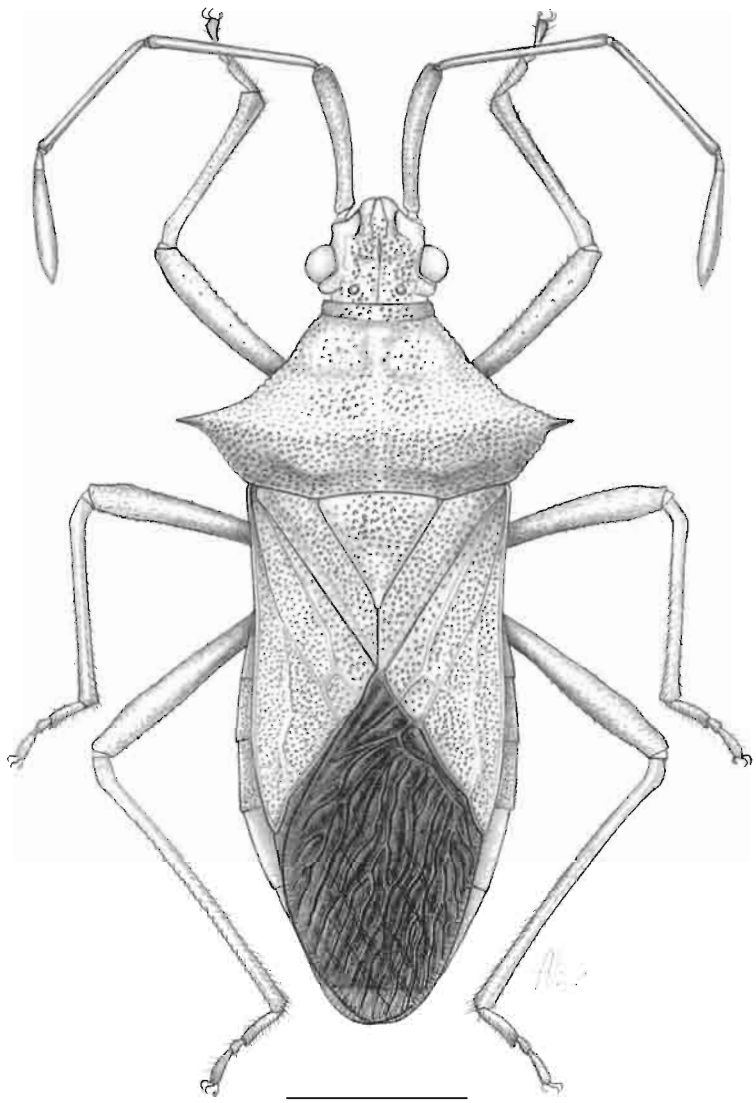

Fig. 37: Dorsal view of *Cletus ochraceus* (Herrich-Schaeffer, 1842). Scale: 2 mm.

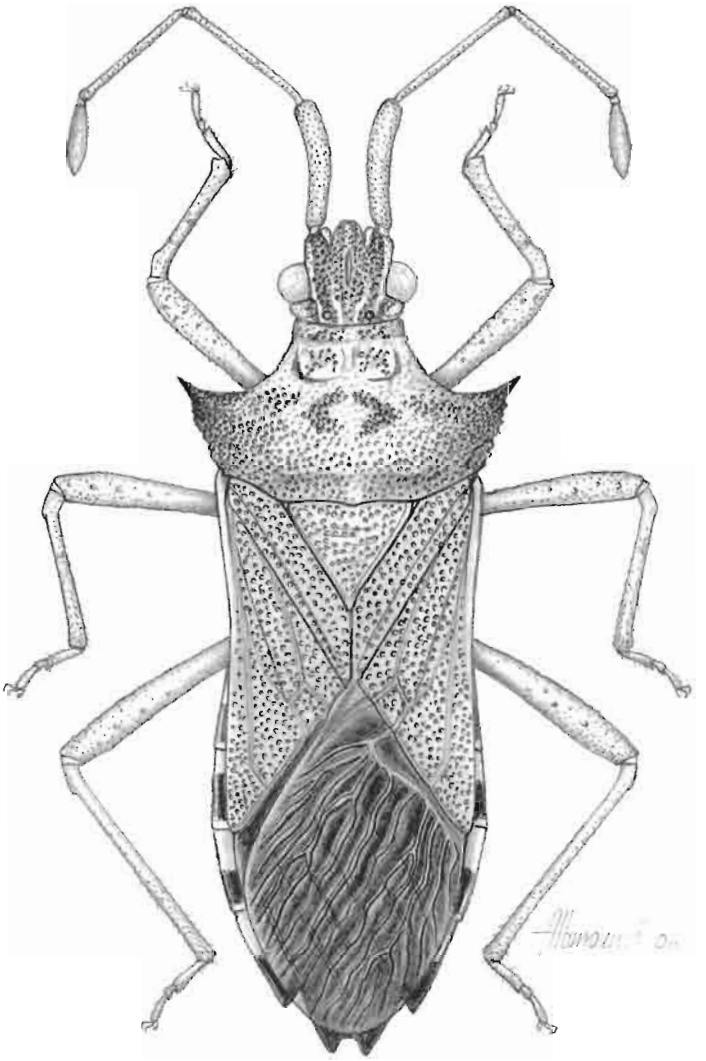

Fig. 38: Dorsal view of *Cletus poikilus* n. sp.
Scale: 2 mm.

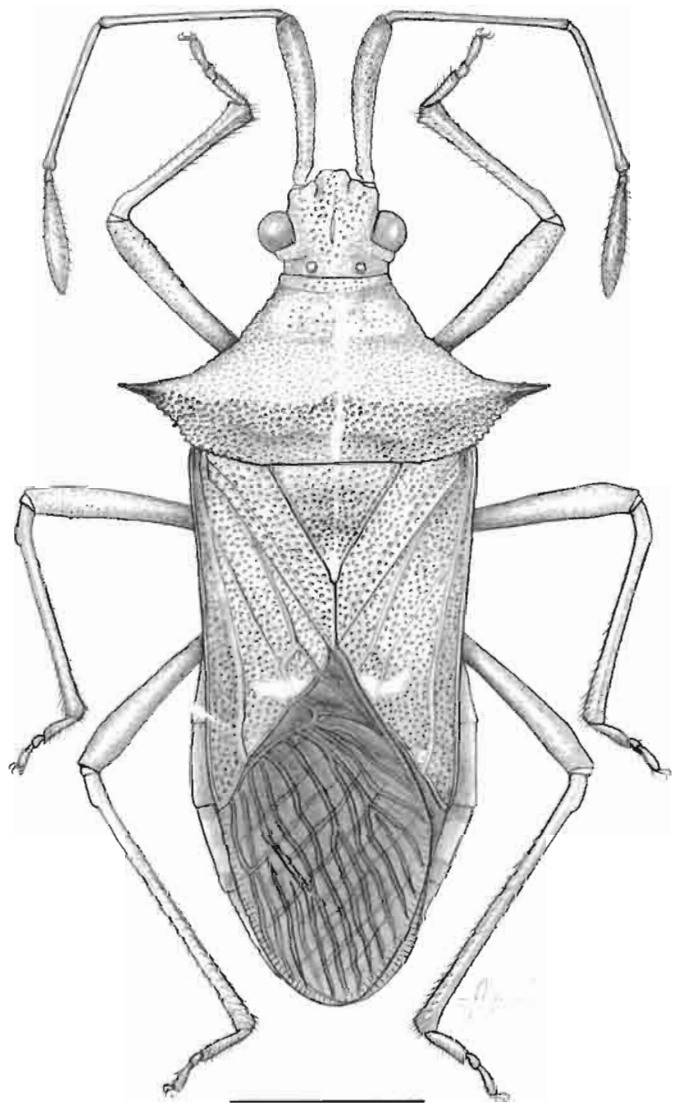

Fig. 39: Dorsal view of *Cletus pronus* (Bergroth, 1914). Scale: 2 mm.

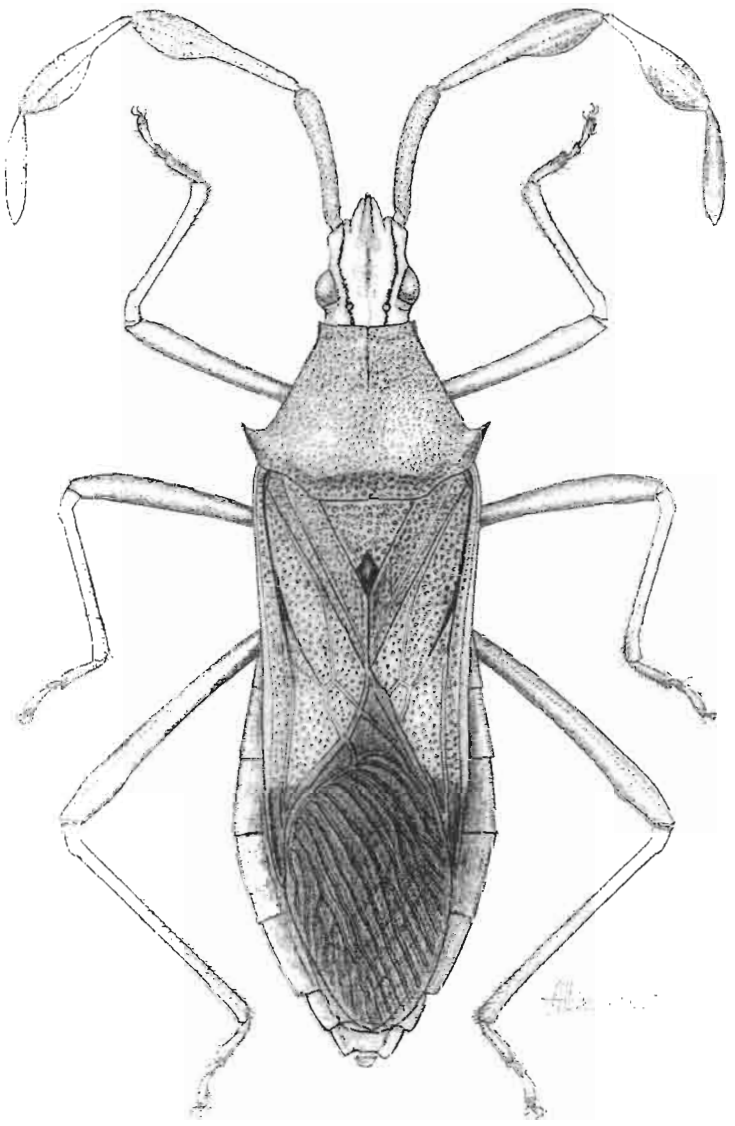

Fig. 40: Dorsal view of *Plinachtus madagascariensis* (Kiritshenko, 1916). Scale: 1 mm.

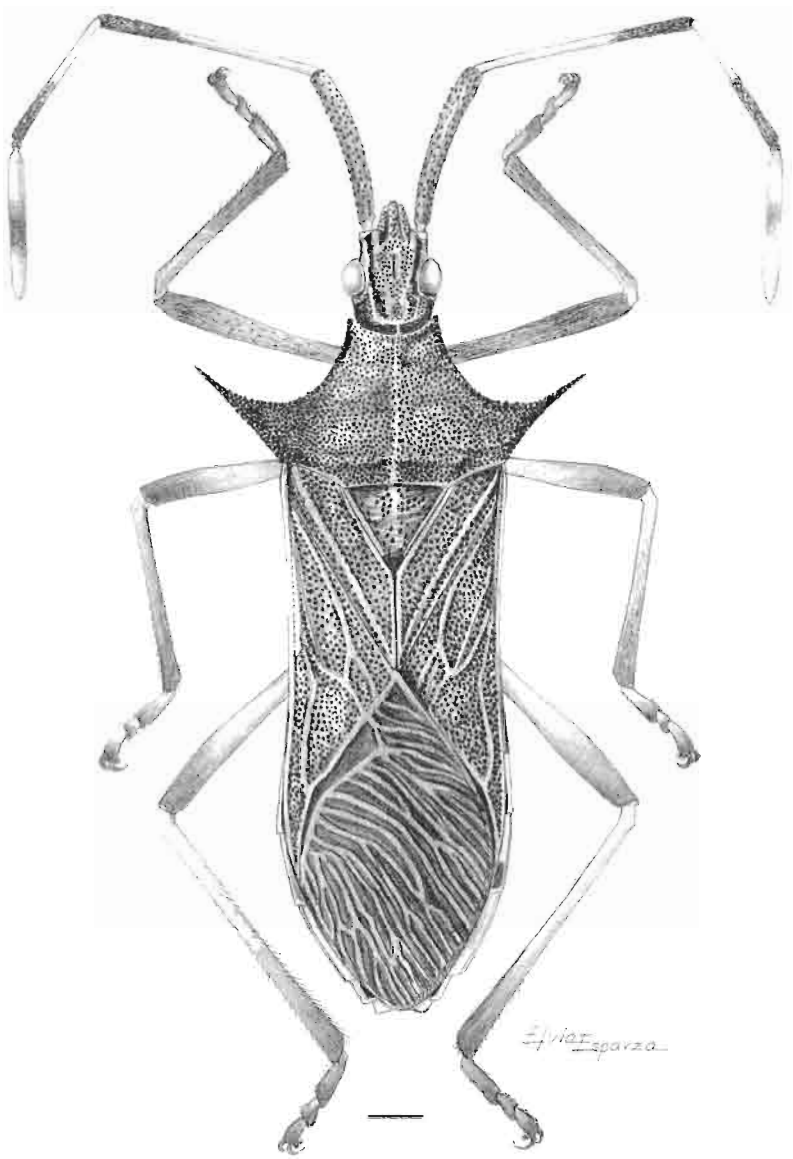

Fig. 41: Dorsal view of *Plinachtus vermiculus* Brailovsky et Barrera, 2002. Scale: 1 mm.

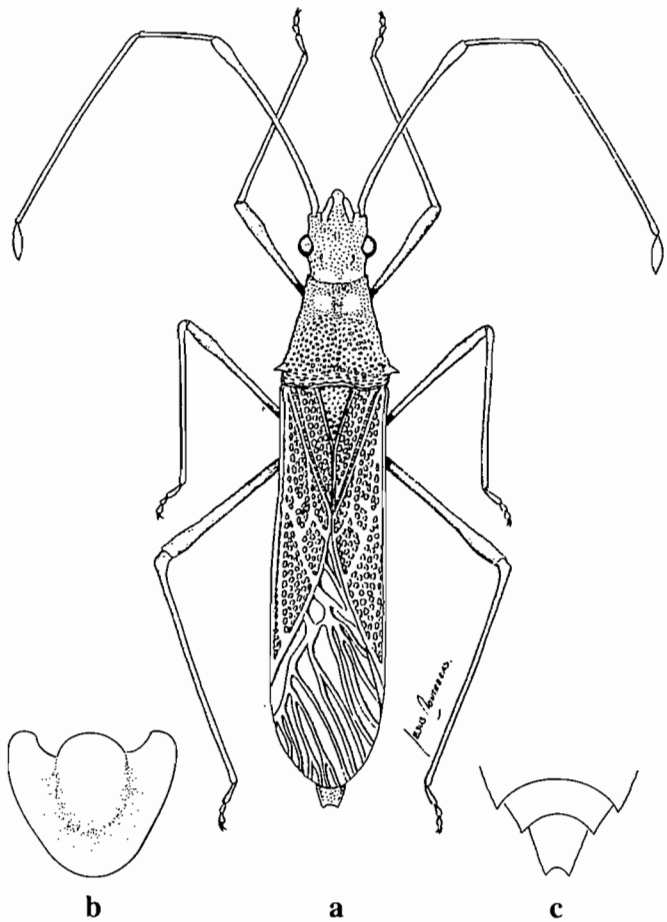

Fig. 42: *Corduba (Acanthocorduba) baniana* Brailovsky et Ortega León, 1998:
a, dorsal view;
b, male genital capsule in caudal view;
c, female genital plates.

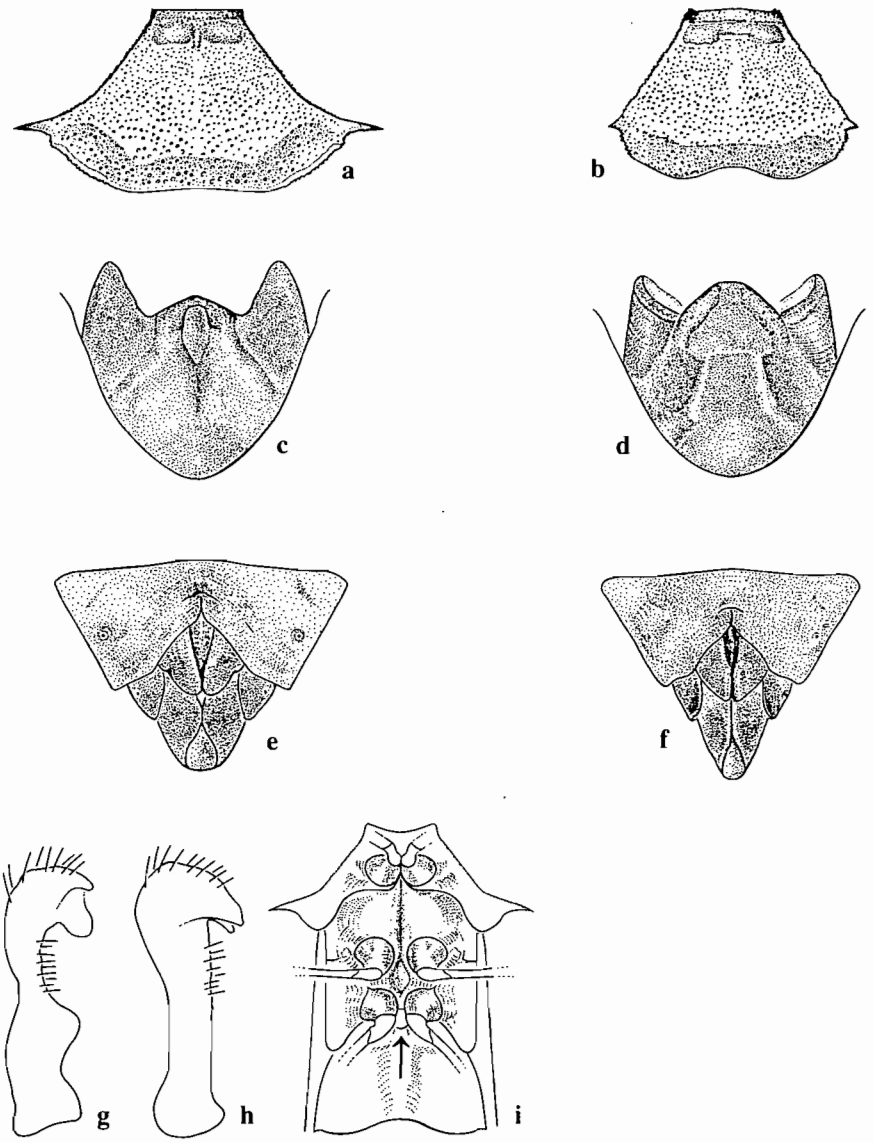

Fig. 43: *Hydara* spp.:
a, c, e, g-i, *H. tenuicornis* (Westwood, 1842):
a, pronotum; c, male genital capsule in caudal view;
e, female genital plates; g-h, paramere;
i, thorax in ventral view (arrow point out the intermetacoxal space);
b, d, f, *H. kmenti* Brailovsky, 1842:
b, pronotum; d, male genital capsule; f, female genital plates.

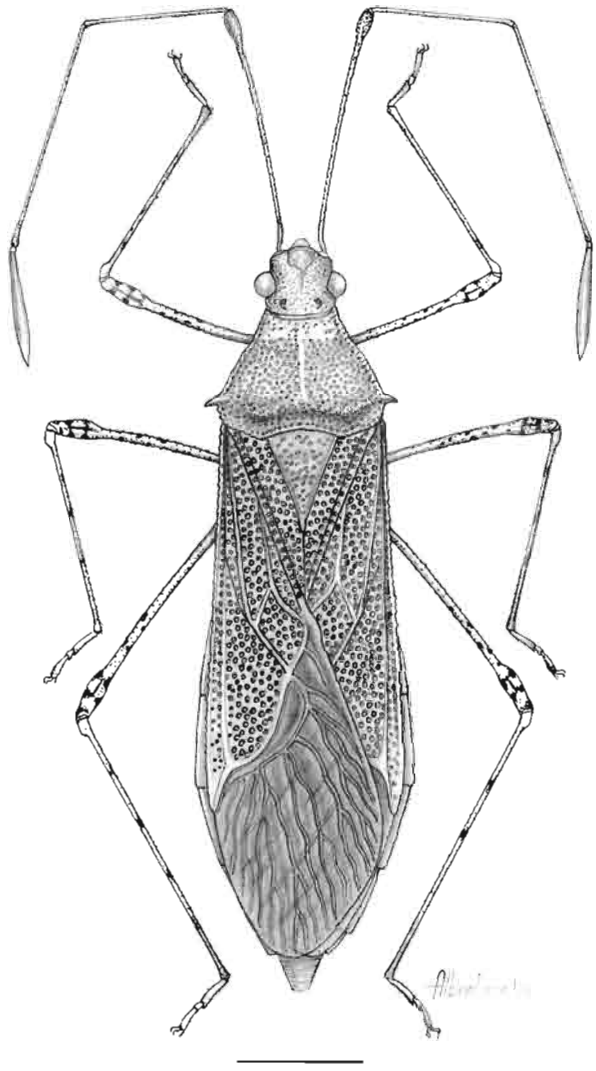

Fig. 44: Dorsal view of *Hydara kmenti* Brailovsky, 2006.
Scale: 2 mm.

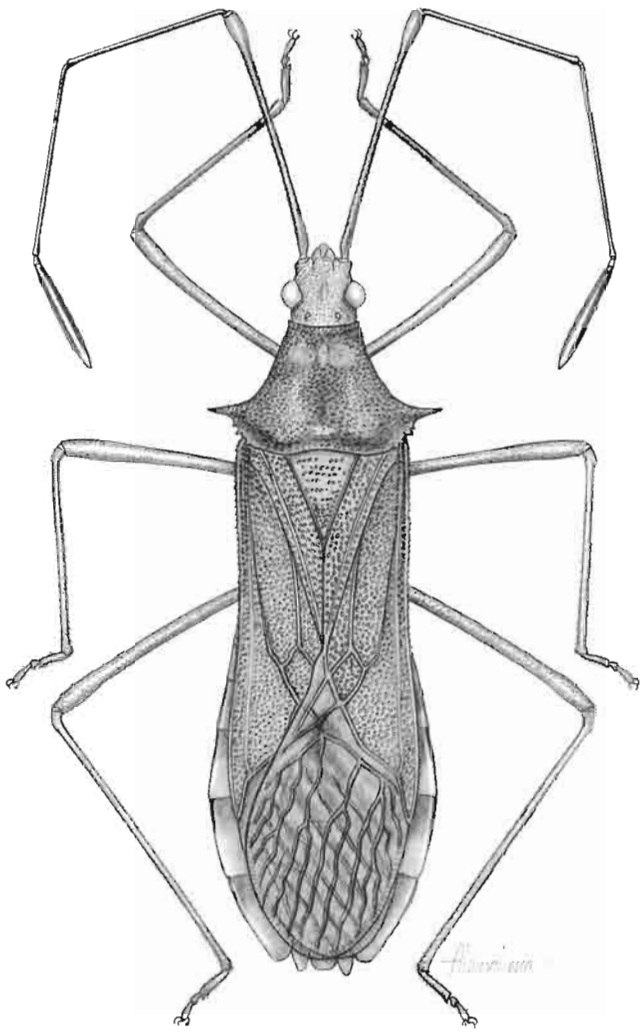

Fig. 45: Dorsal view of *Hydara tenuicornis* (Westwood, 1842). Scale: 2 mm.

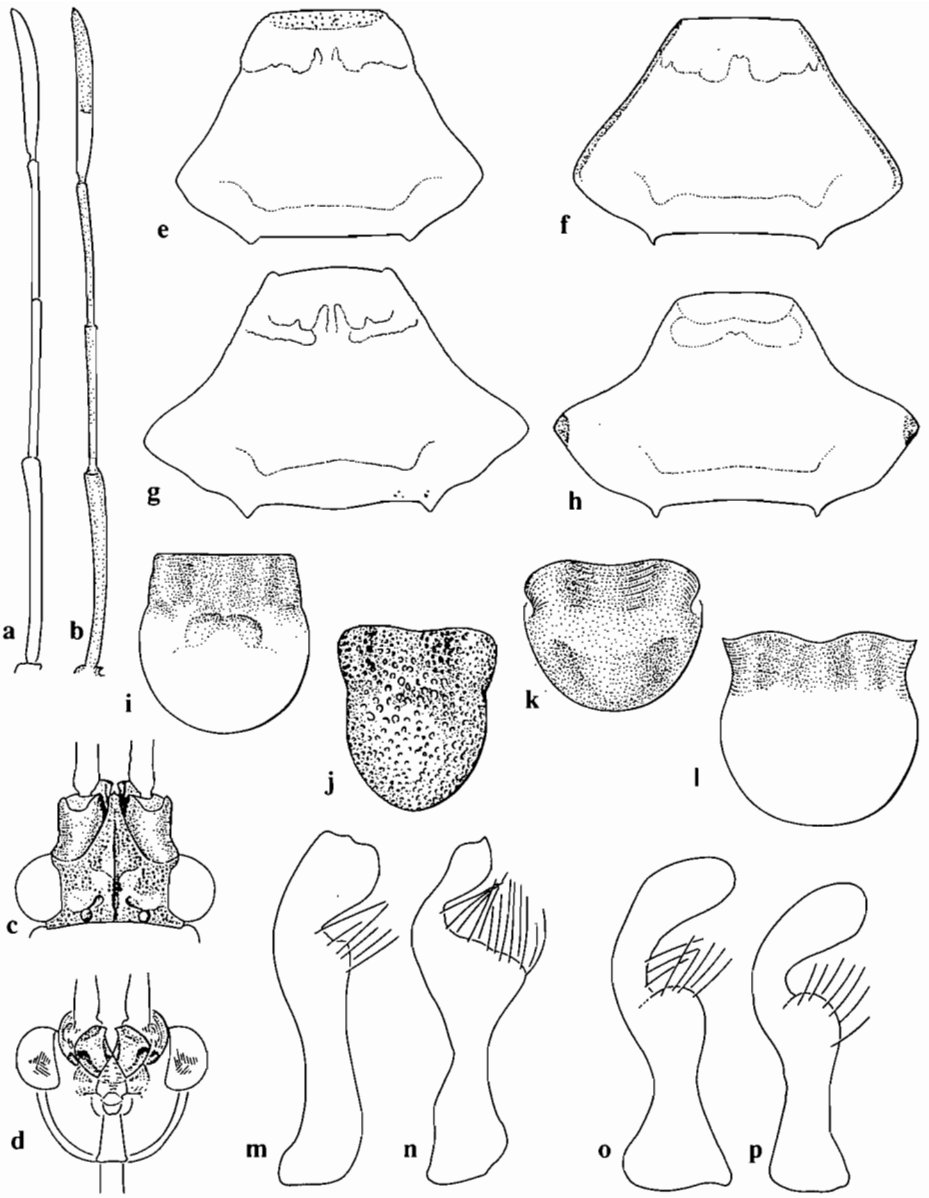

Fig. 46: *Latimbus* spp.:
a, b, antennae; a, *L. saphisus* n. sp.; b, *L. stereus* n. sp.;
c, d, head of *L. stereus* n. sp.: c, dorsal view; d, ventral view;
e-h, pronotum: e, *L. naevillus* n. sp.; f, *L. refulgens* n. sp.; g, *L. stereus* n. sp.; h, *L. saphisus* n. sp.;
i-l, male genital capsule in caudal view:
i, *L. naevillus* n. sp.; j, *L. refulgens* n. sp.; k, *L. stereus* n. sp.; l, *L. saphisus* n. sp.;
m-p, parameres: m, n, *L. refulgens* n. sp.; o, p, *L. stereus* n. sp.

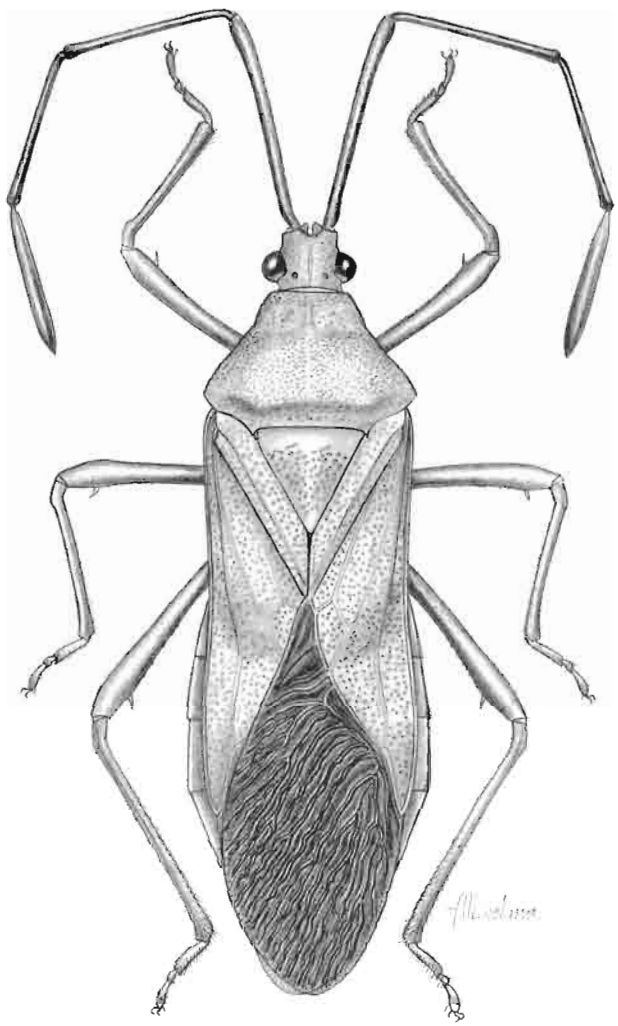

Fig. 47: Dorsal view of *Latimbus refulgens* n. sp.
Scale: 2 mm.

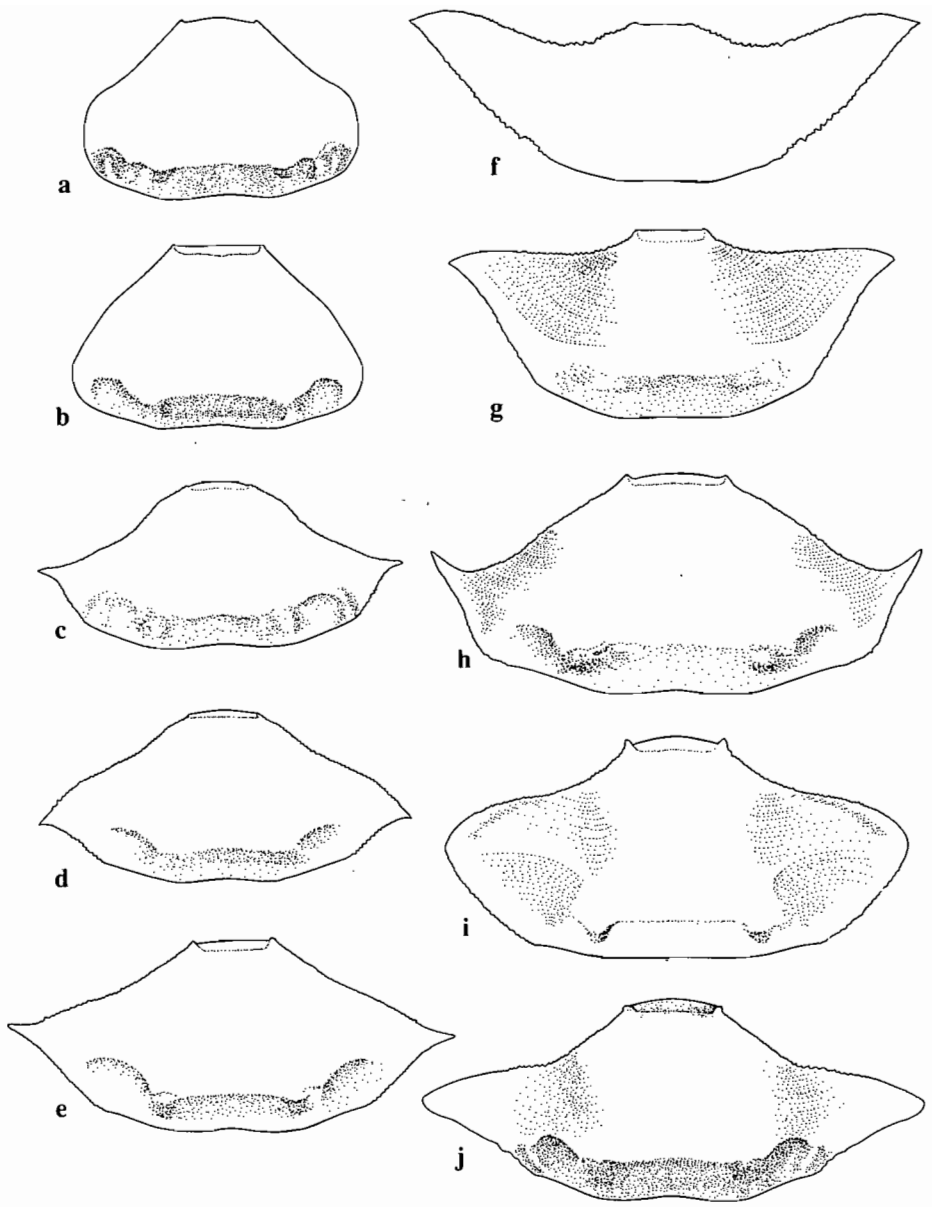

Fig. 48: Pronotum:
a, *Anoplocnemis brevicornis* Bergroth, 1910;
b, *Anoplocnemis consociatus* n. sp.;
c, h, *Anoplocnemis curvipes* (Fabricius, 1781);
d, *Anoplocnemis luctuosa* (Stål, 1865);
e, *Anoplocnemis madagascariensis* (Signoret, 1860);
f, g, *Dianomictis expansa* (Distant, 1879);
i, *Mygdonia elongata* Distant, 1879;
j, *Elasmocniella gloriosus* n. sp.

Fig. 49: Hind leg:
a, *Anoplocnemis brevicornis* (Bergroth, 1910);
b, *Elasmocniella gloriosus* n. sp.;
c, d, *Dianomictis expansa* (Distant, 1879): c, female; d, male;
e, *Anoplocnemis curvipes* (F., 1781);
f, *Mygdonia elongata* Distant, 1879 (female);
g, *Mygdonia elongata* Distant, 1879 (male).

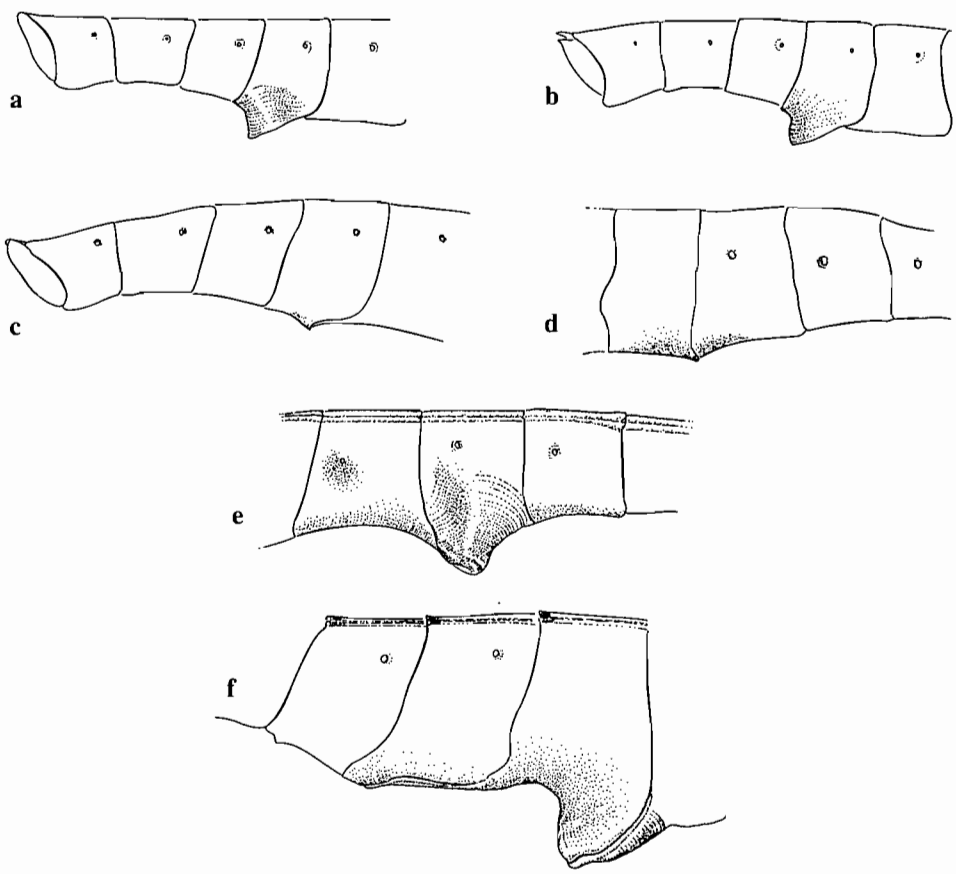

Fig. 50: Abdomen in lateral view:
a, *Anoplocnemis brevicornis* Bergroth, 1910;
b, *Anoplocnemis brevicrus* Bergroth, 1910;
c, *Anoplocnemis consociatus* n. sp.;
d, *Anoplocnemis curvipes* (F., 1781);
e, *Mygdonia elongata* Distant, 1879;
f, *Dianomictis expansa* (Distant, 1879).

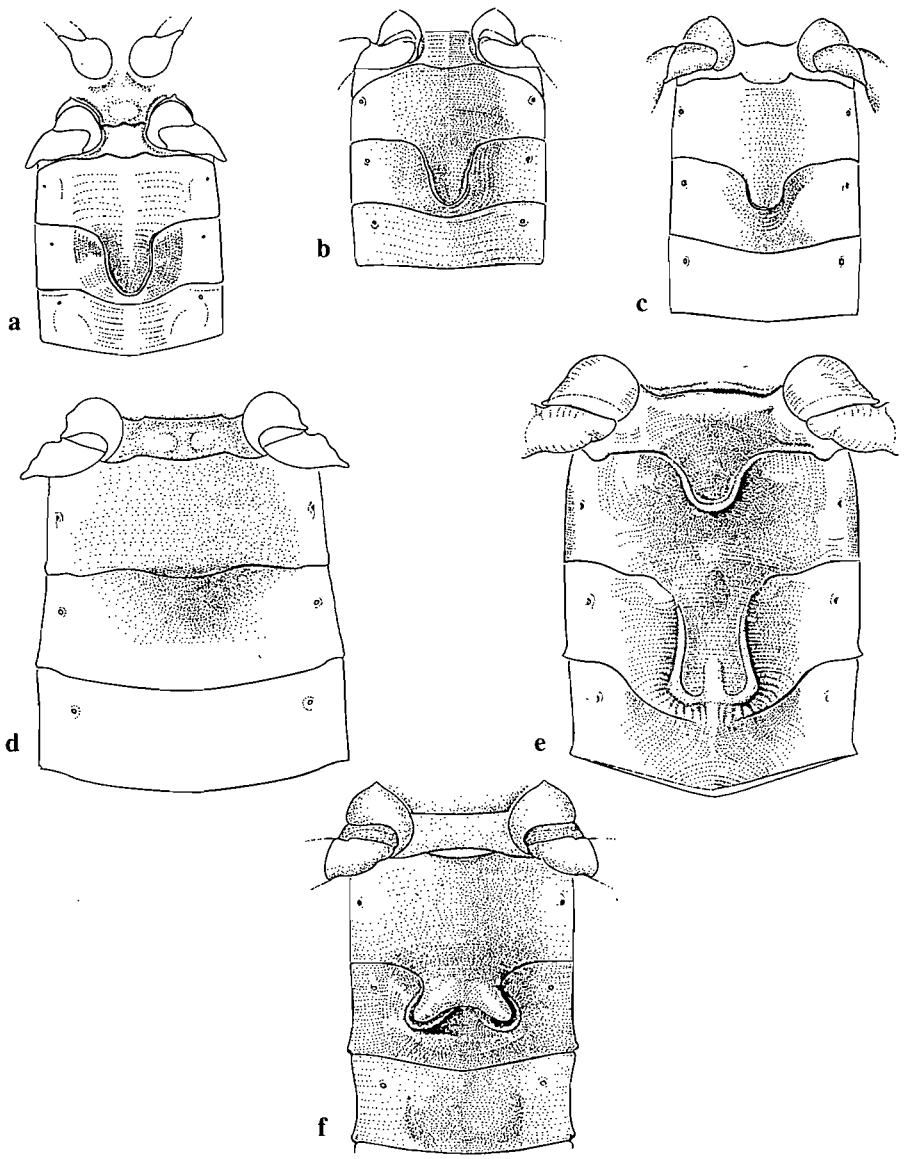

Fig. 51: Three first segments of abdomen in ventral view:
a, *Anoplocnemis brevicornis* Bergroth, 1910;
b, *Anoplocnemis brevicrus* Bergroth, 1910;
c, *Anoplocnemis consociatus* n. sp.;
d, *Anoplocnemis curvipes* (F., 1781);
e, *Dianomictis expansa* (Distant, 1879);
f, *Mygdonia elongata* Distant, 1879.

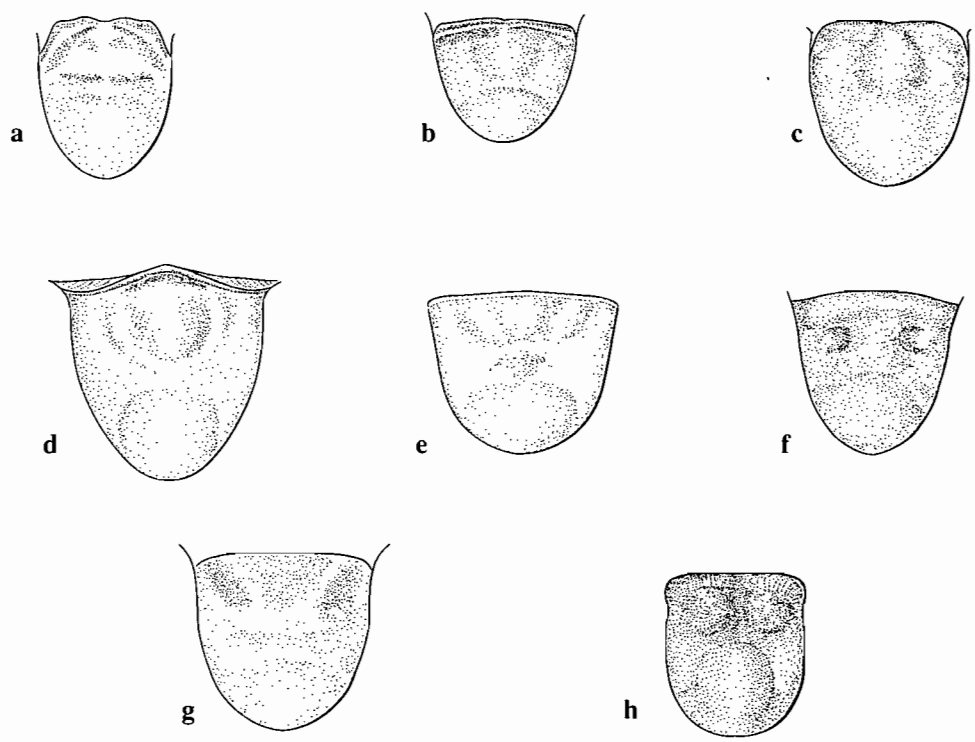

Fig. 52: Male genital capsule in caudal view:
a, *Anoplocnemis brevicornis* Bergroth, 1910;
b, *Anoplocnemis brevicrus* Bergroth, 1910;
c, *Anoplocnemis consociatus* n. sp.;
d, *Anoplocnemis curvipes* (F., 1781);
e, *Anoplocnemis luctuosa* (Stål, 1865);
f, *Anoplocnemis madagascariensis* (Signoret, 1860);
g, *Dianomictis expansa* (Distant, 1879);
h, *Mygdonia elongata* Distant, 1879.

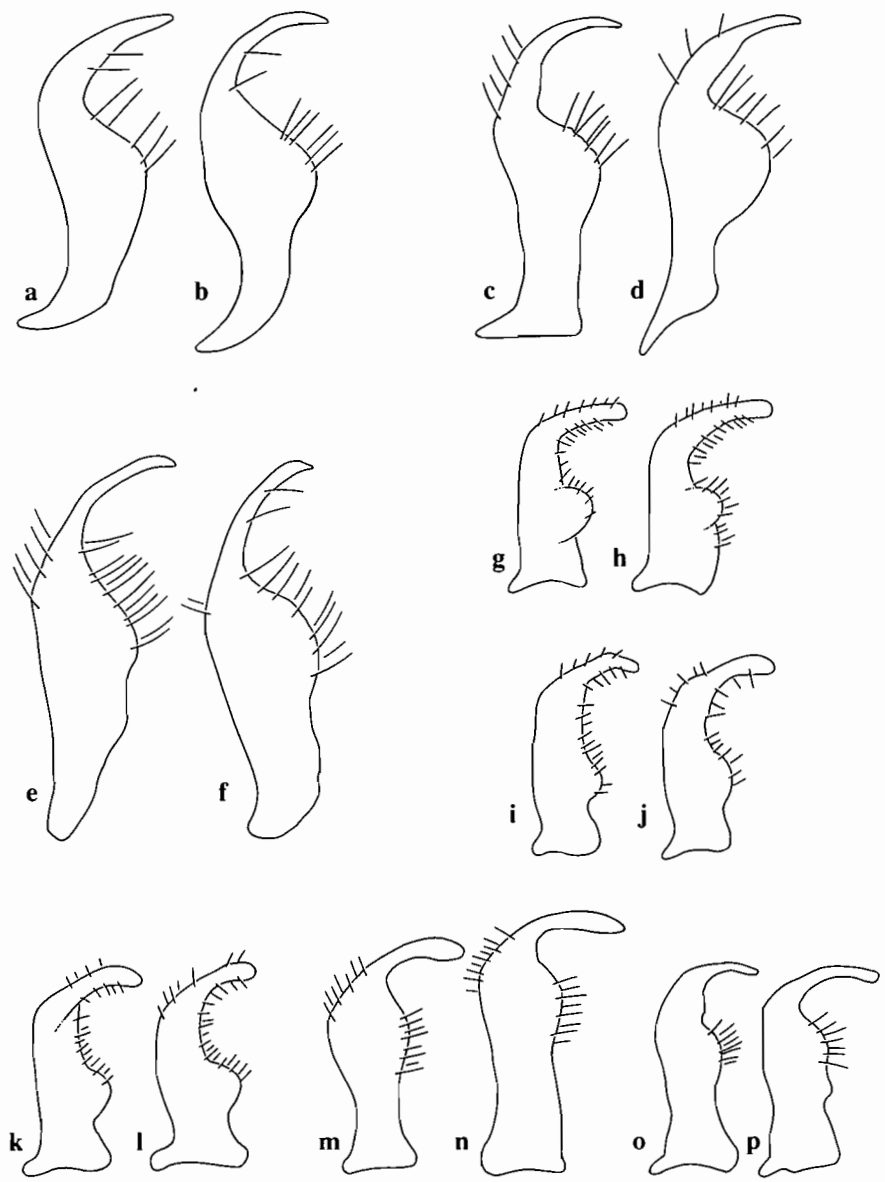

Fig. 53: Parameres:
a, b, *Anoplocnemis brevicornis* Bergroth, 1910;
c, d, *Anoplocnemis brevicrus* Bergroth, 1910;
e, f, *Anoplocnemis consociatus* n. sp.;
g, h, *Anoplocnemis curvipes* (F., 1781);
i, j, *Anoplocnemis distincta* (Brancsik, 1893);
k, l, *Anoplocnemis madagascariensis* (Signoret, 1860);
m, n, *Dianomictis expansa* (Distant, 1879);
o, p, *Mygdonia elongata* Distant, 1879.

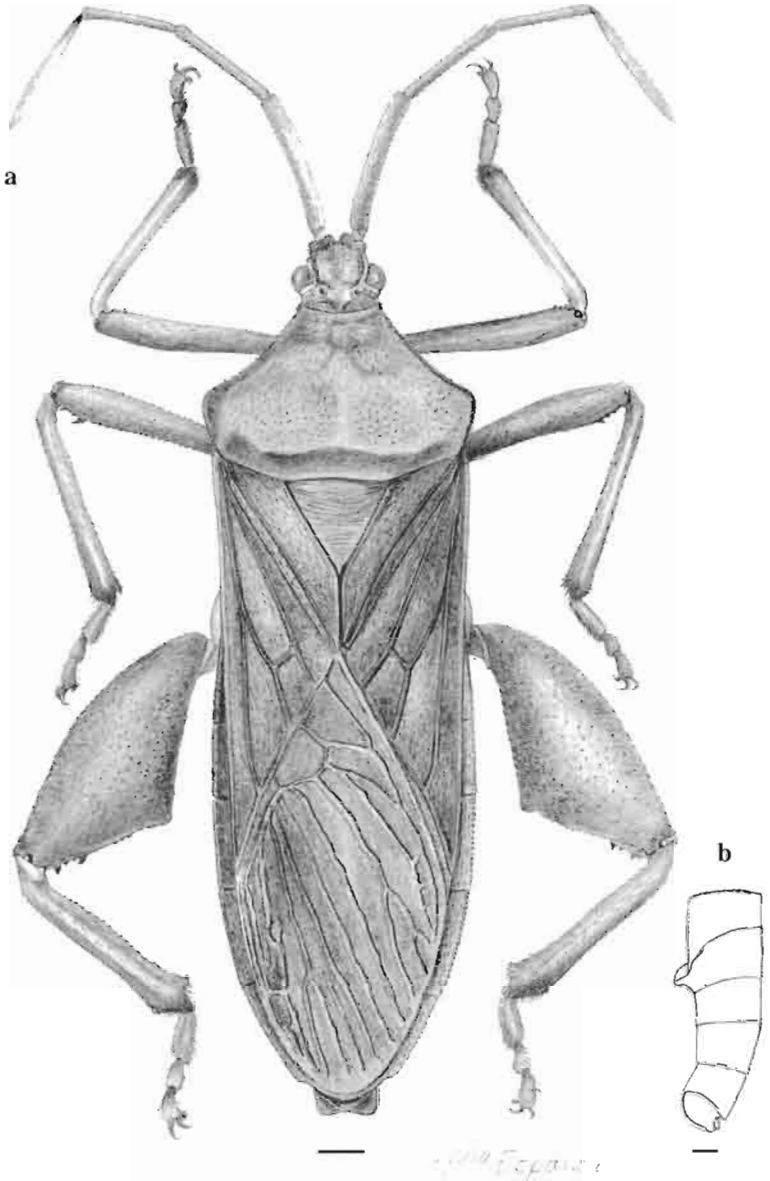

Fig. 54: *Anoplocnemis brevicornis* Bergroth, 1910:
a, dorsal view (male);
b, abdomen in lateral view.
Scales: 1 mm.

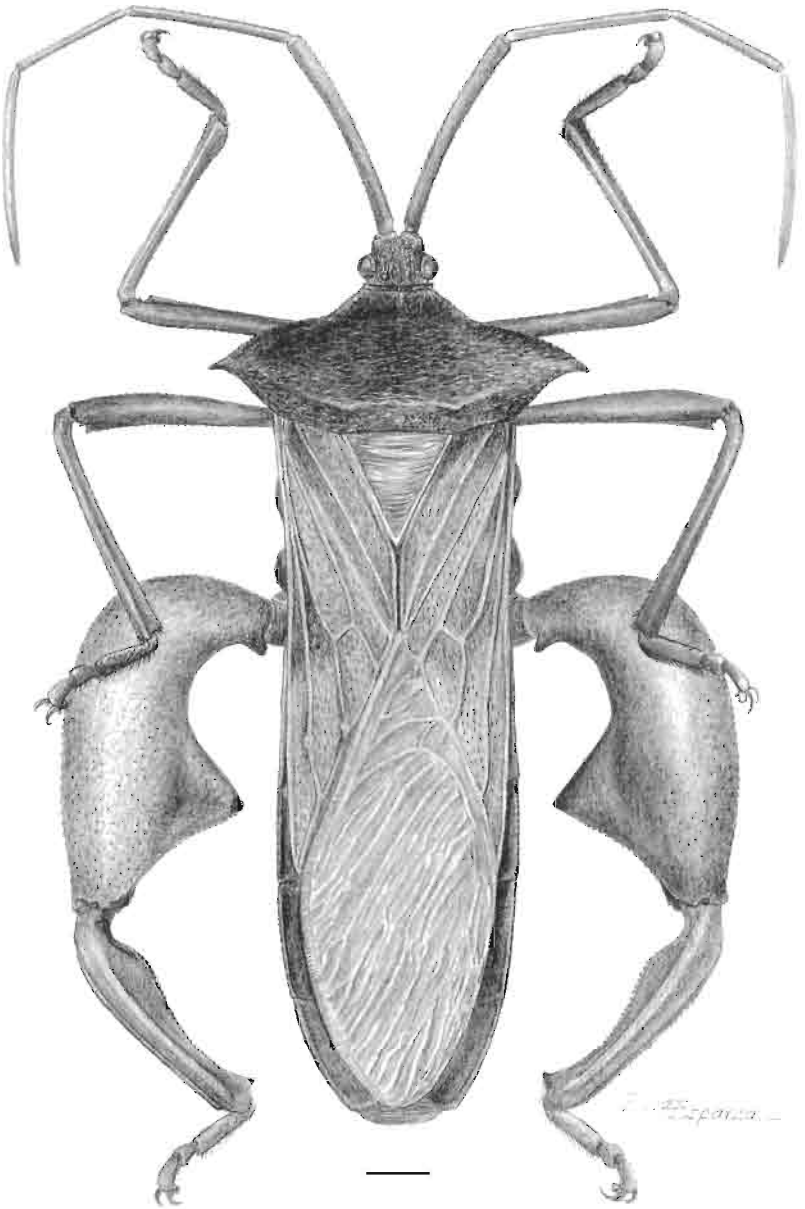

Fig. 55: Dorsal view of *Anoplocnemis madagascariensis* (Signoret, 1860) (male). Scale: 2 mm.

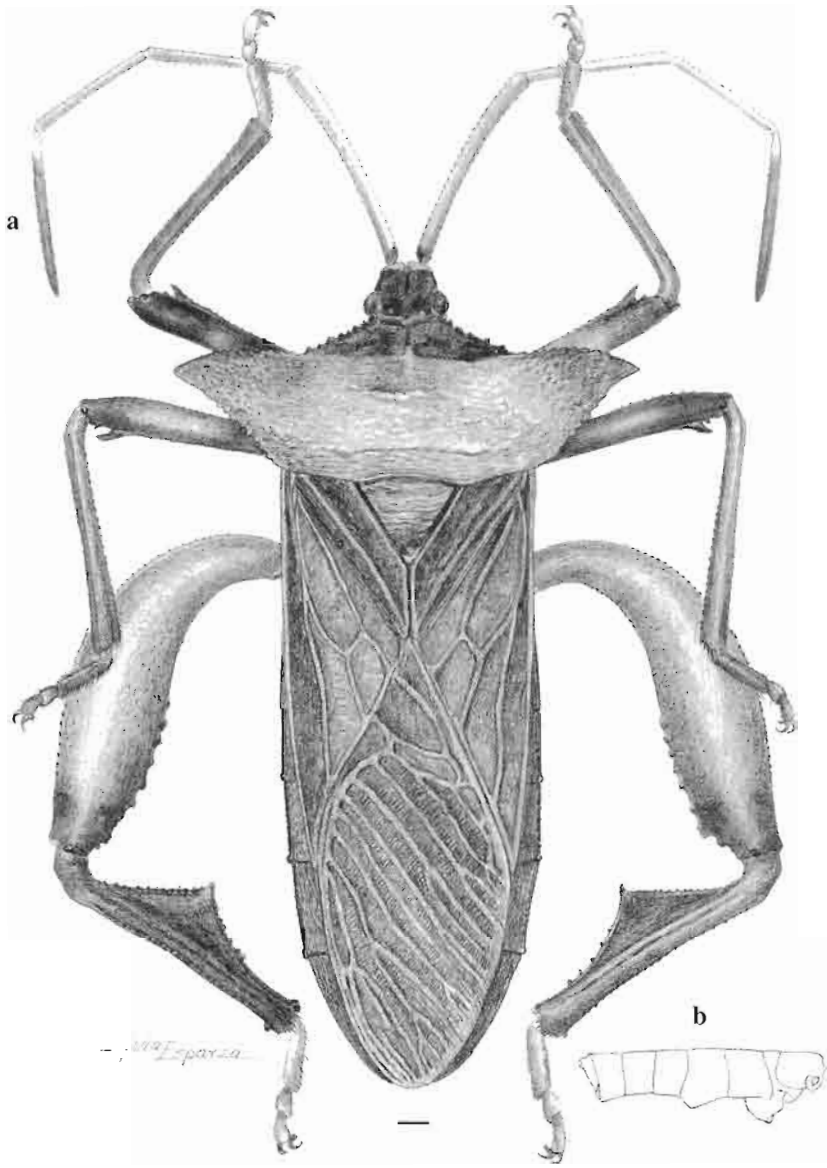

Fig. 56: *Dianomictis expansa* (Distant, 1879):
a, dorsal view (male);
b, abdomen in lateral view.
Scale: 1 mm.

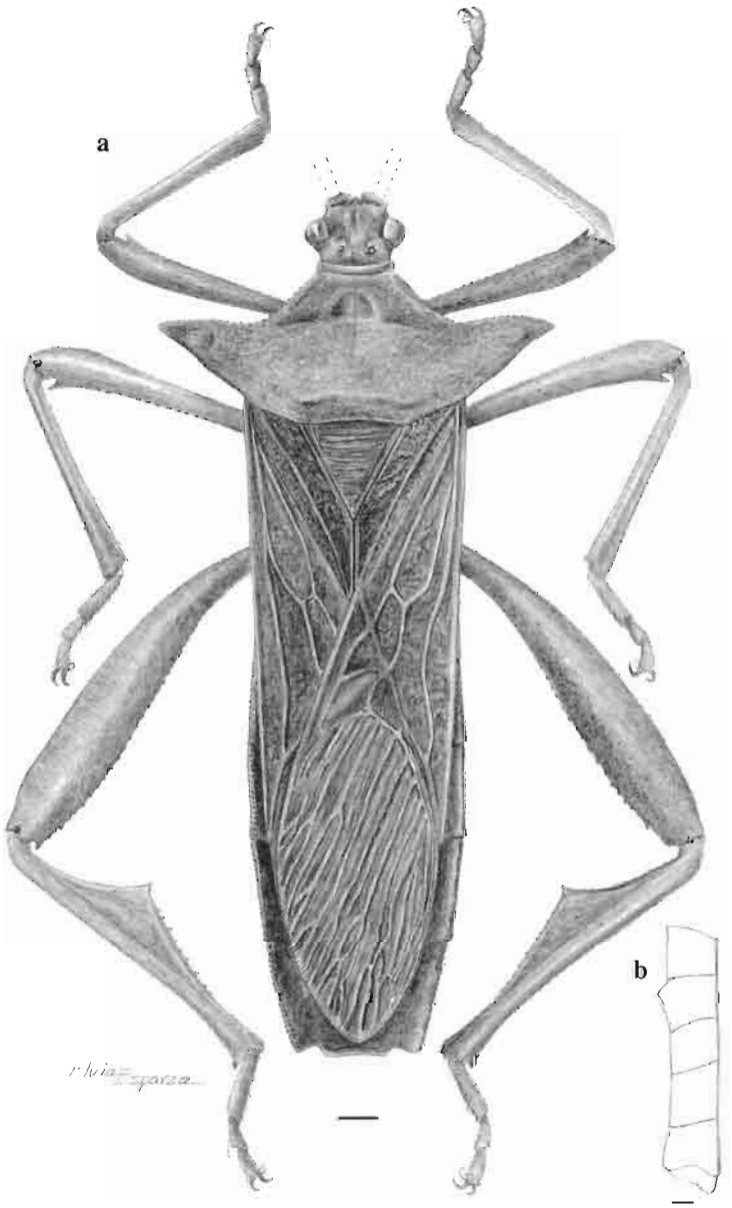

Fig. 57: *Elasmocniella gloriosus* n. sp.:
a, dorsal view (male);
b, abdomen in lateral view.
Scales: 1 mm.

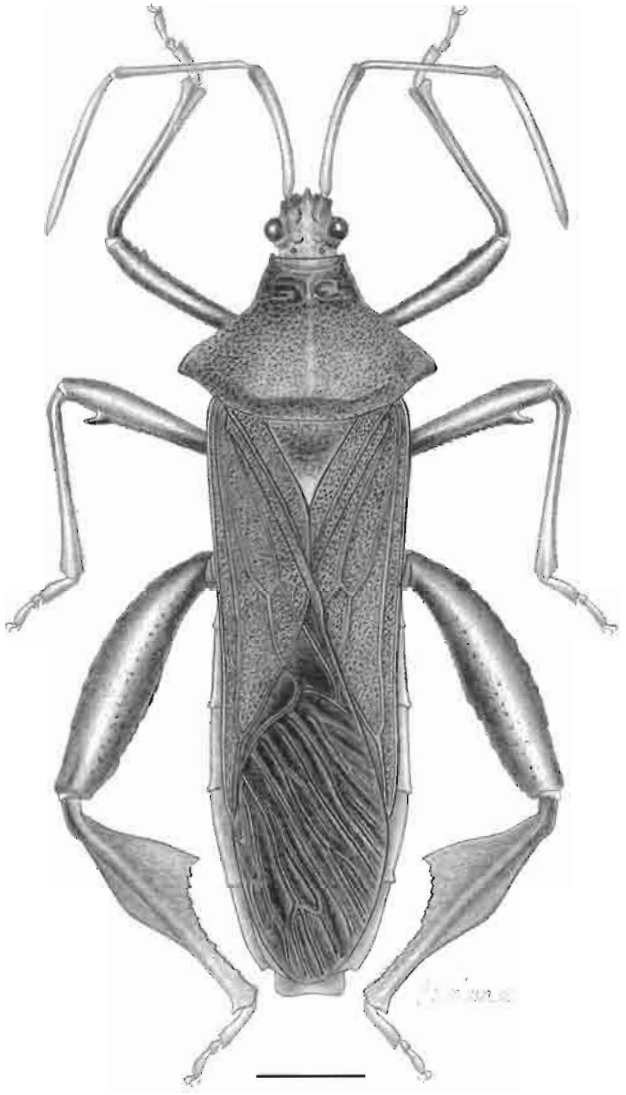

Fig. 58: Dorsal view of *Mygdonia elongata* Distant, 1879 (male). Scale: 3 mm.

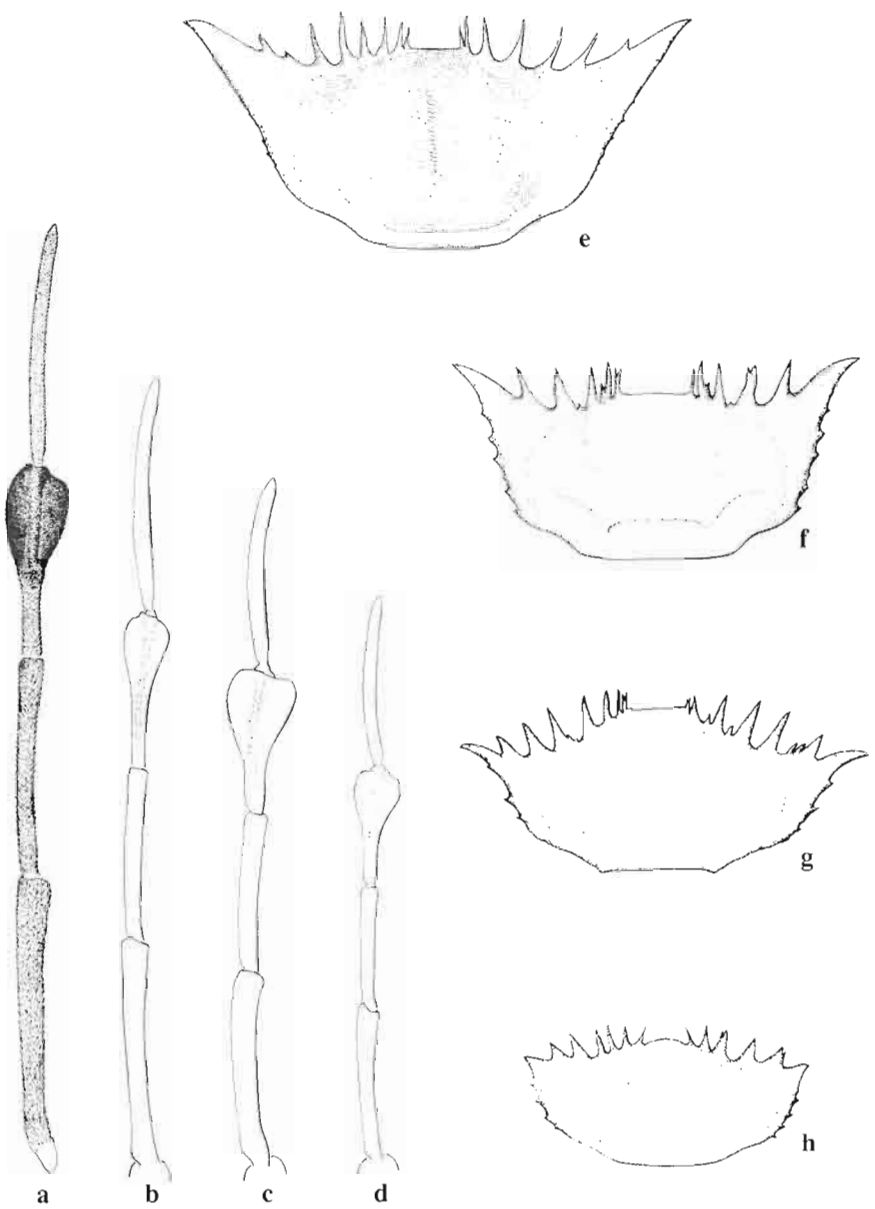

Fig. 59: Antennae (a-d) and pronotum in dorsal view (e-h):
a, *Oxypristis conspicuus* n. sp.;
b, *Oxypristis leroyi* Signoret, 1860;
c, *Oxypristis augurium* n. sp.;
d, *Oxypristis modestus* Blöte, 1938;
e, *Oxypristis conspicuus* n. sp.;
f, *Oxypristis leroyi* Signoret, 1860;
g, *Oxypristis augurium* n. sp.;
h, *Oxypristis modestus* Blöte, 1938.

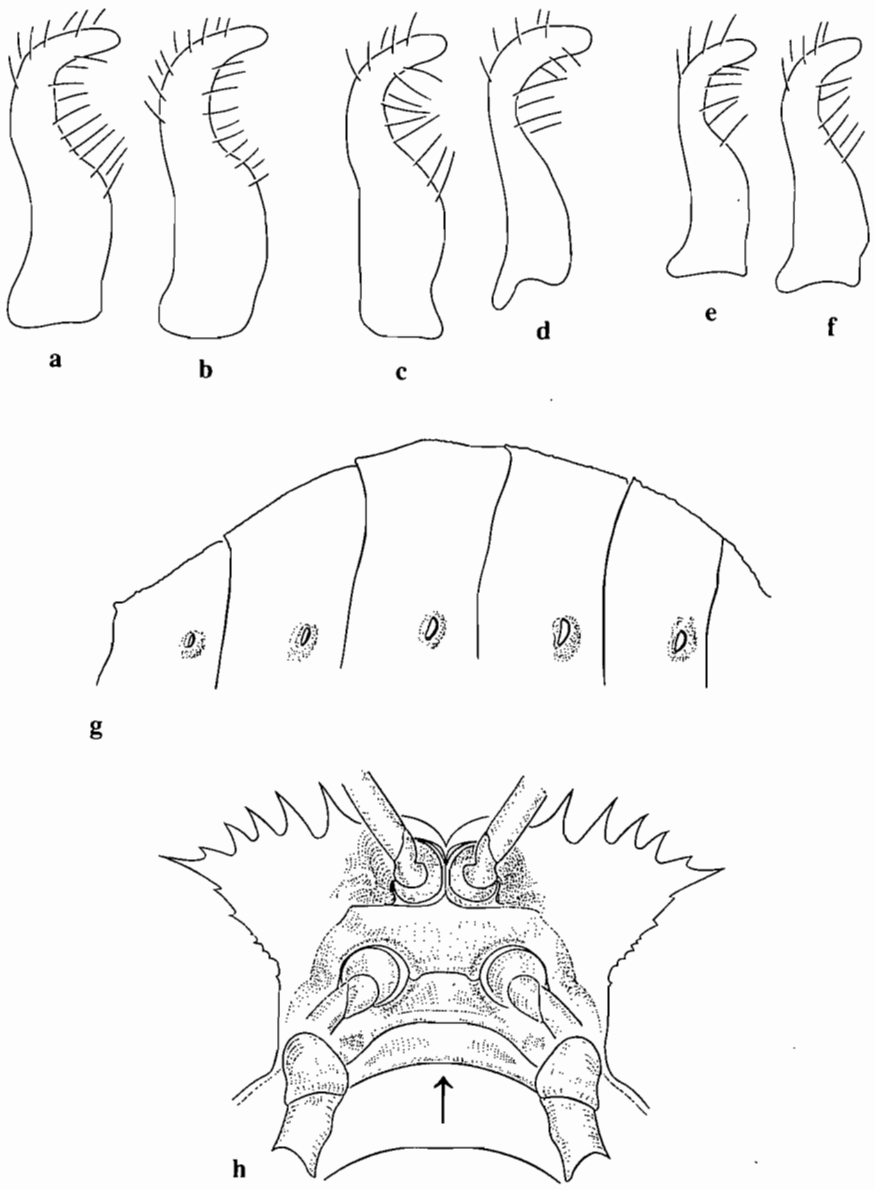

Fig. 60: a, b, g-h, *Oxypristis leroyi* Signoret, 1860:
a, b, paramere;
g, abdomen in lateral view, showing the elliptical spiracle;
h, thorax in ventral view (arrow point out the intermetacoxal space);
c, d, paramere of *Oxypristis augurium* n. sp.;
e, f, parameres of *Oxypristis modestus* Blöte, 1938.

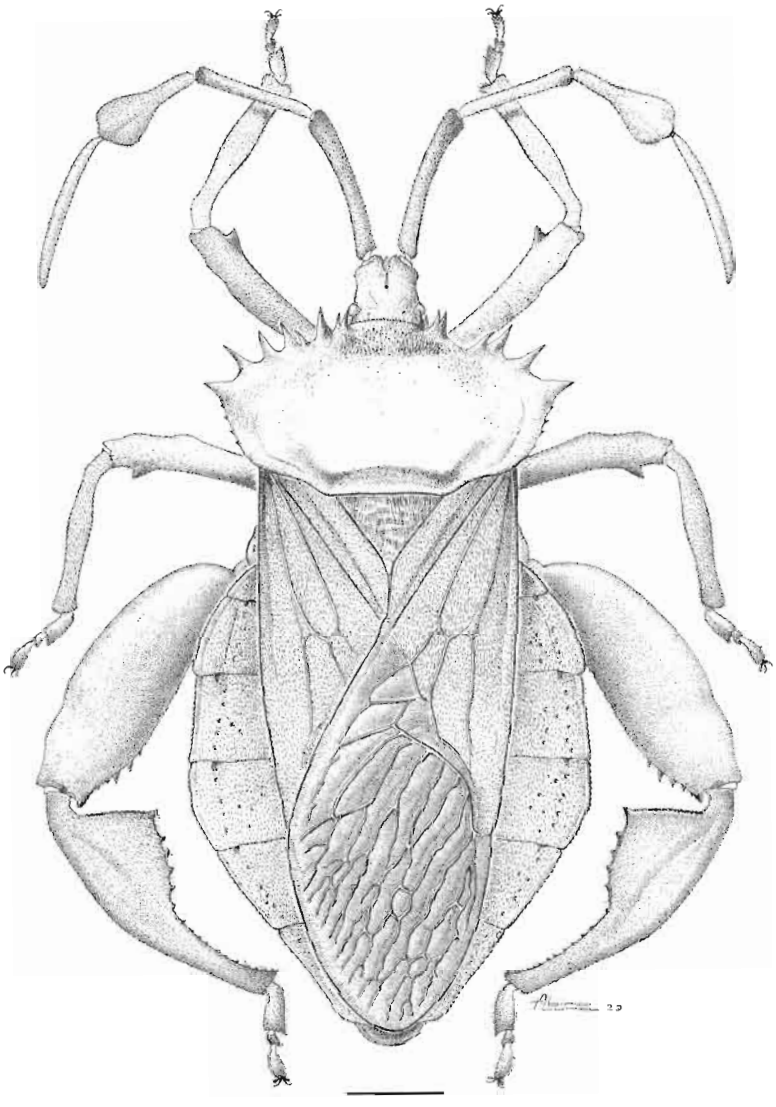

Fig. 61: Dorsal view of *Oxypristis modestus* Blöte (male).
Scale: 3 mm.

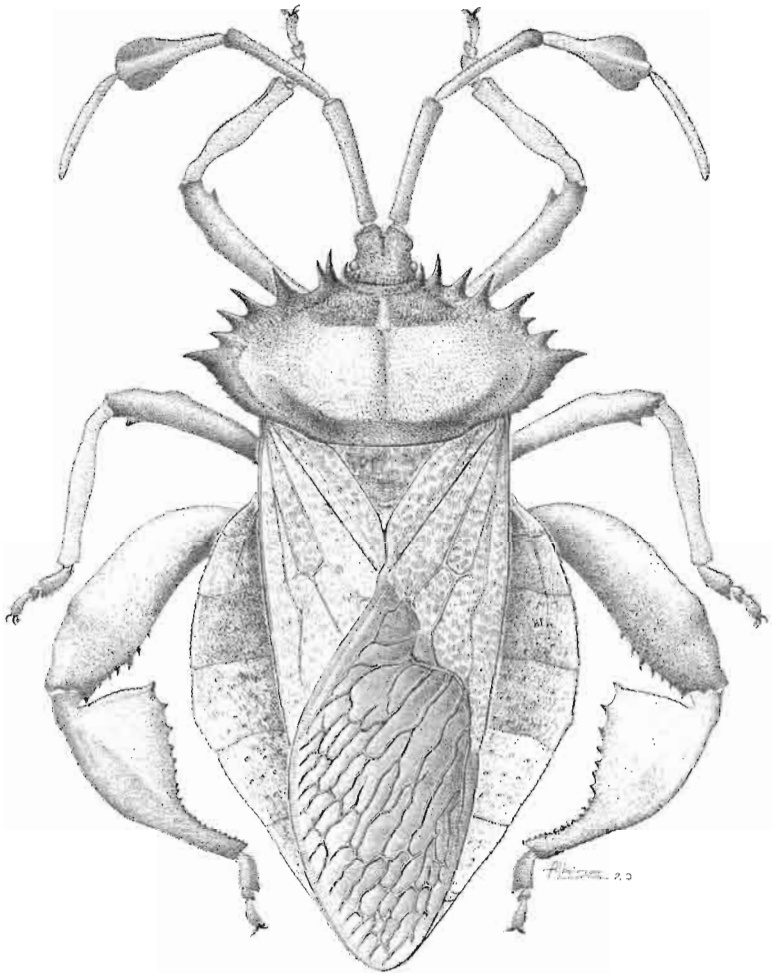

Fig. 62: Dorsal view of *Oxypristis augurium* n. sp. (female).
Scale: 4 mm.

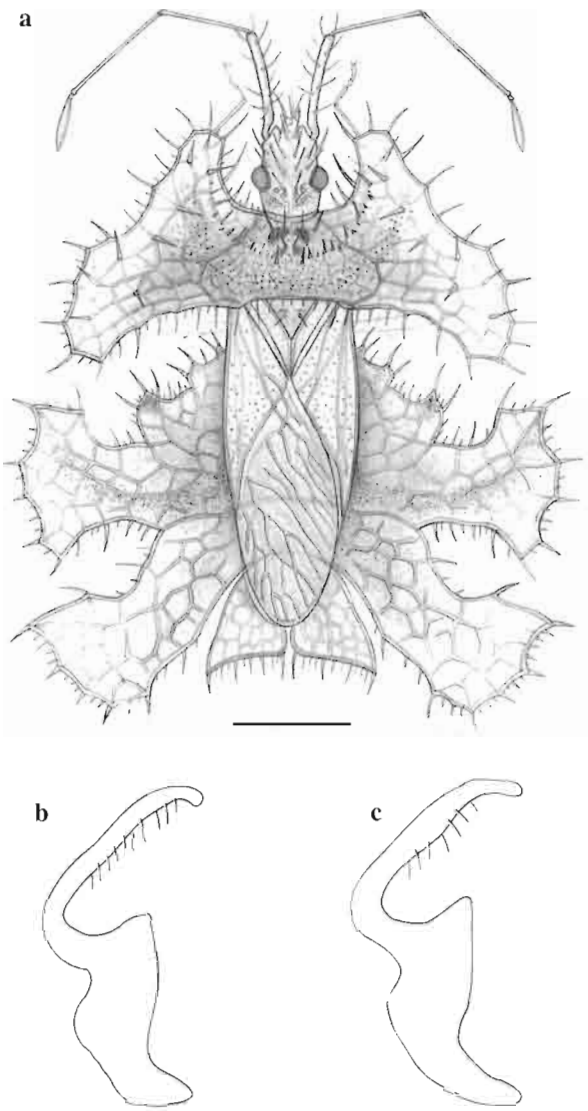

Fig. 63: *Craspedum madagascariense* (Coquerel, 1848) (male):
a, dorsal view;
b, c, parameres.
Scale: 2 mm.

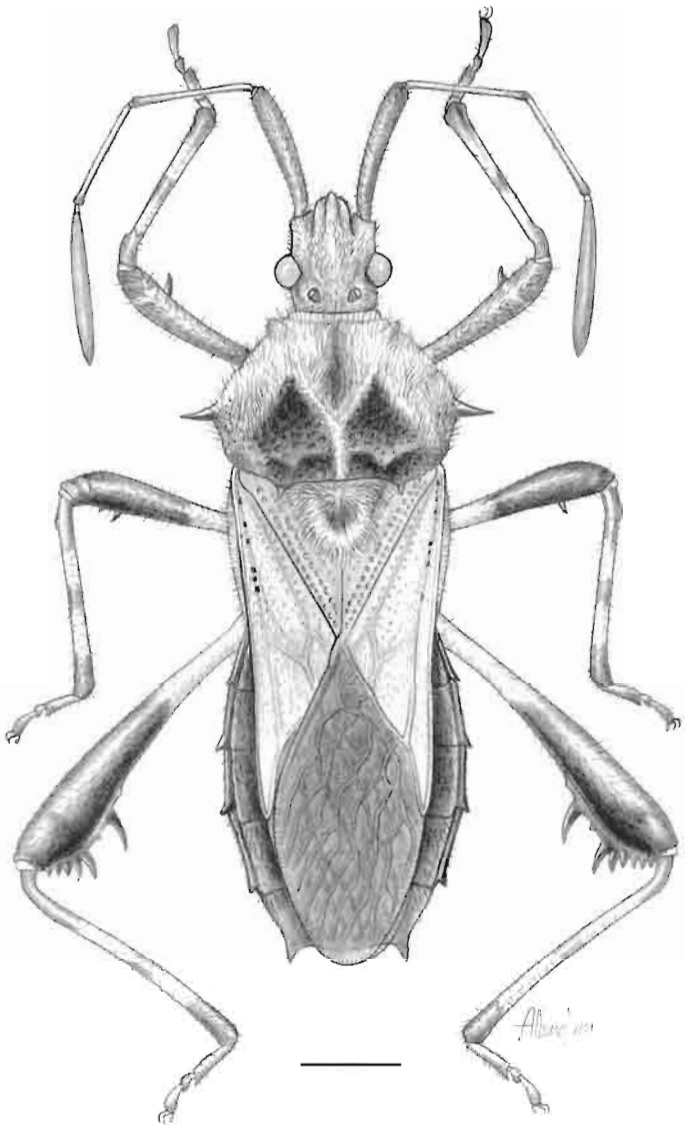

Fig. 64: Dorsal view of *Clavigralla annulipes* Signoret, 1860 (male). Scale: 1 mm.

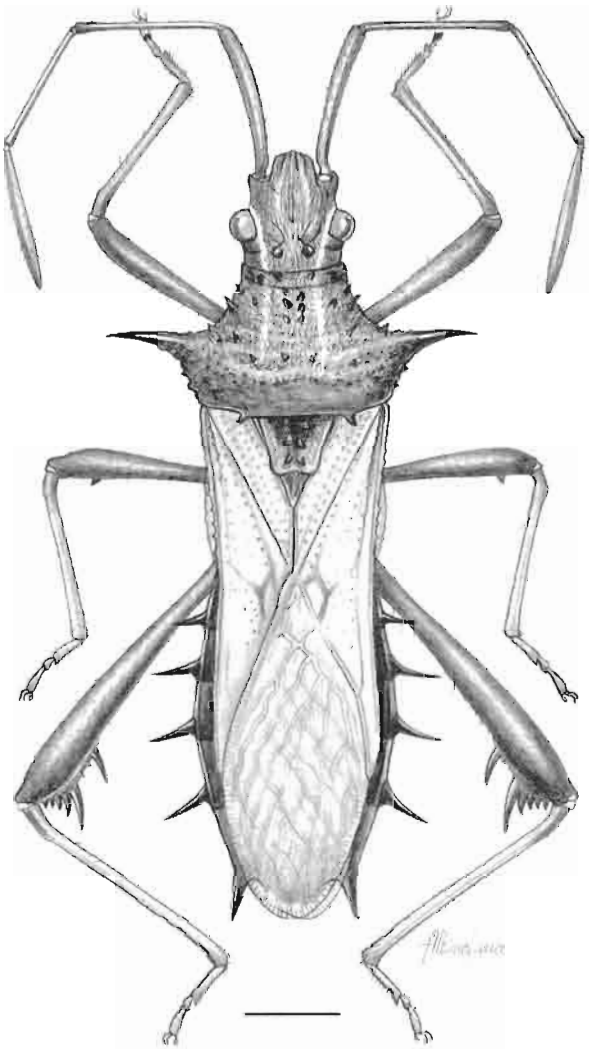

Fig. 65: Dorsal view of *Clavigralla asterix* Dolling, 1979 (male). Scale: 1 mm.

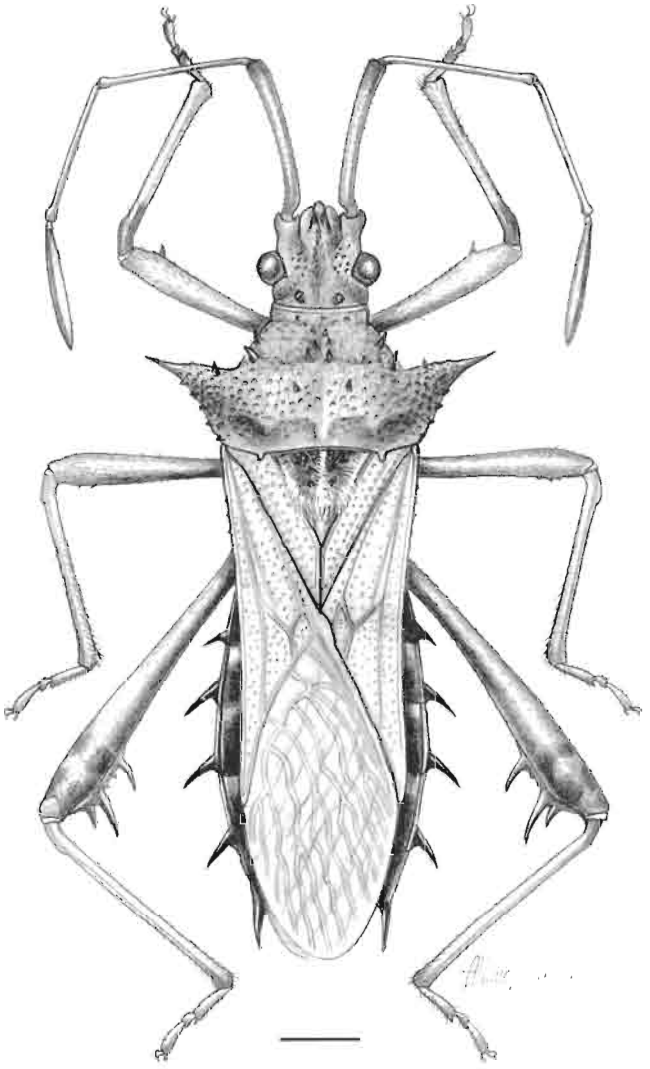

Fig. 66: Dorsal view of *Clavigralla elongata* Signoret, 1960 (female). Scale: 1 mm.

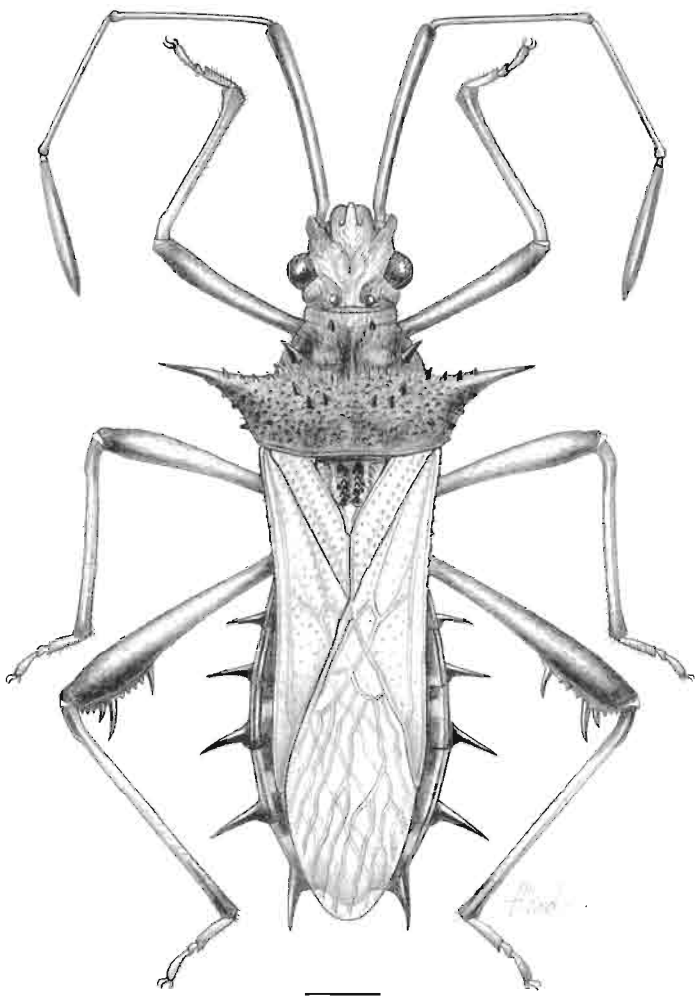

Fig. 67: Dorsal view of *Clavigralla madagascariensis* Dolling, 1979 (male). Scale: 1 mm.

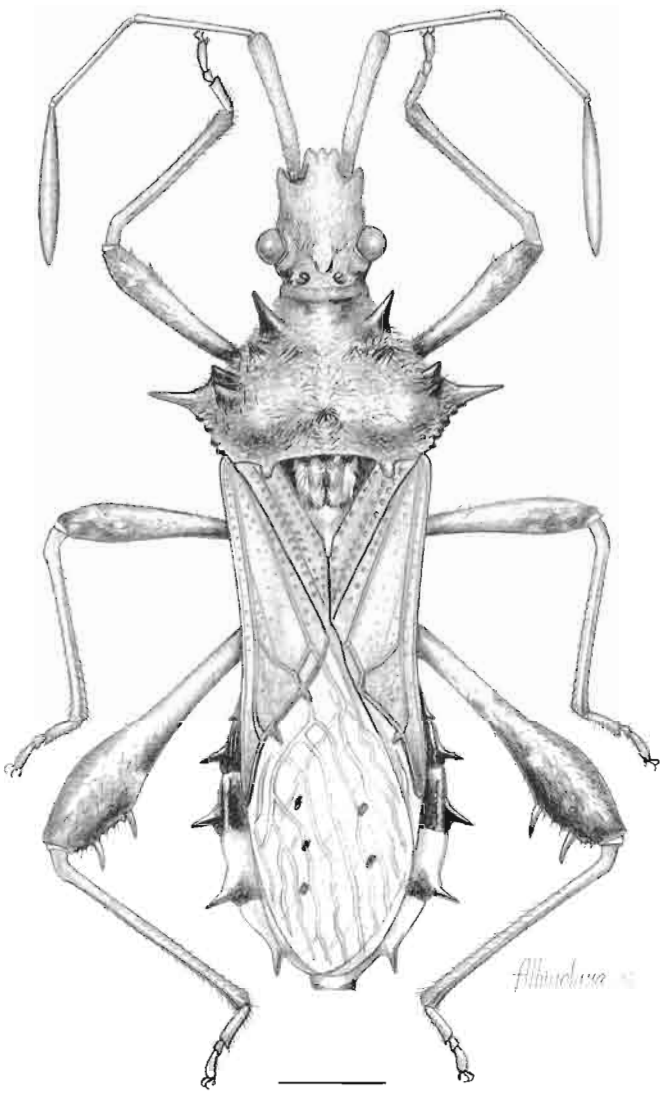

Fig. 68: Dorsal view of *Clavigralla pusilla* Dolling, 1979 (female). Scale: 1 mm.

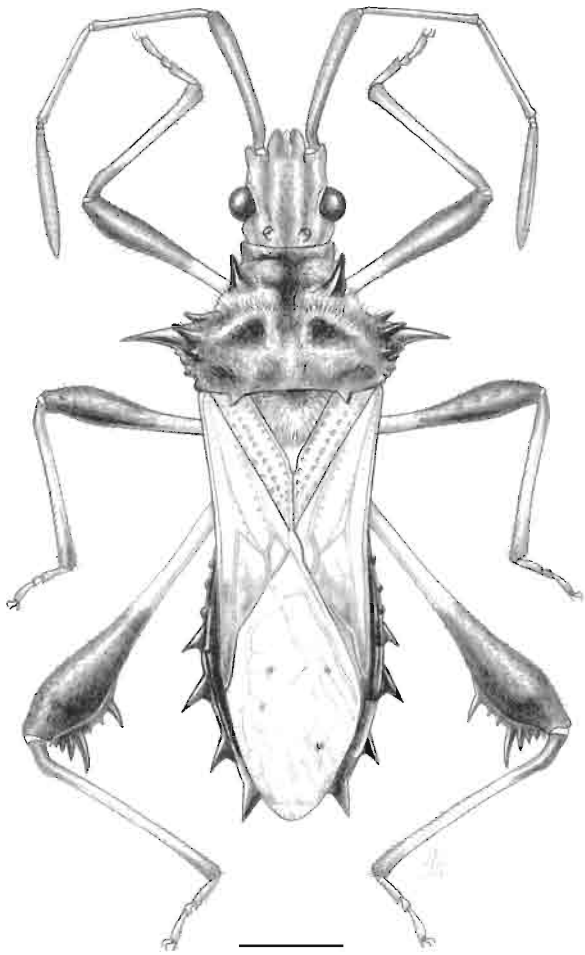

Fig. 69: Dorsal view of *Clavigralla pusilla* Dolling, 1979 (male).
Scale: 1 mm.

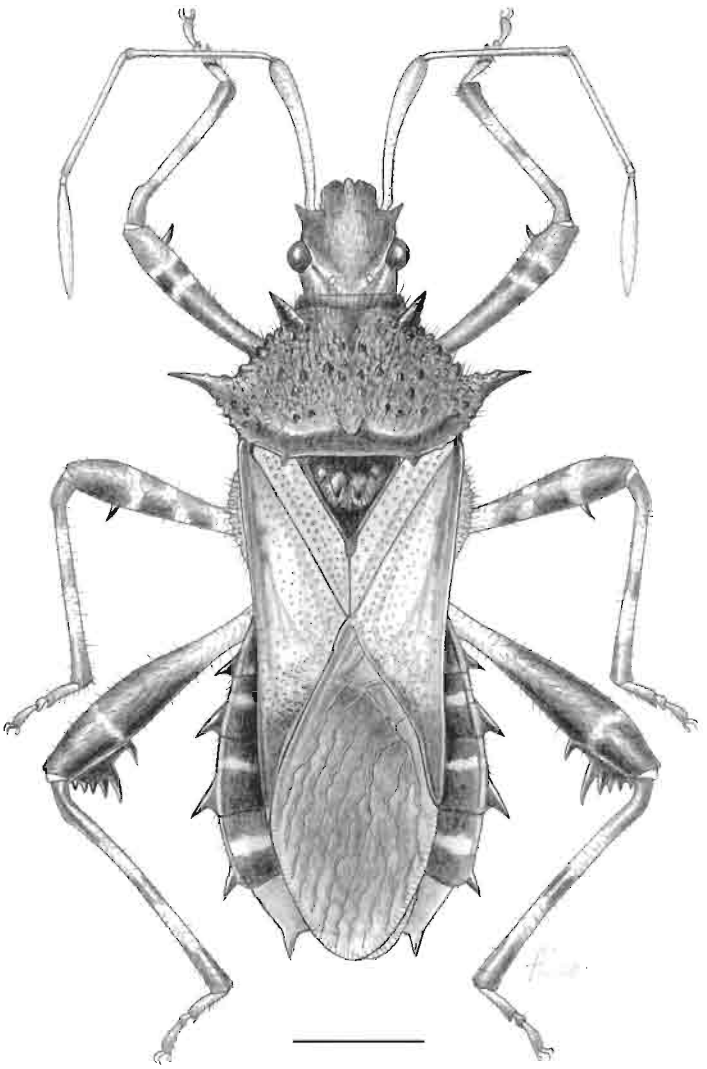

Fig. 70: Dorsal view of *Clavigralla tuberculicollis* (Reuter, 1887) (female). Scale: 2 mm.

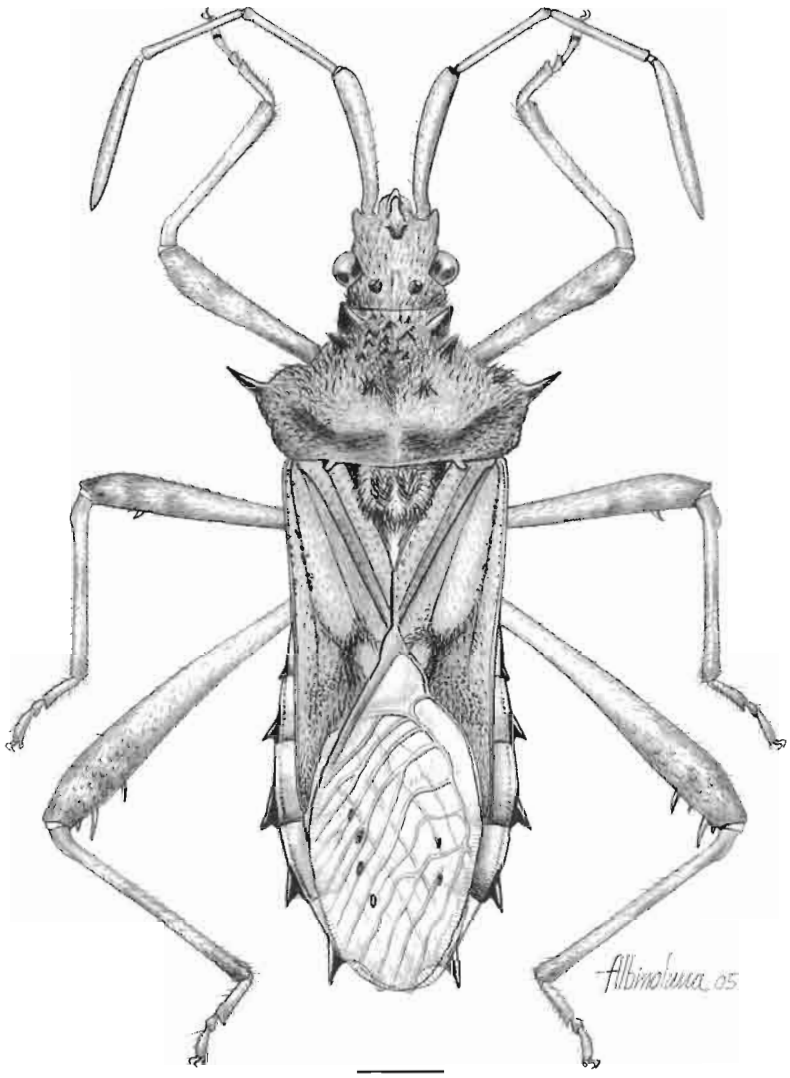

Fig. 71: Dorsal view of *Clavigralla wittei* (Schouteden, 1938) (female). Scale: 1 mm.

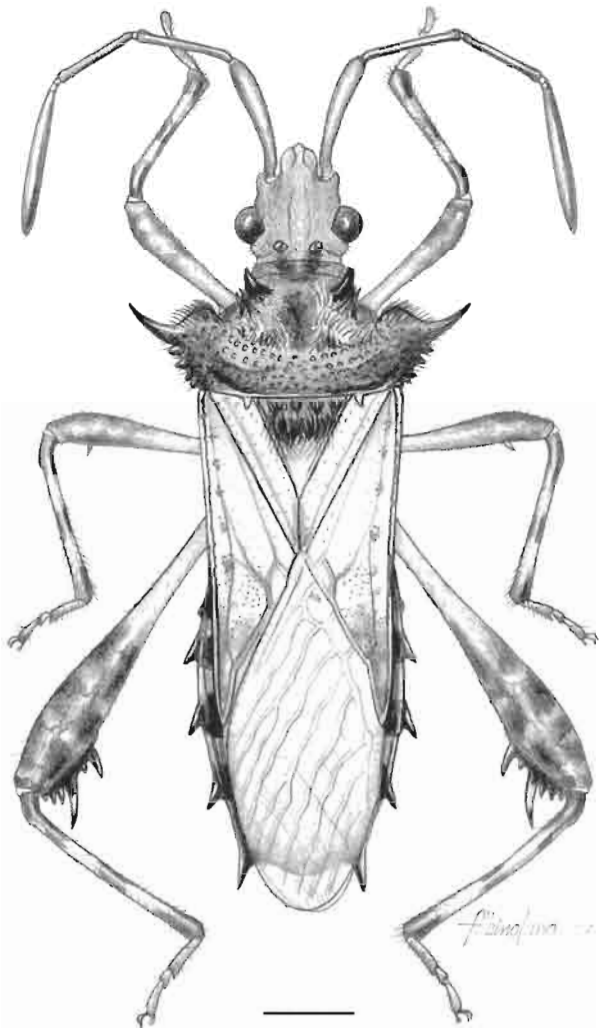

Fig. 72: Dorsal view of *Clavigralla wittei* (Schouteden, 1938) (male). Scale: 1 mm.

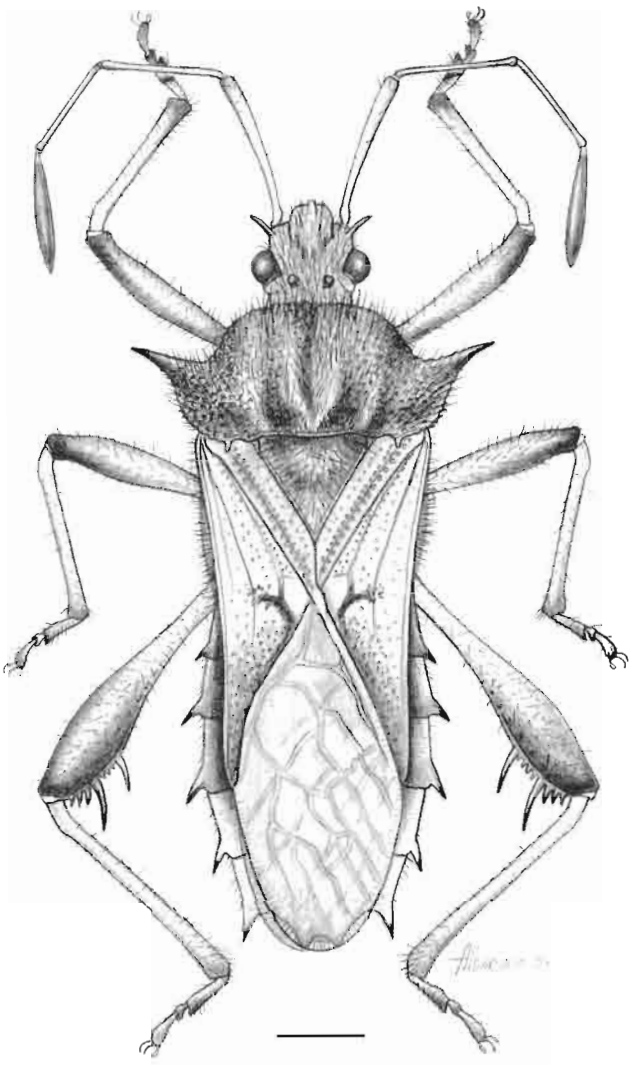

Fig. 73: Dorsal view of *Oncaspidia pilosicollis* (Stål, 1855) (female). Scale: 1 mm.

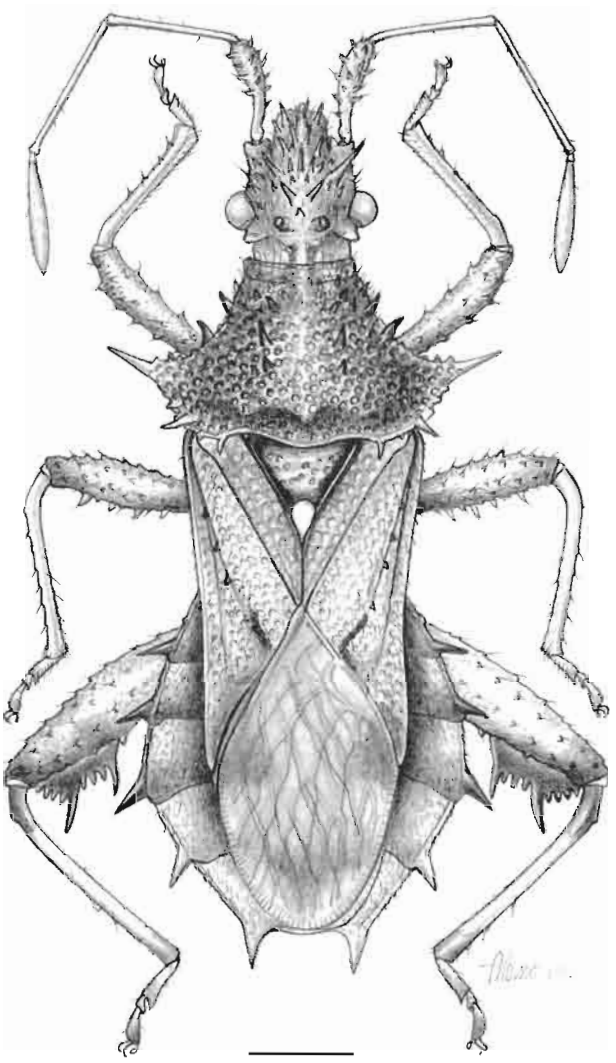

Fig. 74: Dorsal view of *Mevanidea spiniceps* (Signoret, 1860) (male). Scale: 1 mm.

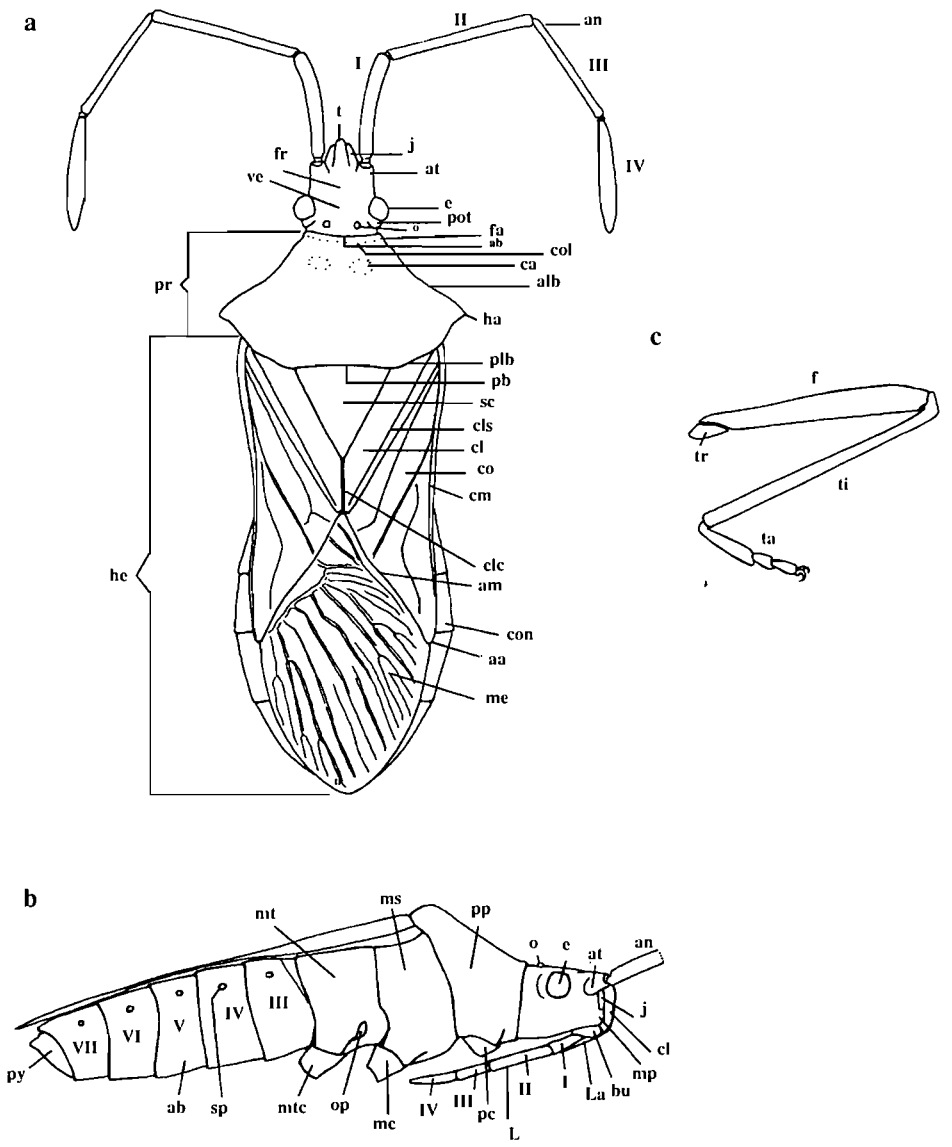

Fig. 75: General coreid morphology: *Cletoliturus lituripennis* (Stål, 1855). a, dorsal view; b, lateral view; c, hind leg.

Acronyms used: abdomen (abdominal sterna II, III, IV, V, VI, VII) (ab); antennal segments I, II, III, IV (an); antenniferous tubercle (at); anterior border (ab); anterior margin (am); anterolateral border (alb); apical angle (aa); apical margin (am); buccula (bu); calli (ca); claval commissure (clc); claval suture (cls); clavus (cl); clypeus (cl); collar (col); connexivum (con); corium (co); costal margin (cm); eyes (e); femora (f); frons (fr); frontal angle (fa); juga (j); hemelytra (he); ocelli (o); hemelytral membrane (me); humeral angle (ha); labial segments I, II, III, IV (L); labrum (La); maxillary plate (mp); mesocoxae (mc); mesopleurum (ms); metacoxae (mtc); metapleurum (mt); metathoracic peritreme (ostiolar peritreme) (op); posterior border (pb); posterolateral border (plb); posterolateral tubercle (pot); procoxae (pc); pronotum (pr); propleurum (pp); pygophore (genital capsule) (py); scutellum (sc); spiracle (sp); tarsi (tr); tibiae (ti); trochanter (tr); tylus (t); vertex (ve).

Glossaire / Glossary

Based on TORRE-BUENO (1989) and SCHUH & SLATER (1995).

abdominal spiracle one of a pair of spiracles of an abdominal segment.

antenna (pl., antennae) paired segmental appendages, borne one on each side of head.

antenniferous tubercle a protuberance of head which bears antenna.

auricle(s) variously shaped structure on metapleuron of adult, assisting in spreading metathoracic scent-gland products from ostiole onto evaporatorium.

buccula (pl., bucculae) a flange of gena, on each side of basal portion of labium.

callar area middle part of pronotum behind collar and containing calli, and corresponding in size to prothoracic body cavity.

callus (pl., calli) paired or fused impression or elevation in anterior part of pronotum behind collar.

claspers parameres.

claval commissure junction of hemelytra along clavus on midline of body posterior to apex of scutellum and anterior to membrane.

claval suture suture of forewing separating clavus from corium.

clavus (pl., clavi) usually parallel-sided and sharply pointed anal area of hemelytron.

clypeus part of head below frons, to which labrum is attached anteriorly.

collar rounded or flattened anterior margin of prothorax.

corium (pl., coria) proximal coriaceous or differentiated part of forewing exclusive of clavus and distinct from membrane, often being subdivided into anterior (lateral) exocorium and posterior (mesal) endocorium.

coxa (pl., coxae) basal segment of the leg, by means of which it is articulated to the body.

femur (pl., femora) the third, and usually the stoutest segment of the leg, articulated to the body through the trochanter and coxa and bearing the tibia at its distal end.

fissure or fissura a crevice, a narrow longitudinal opening.

genital capsule pygophore.

gula the fused lower ends of the postocciput forming a ventral plate.

hemelytron (pl., hemelytra) forewing of Heteroptera, with distinctly thickened proximal portion and membranous distal portion.

hemiptera characterized by sucking mouthparts.

heteroptera characterized by adults with forewings folded flat over the body in the

form of hemelytra with basally thickened corium, apical membranes usually broadly overlapping, gula present, dorsal abdominal scent glands in nymphs, and metathoracic scent glands in adults.

humeral angle posterolateral angle of pronotum.

humerus (pl., humeri) humeral angle.

jugum (pl., juga) mandibular plates.

labrum the upper lip, abutting the clypeus in front of the mouth.

membrane membranous apical portion of hemelytron.

mesopleuron (pl., mesopleura) pleuron of mesothorax.

metapleuron (pl., metapleura) pleuron of the metathorax.

metathoracic scent gland in Heteroptera, universally occurring adult system of paired or unpaired scent glands with single or paired opening on metasternum with external outflow channels (ostiolar canals) that transmit glandular products to ostiole located on metepisterna.

ocellus (pl., ocelli) in adult insects, simple eye consisting of a single beadlike lens.

ostiolar peritreme a calloused area of variable shape, surrounding the ostiole, and itself often surrounded by the evaporatorium.

ostiole external opening of metathoracic scent gland, often refering to opening on metepisternum.

parameres paired male genital structures independent of phallus.

paratergites VIII-IX lateral flanges on pregenital segments of abdomen.

plica (pl., plicae) a fold, or wrinkle.

pronotum the upper and dorsal part of the prothorax.

propleuron (pl., propleura) pleuron of prothorax.

pygophore abdominal segment IX of male, enclosing the phallus.

rostrum combined labium and maxillary and mandibular stylets.

scutellum (pl., scutella) triangular part of mesothorax, generally placed between bases of hemelytra.

tarsus (pl., tarsi) the leg segment attached to the apex of the tibia, bearing the pretarsus.

tibia (pl., tibiae) the fourth segment of the leg, between the femur and the tibia.

trochanter a segment of the leg between the coxa and the femur.

true bug a heteropteran.

tylus (pl., tyli) distal part of clypeus; anteclypeal region.

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