

Revision of the Eurybrachidae (III)

The Afrotropical genus *Metoponitys* KARSH, 1890 (Hemiptera: Fulgoromorpha: Eurybrachidae)

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Abstract

The Afrotropical genus of Eurybrachidae (Hemiptera Fulgoromorpha) *Metoponitys* KARSCH is redescribed and reviewed. The following synonymies are proposed: *Metoponitys ornatus* LALLEMAND, 1928 and *Metoponitys pennatus* DISTANT, 1906 = *Metoponitys morgeni* KARSH, 1890; *Metoponitys prolongatus* LALLEMAND, 1928 = *Metoponitys caudata* HAGLUND, 1899, leaving 5 valid species. One more, *Metoponitys karschi* CONSTANT n. sp. is described here. The male genitalia are illustrated and photos of habitus, distribution maps and biological data are provided with the (re)description of all species. An identification key to the species is also provided.

Résumé

Le genre afrotropical d'Eurybrachidae (Hemiptera Fulgoromorpha) *Metoponitys* KARSCH est redécrit et révisé. Les synonymies suivantes sont proposées: *Metoponitys ornatus* LALLEMAND, 1928 and *Metoponitys pennatus* DISTANT, 1906 = *Metoponitys morgeni* KARSH, 1890; *Metoponitys prolongatus* LALLEMAND, 1928 = *Metoponitys caudata* HAGLUND, 1899, ce qui laisse 5 espèces valides. Une nouvelle espèce, *Metoponitys karschi* CONSTANT n. sp. est décrite ici. Les genitalia mâles sont illustrés et des photos d'habitus, des cartes de répartition ainsi que des renseignements sur la biologie accompagnent les (re)descriptions de toutes les espèces. Une clé de détermination des espèces est également donnée.

Key words: Afrotropical region, Eurybrachidae, revision, identification key, *Metoponitys*, *Metoponitys karschi* CONSTANT n.sp.

1. Introduction

This paper is the third one of a series intended to revise the family Eurybrachidae.

This study starts with the one-by-one revision and redefinition of the genera and should result in a proposal of a more natural classification in the family. This will also allow tentative understanding of the phylogeny and zoogeography of the family.

– Historical review of the genus *Metoponitys* KARSH, 1890.

In 1890, KARSH created the genus *Metoponitys* for 2 new species, *M. morgeni* from Cameroon and *M. rudimen-*

tarius from Angola [Cabinda] and he provided a key to the species (the same key to the species was proposed in German in KARSH, 1895). He compared the genus with the Australian genera described by STÅL (1859 & 1862) (*Dardus*, *Gedrosia*, *Olonia*, *Platybrachys*) and placed *Metoponitys* close to *Olonia* STÅL. Later in 1899, KARSH proposed a key to the African genera of Eurybrachidae and [erroneously] stated that *M. morgeni* could be the male of *M. rudimentaria*.

The genus was placed by SCHMIDT (1908b) in his new tribe Dardini [clavus closed; a knob on the underside of the eye; no standard-shaped process at the apex of the tegmina; apex of the clavus not produced laterally] together with the Australian genus *Dardus* STÅL. This classification was followed by METCALF (1956) in his catalogue of the family Eurybrachidae.

However, JACOBI (1928) stated that the definition of Schmidt was unsatisfactory and that the Dardini should be placed in the Platybrachyini. FENNAH (1964) shared this view and placed *Metoponitys* in his key to the genera of Platybrachyini. Recently a key to all Afrotropical genera of Eurybrachidae was proposed by CONSTANT (2005).

A total of 8 species have been described in the genus: – HAGLUND (1899) described the species *caudata* from Gabon. This species is added by SCHMIDT (1910) to his list of African Eurybrachidae (SCHMIDT, 1908a) and collect data are erroneously given in FENNAH (1957b) and SYNAVE (1971).

– DISTANT (1906) added *M. pennata* from Sierra Leone, a species that is then mentioned in the checklist of African Eurybrachidae of SCHMIDT (1908a).

– HESSE (1925) described *M. testudineus* from Northern Namibia.

– LALLEMAND (1928) described *M. prolongatus* from Cameroon and *M. ornatus* from Ghana and in 1932 he described *M. congoensis* from Congo. Faunistic data on the latter species are erroneously given in FENNAH (1957a) and SYNAVE (1967) while FENNAH (1957a) stated that the relationship between *M. congoensis*, *ornatus* and *caudata* needs to be clarified by genitalic comparison.

2. Materials and methods

The types of all described species have been studied and as much material as possible has been examined. The genitalia of all the males have been checked.

The dissection of the genitalia is proceeded after boiling the abdomen in glacial acetic acid for a few minutes. The pygofer is then separated from the abdomen and boiled for about one hour in a 10% solution of potassium hydroxyde (KOH) with some drops of aqueous solution of chlorazol black. It is then placed in glycerin.

For routine identification, only the acetic acid boiling has been proceeded as the specific structures on the phallic complex are directly visible after removing the gonostyli. The genitalia have been placed under the specimen, dry (in a gelatin capsule or glued) or in glycerin.

The description of the female genitalia follows BOURGOIN (1993) with some additions from the studies of SOULIER-PERKINS (1997) and SOULIER-PERKINS & BOURGOIN (1998) on the family Lophopidae.

Lectotypes and neotype have been designated when necessary. For the valid species described only on females or only on males, one specimen of the opposite sex has been chosen as reference for the species. Reference specimens of both sexes have also been designated for the species of which the type specimens are in very poor condition. Although the term has no value under taxonomic rules, we follow MEDLER (1999) in labelling those reference specimens as “PLESIOTYPE” with blue labels. The useful aspect of those designations for the future workers seems evident to us.

Hind wings have also been mounted for a number of specimens: they have been glued on transparent plastic rectangles with water-soluble Hoyer's liquid.

Each species is redescribed and the genitalia as well as other characters useful for identification are figured. Distribution maps and photos of habitus are also provided.

The distribution maps have been produced by the software *CFP* (BARBIER & RASMONT, 2000).

If necessary, the current name of the localities is mentioned in parentheses after the one transcribed from the label. For the labels of the types, each single label is limited by “ ”.

The few indications about the biology of the species are provided, as well as an identification key.

The following acronyms are used for the measurements (measurements are taken as in CONSTANT, 2004): BF, breadth of the frons BT, breadth of the thorax BTg, breadth of the tegmina BV, breadth of the vertex LF, length of the frons LM, length of the mesonotum LP, length of the pronotum LT, total length LTg, length of the tegmina LV, length of the vertex.

Acronyms used for the collections (names of the responsables in parentheses):

BMNH: The Natural History Museum, London, United Kingdom (M. Webb)

CAS: California Academy of Sciences, San Francisco, California, U.S.A. (N. Penny)

FSAG: Faculté des Sciences Agronomiques de Gembloux (coll. Lallemand), Gembloux, Belgium (S. Patiny)

IRSNB: Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium (P. Grootaert)

MMBC: Moravske Museum (coll. Melichar), Brno, Czech Republic (I. Malenovsky)

MNHN: Museum National d'Histoire Naturelle, Paris, France (T. Bourgoin)

MRAC: Musée royal de l'Afrique centrale, Tervuren, Belgium (U. Dall'Asta)

NHRS: Naturhistoriska riksmuseet, Stockholm, Sweden (B. Viklund)

NMNW: National Museum of Namibia, Windhoek, Namibia (E. Marais)

SAMC: South african Museum, Cape Town, South Africa (M. Cochrane)

SANC: South African National Collection of Insects, Pretoria, South Africa (M. Stiller)

SMNS: Staatliches Museum für Naturkunde, Stuttgart, Germany (W. Schawaller)

ZMHB: Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (J. Deckert)

ZMPA: Polish Academy of Sciences, Museum of the Institute of Zoology, Warsaw, Poland (J. Szwedko & A. Stroinski)

ZMUC: Zoological Museum of the University of Copenhagen, Denmark (N. M. Andersen)

ZSMC: Zoologische staatsammlung, München, Germany (M. Baehr)

3. Taxonomic part

3.1. Description of the taxa

Genus *Metoponitys* KARSCH, 1890

Metoponitys KARSCH, 1890: 59.

Type-species: *Metoponitys morgeni* KARSCH, 1890.

KARSCH, 1895: 216 KARSCH, 1899: 2 & 10 DISTANT, 1906: 205 SCHMIDT, 1908a: 510 & 515 SCHMIDT, 1908b: 244 HESSE, 1925: 146 METCALF, 1956: 74 FENNAH, 1957a: 192 FENNAH, 1957b: 1311 FENNAH, 1964: 159 CONSTANT, 2005: in press.

ETYMOLOGY: *metopon* (Greek) = frons; *itys* (Greek) = border. Refers to the produced lateral margins of the frons.

DIAGNOSIS: Medium to small sized, greyish brown coloured, convex bodied genus. It can easily be recognized by the following combination of characters: no subocular spines, no pad of microsetae on the first tarsomere of hind legs and the distribution restricted to the Afrotropical region.

DESCRIPTION:

Colour: mainly brown to greyish brown; hindwings infusate, often with the base paler (the paler area can extend to most of the hindwing).

Head: about as broad as the thorax; vertex 3-4 times broader than long, a little concave; anterior and posterior margins curved; fore and lateral margins carinate, hind margin carinate or not; frons 1.7-2.1 times broader than long, slightly convex, with a peridiscal carina bearing pale tubercles; disc longitudinally wrinkled; clypeus reaching the median coxae; labium short, barely reaching the hind coxae; last segment about as broad as long; no infra-ocular spine; ocelli absent; antennae short, not projecting beyond the level of the lateral point of the frons.

Thorax: about 1.5 times broader than the length of the pro- and mesonotum taken together; pronotum with a fore curved carina, sometimes also a median longitudinal carina; mesonotum with 3 longitudinal carinae.

Tegmina: convex, about 2-3 times longer than broad (a little more in the species with a long apical process); maximal breadth in the basal 1/3, narrowing to the apex; costal margin sinuate; apex often projecting and curved upwards; clavus closed.

Venation: *C* absent; *Sc* & *R* separated close to the base; first division of *M* beyond the *Sc-R* separation; *A1* & *A2* fused before the apex of the clavus.

Hind wings: well developed or reduced; apex narrowing in the species with wings well developed, round in the others.

Legs: fore and median femur and tibia dorso-ventrally flattened, slender to a little foliaceous; tibia III often laminate on the inner side, bearing externally 3 acute spines and, close to the base, an oblique carina with a row of short, strong hair; 9 apical spines; first hind tarsomere elongate, the ventral face without pad of microsetae, bearing only a triangular group of spines near the apex.

Genitalia ♂: pygofer short, much higher than long in lateral view; anal tube dorso-ventrally flattened; gonostyli laterally flattened, convex, with a process on the middle of the dorsal margin; the process reflexed apically.

Genitalia ♀ [based on *M. morgeni*]: anal tube elongate, strongly curved ventrad, laterally compressed, v-shaped in cross section beyond the anus; gonoplaes big, unilobous; gonapophysis IX of the *Aspidonitys* type; gonapophysis VIII much reduced, rounded, barely distinct; gonocoxae developed in a lobe; anterior part of the vagina smaller and less sclerified than the posterior part; posterior part positioned dorsally; spermatheca attached postero-ventrally to the anterior vagina; bursa copulatrix large with a *Pyrilla*-type ornamentation [ornamentation simple and spaced].

Sexual dimorphism: no evident sexual dimorphism among the genus. The ♀♀ are very little bigger (5 to 16%) than the ♂♂.

Size: ♂♂: 7.1-10.1 mm; ♀♀: 8.3-11.7 mm.

DISTRIBUTION: Afrotropical region.

The best, undoubtful character to segregate the species is the shape of the male genitalia. Besides of that, the combination of the characters of the fore and median

legs, apex of the tegmina and shape of the hind wing must lead to right identification.

1. *Metoponitys caudata* HAGLUND, 1899

Figs. 1A-D, 10, 16A, G, 17, Map 1.

Metoponitys caudata HAGLUND, 1899: 65.

SCHMIDT, 1910: 220 METCALF, 1956: 74 FENNAH, 1957b: 1311 SYNAVE, 1971: 34.

Metoponitys prolongatus LALLEMAND, 1928: 247 **nov. syn.**

METCALF, 1956: 75.

ETYMOLOGY: *caudata* (Latin, from *cauda* = tail): furnished with a tail, refers to the apical process of the tegmina.

– *prolongatus* (Latin) from *pro-* (forwards) and *longus* (long): elongated, refers to the apical process of the tegmina.

TYPES EXAMINED: LECTOTYPE ♀ of *Metoponitys caudata* Haglund, 1899 **present designation**: “Camerun.” “Sjöstedt” “Typus” “*Metoponitys ? caudata* Hagl. n. sp.” “Lectotype ♀ *Metoponitys caudata* Haglund, 1899, J. Constant des. 2004” [NHRS]

Note: in the original description, HAGLUND (1899) states that the type specimen comes from Gabon. This is likely to be erroneous as the specimen is labelled from the expedition of Yngve Sjöstedt in North Western Cameroon.

– LECTOTYPE ♂ of *Metoponitys prolongatus* Lallemand, 1928 **present designation**: “Type” “Cameroons, Escalera, 1903 355” “*Metoponitys prolongatus* Lallemand, Type, dét. V. Lallemand 19” “Lectotype ♂ *Metoponitys prolongatus* Lallemand, 1928, J. Constant des. 2004” “PLESIOTYPE ♂ *Metoponitys caudata* Haglund, 1899, dét. J. Constant 2004” *dissected, genitalia in glycerine; right hind wing mounted* [BMNH]

OTHER MATERIAL EXAMINED: (2 ♀♀) CAMEROON: 1 ♀: Lab. Ent. Escalera, 1899, leg. L. Conradt [MMBC]; 1 ♀: Kala, 30.XII.1970, *Piptadenia africana* [MNHN].

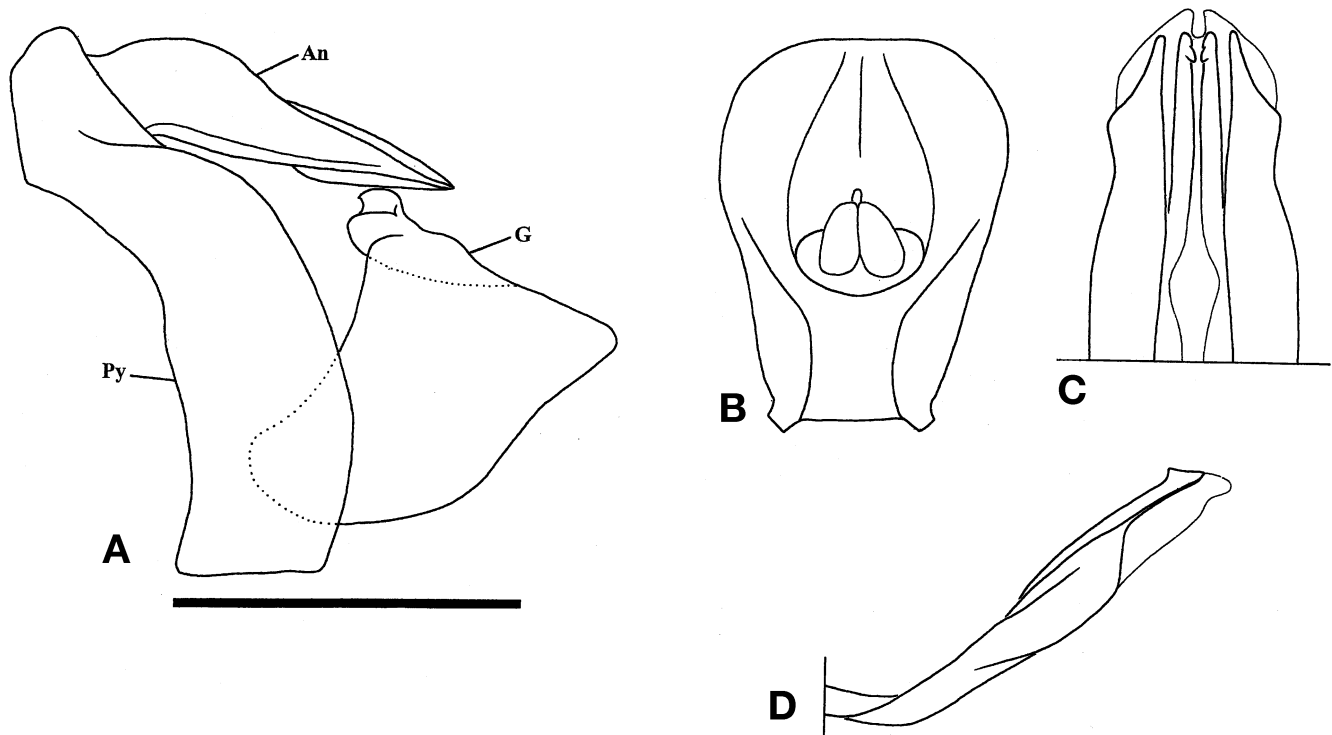
Note: the species has been erroneously mentioned from Ile-Ife, Nigeria by SYNAVE (1971) and from “Réserve forestière de Makak”, Cameroun by FENNAH (1957b). Both data refer to specimens of *M. morgeni* KARSCH.

DIAGNOSIS: The species is easy to recognize by the long, ribbon-like, somewhat spiralate, pointed apical process of the tegmina and the well developed hind wings.

DESCRIPTION: LT: ♀♀ (n = 3): 11.3 mm (10.6 to 11.7); ♂♂ (n = 1): 9.8 mm.

Colour: generally chocolate brown.

Head: colour variable from dark brown with paler markings to yellowish brown with darker markings; frons and



Figs. 1A-D — *Metoponitys caudata* HAGLUND: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view (An anal tube; G gonostyli; Py pygofer). **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.

clypeus with transverse darker and paler stripes, usually a pale stripe on the basal 1/3 of the clypeus and another on the ventral 1/3 of the frons; frons quite convex; anterior margin of the vertex slightly marked; vertex very slightly concave; dorsal margin of the frons weakly concave in normal view; scape very short, pedicel globular; ratio BV/LV = 3.5; BF/LF = 1.9.

Thorax: pronotum with the median carina obsolete, barely visible, marked by a paler line; pronotum coloured as the head, mesonotum darker, tegulae concolorous; ratio LP+LM/BT = 0.64.

Tegmina: elongate, prolonged by a long, pointed, somewhat spiralate, apical process representing about 1/3 of LTg; strongly humped just before the apical process; clavus infuscate with the apex and external border paler; a costal infuscate patch at the basal 1/3, extending to vein M2; apical 1/2 of the costal margin marked by a succession of blackish-brown and white patches; process blackish brown with some white spots on the sutural margin; ratio LTg/BTg = 3.3.

Hind wings: anal area well developed, apex narrowly rounded; infuscate with the base paler; maximal breadth at 1/2 of the length.

Legs: (Figs. 16A, G) I and II slender, pale to dark brown with the apex of the tibiae darker and the tarsi pale; hind legs pale to dark brown with the base of all the spines paler; lamina of the internal side of tibia III not developed.

Genitalia ♂: pygofer higher than long, curved in lateral view; gonostyli apically produced (Fig. 1A); anal tube longer than broad, roundly truncate apically in dorsal view (Fig. 1B); phallic complex: see Figs. 1C-D.

BIOLOGY: The only host-plant recorded for the species is *Piptadeniastrum africanum* (HOOK. f.) BRENNAN (syn.: *Piptadenia africana* HOOK. f.), a tree of the family Mimosaceae distributed throughout tropical Africa.

2. *Metoponitys congoensis* LALLEMAND, 1932

Figs. 2A-D, 11, 16B, H, 18, Map 1.

Metoponitys congoensis LALLEMAND, 1932: 59
FENNAH, 1957a: 192 METCALF, 1956: 74 SYNAVE, 1967: 369

ETYMOLOGY: *congoensis*: derived from the name of the country Congo, origin of the species.

TYPES EXAMINED: LECTOTYPE ♀ of *Metoponitys congoensis* Lallemand **present designation**: “♂” “Type” “Kasai, Congo belge (Lula)” “*Metoponitys congoensis* Lallemand, V. Lallemand det.:

Note: the lectotype has been erroneously labelled as male by Lallemand.

OTHER MATERIAL EXAMINED: (1♂, 1♀) CONGO: 1♂ (PLESIOTYPE): Bumbuli, 01.IV.1915, leg. R. Mayné [MRAC] UGANDA: 1♀: Mabira, 04.III.1913, leg. C.C. Powders [BMNH].

Note: the species has been erroneously mentioned from Sibiti, Congo (-Brazzaville) by SYNAVE (1967) and from Sankuru: Lomela, Congo by FENNAH (1957a). Both data refer to specimens of *M. morgeni* KARSCH.

DIAGNOSIS: The species can be recognized by the following combination of characters: hind wings broad and tegmina with a short, not clearly divergent process.

DESCRIPTION: LT: ♀♀ (n = 2): 8.8 mm (8.3 to 9.3); ♂♂ (n = 1): 8.3 mm.

Colour: brown with more or less developed darker patches and spots.

Head: vertex yellowish-brown with some darker spots; frons and clypeus darker, varying from transversally striped dark and pale brown to nearly uniformly dark brown; frons nearly flat; vertex concave with all margins carinate; dorsal margin of the frons concave in normal view; scape very short, pedicel globular; ratio BV/LV = 3.6; BF/LF = 1.95.

Thorax: 2 dark patches between the carinae of the mesonotum; the fore half of the pronotum can be darker too; median carina of the pronotum visible; tegulae concolorous; ratio LP+LM/BT = 0.63.

Tegmina: short and broad; apical process short, more or less curved upwards; clavus with 2 darker, transverse patches at about 1/3 and 2/3, the first one can extend up to veins M1-M2; apical process with irregular infuscate spots; ratio LTg/BTg = 2.1.

Hind wings: infuscate with a basal, paler patch; anal area well developed; maximal breadth at about 1/2 of the length.

Legs: (Figs. 16B, H) uniformly yellowish brown with the following darker: apex of tibiae I and II and of the lateral spines of tibia III; tibiae I and II slender, with the margins parallel and the apex of the external margin obliquely truncate; lamina of the inner margin of tibia III clearly visible.

Genitalia ♂: pygofer very slightly curved; apex of the dorsal margin of the gonostyli produced upwards (Fig. 2A); anal tube much broader than long, truncate apically (Fig. 2B); phallic complex: see Figs. 2C-D.

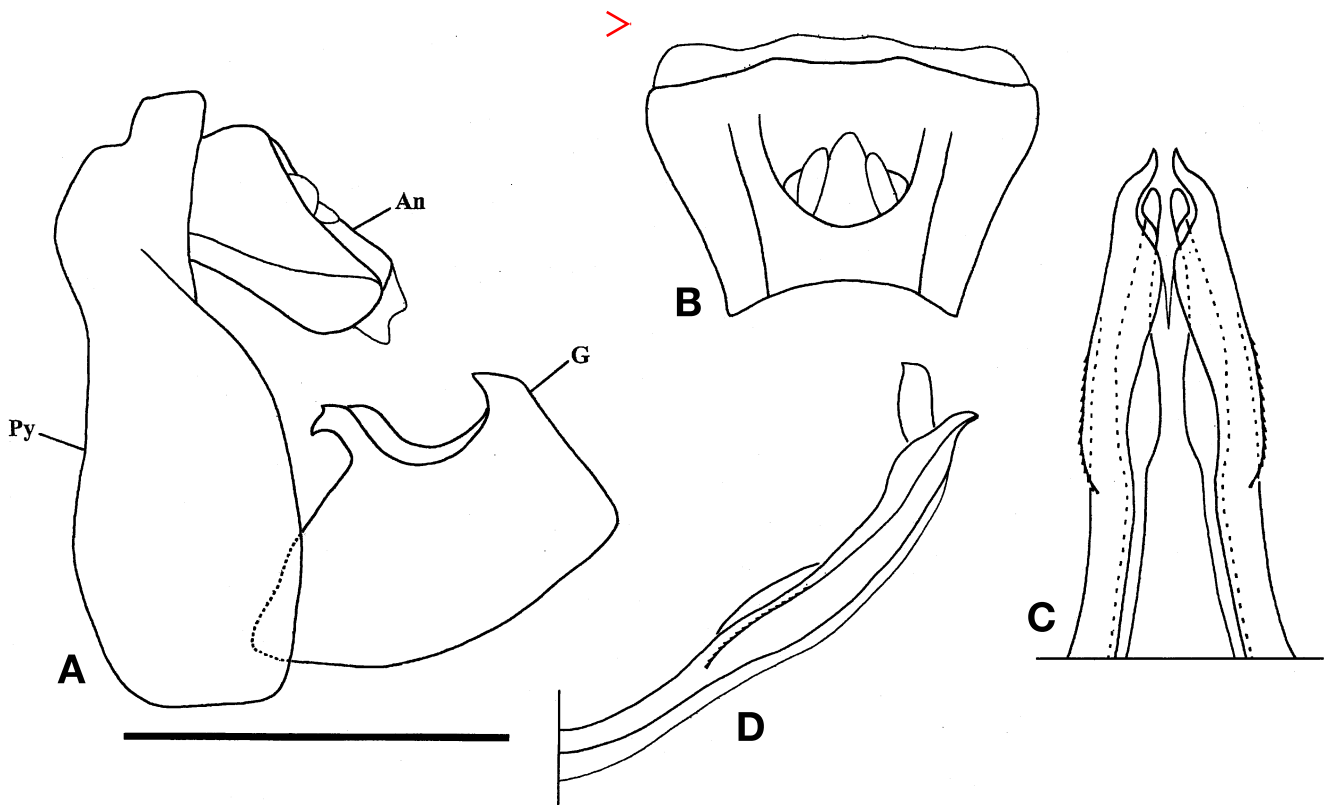
BIOLOGY: Unknown.

3. *Metoponitys karschi* CONSTANT n. sp.

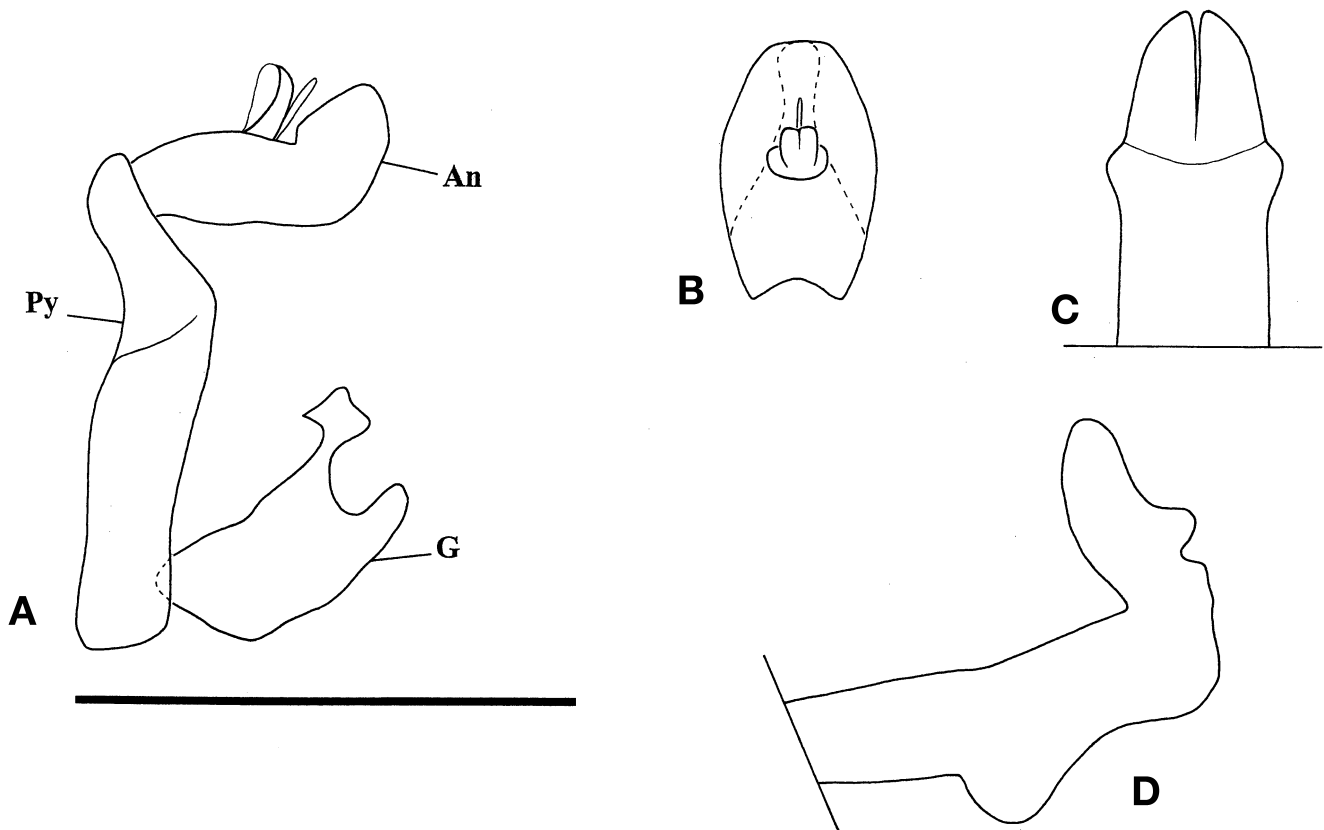
Figs. 3A-D, 12, 16C, I, 19, Map 1.

ETYMOLOGY: Dedicated to the late Ferdinand A.F. KARSCH in memory of his comprehensive works on African Eurybrachidae.

MATERIAL EXAMINED: HOLOTYPE ♂: "Coll. R.I.Sc.N.B., Gabon: H. OG., Olongo, 31.I.1987, A. Pauly réc." "rivière forest." "Holotype ♂ *Metoponitys karschi* n. sp., J. Constant 2004" – dissected, genitalia in glycerine; right hind wing mounted [IRSNB].



Figs. 2A-D — *Metoponitys congoensis* LALLEMAND: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view. **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.



Figs. 3A-D — *Metoponitys karschi* CONSTANT: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view. **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.

DIAGNOSIS: The species is immediately recognized by the sinuate external margin of the fore tibiae and the reduced hind wings.

Note: the following description is based on the one single specimen available of this species. One must keep in mind that the colour characters might be subject to some variability within the species (we suspect that darker specimens are likely to exist).

DESCRIPTION: LT: ♂ (n=1): 9.0 mm.

Colour: pale yellowish brown with a few blackish spots.

Head: vertex with 2 blackish oblique stripes at the hind margin and infuscate spots on the sides and anterior part of the disc; all 4 margins carinate; fore carina less marked in the middle; lateral carinae a bit produced externally; frons and base of the clypeus with numerous minute infuscate spots; dorsal margin of the frons concave in normal view; sides of the head with 3 black spots around the eye; sides of the apical ½ of the clypeus black; antennae brownish; scape very short; pedicel short and broad; ratio BV/LV = 3.1; BF/LF = 2.1.

Thorax: pronotum with fore 2/3 of the disc and fore side of the carina blackish; median carina obsolete, marked by a pale stripe; a short, transverse depression at the hind 1/3 of the disc; mesonotum with 2 black dots on the disc,

between the carinae, and 1 brownish spot on each side at the anterior margin; carinae weakly marked; tegulae pale yellowish brown; ratio LP+LM/BT = 0.6.

Tegmina: short and broad; apical process short, not curved upwards; pale with some infuscate spots: 1 small near the base, others scattered on the costal and apical areas, a little oblique stripe at about ½ of LTg; ratio LTg/BTg = 2.2.

Hind wings: reduced, anal area small; apex rounded; pale brownish with the apex infuscate.

Legs: (Figs. 16C, I) only femora III and base and internal part of tibiae III infuscate; legs I and II slender; external margin of tibia I sinuate; apex of the external margin of tibia II obliquely truncate; tibiae III with internal margin laminate.

Genitalia ♂: small; pygofer narrow, weakly curved in lateral view; gonostyli apically produced with a digitiform process, dorsal margin with the median process hammer-shaped; sides of the anal tube curved ventrad (Fig. 3A); anal tube oval, longer than broad in dorsal view (Fig. 3B); phallic complex: see Figs. 3C-D.

Note: the ♂ genitalia of this species have some peculiar features (e.g. the curved sides of the anal tube and the shape of the phallic complex) that could be artifacts. More material should be examined to lead to an unambiguous characterization of the genitalia of the species.

BIOLOGY: The species has been collected by Mr Alain PAULY by sweeping the vegetation along a river in the forest (A. Pauly, *com. pers.*).

4. *Metoponitys morgeni* KARSCH, 1890

Figs. 4A-D, 5-7, 13, 16D & J, 20, Map 3.

Metoponitys morgeni KARSCH, 1890: 60.

KARSCH, 1895: 216 KARSCH, 1899: 10 SCHMIDT, 1908a: 515 METCALF, 1956: 74.

Metoponitys ornatus LALLEMAND, 1928: 247 **nov. syn.**

METCALF, 1956: 75 FENNAH, 1957a: 192.

Metoponitys pennatus DISTANT, 1906: 205 **nov. syn.**

SCHMIDT, 1908a: 515 METCALF, 1956: 75.

ETYMOLOGY: *morgeni*: dedicated to the collector, the premier Lieutenant Morgen.

– *ornatus* (Latin) = decorated, furnished; refers to the process of the tegmina.

– *pennatus*: from *penna* (Latin) = wing, referring to the process of the tegmina.

TYPES EXAMINED: Type of *Metoponitys morgeni* Karsch (Destroyed): “Type” “12588” “Kamerun, Kribi, 23.V.1890, Premierlieutenant Morgen S. G., Sendung 20” “Kribi Sdg. 20, Pl. Morgen, 23.V.1890” “*Metoponitys morgeni* Karsch *” “Zool. Mus. Berlin” [ZMHB]. - NEOTYPE ♂ of *Metoponitys morgeni* KARSCH **present designation** (following art. 75.5 of the International Code of Zoological Nomenclature): “12590” “co-typus” “co-type” “N.Kamerun, 9.VIII.96, Johann-Albrechtshöhe, L. Conradt S.” “Mus. Zool. Polonicum, Warszawa, 12/45” “*Metoponitys morgeni* Karsch, ♂ Karsch det.” “Neotype ♂ *Metoponitys morgeni* Karsch, 1890, J. Constant des., 2003” *dissected, genitalia in glycerine*. [ZMPA].

Note: the specimen designated as neotype has been identified by Karsch. It is mentioned in KARSCH (1899) together with a second specimen, same origin, which is now in very poor condition (remains glued on a cardboard label) [ZMHB].

– LECTOTYPE ♂ of *Metoponitys pennatus* DISTANT **present designation**: “Type” “Type” “S. Leone. 67-71” “*Metoponitys pennatus*, Type, Dist.” “Lectotype ♂ *Metoponitys pennatus* Distant 1906, J. Constant des., 2003” “*Metoponitys morgeni* ♂ Karsch, 1890, dét. Jérôme Constant 2003” *dissected, genitalia in glycerine; right hind wing mounted* [BMNH].

Note: the code 67-71 (for 1867-71) refers to the following entry in the register of the BMNH: “Sierra Leone (Sherbro Is.). Purchased of Mr Salmon” (M. Webb, *com. pers.*), as stated in DISTANT (1906).

– LECTOTYPE ♀ of *Metoponitys ornatus* LALLEMAND **present designation**: “Type” “Gold Coast, Aburi, 1912-13, W.H. Patterson” “*Metoponitys* type *ornatus* Lallemand,

dét. V. Lallemand 1927” “Lectotype ♀ *Metoponitys ornatus* Lallemand, 1928, J. Constant des., 2003” “*Metoponitys morgeni* ♀ Karsch, 1890, dét. Jérôme Constant 2003” *left hind wing mounted* [BMNH].

OTHER MATERIAL EXAMINED: (30 ♂♂ - 38 ♀♀) CAMEROON: 1 ♀: leg. Conradt [MMBC]; 1 ♀: 7 mi S. Ebolowa, 15-17.X.1966, leg. E.S. Ross & K. Lorezen [CAS]; 1 ♀: Escalera, 1899, leg. L. Conradt [MMBC]; 2 ♀♀: Escalera, 1903 [BMNH]; 1 ♂: Escalera, 1899, leg. L. Conradt [MMBC]; 1 ♂: Mfida, 04-07.VIII.1970, test cacao [MNHN]; 1 ♂, Mueli, 27.I.1958, leg. H. Knorr [SMNS]; 1 ♂: Ntsama, 28.VI.1968, leg. B. de Miré [MNHN]; 1 ♂: Ototomo, 15.XI.1970, leg. L. Matile [MNHN]; 1 ♀: R. F. Makak, 31.I.1950, leg. J. Birket-Smith & J. Dahl [ZMUC]; 1 ♀: Zoatoupsi, 14.XII.1971 [MNHN] CONGO: 1 ♀: Equateur: Bokuma, III.1952, leg. R.P. Lootens [MRAC]; 1 ♀, idem, VII.1952 [MRAC]; 1 ♀: Sankuru: Lomela, V.1925, leg. Lt J. Ghesquière [MRAC]; 1 ♀: Tshuapa: Ikela, VIII.1956, leg. R.P. Lootens, [MRAC] CONGO (BRAZZAVILLE): 1 ♀: M'Bomo, 09.II.1977, leg. C. Morin [MNHN]; 1 ♂: Sibiti, XI.1963, A. Descarpentries & A. Villiers [MNHN] GABON: 1 ♀: Gamba (Ogoué Maritime), 13.V.2002, leg. Syssou, Ngoma & Mousavou, alt. 25m, young secondary forest, Malaise trap, code site & trap:E-A3 [IRSNB]; 1 ♀: Gamba (Ogoué Maritime), 15.X.2001, leg. Mavoungou, Mikissa & Basset, alt. 25m, young secondary forest, Malaise trap, code site & trap:D-M1 [IRSNB]; 1 ♀: Gamba (Ogoué Maritime), 18.II.2002, leg. Syssou, Ngoma & Mousavou, alt. 25m, young secondary forest, Malaise trap, code site & trap:D-A2 [IRSNB]; 1 ♂: Ndjole, XI-XII.1925, leg. L. Fea [MMBC]; 1 ♀: Belinga, 25.VI.1974, leg. M. Donskoff [MNHN] IVORY COAST: 1 ♀: Adiopodoumé (=Adiapo-Doumé), X.1947, leg. Ch. Primot [MNHN]; 1 ♀: idem, XI.1947 [MNHN]; 1 ♀: Taï, 05.II.1985, frondaison, biotope 23, forêt noire Sangbé-Kro, leg. G. Couturier [MNHN] NIGERIA: 1 ♀: Ilare Forest, 25.V.1975, leg. M.A. Cornes [BMNH]; 1 ♂: Ile-Ife (=Ife), 16.II.1970, leg. J.T. Medler [IRSNB] CENTRAL AFRICAN REPUBLIC: 1 ♀: Boukoko, 03.V.1966, leg. M. Boulard [MNHN]; 1 ♂: idem, 11.VI.1968 [MNHN]; 1 ♀: idem, 11.IV.1969 [MNHN]; 1 ♂: idem, 24.IV.1970 [IRSNB]; 1 ♀: idem, 10.V.1968, on pepper-plant [MNHN]; 1 ♀: idem, 14.III.1970, on coffee-shrub [MNHN]; 1 ♀: idem, 14.III.1970, on *Calamus* sp. (Palmées) [MNHN]; 1 ♀: idem, 06.VI.1969, on cacao-tree [MNHN]; 1 ♀: idem, 06.IV.1968, on *Macaranga barkeri* (Euphorbiaceae) [MNHN]; 1 ♀: idem, 22.IV.1967, on “*katabounga*” [MNHN]; 1 ♂: Komassa (=Komasa), 25.I.1968, Leg. M. Boulard, on cacao-tree [MNHN]; 1 ♂: La Maboké, 11.XII.1968, leg. M. Boulard [MNHN]; 1 ♀: idem, 28.II.1968 [MNHN]; 1 ♀: idem, 04.III.1968 [MNHN]; 1 ♂: idem, 01.X.1965 [MNHN]; 1 ♀: idem, 07.VIII.1968 [MNHN]; 1 ♀: idem, 13.III.1968 [MNHN]; 1 ♂: idem, 09.V.1970 [MNHN]; 1 ♂: idem, 14.III.1969, light trap [MNHN]; 1 ♂: idem, 07.VIII.1966, light trap [MNHN]; 1 ♂: idem, 03.II.1970, light trap [MNHN]; 1 ♂: idem, 05.II.1970, light trap [MNHN]; 1 ♀: idem, 11.III.1969,

light trap [MNHN]; 1 ♀: idem, II.1970, light trap [MNHN]; 1 ♂: idem, 23.IX.1968, on cacao-tree [MNHN]; 1 ♂: idem, 28.XI.1969, on cacao-tree [MNHN]; 1 ♂: idem, 30.V.1968, on coffee-shrub [MNHN]; 1 ♂: idem, 27.I.1967, on cacao-tree [MNHN]; 1 ♀: idem, 16.II.1967, on cacao-tree [MNHN]; 1 ♀: idem, 04.XII.1972, on "kokombe" [MNHN]; 1 ♀: idem, 04.VI.1967, on "fonfê" [MNHN]; 1 ♂: idem, 01.III.1973, on "kolé" [MNHN]; 1 ♂: idem, 29.XI.1968, on *Vernonia sp* (Compositae) [MNHN]; 1 ♀: idem, 27.IX.1968, on *Vitex fosteri* (herbaceous) [MNHN]; 1 specimen (no abdomen): idem, 20.IV.1973, on "fofê" [MNHN]; 2 ♂♂: idem, 20.IV.1973, on "goudimeko" [MNHN]; 1 ♀: idem, 01.III.1973, on "goudimeko" [MNHN]; 1 specimen (no abdomen): idem, 09.VI.1972, leg. P. Kombo, on "goudimeko" [MNHN]; 1 ♂: idem, 02.VIII.1972, leg. P. Kombo, on "lolo" [MNHN]; 1 ♀: idem, X.1973, leg. M. Boulard & P. Kombo, on "koza", forêt inzanga [MNHN]; 1 ♂: Mbalé, 26.IV.1967, leg. M. Boulard, on "koutou" [MNHN]; 1 ♀: Toukoulou (=Toucoulou), 01.VIII.1967, leg. M. Boulard, on cacao-tree [MNHN] SIERRA LEONE: 1 ♂: Sherbro Island, leg. Salmon [BMNH].

1 ♂ erroneously labelled "Annam" [MMBC].

DIAGNOSIS: The species can be recognized by the following combination of characters: hind wings well developed

and tegmina with a clear, divergent, apically rounded process.

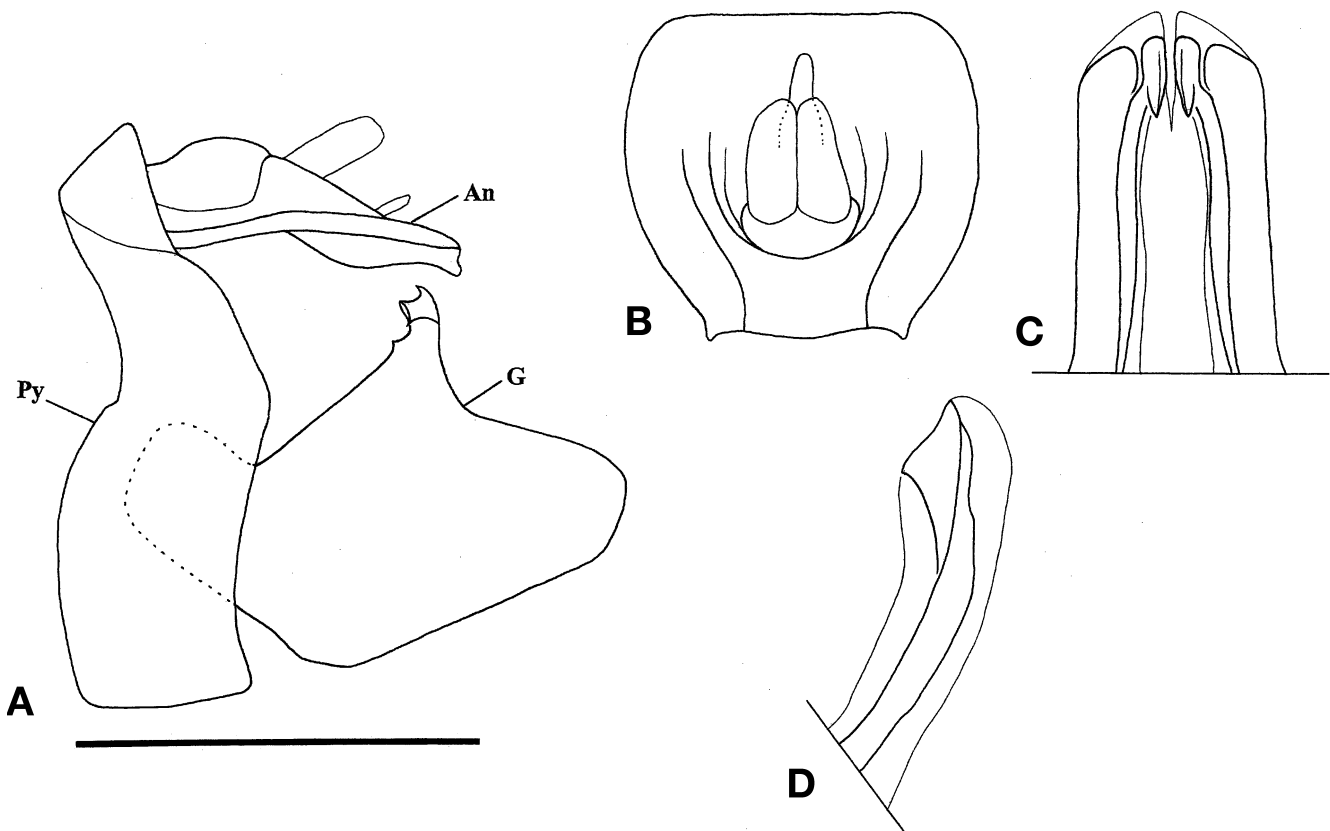
DESCRIPTION: LT: ♀♀ (n = 37): 10.1 mm (9.2 to 11.0); ♂♂ (n = 29): 9.4 mm (8.5 to 10.1).

Colour: very variable. Usually pale greyish brown with dark brown patches and spots.

Head: vertex pale with some irregular darker patches; frons and clypeus varying from pale with numerous minute brown spots to brown with unclear, pale, transverse bands or even nearly totally chocolate brown; sides of the head with elongate blackish patches around the eye; antennae pale to dark brown; all 4 margins of the vertex carinate; in some specimens, a weak median carina is visible on the dorsal ½ of the frontal disc; upper margin of the frons concave in normal view; scape very short, pedicel globular; ratio BV/LV = 3.1; BF/LF = 1.7.

Thorax: pronotum brown with the fore side of the curved carina blackish and a pale line marking the median carina; the brown part can be reduced to one patch on each side of the median carina; mesonotum completely brown to pale with some brown patches; pronotum with a short transverse depression at the hind 1/3; median carina weak, not visible behind the depression; tegulae pale to brown; ratio LP+LM/BT = 0.62.

Tegmina: elongate, prolonged by a clear process projecting laterad, rounded apically and curved upwards; colour varying from totally pale with 2 brown patches



Figs. 4A-D — *Metoponitys morgeni* KARSCH: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view. **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.



Figs. 5-7 — *Metoponitys morgeni* KARSCH sitting on young shoot of tree (photos M. Boulard Central African Republic).

on the clavus to nearly totally brown; apex always blackish; one “basic” pattern is as follows: a basal dark area followed by a transverse pale band and another dark brown band near ½ of LTg, apical ½ of the costal area with a succession of whitish and dark brown patches, some whitish patches along the sutural margin of the process, irregular infuscate spots distributed mainly on the apical ½; ratio LTg/BTg = 2.8.

Hind wings: broad; anal area well developed; apical ½ tapering; apex rounded; brownish black with an antero-basal paler area; maximal breadth at ½ of the length.

Legs: (Figs. 16D & J) I and II slender; entirely pale or dark brown or dark with a pale ante apical fascia on the tibiae; last tarsomere usually dark; hind legs concolorous, pale to dark brown; internal margin of tibia III laminate.

Genitalia ♂: pygofer curved; dorsal margin of the gonostyli with a tooth just before the median process, apex rounded (Fig. 4A); anal tube broader than long, cut straight apically in dorsal view, the sides rounded (Fig. 4B); phallic complex: see Figs. 4C-D.

Note: one female specimen from Gabon, Belinga [MNHN] bears a conspicuous white fascia on the frons. This specimen is considered here as a somewhat aberrant specimen of *M. morgeni* as all other characters match with the description above.

BIOLOGY: Widely distributed in forest zones of West and Central Africa. The species has been collected all year round. It is surely polyphagous as adults have been collected on 15 species of plants [in Central African Republic]: (a) cacao-tree (*Theobroma cacao* L., Sterculiaceae), (b) coffee-shrub (*Coffea arabica* L., Rubiaceae), (c) pepper-plant (*Piper nigrum* L., Piperaceae), (d) *Calamus* L. sp. (Arecaceae), (e) *Macaranga barkeri* (Euphorbiaceae), (f) “katabounga” or “katabunga” [local name] = *Malolotus oppositifolius* Müll. Arg. (Euphorbiaceae), (g) “kokombe” [local name] = *Trachyphrynium violaceum* RIDL. (Marantaceae), (h) “fonfé” or “fofé” [local name] = *Hippocratea* L. spp. (Celastraceae), (i) “kolé” [local name] = *Cleistopholis* Pierre ex Engl. spp. (Annonaceae), (j) *Vernonia* Schreb. sp. (Asteraceae), (k) *Vitex fosteri* C.H. Wright (Verbenaceae), (l) “koutou” or “kutu” [local name] = *Microdesmis zenkeri* Pax (Euphorbiaceae), (m) “goudimeko” or “gudi-meko” [local name] = various species of ferns, (n) “lolo” [local name] = *Conopharyngia* G. Don spp. (species with big flowers) (Apocynaceae), (o) “koza” [local name] = *Chytranthus* Hook.f. spp (Sapindaceae).

It seems attracted by light to some extent as 6 specimens were caught at light trap in Central African Republic.

5. *Metoponitys rudimentaria* KARSCH, 1890

Figs. 8A-D, 14, 16E, K, 21, Map 2.

Metoponitys rudimentarius KARSCH, 1890: 61, pl. 2: figs 3, 3a & 3b.

KARSCH, 1895: 217 SCHMIDT, 1908a: 515 METCALF, 1956: 75.

ETYMOLOGY: *rudimentaria* (Latin) = rudimentary, named after the shape of the wings that are reduced.

TYPES EXAMINED: LECTOTYPE of *Metoponitys rudimentaria* **present designation**: “Type” “Kongo-Gebiet, Chinchoxo, Falkenstein J.G.” “Cat.-N° 9717” “*Metoponitys rudimentarius* Karsch*” “Zool. Mus. Berlin” “Lectotype *Metoponitys rudimentarius* Karsch, 1890, J. Constant des., 2003” severely damaged: only damaged left fore and hind wings, small part of mesonotum and left median tibia and tarsus remaining [ZMHB].

– PARALECTOTYPE of *Metoponitys rudimentaria* **present designation**: “Type” “Chinchoxo Güssf.” “9717” “Kongo-Gebiet, Chinchoxo, Falkenstein J.G.” “*Metoponitys rudimentarius* Karsch*” “Zool. Mus. Berlin” “Paralectotype *Metoponitys rudimentarius* Karsch, 1890, J. Constant des., 2003” severely damaged: only damaged fore wings and parts of the legs remaining [ZMHB].

Note: Chinchoxo is a place in Cabinda, Northern Angola. It is situated near the mouth of the river Lukula, North of Landana (J. Deckert, *com. pers.*).

OTHER MATERIAL EXAMINED: (1 ♂, 1 ♀) CONGO: 1 ♂ (PLESIOTYPE): Luluabourg (=Kananga), III.1964, savane, leg. J. Deheegher [IRSNB]; 1 ♀ (PLESIOTYPE): Mayumba [MRAC].

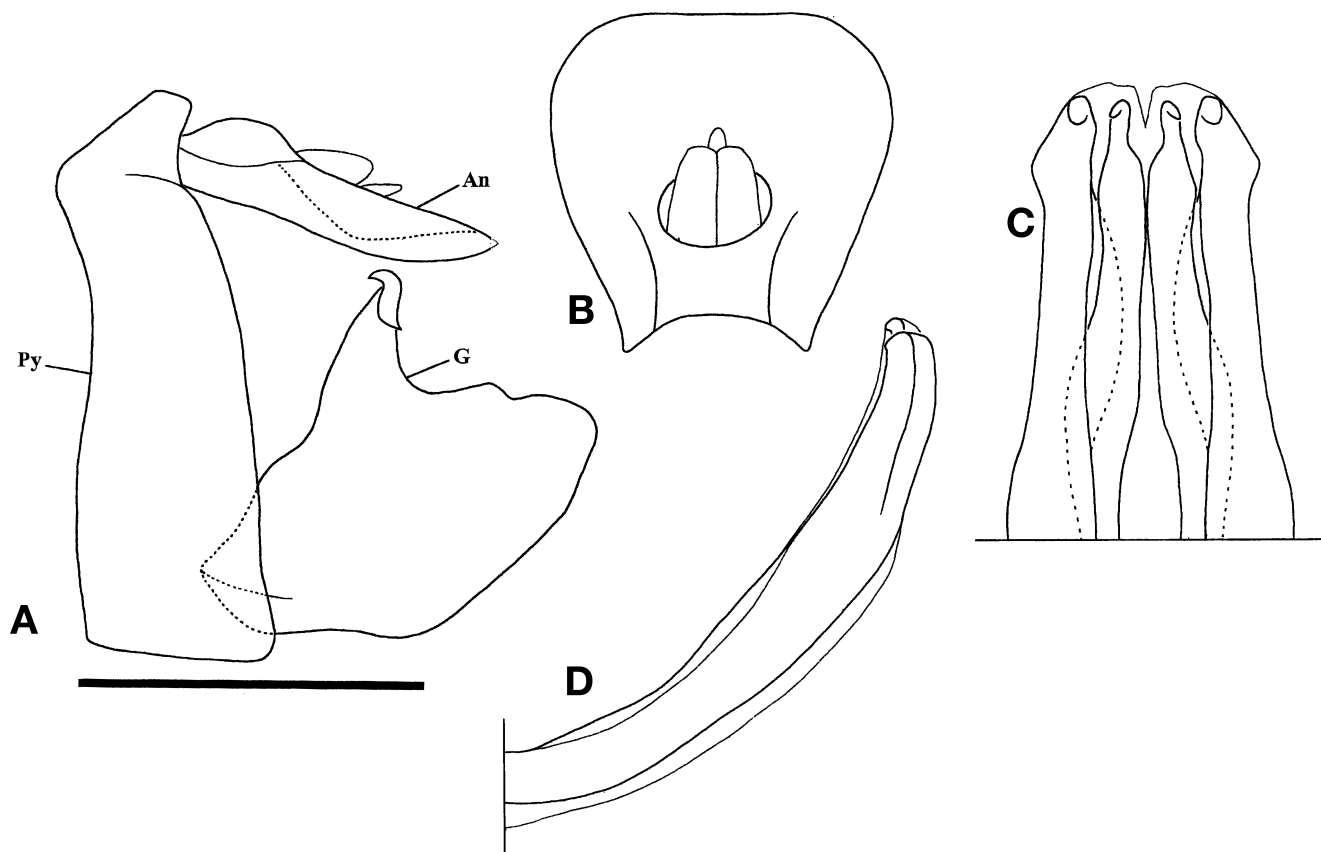
DIAGNOSIS: The species can easily be recognized by the external margin of the median tibiae that is broadened from base to apex and angulously cut apically, and the reduced hind wings.

DESCRIPTION: LT: ♀♀ (n = 1): 9.8 mm; ♂♂ (n=1): 9.3 mm. *Colour*: brown, nearly concolorous.

Head: frons, vertex and clypeus with numerous minute infuscate dots; vertex with 2 oblique, impressed, blackish stripes near the hind margin; frons concolorous or with unclear paler transverse bands; vertex with all 4 margins carinate; frons with a weak, barely visible, median carina on the disc; dorsal margin of the frons weakly concave, nearly straight in normal view; scape short, pedicel short and broad, directed a little ventrad; ratio BV/LV = 3.9; BF/LF = 2.0.

Thorax: pronotum brown with the anterior side of the curved carina and 2 impressed dots on the disc blackish; mesonotum with 2 blackish spots on the disc, between the carinae, and 2 at the fore margin, beyond the external carinae; median carina of the pronotum weak but clearly visible, not reaching the hind margin; carinae of the mesonotum weak, the median one not reaching the hind margin; tegulae concolorous; ratio LP+LM/BT = 0.62.

Tegmina: short and broad; divergent after the clavus; concolorous with irregular, weakly infuscate spots and patches, especially on the costal, apical and sutural areas, on the apical half; process short, not clearly distinct; ratio LTg/BTg = 2.4.



Figs. 8A-D — *Metoponitys rudimentaria* KARSCH: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view. **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.

Hind wings: reduced; anal area not developed; apex rounded; pale brown with the apex a little darker.

Legs: (Figs. 16 E, K) pale brown with only the apex of the tibiae infuscate; legs I slender with the tibia cut straight apically; tibiae II broadened from base to apex, with the external margin angulously truncate apically; internal margin of tibiae III laminate.

Genitalia ♂: pygofer weakly curved in lateral view; gonostyli with the dorsal margin sinuate beyond the median process; rounded apically (Fig. 8A); anal tube about as long as broad, the sides apically rounded and the apical margin straight (Fig. 8B); phallic complex: see Figs. 8C-D.

BIOLOGY: One specimen has been caught in savanna in Congo. No other data is available.

6. *Metoponitys testudinea* HESSE, 1925

Figs. 9A-D, 15, 16F, L, 22, Map 2.

Metoponitys testudineus HESSE, 1925: 146, pl. 7, figs 1 & 1a.

METCALF, 1956: 75.

ETYMOLOGY: *testudineus*, *a* (Latin): adjective derived from *tesudo* (Latin, tortoise). It can refer either to the convex form of the insect or to its tortoise-shell colour pattern.

TYPES EXAMINED: LECTOTYPE ♀ of *Metoponitys testudinea* present designation: “Otjimbombe, Kunene R., Mar. 1923” “Type” “*Metoponitys testudineus* Hesse Type” “South African Museum, Cape Town (SAMC)” “Lectotype ♀ *Metoponitys testudineus* Hesse, 1925, J. Constant des. 2003” “*Metoponitys testudinea* Hesse, 1925, dét. Jérôme Constant, 2004” – left hind wing mounted; abdomen glued on cardboard label [SAMC].

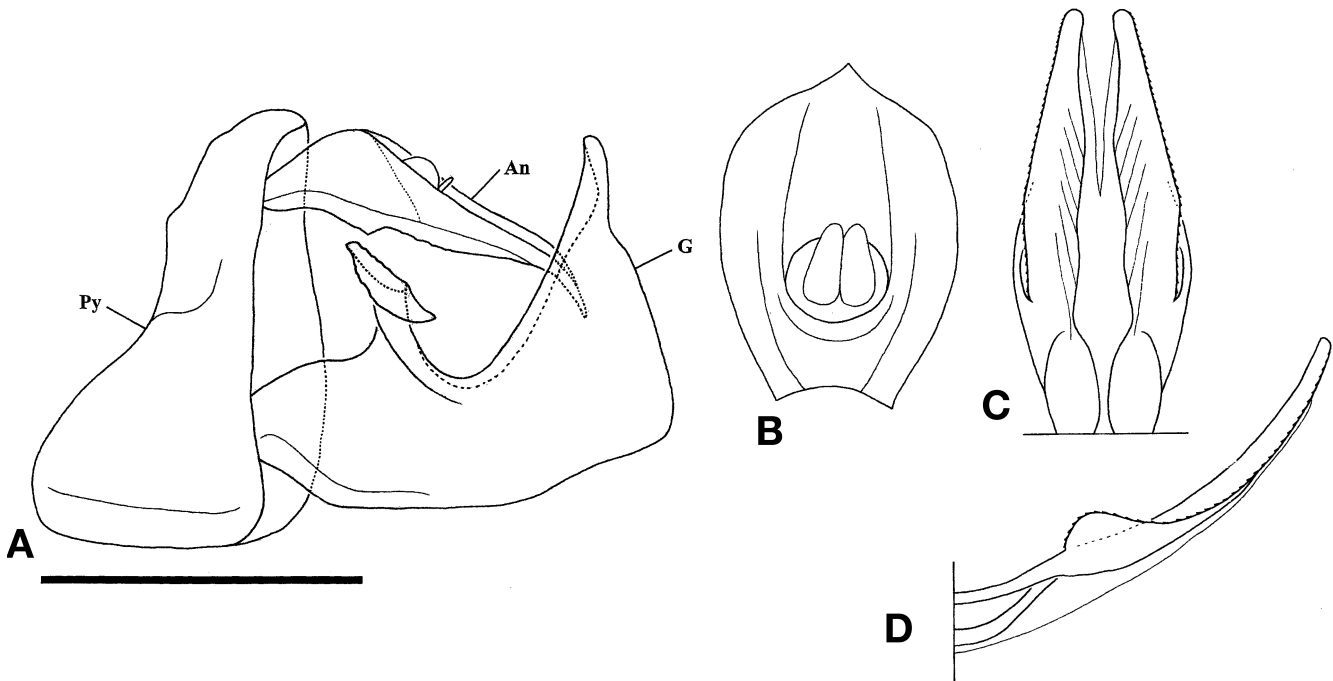
OTHER MATERIAL EXAMINED: (4 ♂♂) ANGOLA: 1 ♂: Vila Arriaga (=Bibala), 8 km E, 02.XII.1974 [NMNW] NAMIBIA: 1 ♂: Kaross (=Karoos river), II.1925, B.M. Exped. [BMNH]; 1 ♂: Abachaus (=Abaehausberg), Otjiwarongo Dist., VI.1959, leg. G. Hobohm [ZSMC]; 1 ♂ (PLESIOTYPE): Tiger Valley, Farm Harasib, Otavi mts, 14.III.1987, leg. R. Oberprieler [SANC].

DIAGNOSIS: The species can easily be recognized by the semi-foliaceous fore tibiae and the reduced hind wings.

DESCRIPTION: LT: ♀♀ (n = 1): 8.3 mm; ♂♂ (n = 4): 7.5 mm (7.1 to 8.0).

Colour: dark greyish brown.

Head: vertex brown, usually darker on the sides, with 2 oblique, weakly impressed, black stripes; frons and clypeus varying from totally chocolate brown to brown with unclear, transverse, paler bands; upper margin of the



Figs. 9A-D — *Metoponitys testudinea* HESSE: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view. **B.** anal tube, dorsal view. **C.** phallic complex, dorsal view. **D.** phallic complex, left lateral view. Scale 1 mm.

frons dark brown, shining, with a pale spot at each side; side of the head pale brown with 2 elongate, blackish patches around the eye; antennae blackish; vertex concave with all 4 margins carinate; dorsal margin of the frons concave in normal view; scape very short, pedicel broad, a little elongate, projecting ventrad; ratio BV/LV = 3.1; BF/LF = 2.0.

Thorax: pro- and mesonotum brown with irregular darker spots and patches; pronotum with 2 impressed dots; median carina of pro- and mesonotum very weak, not visible on some specimens; tegulae dark brown; ratio LP+LM/BT = 0.60.

Tegmina: quite elongate, covered with erect black hair; apical process curved laterad, narrowly rounded and convex at extremity; greyish brown with a darker area at the base, followed by a paler, transverse band, then a darker band before half of LTg; all the tegmina with irregular darker spots; process with a succession of pale and dark spots along the costal and sutural margins, the apex always blackish; ratio LTg/BTg = 2.6.

Hind wings: reduced, anal area small; apex rounded; pale brown with the apical $\frac{1}{4}$ infuscate.

Legs: (Figs. 16F, L) I and II dark brown with irregular, paler, transverse patches; III pale brown with apex of the tibia and of the lateral spines infuscate; I and II broad with the tibiae (especially I) semi-foliaceous; tibiae III not laminate internally.

Genitalia ♂: pygofer broadened ventrad in lateral view; gonostyli strongly produced dorsad apically; anal tube curved ventrad apically (Fig. 9A); anal tube longer than broad, pointed apically in dorsal view (Fig. 9B); phallic complex: see Figs. 9C-D.

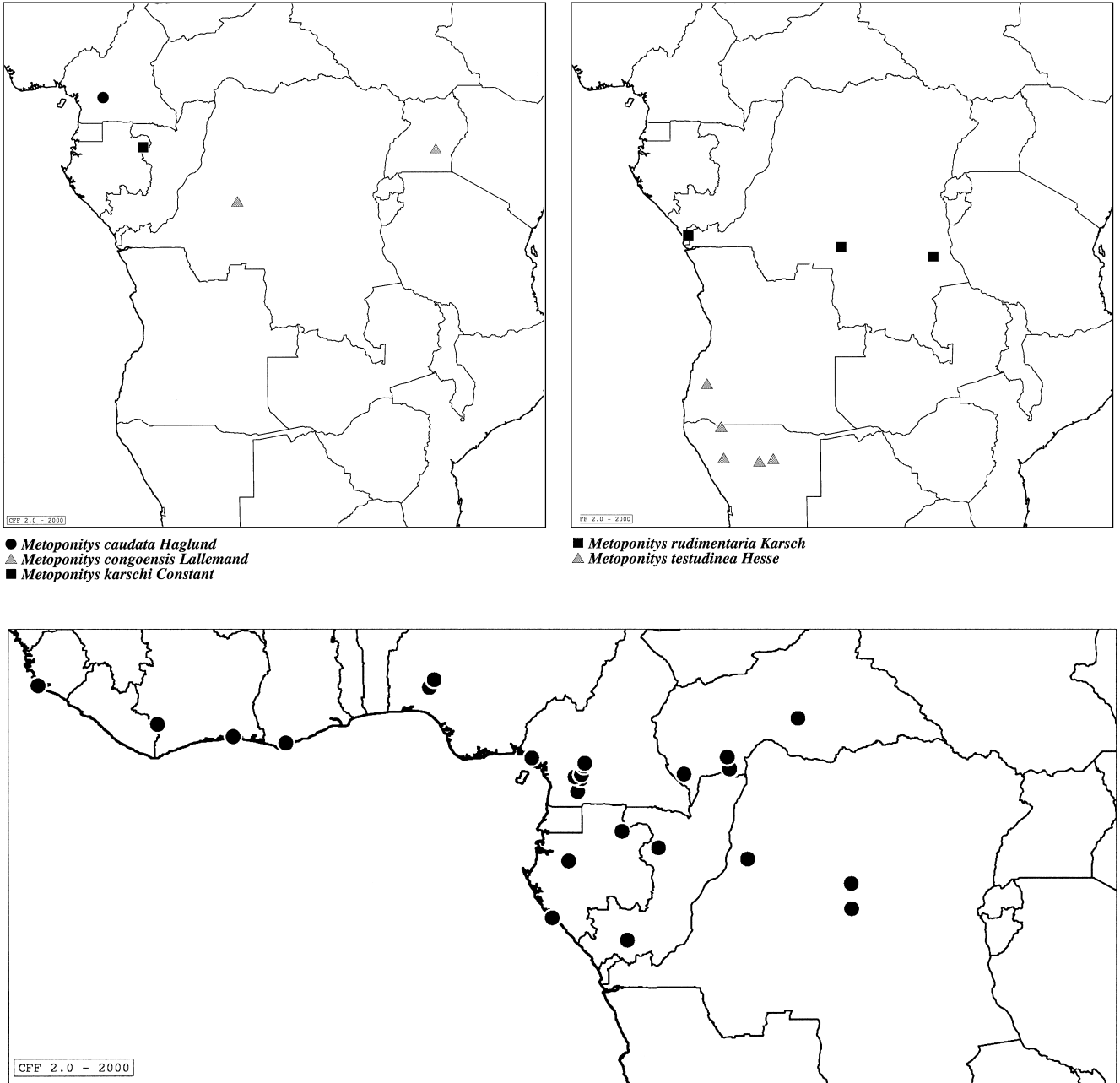
BIOLOGY: Unknown.

3.2. Discussion

The genus *Metoponitys* presently contains 6 valid species. The following considerations should be of interest for further study in this genus.

- the biological data remain very lacunar: even for *M. morgeni*, nothing is known about the larval biology although the species is by far the most numerous in the collections and the one with the widest geographic range.
- regarding the known distribution of the species, it seems that some (e.g. *M. caudata*, *M. karschi*?) may have restricted distribution while others (e.g. *M. rudimentaria*, *M. congoensis*) are more likely largely under collected, certainly due to the fact that *Metoponitys* species are small, not brightly coloured insects, quite cryptic when sitting on trunks and branches of trees.
- considering the previous remark, other new species are likely to be found in Western and Central Africa. Those species should be best characterized through the male genitalia but if only females are available, they could be validly described by the shape of the tegmina, hind wings and legs.
- field observations would be very interesting in order to discover if there exist any relation between the development/reduction of the hind wings and the biology of the species.

The view of JACOBI (1928) and FENNAH (1964) of placing *Metoponitys* in the Platybrachyini is followed here, better than that of placing them in the Dardini as proposed by SCHMIDT (1908b) and followed by METCALF (1956). The tribe Dardini as defined by SCHMIDT (1908b) is very



Maps 1-3 — Distribution of the 6 *Metoponitys* species. 1. *Metoponitys caudata* HAGLUND, *M. congoensis* LALLEMAND and *M. karschi* CONSTANT. 2. *Metoponitys rudimentaria* KARSCH and *M. testudinea* HESSE. 3. *Metoponitys morgeni* KARSCH.

artificial, with one Afrotropical (*Metoponitys*) and one Australian genus (*Dardus*), and characters that are not found in *Metoponitys* (e.g. the knob under the eye).

3.3. Identification key to the species

- 1. Hind wings with the anal area normally developed 2.
- Hind wings reduced, with the anal area small 4.
- 2. Tegmina prolonged by a long, ribbon-like process; processes divergent and pointed at the apex; LTg/BTg = 3.3 (recorded from Cameroon). 1. *Metoponitys caudata* HAGLUND

- Tegmina with a short, roundly truncate process; LTg/BTg = less than 3. 3.
- 3. Apical process of the tegmina short and nearly straight; LTg/BTg = 2.1 (recorded from Congo and Angola) 2. *Metoponitys congoensis* LALLEMAND
- Apical process of the tegmina conspicuous, curved upwards and divergent; LTg/BTg = 2.8 (recorded from West and Central Africa) 4. *Metoponitys morgeni* KARSCH
- 4. Median tibiae with the external margin broadened and angulus at the apex (recorded from Congo and Angola [Cabinda]) 5. *Metoponitys rudimentaria* KARSCH

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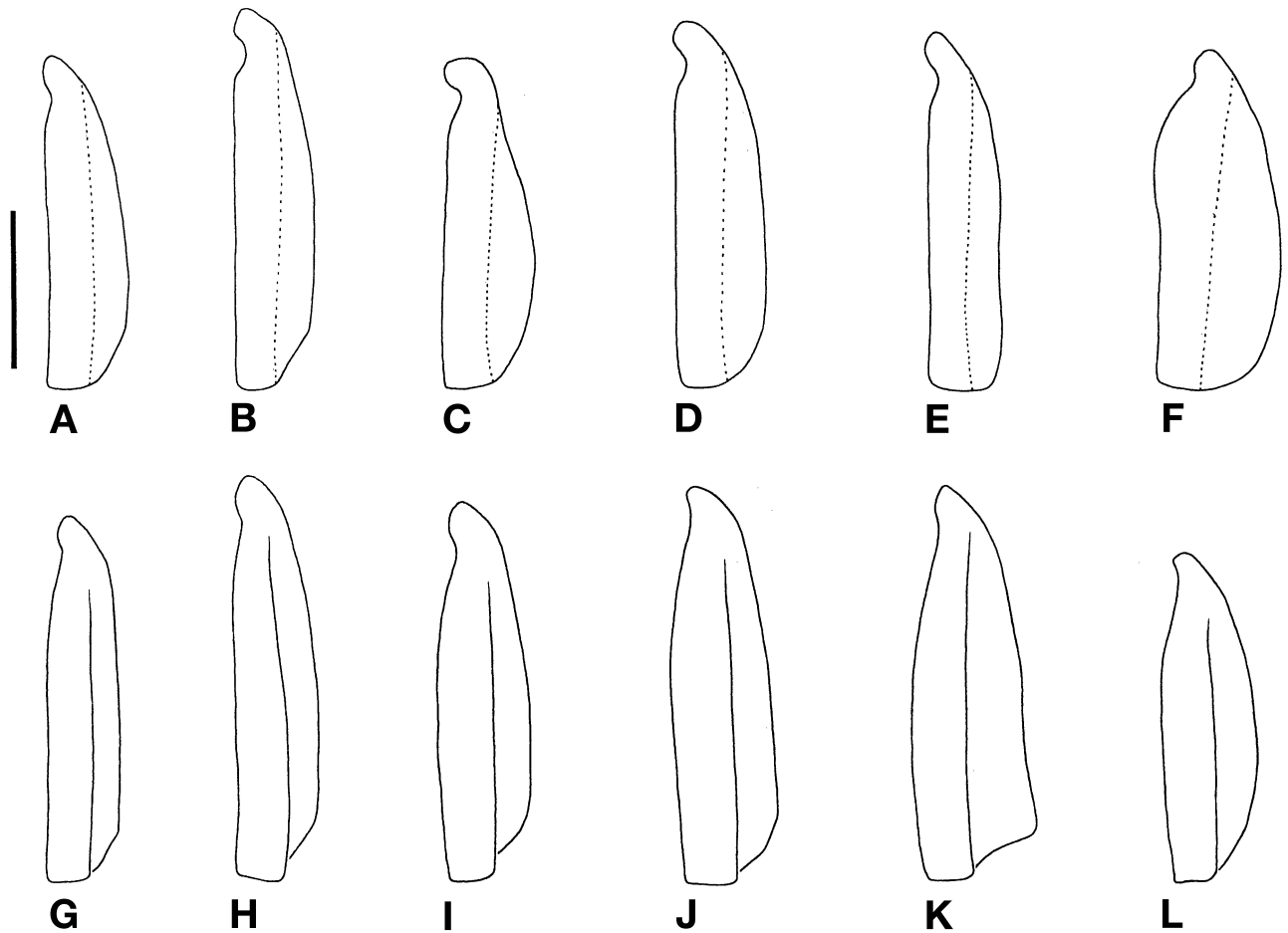
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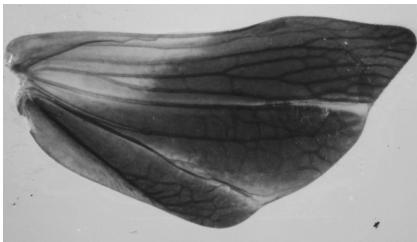
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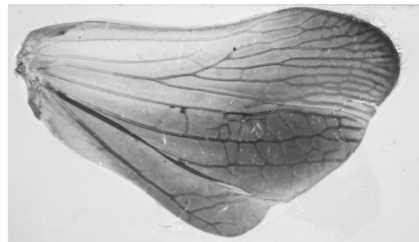
Figs. 10-15 — The 6 species of *Metoponitys*. Habitus, dorsal view. **10.** *M. caudata* KARSCH ♀ (LT = 11.1 mm). **11.** *M. congoensis* LALLEMAND Lectotype ♀ (LT = 9.3 mm). **12.** *M. karschi* CONSTANT Holotype ♂ (LT = 9.0 mm). **13.** *M. morgeni* KARSCH ♀ (LT = 10.4 mm). **14.** *M. rudimentaria* KARSCH ♂ (LT = 9.3 mm). **15.** *M. testudinea* HESSE ♂ (LT = 7.8 mm).



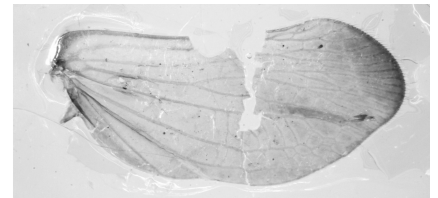
Figs. 16A-L — Right tibiae of the *Metoponitys*, dorsal view. A-F, fore tibia. G-L, median tibia. A, G. *M. caudata*. B, H. *M. congoensis*. C, I. *M. karschi*. D, J. *M. morgeni*. E, K. *M. rudimentaria*. F, L. *M. testudinea*. Scale 1 mm.



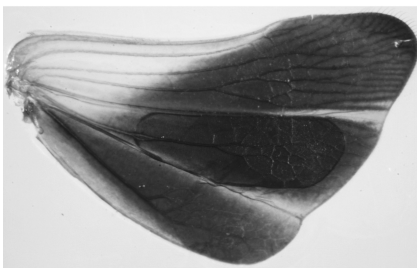
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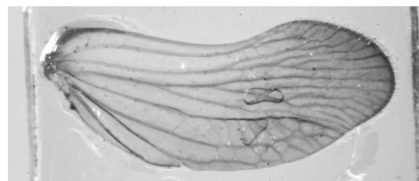
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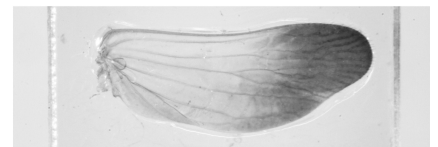
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Figs. 17-22 — Right hind wing of the 6 species of *Metoponitys*, dorsal view. 17. *M. caudata* KARSCH ♀. 18. *M. congoensis* LALLEMAND Lectotype ♀. 19. *M. karschi* CONSTANT Holotype ♂. 20. *M. morgeni* KARSCH ♀. 21. *M. rudimentaria* KARSCH ♂. 22. *M. testudinea* HESSE ♂.

- External margin of the median tibiae not angulously produced at the apex 5.
- 5. Fore tibiae broad, semi-foliaceous, with the external margin rounded; apical process of the tegmina narrow and divergent (recorded from Namibia and S Angola) 6. *Metoponitys testudinea* HESSE
- Fore tibiae slender, with the external margin sinuate; apex of the tegmina truncate, quite broad and not clearly divergent (recorded from Gabon) 3. *Metoponitys karschi* CONSTANT

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Acknowledgments

We thank here all the curators listed above for the loan of the material, Mr Michel Boulard (MNHN) for the informations about his collects and the kind permission to use his photos, Mrs Lois O'Brien (Associate, University of Arizona, Tucson, USA), Dr Thierry Bourgoïn (MNHN), Mr Pol Limbourg (IRSNB) and Dr Didier Drugmand (IRSNB) for their support and comments, Mrs Margie Cochrane (SAMC) and Dr Jürgen Deckert (ZMHB) for their help in finding the coordinates of some localities, Mr Mick Webb (BMNH) for the precisions about the type of *M. pennatus* and Mr Alain Pauly (IRSNB) for the informations about *M. karschi*.

This study has been supported by funds from the European Union for two visits: one to the MNHN in Paris (COLPARSYST project) and one to the ZMUC in Copenhagen (COBICE project).

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