

Linzer biol. Beitr.	48/2	1635-1675	19.12.2016
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## Contribution to the genus *Metopius* PANZER (Hymenoptera, Ichneumonidae, Metopiinae) from Africa South of Sahara

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**Abstract:** For this contribution, 27 species and one subspecies of *Metopius* PANZER, 1806 from Africa South of Sahara were studied. The known taxa are re-described, and nine species and one subspecies belonging to the subgenus *Metopius s.str.* are described as new: *Metopius ethiopicus* nov.sp., *Metopius femoralis* nov.sp., *Metopius gambiense* nov.sp., *Metopius nigrithorax* nov.sp., *Metopius palpoides* nov.sp., *Metopius rauschi* nov.sp., *Metopius rufigaster* nov.sp., *Metopius rufigaster* ssp. *zambiense* nov.spp., *Metopius rufofrontalis* nov.sp., and *Metopius zuluanops* nov.sp. For two species, the ♂♂ are described for the first time: *Metopius brevicornis* SEYRIG, 1935 and *Metopius clathratus* BENOIT, 1965.

*Metopius alboornatus* CAMERON, 1906 is re-establish as a taxon different to *Metopius discolor* TOSQUINET, 1896 (rev.stat.). *Metopius nigroomatus* CAMERON, 1906 is a new synonym to *Metopius audens* TOSQUINET, 1896 nov.syn.

In addition, keys for the ♀♀ and ♂♂ of *Metopius* (Subgenus *Metopius*) from Africa South of Sahara are presented.

**Keywords:** *Metopius*, new species, type revision, Ichneumonidae, Africa.

### Introduction

*Metopius* PANZER, 1806 (Hymenoptera, Ichneumonidae, Metopiinae) is a rather small Ichneumonid genus with about 57 known species worldwide (YU et al. 2012). Although this genus contains large and colorful species, they are usually quite rare in collections.

A first comprehensive revision of African *Metopius* was published by BENOIT (1961, 1965) who studied material mainly from Madagascar, South Africa, and Zaire. For the Afrotropical region, 26 species of *Metopius* have been listed in the catalogue of TOWNES & TOWNES (1973).

I had the opportunity to study some collections of African *Metopius* from the Natural History Museum of Humboldt-University Berlin/Germany (Berlin), from the Biozentrum Linz/Austria (Linz), and from the Natural History Museum London/Great Britain (London). Some material from the Zoologische Staatssammlung Munich/Germany (Munich) was included. From the IZIKO Museum in Cape Town/South Africa (RSA) I received important type material and some undetermined *Metopius* specimens. For this study, I excluded the species from Madagascar.

The distributional records were taken from the catalogue of YU et al. (2012).

## Methods

For the measurements an Olympus SZX 7 stereo microscope was used with dividing eyepiece. The figures were taken with an Olympus SC 30 CCD-camera using the AnalySIS getIT software and processed with the Helicon FocusPro Software.

## Material and Descriptions

### *Metopius (Metopius) albipictus* TOSQUINET, 1896: 366

H o l o t y p u s : (♂) [red] Type, ♂, 26265, [blue] Delagoa bai. R. Monteiro (Berlin), type studied.

syn. *Metopius Sjöstedi* SZÉPLIGETI, 1908: 88, synonymy by BENOIT (1965), type not studied.

F u r t h e r m a t e r i a l : Ethiopia W, Kaffa prov. 1500 m, 40 km W Bonga, 1 ♀ 9.IV.2007, leg. J. Halada (Linz); Zambia, Copperbelt pr., 25 km W Chingola 1600 m, 1 ♂ 16.I.2006, leg. R. Kneco (Linz); Tanzania NE, W of Kiberashi, kit wei plain, 1 ♂ 16.III.2002, leg. Snizek (Linz); Namibia, Popa Falls Karango, 1 ♂ 2.III.1994, 18°07'S/21°35'E, leg. H. Schumann (Berlin); RSA, Natal 1 ♂ 19.II.1997, Hala Game Res. 27°30'S/31°20'E, Falle 9, leg. F. Koch (Berlin); M'fongosi Zululand, 1 ♀ (Cape Town), Zimbabwe, Salisbury Chishawaska, 2 ♀ ♀ II-III.1978, leg. A. Watsham (London), Zimbabwe, Salisbury, Chishawaska, 1 ♂ II.1981 A. Watsham (London), Zimbabwe, Victoria Falls, 1 ♀ 2 ♂ ♂ 29-30.IV.1972 (London), Zambia, Lusaka, 1 ♂ I.1980, 1 ♂ IV. 1980, 1 ♂ XI.1979, 1 ♀ 1 ♂, XI-XII.1979, leg. R.A. Beaver@ (London), Nyasaland, Mlanje, 1 ♂ II.1913, leg. S.A. Neave (London); Brit. E Africa, Upper Kuja Valley, S. Kavirondo 4,200 ft. 1 ♀ V.1911, leg. S.A. Neave (London), Gambia, Keneba, Malaise trap, 3 ♀ ♀ 5 ♂ ♂ IX-X.1975, leg. M.C.D. Spreight (Cape Town).

### Description of ♀ :

Body length 8.5-11 mm. Flagellum with 41-42 segments. Mandible with one tooth. Second maxillary palpomere globose, length about 1.3x width (fig. 35). Facial shield punctate, centrally densely rugulose-punctate, with strong carinae, length 1.2x width, pointed below and with a more or less distinct longitudinal carina reaching the apex of clypeus. Interantennal lamella high, with a shallow subdistal impression and a distal tooth. Frons laterally with fine transversal striation. Temple ± strongly narrowed behind eye. Distance of lateral ocellus to eye 1.5-2.0x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with striation in the ventral third. Epicnemial carina obsolete dorsal to sternaulus. Central area of propodeum narrow, with strong lateral carinae, length 1.8x width. Hind femur length 2.2-2.7x height. Hind metatarsus about 0.4x as long as the hind tibia. Outer apical spur of hind tibia about 0.5x as long as the hind metatarsus. Front and middle claws without visible teeth. Areolet width 1.6x its length, second recurrent vein lateral to its middle, with one bulla.

First tergite with strong dorsal carinae almost reaching the apex. Its spiracle with a strong spiniform extension ventrally. Second and third tergites with spine-shaped posterolateral edges, the fourth tergite with rounded edges.

Color: Black. Metasoma with ± distinct violet shine. Flagellum reddish. Cream-yellow are palps, face (facial shield black centrally), frontal orbits in the lower half, subtegular ridge, sometimes mesopleuron and hind edge of pronotum, prescutellar ridge, hind margin of scutellum, sometimes postscutellum, posterolateral spots of propodeum, posterolateral edges of all tergites, confluent on hind margins of third/fourth to seventh tergites, spots on front and middle coxae and all trochanters, apical spots on all femora

and tibiae and front and middle tarsi at outer side, spurs of hind tibia. Pterostigma brownish. Wings darkened apically.

**Description of ♂:**

Body length 8-14 mm. Flagellum with 42-47 segments. Second maxillary palpomere club-shaped, length about 1.7x width. Facial shield length 1.15x width. Frons with fine transversal striation. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.1-1.5x its diameter.

Central area of propodeum narrow, with strong lateral carinae and a more or less developed longitudinal central ridge. Hind femur length 2.0-2.6x height. Hind metatarsus about 0.33-0.45x as long as the hind tibia. Outer apical spur of hind tibia 0.5-0.6x as long as the hind metatarsus. Areolet only 1.3x wider than long, second recurrent vein with one or two bullae.

Color: Black. Flagellum reddish to reddish-brown. Ivory are palps, labrum in part, face (shield black centrally, frontal orbit in the lower half, subtegular ridge, sometimes small spot on upper mesopleuron, prescutellar ridge, apical third or apical margin of scutellum, sometimes postscutellum, posterolateral spots of propodeum, posterolateral edges of all tergites, confluent on hind margins of tergites 3/4-7, spots on front and middle coxae and all trochanters, often apical margin of hind coxa, stripes on front and middle femora, tibiae and front and middle tarsi almost completely, basal spot and apical fifth of hind femur, apical spurs of hind tibia. Pterostigma brownish. Wings darkened apically.

**Distribution:** Central and Southern Africa, new for Ethiopia, Namibia, Zambia, and Zimbabwe.

***Metopius (Metopius) alboornatus* CAMERON, 1906: 135, rev.stat.**

**Holotypus:** (♂) Escourt 1/97, *Metopius alboornatus* Cam Type Cape (Cape Town), type studied.

**Further material:** RSA, Itala Game Res., 27°30'S 31°20'E, 1♂ 28.I.1991, leg. Koch (Berlin).

**Taxonomical remark:** This taxon has usually been synonymized with *Metopius discolor* TOSQUINET (BENOIT 1965, TOWNES & TOWNES 1973). In the present study, I found some constant differences (form of temple, and color of mesopleuron and hind coxa: see key below) that convinced me to re-establish *M. alboornatus* CAMERON as a good species.

**Description of ♂:**

Body length 16 mm. Temple roundly narrowed, seen from dorsal about 0.9x as long as eye (fig. 25). Interantennal lamella high, with strong subdistal indentation and small distal tooth. Eyes and facial shield narrowed ventrally, facial shield pointed ventrally, densely punctate, length 1.0-1.1x width. Second maxillary palpomere club-shaped, about 2x as long as wide. Frons finely rugose. Distance of lateral ocellus to eye 1.3x its diameter.

Side of pronotum punctate, with coarse striation anteriorly (as fig. 41). Area centralis of propodeum about as long as wide or slightly longer (1.2x), lateral carina obsolete apically. Hind femur length 2.8x height, hind metatarsus 0.5x as long as hind tibia, outer tibial spur 0.42x as long as hind metatarsus. Areolet ± stalked, 2.2-2.3x wider than long, second recurrent vein lateral its middle and with one bulla.

First tergite with tooth-shaped extension ventrally to spiracle, dorsal carina in the basal 0.5-0.7, apically with coarse puncture, slightly smoothed. Second tergite about 0.9x as long as wide and with bluntly extended posterolateral edges, following tergites with rounded edges.

Color: Black. Flagellum reddish. Cream-yellow to yellow are palps, mandible except tooth, labrum, face including facial shield (clypeus blackish), frontal orbit up to anterior ocellus, scape and pedicel beneath, upper margin of pronotum, spot on tegula, subtegular ridge, large spot on upper mesopleuron, prescutellar ridge, apical half of scutellum, posterolateral spot on propodeum, narrow apical bands of all tergites narrowed medially (fig. 1), hind margin of hypopygium and clasper. Front and middle legs yellow, front and middle coxae and femora reddish posteriorly, hind coxa black, with large ventral cream-yellow stripe. Hind leg otherwise red, hind femur with basal and apical cream-yellow spots, hind tibia with apical yellowish spot. Pterostigma yellowish, wings not distinctly darkened apically.

♀ unknown.

Distribution: RSA.

***Metopius (Metopius) audens* TOSQUINET, 1896: 363**

H o l o t y p u s : (♀) [red] Type, ♀, 9036, [blue] Capland Krebs. (Berlin), type studied.

syn. nov. *Metopius nigroornatus* CAMERON, 1906: 133

Holotypus: (♂) *Metopius nigroornatus* Cam. Type Cape (Cape Town), type studied.

F u r t h e r m a t e r i a l : Paralectotype of *Metopius discolor*: (♂) [red] Type, ♂, [blue] Capland Krebs. (Berlin), R.S.A., W Cape, S of Lamberts Bay, 1♂ 7.X.1999, leg. M. Halada (Linz). Paratype of *M. alboornatus* Cameron: (♂) Johannesburg, Transvaal bred larva II 1904, imago III 1904 (Cape Town).

D e s c r i p t i o n o f ♀ :

Body length 12.5 mm. Flagellum with more than 35 segments (tips broken off), segments wider than long. Temple roundly narrowed, 0.8x as long as eyes. Interantennal lamella high, without distinct subdistal indentation, distal tooth large. Mandibel with one tooth. Eyes narrowed ventrally. Sides of facial shield not narrowed ventrally, pointed basally, coarsely punctate, length 1.1x width. Second maxillary palpomere club-shaped, 2.0x as long as wide. Frons with transverse striation, coarsely punctate. Distance of lateral ocellus to eye 1.7x its diameter.

Mesosoma with whitish hairs. Side of pronotum punctate, with coarse striation anteriorly. Epicnemial carina not reaching above sternaulus. Area centralis of propodeum 1.6x longer than wide, with complete lateral carina and central longitudinal carina. Hind femur length 2.7x height. Hind metatarsus 0.45x as long as hind tibia, outer tibial spur 0.35x as long as hind metatarsus. Front and middle claws without visible teeth. Areolet shortly sessile, 2.0x wider than long, second recurrent vein lateral of its middle and with one bulla.

First tergite widest at base, with slightly narrowed sides to apex, spiracle with dentiform extension ventrally and narrow lateral lamella, dorsal carina strong and extended almost to apex. Second tergite 1.1x as long as wide. Second and third tergites with rounded posterolateral edges, following tergites with rounded edges.

Color: black. Flagellum reddish. Reddish are palps and flagellum. Yellow are face, facial

shield except black central spot, frontal orbits up to anterior ocellus, subtegular ridge, praescutellar carina, hind margin of scutellum, postscutellum, small posterolateral spots on propodeum and on first tergite, narrow apical margins of all following tergites. Legs reddish, all coxae and apex of front and middle femora with yellow spots, hind femur at base and apex with yellow spots. Pterostigma yellowish-brown, wings slightly infuscate at apices.

**Description of ♂:**

Body length 14.5-15 mm. Flagellum with 51-53 segments. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.8-2x as long as wide. Facial shield punctate, centrally fine rugose, with strong rounded lateral carinae, length 1.1x width, strongly pointed below. Interantennal lamella high, with ± deep subdistal notch and distal tooth. Frons with fine granulation. Distance of lateral ocellus to eye 1.5x its diameter. Temple roundly narrowed behind, 0.8x as long as eye.

Side of pronotum coarsely punctate, with striation anteriorly, smooth only at narrow anterior margin. Central area of propodeum wide, about as wide or wider than long, strongly rugose, with lateral carinae, apical carina lacking, costula indistinct. Hind femur length 2.6-2.8x height. Hind metatarsus 0.5x as long as hind tibia, outer apical spur of hind tibia 0.3-0.4x as long as the hind metatarsus. Front and middle claws with small basal teeth. Areolet 2.1-2.3x wider than long, shortly sessile or stalked, second recurrent vein in the middle, with one bulla.

First tergite with dorsal carinae in the basal 0.5-0.7. Spiracle with denticular extension ventrally.

Color: Black. Flagellum reddish ventrally. Ivory or yellow are palps, apical margin of labrum, facial shield (sometimes with black central spot), frontal orbit up to anterior ocellus, subtegular ridge, usually small spot on upper mesopleuron, prescutellar ridge, apical third of scutellum, postscutellum, narrow apical bands of first to sixth tergites (narrowed centrally). Legs reddish. Yellow are spots on front and middle coxae, apical spots on front and middle femora, stripes on outer sides of front and middle tibiae and tarsi, basal and apical spots on hind femur. Hind coxa basally black, apically red. Pterostigma yellowish-red. Front wing only slightly infuscate at apex.

**Distribution:** RSA.

***Metopius (Ethimetopius) brevicornis* SEYRIG, 1935: 31, new ♂**

**Material:** RSA, Hluhluwe Game Reserve, 28°02'S/32°05'E, 1♂ 5.XII.1995, leg. F. Koch (Berlin); Zimbabwe, Salisbury, Chishawasha, 1♂ IX.1978, leg. A. Watsham (London).

**Taxonomical remark:** The ♂ differs from *M. latibalteatus* CAMERON by its pointed facial shield, denticular extension of spiracle of first tergite, extensive reddish coloration and scattered puncture of hind coxa.

**Description of ♂:**

Body length 14 mm. Flagellum with 48-50 segments, widest segments about 2x as wide as long. Mandible with two teeth. Second maxillary palpomere club-shaped, about 2.0x as long as wide. Compound eyes narrowed ventrally. Facial shield with slightly narrowed sides, with dense centrally almost confluent puncture and strong carinae, length 1.2x width, rounded ventrally (fig. 14). Interantennal lamella high, with weak

subdistal impression and without or with small distal tooth. Frons granulate, matte, vertex with fine puncture. Temple strongly narrowed behind eye, about 0.65x as long as eye. Distance of lateral ocellus to eye 1.7x its diameter.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, with coarse striation at anterior border. Epicnemial carina obsolete above sternaulus. Central area of propodeum wide, strongly narrowed behind, length 1.2x width, sometimes with median longitudinal ridge, apical carina usually present, costula indistinct. Hind coxa with scattered puncture, apical third almost smooth on outer side. Hind femur length 2.5x height. Hind metatarsus about 0.45x as long as hind tibia. Outer apical spur of hind tibia very short, about 0.3x as long as hind metatarsus. Front and middle claws with very short basal teeth. Areolet 2x wider than long, sessile. Second recurrent vein with one bulla, reaching areolet in the middle.

First tergite with dorsal carinae only in the basal half. Its spiracle with a small denticular ventral extension, lateral lamella behind spiracle distinct basally, but obsolete in the apical half. Second tergite with pointed posterolateral edges, third and fourth tergites with rounded edges.

Color: Black. Reddish are palps, mandible, labrum, clypeus, flagellum, spot on vertex, propleurum, anterior and upper margin of pronotum, tegula, subtegular ridge confluent with spot on upper mesopleuron (this spot sometimes centrally ivory), scutellum in apical half or completely and postscutellum, hind margin of metapleurum. Ivory or yellowish are face (fig. 14), frontal orbit up to lateral ocellus, praescutellar ridge, dorsolateral spot on propodeum. First to third tergites red, third tergite partly black basally. Tergites 4-5/6 black, red laterally and apically, with apical ivory bands (about 0.2x the length of tergite), seventh tergite (sometimes also sixth tergite) red with very narrow ivory hind margins, hypopygium and claspers red. Front leg reddish, front tibia and tarsus with ivory stripe on outer side. Middle leg ivory, with femur more or less reddish. Hind coxa ivory, with anteroventral black spot. Hind trochanter ivory, hind femur reddish-black, with a large basal and smaller apical ivory spot. Hind tibia, its spurs an hind tarsus red. Pterostigma yellowish, wings yellowish, with darkened apex of front wing.

**D i s t r i b u t i o n :** Kenya, new for RSA and Zimbabwe.

***Metopius (Metopius) clathratus* BENOIT, 1965, new ♂**

**P a r a t y p u s :** (♀) M'fongosi Zululand (Cape Town), type studied.

**F u r t h e r m a t e r i a l :** Kenya, S Taita, Mwatate env., 1 ♂ 30.XI.1997, leg. M. Snizek (Linz); Zambia, 15 km E. Lusaka, 1 ♂ 22-31.I.1980 R.A. Beaver (London).

**D e s c r i p t i o n o f ♀ :**

Body length 17 mm. Flagellum with 67 segments. Facial shield as long as wide, with dense puncture, centrally rugose-punctate (fig. 15), clypeus with distinct median longitudinal carina from facial shield to apex. Temples wide, almost parallel behind eyes and moderately narrowed behind, seen from dorsal about 0.8x as long as eye (fig. 27). Frons with fine transverse striation. Distance of lateral ocelli from eyes about 2.5x its diameter.

Side of pronotum punctate, smooth anteriorly. Epicnemial carina obsolete above sternaulus. Mesoscutum impressed frontal to prescutellar groove. Scutellum with very

scattered puncture. Hind femur length 3.1x height. Hind metatarsus III 0.45x as long as tibia III, inner tibial spur 0.45x as long as hind metatarsus. Areolet sessile, about 2x as wide as long, second recurrent vein with 2 bullae, reaching areolet in its middle.

First tergite with high lamelliform dorsal carina in the basal third, punctate, posterolaterally smoothed, its spiracles without distinct ventral extensions, lateral carina behind spiracles lamelliform. Second tergite about as long as wide, its posterolateral corners blunt, hind edges of following tergites rounded.

Color: Black, pale coloration in holotype yellowish, in paratype (artificially?) reddish. Reddish or yellow are palps, mandibles, labrum, clypeus, gena, face and facial shield (fig. 15), frontal orbit, flagellum with scape and pedicel, upper margin of pronotum, large spot on mesopleuron, subtegular ridge, prescutellar ridge, apical 2/3 of scutellum, postscutellum, apical band on propodeum, first tergite almost entirely, wide apical bands of all tergites (on second to fourth tergite on half its length, on fifth and sixth tergites laterally half its length laterally and medially 1/3 its length). Legs reddish-brown, hind coxa at apex, and hind femur at base and apex with red spots.

#### D e s c r i p t i o n o f ♂:

Large, body length 18-20 mm. Flagellum with 63-66 segments. Second segment of maxillary palps club-shaped, about 1.8-1.9x as long as wide. Facial shield very wide, 1.0-1.1x wider than long, punctate (centrally denser and almost confluent), with strong carinae, wide, pointed ventrally. Median carina on clypeus ± distinct. Interantennal lamella high, with more or less deep subdistal notch and distal tooth. Frons matt, with fine transversal striation. Apex of clypeus protruding. Temple about 0.8-0.9x as long as the eyes. Distance of lateral ocellus to eye 1.8-2.5x its diameter.

Side of pronotum punctate, smooth and strongly shining in the anterior half. Scutellum with very scattered puncture. Central area of propodeum heart-shaped, with strong lateral carinae, about as long as wide or longer than wide. Hind femur length 2.7-2.8x height. Hind metatarsus 5.3x as long as wide, 0.43-0.45x as long as the hind tibia. Outer apical spur of hind tibia about 0.4-0.45x as long as hind metatarsus. Front and middle claws with few small basal teeth. Areolet 2-2.2x wider than long, pointed. Second recurrent vein with two bullae, reaching areolet in the middle. Nervulus slightly postfurcal.

First tergite wide, 0.8x as long as wide, with dorsal carinae in the basal half. Its spiracle without distinct ventral extension, confluent with the lateral lamella which extends to the apical half of tergite. Second and third tergites 0.85-0.9x as long as wide, posterolateral edges rounded (fig. 2).

Color: Black. Flagellum brownish to blackish. Mandible reddish centrally. Yellow are palps, labrum, mandibles basally, clypeus, face and facial shield (fig. 15), frontal orbit up to the anterior ocellus, scape beneath, upper margin of pronotum, subtegular ridge, large spot on the upper mesopleuron, prescutellar ridge, hind 2/3 of scutellum, large posterolateral and a smaller central spot of propodeum, hind parts of all tergites, first tergite in apical 1/2-2/3, second to fourth tergites in apical half (wider medially: fig. 2) and hind margins of following tergites, front and middle legs, apical spot of hind coxa, hind trochanter, basal and apical bands of hind femur, sometimes stripes on outer side and apical spurs of hind tibia. Pterostigma yellowish-brown. Wings slightly darkened at apex.

D i s t r i b u t i o n : Malawi, RSA, new for Kenya and Zambia.

***Metopius (Metopius) discolor* TOSQUINET, 1896: 361**

L e c t o t y p u s : (♀) [red] Type, ♀, 9034, [blue] Capland Krebs. (Berlin), type studied.

syn. *Metopius erythropus* CAMERON, 1904: 148

syn. *Metopius erythrospilus* CAMERON, 1906: 132

L e c t o t y p u s : (♀) B.M. Type Hym 3b1004, *Metopius erythrospilus* CAM Type Cape (London), studied and herewith designated. The other specimen (B.M. Typ Hym. 3b1015) is designated as paralectotype.

syn. *Metopius (Peltocarus) apertus* BENOIT, 1965: 44

F u r t h e r m a t e r i a l : RSA, Itala Game Reserve, 6♂♂ (Cape Town); RSA, W Cape, Barrydale, 1♀ 16.XII.2002, leg. M. Snizek (Linz); RSA, W Cape, S of Lamberts Bay 17♀♀ 7.X.1999, 1♀ 7-9.X.1999, 1♀ 10.x.1999, leg. M. Halada (Linz); RSA, 1♀ 15-16.XI.1993, 34°04'S 20°27'E, Cape Province, Bontebok NP, leg. F. Koch (Berlin); RSA, Pretoria City, 1♂ 12.II.2000, leg. J. Halada (Linz); RSA, Kw Natal N, Louwsburg, Itala, 1♀ 9.II.2000, leg. J. Halada (Linz); RSA, Transvaal Wolkbg, 24°02'S 30°00'E, 12-16.II.1997, 1♂ Falle 2, 2♂♂ Falle 4, 3♂ Falle 8, 2♂♂ Falle 10, 1♂ Falle 17, 2♂♂ Falle 18, 2♂♂ Falle 21, leg. Koch (Berlin); RSA, Itala Game Res., 27°30'S 31°20'E, 2♂♂ 28-30.I.1995, leg. Koch (Berlin); RSA, Natal, Dragon Peak Park, 29° 02'S 29°26'E, 2♂♂ 9.XI.1993, leg. Koch (Berlin); RSA, Pretoria, Botanical Garden, 1♀ 1.IV.1990, leg. M. Schwarz (Munich); RSA, N'dumu Game Reserve, 26°55'S 32°19'E, 1♀ 2.II.1995, leg. Koch (Berlin); Tanzania, Mombo or., 1♀ 9-11.I.1996, leg. Snizek (Linz); Kenya, Atbi River, 1076, 1♀ 28.V.1965, leg. E.S. Brown (London); Tanzania, Arusha, 1♂ ex *Spondoptera exempta* (WALKER, 1856) (Lep. Noctuidae), 17.III.1965 (London); Kenya, Nairobi, 1974, 1♂ ex *Spondoptera exempta* (WALKER, 1856) (Lep. Noctuidae) (London); Zambia, Lusaka, 1♀ IV.1980, leg. R.A. Beaver (London); Zimbabwe, nr Kwekwe Iwaba 1200m, 1♀ 26.XI-5.XII.1999, leg. K.M. Guichard (London); Zimbabwe, Salisbury Chishawasha, 1♀ IV.1978, 1♀ XI.1978, 3♀♀ II.1981, leg. A. Watsham (London); Sierra Leone, Rokupr, 2♀♀ 1977 light trap rice field (London); Nigeria N, Sokoto Prov., Lake Natu, 4♂♂ 29.XI.1975, leg. J.C. Deeming (London); Nigeria N, Niger Prov., Mokwa, leg. S.S. Chhadha, 1♂ parasite in pest of tomato (London); Nigeria N, Bwn Shendam & R. Benme, rice field, 1♀ 18.XI.1977, leg. J.C. Deeming (London); Nigeria, Ibadan, 1♂ 25.V.1955, leg. J.T. Davey (London); Nigeria, Ibadan on rice, 1♂ 31.VII.1964, 1♂ 18.VIII.1964 (London); RSA, Natal Nat. Park, 1♂ III.1932, leg. J. Ogilvie (London); Zambia, Lusaka 2♂♂ IV.1980, leg. R.A. Beaver (London); Kenya, Karava vill., 1♂ ex *Spodoptera. exempta* (London); Uganda, Molt Near Tororo, 1♂ 24.V.1963, ex larva of *Spodoptera*, leg. E.S. Brun (London); Zimbabwe, Salisbury 1♀ 22.V.1954, ex *Laphygina exempta*, leg. D.J.W. Rose (London); RSA, Transvaal, Rustenburg, 1♀ 18.IV.1928 (London); RSA, Natal, Durban, 1♀ 4.XII.1918, leg. C.N. Backer (London); RSA, Natal, Weenen, 1♀ II.1925, leg. H.P. Thomasset (London); Kenya, Karura forest, Nairobi, 5500 feet, 1♀ 9-13.XII.1970, leg. A.E. Stubbs (London); Uganda, Mt. Kokanjero, SW of Elgon, 6400 feet, 1♀ 7-9.VIII.1911, leg. S.A. Neave (London); Zimbabwe, Matetsi, 1♀ 30.III.1937, leg. R.H.R. Stevenson (London).

T a x o n o m i c a l r e m a r k : The synonymy of this common and widespread Afrotropical species has long been questionable. After the original description of *M. discolor* by TOSQUINET (1896), CAMERON (1904, 1906) had described several South African species (e.g. *Metopius erythropus*, *M. erythrospilus*, *M. nigroornatus* and *M. alboornatus*) as new. However, all of them were synonymized with *M. discolor* TOSQUINET by BENOIT (1965). Later, TOWNES & TOWNES (1973) correctly synonymized *M. apertus* BENOIT, 1965 with *M. discolor*.

In my opinion, the ♂♂ of *Metopius alboornatus* CAMERON differ slightly but constantly from *Metopius discolor* TOSQUINET by a less narrowed temple, yellow spot on hind coxa, and mesopleural yellow spot not confluent with subtegular spot. The type of *Metopius nigroornatus* CAMERON belongs to *Metopius audens* TOSQUINET (nov.syn.).



### Description of ♀:

Body length 13-15 mm. Flagellum with 52-62 segments. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.6-1.7x as long as wide (fig. 38). Facial shield with slightly narrowed sides, with dense puncture and strong carinae, about 1.1-1.2x as long as wide, pointed below and with a more or less distinct longitudinal carina reaching the apex of clypeus. Interantennal lamella high, with distinct subdistal impression and strong distal tooth. Second maxillary palpomere club-shaped, about 1.7x as long as wide. Frons with fine transverse striation, sometimes punctate. Vertex punctate. Temple roundly narrowed behind eye, about 0.8x as long as eyes (fig. 26). Distance of lateral ocellus to eye 1.4x its diameter.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, with striation ventrally (fig. 41), smooth only at narrow anterior margin. Epicnemial carina obsolete above sternaulus. Central area of propodeum wide, with lateral carina (sometimes faint) and  $\pm$  distinct central longitudinal ridge, apical carina obsolete, costula indistinct. Hind femur length 2.4-2.7x height. Hind metatarsus 0.45x as long as hind tibia. Outer apical spur of hind tibia 0.35-0.5x as long as hind metatarsus. Front and middle claws with small basal teeth. Areolet 2.5x wider than long, second recurrent vein with one bulla (rarely with two), reaching areolet in its middle.

First tergite with dorsal carinae only in basal third to half. Its spiracle with strong spiniform ventral extension, lateral lamella behind spiracle obsolete or narrow (fig. 29). Second tergite 0.9-1.0x as long as wide, with slightly pointed posterolateral edges, third and fourth tergites with rounded edges (sometimes third tergite with pointed edge).

Color (color form I as the lectotype): Body mainly reddish. Yellow are facial shield, facial and frontal orbits, ventral spot on scape, upper margin of pronotum, large anterodorsal spot of mesopleuron, prescutellar ridge, apical half of scutellum, post-scutellum, two spots on propodeum at dentiparal edge, posterolateral spots on first tergite, apical bands on tergites 2-6 (about 1/5 of length), front femur frontally, middle femur apically, front and middle tibiae and tarsi reddish apically, wings darkened at apex.

(Color form II): Black. Red are palps, mandible except tooth, labrum, clypeus centrally, often malar space, face (facial shield often with dark spot centrally), frontal orbit up to the lateral ocellus, upper margin of pronotum at least in hind part, tegula, subtegular ridge confluent with a large spot at upper part of mesopleuron, prescutellar carina, scutellum completely or apically, postscutellum, usually posterolateral spot on propodeum, legs including coxae and trochanters (rarely hind femur more reddish), sometimes first tergite apically, sometimes fifth tergite, usually sixth tergite. First to fifth tergites with yellowish apical margins, centrally narrowed. Front wing darkened at apex, pterostigma yellowish.

### Description of male:

Body length 11-15 mm. Flagellum with 51-58 segments. Eyes slightly narrowed ventrally. Facial shield with rounded sides, slightly narrowed ventrally, length 1.2-1.25x width, densely punctate, pointed below. Second maxillary palpomere 2.0-2.1x longer than wide. Distance of lateral ocellus to eye 1.3-1.4x its diameter. Interantennal lamella high, with strong subdistal indentation and strong distal tooth. Temple strongly but roundly narrowed behind eye (fig. 26). Frons with transverse striation.

Side of pronotum punctate, smooth with some striation on anterior border. Area centralis of propodeum bottle-shaped, lateral carina concavely narrowed apically, usually reaching apex of propodeum. Hind femur length 2.7-2.8x height. Hind metatarsus 0.45x as long as hind tibia. Outer tibial spur 0.5x as long as hind metatarsus. Areolet 2.3x wider than long, second recurrent vein in its middle, with one bulla.

First tergite with dorsal carina in the basal 0.5-0.7, spiracle ventrally with strong tooth and strong apical lamella. Second tergite about as long as wide. Second and third tergites with pointed posterolateral edges, tergites 4-5 with rounded edges.

Color: Black. Yellow are palps, mandible except tooth, labrum, malar space, face and facial shield, frontal orbit up to anterior ocellus, scape and pedicel beneath, upper border of pronotum, anterior 2/3 of mesopleuron in the upper half confluent with subtegular ridge, prescutellar ridge, apical half or complete scutellum, postscutellum, posterolateral spot on propodeum, hind 0.5-0.7 of first tergite, apical bands of tergites 2-7, narrower on apical tergites, apical margin of hypopygium and parameres. Front and middle legs yellow, front and middle coxae and femora with brownish spots posteriorly. Hind coxa black, sometimes partly reddish. Hind leg otherwise red, but hind femur usually with basal and apical yellow spots on outer side. Pterostigma yellowish, wings only slightly darkened apically.

**D i s t r i b u t i o n :** Widespread in Afrotropical Africa, new for Sierra Leone.

***Metopius (Metopius) eritreae* MORLEY, 1912: 81**

**H o l o t y p u s :** (♂) Type 565, BM Type Hym 3b1002, B.M. Type Hym *Metopius eritreae* Morley 1912, Abyssinia Asmara Eritrea VII (London), type studied.

**D e s c r i p t i o n o f ♂ :**

Body length 15 mm. Flagellum with 55 segments. Mandible with one tooth. Temple rather wide, roundly narrowed, seen from dorsal about 0.9x as wide as eye. Interantennal lamella high, with small subdistal indentation and larger distal tooth. Eyes divergent ventrally. Sides of facial shield almost parallel, slightly narrowed ventrally and slightly pointed basally, coarsely punctate, length 1.0x width. Second maxillary palpomere semi-globose, 1.4x as long as wide. Frons rugose-punctate. Vertex punctate. Distance of lateral ocellus to eye 1.9x its diameter.

Mesosoma with whitish hairs. Side of pronotum punctate, with coarse striation anteriorly. Epicnemial carina bent to the anterior border of mesopleuron and running parallel to subtegular ridge (but very weak on mesopleuron). Area centralis of propodeum 1.5x longer than wide, open caudally, costula partly distinct. Hind femur slender, length 3.3x height. Hind metatarsus 0.45x as long as hind tibia, outer tibial spur 0.45x as long as hind metatarsus. Front and middle claws with small basal teeth. Areolet stalked, oblique, 1.6x wider than long, second recurrent vein lateral its middle and with two bullae.

First tergite without distinct extension ventrally to spiracle and narrow lateral carina, dorsal carina strong in the basal half to 2/3. Second tergite 1.05x as long as wide. Second tergite with denticular posterolateral edge, posterolateral edge of third tergite blunt, following tergites with rounded edges.

Color: Black. Flagellum reddish. Reddish are mandibles, labrum, gena, clypeus in part. Palps, face, facial shield, frontal orbit up to anterior ocellus, scape and pedicel beneath,

upper margin of pronotum, large spot on mesopleuron, spot on subtegular ridge (partly confluent with mesopleural spot), prescutellar ridge, scutellum almost completely, postscutellum, posterolateral spots on propodeum, apical 2/3 of first tergite, apical half of second and third tergites, apical margins of following tergites (narrowed medially). Sixth and Seventh tergites partly reddish. Front and middle legs including coxae yellow. Front and middle coxae and femora with reddish-brown spots. Hind coxa black, with small yellow spot on outer side. Hind femur black, with yellow spots at base and apex. Hind tibia and tarsus chestnut-brown. Pterostigma yellowish. Wings almost hyaline, apex of front wings not distinctly infusate.

♀ unknown.

Distribution: Ethiopia.

***Metopius (Metopius) ethiopicus nov.sp.***

Holotype: (♀) Harrar, Abyssinia (R.E. Turner) 1912-21 (London).

Paratypes: (♀) Harrar, Abyssinia (R.E. Turner) 1912-21; (♂) Ethiopia Addis Ababa 8000 ft, 3-18.viii.45, K.M. Guichard; (♂) Ethiopia Addis Ababa 7000'5.v.46, K.M. Guichard; (3♂♂) Harrar, Abyssinia (R.E. Turner) 1911-355; (4♂♂) Harrar, Abyssinia (R.E. Turner) 1912-21 (all London).

Taxonomical remark: Related to *M. erithrae* MORLEY, 1912, but differs by its strongly narrowed temple, wider area centralis, and very short wing-like lateral extension of scutellum (fig. 32).

Description of ♀:

Body length 10-13 mm. Flagellum with 52-54 segments. Temple roundly narrowed, 0.6x as long as eye. Interantennal lamella high, with strong subdistal indentation and very small distal tooth. Eyes convergent ventrally. Sides of facial shield narrowed ventrally and pointed basally, with coarse puncture, length 1.15x width. Second maxillary palpomere club-shaped, 1.7x as long as wide. Frons coarsely rugose-punctate. Distance of lateral ocellus to eye 2.0x its diameter.

Mesosoma with whitish hairs. Side of pronotum punctate, with coarse striation anteriorly. Epicnemial carina ends below sternaulus. Scutellum very short und wide, lateral wing-like carina not or slightly exceeding the median apical margin (fig. 32). Area centralis of propodeum 1.5x longer than wide, open caudally, costula more or less distinct. Hind femur length 3.1-3.2x height. Hind metatarsus 0.45x as long as hind tibia, outer tibial spur 0.42x as long as hind metatarsus. Front and middle claws with small basal teeth. Areolet ± stalked, 2.1x wider than long, second recurrent vein lateral its middle and with one bulla.

First tergite with dentiform extension ventrally to spiracle and narrow lateral lamella, dorsal carina strong and extended almost to apex. Second tergite 1.05x as long as wide. Second and third tergites with tooth-like posterolateral edges, following tergites with rounded edges.

Color: Black. Flagellum reddish. Reddish are palps, mandibles, labrum, clypeus medially, face, facial shield, frontal orbit up to anterior ocellus, scape and pedicel ventrally, and spot on subtegular ridge, sometimes fifth tergite apically, and sixth tergite completely. Yellow are apical half of scutellum and apical bands on second to fourth tergites (narrowed medially). Coxae and trochanters black. Legs otherwise reddish,

femur III with blackish suffusion or mainly black and apically reddish. Pterostigma yellow-brown. Wings slightly infusate, apex of front wings slightly darker.

**Description of ♂:**

Body length 10-14 mm. Flagellum with 50-58 segments. Temple roundly narrowed, seen from dorsal about 0.7x as wide as eye. Interantennal lamella high, with subdistal indentation and small distal tooth. Facial shield with ventrally narrowed sides, pointed ventrally, coarsely punctate, length 1.0-1.15x width (fig. 17). Second maxillary palpomere club-shaped, 1.7x as long as wide. Frons coarsely rugose-punctate. Distance of lateral ocellus to eye 1.7x its diameter.

Hind femur length 2.8-3.2x height. Hind metatarsus 0.45x as long as hind tibia, outer tibial spur 0.40-0.45x as long as hind metatarsus. Front and middle claws with small basal teeth. Second recurrent vein lateral its middle and with one or rarely two bullae.

First tergite with dentiform extension ventrally to spiracle and narrow lateral lamella, dorsal carina strong and extended almost to apex. Second tergite with tooth-like posterolateral edges, following tergites with rounded edges.

Color: Black. Flagellum reddish. Yellow are palps, base of mandibles, labrum, clypeus, face, facial shield, frontal orbit up to anterior ocellus, scape and pedicel ventrally, in larger specimens sometimes upper margin of pronotum, spots on subtegular ridge and mesopleuron, prescutellar carina, apical 2/3 of scutellum, postscutellum and posterolateral propodeal spots, posterolateral spots on first tergite, and apical bands on all following tergites (narrowed medially), apical band of hypopygium and parameres. Legs black. Front and middle coxae, all trochanters and front and middle femora yellow frontally. Front and middle tibiae and tarsi entirely yellow. Middle femur with yellowish spots basally and apically. Hind tibia and tarsus chestnut-brown. Pterostigma yellow-brown. Wings slightly infusate, apex of front wings slightly darker.

**Distribution:** Ethiopia.

***Metopius (Metopius) femoralis nov.sp.***

**Holotypus:** (♀) Suldanka B. Sep. 1912 L.P., *Metopius discolor* CAM. Co-type (Cape Town).

**Paratypus:** (♀) N Cape Neuwoudtville Camp Ground 3119 AC 2 Oct 1996, VB Whitehead, SAM-HYM P015602 (Cape Town).

**Description of ♀:**

Body length 14-16 mm. Flagellum with 56-57 segments. Mandible with one tooth. Second maxillary palpomere semi-globose to globose, 1.2-1.4x as long as wide. Facial shield with narrowed sides ventrally, coarse puncture and strong carinae, length 1.2-1.25x width, slightly pointed below (fig. 19). Interantennal lamella high, with a distinct subdistal impression and strong distal tooth. Frons with fine transversal striation, laterally punctate and matte. Vertex punctate. Temple strongly narrowed behind eye, about 0.6x as long as eye (fig. 28). Distance of lateral ocellus to eye 1.3-1.7x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with striation ventrally, smooth only at the narrow anterior margin. Epicnemial carina obsolete above sternaulus. Central area of propodeum about as long as wide, with lateral carinae and a ± distinct central longitudinal ridge, apical carina obsolete, costula indistinct. Hind femur

slender, length 3.0-3.2x height. Hind metatarsus about 0.4-0.48x as long as hind tibia. Outer apical spur of hind tibia 0.45-0.5x as long as hind metatarsus. Front and middle claws with small basal teeth. Areolet 2.0-2.1x wider than long, second recurrent vein with one bulla, reaching areolet in the middle.

First tergite with dorsal carinae in the basal half to 2/3. Its spiracle with a small ventral tooth, lateral lamella behind spiracle narrow. Second tergite with pointed posterolateral edges, length 1.0-1.05x width. Third tergite about 1.1x as long as wide, third and fourth tergites with rounded edges (fig. 5).

Color: Black. Flagellum red. Upper margin of facial shield and frontal orbit reddish (fig. 19). Palps reddish to yellowish. Yellowish-red are subtegular ridge, prescutellar ridge, apical half of scutellum, postscutellum, small posterolateral spots on propodeum, apical half of first tergite, apical bands (0.2-0.3 length of tergite) of second to fourth tergites, and posterolateral spot or narrow apical band on fifth tergite (fig. 5). Coxae black,  $\pm$  reddish apically. Legs otherwise red or front and middle femora with apical yellow spots. Hind femur sometimes blackish centrally. Pterostigma yellowish-brown. Wings slightly darkened, more distinctly at apex.

♂ unknown.

Distribution: RSA.

***Metopius (Metopius) gambiense nov.sp.***

H o l o t y p u s : (♀) Gambia: Keneba Malaise, ix-x.1975, M.C.D. Speight (London)

P a r a t y p e s : (♀ ♀) with identical labels (London).

D e s c r i p t i o n o f ♀ :

Body length 12-13 mm. Flagellum with 52 segments, preapical segments square. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.6x as long as wide. Eyes convergent ventrally. Facial shield with slightly narrowed sides, densely punctate and with strong carinae, length 1.05x width, pointed ventrally and with  $\pm$  distinct longitudinal carina reaching apex of clypeus (fig. 29). Interantennal lamella high, with slight subdistal impression and distinct distal tooth. Frons with fine transversal striation, sometimes punctate. Temple strongly narrowed behind eye, about 0.6x as long as eye.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, striate ventrally, smooth at narrow anterior margin. Epicnemial carina obsolete above sternaulus. Scutellum wide, with scattered puncture, lateral wing-shaped extension short. Central area of propodeum narrow, length 1.5x width, with lateral carina (sometimes faint) and distinct central longitudinal ridge, costula indistinct. Hind femur length 2.5x height. Hind metatarsus about 0.4x as long as hind tibia. Outer apical spur of hind tibia 0.5x as long as hind metatarsus. Front and middle claws with short basal teeth. Areolet stalked, 1.8x wider than long, very oblique, second recurrent vein with one bulla, reaching areolet lateral to the middle.

First tergite wider than long, widest at level of spiracle, with complete dorsal carinae, sculpture smoothed in the apical half. Its spiracle with denticular extension ventrally and strong lateral lamella behind spiracle. Second tergite as long as wide. Second and third tergites with denticular posterolateral edges, following tergites with rounded edges.

Color: blackish or chestnut-brown. Flagellum red. Cream-yellow are palps, clypeus in larger part, face (fig. 29), frontal orbit, scape ventrally, subtegular ridge, small spot on mesopleuron, prescutellar ridge, apical margin of scutellum, postscutellum, posterolateral spot on propodeum, hind margins of all tergites (narrower on apical tergites), spots on all coxae, apical spots on front and middle femora, frontal side of front and middle tibiae and tarsi, hind femur at base and apex. Pterostigma brownish, apex of front wing infuscate.

♂ unknown.

Distribution: Gambia.

***Metopius (Metopius) hilaris* TOSQUINET, 1896: 365**

H o l o t y p u s : (♀) [red] Type, ♀, 9036, [blue] Capland Krebs. (Berlin), type studied.

syn. *Metopius apophua* MORLEY, 1916: 390

H o l o t y p u s : (♀) Type C.M., Bushmanld. Jackals Water Lightfoot, *Metopius apophua* MORLEY (Cape Town), type studied.

F u r t h e r m a t e r i a l : RSA, N Cape, SW of Springbok, 1♀ 4.II.1999, 1♀ 4.XI.1999, leg. M. Halada (Linz); RSA, W Cape N EN of Clanwilliam, Doringsbos, 3♀ 1♂ 11.X.1999, leg. M. Halada (Linz); RSA, N Cape, SW of Springbok Buffelswadi, 2♂♂ 18.X.1999, 1♀ 4.XI.1999, leg. M. Halada (Linz); RSA, Karoo Nat. P., 32°19'S/ 22°30'E, 1♀ 20.X.1993, leg. F. Koch (Berlin); Namibia, 1♀ 1♂ 8-30.XI.1929, leg. R.E. Turner (London); Zimbabwe, Salisbury, Mashonaland, 1♂ II.1900, leg. G.A.K. Marshall (London).

**Description of ♀:**

Body length 12-13.5 mm. Flagellum with 45-48 segments. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.7-1.8x as long as wide. Facial shield slightly to moderately narrowed below, with somewhat scattered puncture and strong carinae, length 1.2x width, pointed ventrally and with a ± distinct longitudinal carina reaching the apex of clypeus. Interantennal lamella high, with a very shallow subdistal impression and small distal tooth. Frons with fine transversal striation and/or punctate. Vertex punctate. Temple strongly but roundly narrowed behind eye, 0.75x as long as eye. Distance of lateral ocellus to eye 1.5-1.8x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with striation anteriorly. Epicnemial carina above sternaulus curved to anterior margin of mesopleuron and running parallel to the mesopleural border up to subtegular ridge. Central area of propodeum length 1.5-1.6x width, with strong lateral carinae, apical carina obsolete, costula short, in the middle. Hind coxa ventrally with scattered puncture in the apical half. Hind femur length 2.6x height. Hind metatarsus about 0.48x as long as hind tibia. Outer apical spur of hind tibia short, about 0.3-0.35x as long as hind metatarsus (as long as diameter of hind tibia). Front and middle claws with small basal teeth. Areolet 2x wider than long, second recurrent vein with one, rarely with two bullae, reaching areolet in its middle.

First tergite with dorsal carinae sometimes obsolete in the apical third. Spiracle ventrally with a rounded or small tooth-like extension and a strong apical lamella. Second tergite 0.9x as long as wide. Second and third tergites with spine-like posterolateral edges (weak in the third tergite), fourth tergite with rounded edges, tergites with coarse puncture, sometimes confluent to longitudinal rows.

Color: Black. Flagellum reddish-brown. Dark reddish are palps, mandibles, labrum,

clypeus in part, face (shield darkened centrally), often only with the area of carinae reddish, frontal orbit up to the anterior ocellus. Prescutellar carina black to yellowish. Yellowish are large spot on upper mesopleuron confluent with subtegular ridge, hind half of scutellum, postscutellum, sometimes posterolateral spots of propodeum, posterolateral edges of first tergite, apical bands (about 1/3 of length) of tergites 2-5 (centrally narrower), last tergite some reddish apically. Legs except coxae (reddish)-brown, front tibia on anterior side and apical spots on front and middle femora yellowish-red. Hind tibia and hind tarsus darkened. Front wing with strongly darkened apex, pterostigma yellowish-brown.

**Description of ♂:**

Body length 13-15 mm. Flagellum with 44-47 segments. Mandible with one tooth. Facial shield length 1.15-1.2x width. Distance of lateral ocellus to eye 1.5-1.6x its diameter. Second maxillary palpomere club-shaped, 1.7-2.0x as long as wide.

Side of pronotum punctate, anterior margin smooth, but striate in caudal parts. Area centralis of propodeum slightly longer than wide, with strong central carina, costula indistinct. Hind coxa ventrally with very scattered puncture in the apical half. Hind femur length 2.5-2.8x height.

First tergite with strong complete dorsal carina, spiracle with small tooth ventrally and moderately strong apical lamella. Second tergite about 1.0-1.1x as long as wide. Second and third tergites with spiniform posterolateral edges, fourth and fifth tergites with rounded edges.

Color: Black. Flagellum reddish. Yellow are palps, mandibles, labrum, clypeus in part, face completely, frontal orbits up to the anterior ocellus, large spot on upper mesopleuron confluent with subtegular ridge, prescutellar carinae, caudal half of scutellum, postscutellum, posterolateral spot on propodeum, posterolateral edge or apical band of first tergite, apical bands of following tergites, hind part of hypopygium, and parameres. Front and middle legs yellow, sometimes their coxae and femora with black stripes on inner side. Hind coxa black with anterodorsal yellow spot, hind trochanter and femur yellow, hind femur largely black on inner side, hind tibia and tarsus reddish, with some yellowish spots on outer side. Front wing with ± darkened apex. Pterostigma yellowish-brown.

**Distribution:** Guinea, RSA, Zimbabwe.

***Metopius (Metopius) hilaroides* BENOIT, 1965: 51**

**H o l o t y p u s :** (♀) Wallekraal Namaqualand, *Metopius hilaroides* n.sp. holotype ♀ P.L.G. Benoit 1963 (Cape Town), type studied.

**T a x o n o m i c a l r e m a r k :** The allotypus (♂) Augsfontein (Calvinia) C.P., *Metopius hilaroides* n.sp. Allotype ♂ P.L.G. Benoit 1963 (Cape Town), which I have seen, presumably belongs to *Metopius hilaris* TOSQUINET. Hence, the true ♂ of *M. hilaroides* BENOIT remains unknown.

**Description of ♀:**

Body length 15 mm. Flagella with tips broken off. Mandible with one tooth. Second maxillary palpomere semi-globose, about 1.5x as long as wide. Facial shield wide, with dense puncture and strong carinae, length 1.05x width, pointed ventrally. Interantennal lamella high, with very shallow subdistal impression and small distal tooth.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with striation anteriorly. Epicnemial carina above sternaulus obsolete. Central area of propodeum horseshoe-shaped, with strong lateral carina, length 1.2x width, costula lacking. Hind femur about 2.9x height. Hind metatarsus about 0.47x as long as hind tibia. Outer apical spur of hind tibia 0.5x as long as hind metatarsus. Front and middle claws without teeth. Areolet 2.5x wider than long, second recurrent vein with one bulla, reaching areolet basal to its middle.

First tergite with dorsal carinae, sometimes obsolete in the apical third. Its spiracle with a denticular ventral extension. Second and third tergites as following tergites with rounded edges.

Color: Black, metasoma with violet shine. Flagellum reddish-brown. Palps reddish. Yellowish are small stripes on upper facial and lower frontal orbits, interantennal lamella, subtegular ridge, prescutellar carina, narrow apical margins of third to fourth tergites (medially interrupted). Coxae blackish, legs otherwise reddish. Wings slightly brownish.

Male unknown.

Distribution: RSA.

***Metopius (Metopius) latibalteatus* CAMERON, 1906: 134**

H o l o t y p u s : (♂) Stellenb L. F. 12.89 (Cape Town), type studied.

syn. *Metopius capicola* BENOIT, 1965: 60

H o l o t y p u s : (♀) Moordenaars Karoo Lammersfontein C.P., *Metopius capicola* n.sp. Holotype ♀ P.L.S. Benoit det., 1963 (Cape Town), type studied.

F u r t h e r m a t e r i a l : RSA, Karoo Nat. Park, 5 ♀ ♀ 14.XI.1993, 32°19'S/22°30'E, leg. F. Koch (Berlin); RSA, W Cape, N NE of Clanwilliam, Doringbos, 1 ♀ 11.X.1999, leg. M. Halada (Linz); RSA, CP, Olifantshoek, 1 ♀ 24.III.1990, leg. M. Schwarz (Munich); Namibia, Gobabis, 40 km W Witvlei, 1 ♂ 16.II.1990, leg. M. Schwarz (Coll. Riedel); Het Kruis C.P. Mus. Exp., 1 ♂ 1947 (Cape Town); Zimbabwe, Hope Fountain, 1 ♀ 2.I.1923 (London).

D e s c r i p t i o n o f ♀ :

Body length 13-17 mm. Flagellum with 45-47 segments, widest segments about 2x as wide as long. Mandible with one or two teeth. Second segment of maxillary palp club-shaped, 1.9-2.2x as long as wide (fig. 37). Compound eyes distinctly narrowed ventrally (minimal distance below about 0.75x as maximal distance above). Facial shield with strongly narrowed sides, with dense and centrally almost confluent puncture and strong carinae, length 1.2-1.25x width, rounded below. Interantennal lamella high, with a weak subdistal impression and without a distinct distal tooth. Frons (rugulo-) punctate, vertex finely punctate. Temple strongly and almost linearly narrowed behind eye (as fig. 28). Distance of lateral ocellus to eye 1.4-1.8x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with striation or ±smooth anteriorly. Epicnemial carina obsolete above sternaulus. Mesoscutum slightly impressed in front of prescutellar groove. Central area of propodeum wide, strongly narrowed apically, about as long as wide, sometimes with a distinct central longitudinal ridge, apical carina usually present, costula shortly distinct. Hind coxa with strong but scattered puncture. Hind femur length 2.6x height. Hind metatarsus about 0.5x as long as the hind tibia. Outer apical spur of hind tibia very short, about 0.25-0.3x as long as the



hind metatarsus. Front and middle claws without visible teeth. Areolet 2x wider than long, second recurrent vein in the middle, with one bulla.

First tergite with dorsal carinae only in the basal half. Spiracles ventrally without distinct extension (fig. 31). Second tergite with pointed posterolateral edges, third and fourth tergites with rounded edges.

Color: Black (rarely mainly dark reddish-brown). Reddish are mandible, labrum, clypeus, flagellum, tegula, basal parts of front and middle femora, hind tibia and tarsus. Yellow are palps (sometimes reddish), malar space, face, frontal orbit up to the lateral ocellus, upper margin of pronotum, subtegular ridge usually confluent with a large spot at upper part of mesopleuron, prescutellar carina, scutellum in the apical 2/3, postscutellum, large posterolateral spot on propodeum, sometimes spot on central area of propodeum, front and middle legs including coxae and trochanters (sometimes reddish), all tergites with wide apical bands (about half as long as the tergites), centrally slightly narrowed. Hind coxa yellow with large anteroventral black spot, hind trochanter yellow, hind femur yellow, with black ring medially. Front wing slightly darkened at apex, pterostigma yellowish.

#### Description of ♂:

Body length 18 mm. Mandible with one or two teeth. Flagellum with 46 segments. Interantennal lamella without distal impression and tooth. Facial shield length 1.25-1.3x width, strongly narrowed ventrally, densely punctate. Sides of pronotum smooth anteriorly. Epicnemium ends at sternaulus. Area centralis of propodeum with median carina, lateral carina indistinct. Areolet 2.1x as wide as long, 2mcu apical of middle, and with one bulla. First tergite with dorsal carina in the basal half. Spiracle ventrally without tooth-like extension (fig. 31).

Color: Black. Yellow are sides of labrum, malar space (clypeus black), face, frontal orbit to lateral ocellus, scape and Pedicel below, upper pronotal margin, large mesopleural spot confluent with subtegular ridge, prescutellar carina, complete scutellum and postscutellum, large posterolateral spot of propodeum, apical half of tergites, front and middle legs I. Hind coxa black, yellow dorsally. Hind femur black, at base and apex widely yellow. Hind tibia and tarsus red. Pterostigma yellowish. Wings slightly infusate apically.

Distribution: South Africa, new for Namibia and Zimbabwe.

#### *Metopius (Metopius) lugubris* TOSQUINET, 1896: 368

Material: RSA, Northern Transvaal, N of Nylstroom 1200 m, 24°40'S 28°30'S, 2 ♀♀ 14.I.2008, leg. M. Halada (Linz); RSA, Northern Transvaal, Ganzakulu, Letaba Groot nv. 1 ♂ 9.II.2003, leg. M. Snizek (Linz); Kenya, Voi (Isavo) environment, 2 ♀♀ and 2 ♂♂ 22.XI.-2.XII.1996, leg. M. Halada (Linz and coll. Riedel); RSA, Northern Prov., Lekqameetse Res., 24°12'S/30°20'E, 3 ♀♀ 2 ♂♂ 18.XII.1995, leg. F. Koch (Berlin); Zimbabwe, Matopos Nat Park, 1 ♂ 29.XI.1993, 20°33'S/28°30'E, leg. F. Koch (Berlin).

#### Description of ♀:

Body length 12-16 mm. Flagellum with 49-56 segments. Mandible with one tooth. Second maxillary palpomere semi-globose, about 1.6x as long as wide. Facial shield slightly narrowed below, with somewhat scattered puncture and strong carinae, length 1.1x width, slightly pointed below. Interantennal lamella high, with a very shallow

subdistal impression and a small distal tooth. Frons with fine puncture and transverse striation. Vertex punctate. Temple strongly but roundly narrowed behind eye. Distance of lateral ocellus to eye 1.5-1.6x its diameter.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, striate anteriorly. Epicnemial carina obsolete above sternaulus. Central area of propodeum wide, with strong lateral carinae, length 1.2x width, apical carina obsolete, costula indistinct. Basal parts of propodeum with smoothed structure. Hind femur length 2.2-2.6x height. Hind metatarsus about 0.45-0.5x as long as the hind tibia. Outer apical spur of hind tibia 0.4-0.45x as long as the hind metatarsus. Front and middle claws without teeth. Areolet 1.7-2x wider than long, second recurrent vein apical of the middle, with one bulla.

First tergite with dorsal carinae the basal half, its spiracle with a strong spine-like ventral extension and without distinct lateral lamella, sides with dense whitish hairs. Second tergite with strong spine-like posterolateral edges, third and fourth tergites with rounded edges.

Color: Black. Ivory are spot on second maxillary palp, margins of facial shield (sometimes shield except black center), lower frontal orbit, sometimes subtegular ridge, often prescutellar ridge and apical part of scutellum, sometimes postscutellum and posterolateral spot on propodeum, wide apical bands of third and fourth tergites, often narrow hind margins of following tergites, sometimes spots on coxae, often apical spots on femora, frontal side of front tibia and tarsus, sometimes also on middle tibia. Legs except front and middle coxae and trochanters reddish, hind femur with black hind margin, hind tibia black with reddish stripe on outer side, hind tarsus blackened. Wings almost completely darkened.

#### Description of ♂:

Body length 14-15 mm. Flagellum with 53-60 segments. Second segment of maxillary palps club-shaped, about 2x as long as wide. Facial shield rounded on sides, with somewhat scattered puncture and strong carinae, length 1.1x width, slightly pointed below. Interantennal lamella high, with a very shallow subdistal impression and a small distal tooth. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.2x its diameter.

Central area of propodeum wide, with strong lateral carinae, length 1.2x width, apical carina obsolete, costula indistinct. Basal parts of propodeum smoothed. Hind femur length 2.4x height. Hind metatarsus about 0.45x as long as the hind tibia. Outer apical spur of hind tibia short, 0.45x as long as the hind metatarsus.

Color: Black. Flagellum reddish ventrally. Ivory coloration variable. Ivory are usually palps, labrum, face except a central black spot on facial shield, frontal orbit up to anterior ocellus, scape and pedicel ventrally, often subtegular ridge, sometimes spot on upper mesopleuron, often prescutellar ridge and part of scutellum, sometimes postscutellum and posterolateral spot on propodeum, posterolateral spot on first tergite, wide apical bands of third and fourth tergites, sometimes lateral spot on fifth tergite, often narrow hind margins of following tergites, usually spots on all coxae and trochanters, usually apical spots on femora, frontal side of front and middle tibiae and tarsi. Legs except front and middle coxae and trochanters reddish-brown, hind tibia black with reddish stripe on outer side, hind tarsus blackened. Wings almost completely darkened.

Distribution: Kenya, South Africa, Zimbabwe, Mosambique.

***Metopius (Metopius) nigripalpis* BENOIT, 1965: 56**

**M a t e r i a l :** Rwanda, Prov. Cyangugu, Nyakabuye, 1 ♀ 5.v.1983, leg. H. Mühle (Munich).

**T a x o n o m i c a l   r e m a r k :** The taxon is characterized by the club-shaped metasoma and reduced pale markings. I have not studied the type, the available specimen differs slightly from the original description given by BENOIT (1965): Palps dark brown, without ivory stripes, metasoma blackish, apical tergites with slightly violet shine, tergites 2-3 with posterolateral cream-yellow spots, tergite 4 with yellowish apical margin.

**D e s c r i p t i o n   o f   ♀ :**

Body length 9 mm. Flagellum short, with 34 segments. Mandible with one tooth. Second maxillary palpomere semi-globose, length 1.5x width. Facial shield length 1.15x width, sides slightly narrowed ventrally and slightly pointed below, with coarse puncture and some longitudinal rugae centrally. Inner margins of eyes narrowed ventrally. Interantennal lamella high, but without distinct indentation or tooth. Frons finely punctate, in the lower part with fine transverse striation. Temples strongly narrowed, its length 0.6x eye length (seen from dorsal). Distance of lateral ocellus to eye 1.6x its diameter.

Mesosoma with whitish hairs. Side of pronotum coarsely punctate, strongly striate anteriorly. Epicnemial carina above sternaulus weak, curved to anterior margin of mesopleuron running parallel of the margin up to subtegular ridge. Mesoscutum in front of prescutellar groove not distinctly impressed. Scutellum with long lateral wing-like extensions. Central propodeal area wide, length 1.2x width, completely carinate. Costula distinct. Basal parts of propodeum smoothed. Hind femur length 2.7x height. Hind metatarsus about 0.5x as long as the hind tibia. Outer apical spur of hind tibia 0.5x as long as the hind metatarsus. Areolet stalked, only 1.6x as long as wide, very oblique. Second recurrent vein reaching areolet lateral of its middle, with one bulla. Nervulus of front wing almost interstitial.

First tergite with dorsal carina reaching the apical third, spiracle with strong tooth-like ventral extension and lateral lamella distinct in the basal half. Metasoma club-shaped: Basal tergites narrow, second tergite about 1.25x as long as wide, tergites 5 and 6 distinctly swollen. Second and third tergites with tooth-like posterolateral extensions, fourth tergite with rounded extensions.

Color: Black. Flagellum reddish-brown. Palps completely brown. Head blackish except ivory margins of facial shield. Mesosoma completely blackish. Metasoma blackish, apical tergites with slightly violet shine, second and third tergites with cream-yellow posterolateral spots, fourth tergite with narrow yellowish apical margin (1/6 of tergite length). Legs dark brownish-black. Hind tibia with subbasal reddish-brown ring. Wings slightly darkened, infuscate apically.

**D i s t r i b u t i o n :** Known from D.R. Congo, new for Rwanda.

***Metopius (Metopius) nigrithorax* nov.sp.**

**H o l o t y p u s :** (♀) Tanzania, Mkomazi Game Reserve, Ibaya Hill 0358 S 3747 E, 27 Nov - 10 Dec 1995, S. van Noort, Malaise trap, Montane forest (Cape Town).

## Description of ♀:

Body length 17 mm. Flagellum with 57 segments. Mandible with one tooth. Second maxillary palpomere globose, about 1.3x as long as wide. Facial shield wide, length 1.0-1.1x width, with parallel sides, strong carina and coarse puncture, slightly pointed below (fig. 22). Interantennal lamella high, without distinct indentation or tooth. Frons finely granulate and punctate, vertex smooth. Temple roundly narrowed, about 0.7x as long as eye. Distance of lateral ocellus to eye 1.7x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, with strong striation anteriorly. Epicnemial carina ends shortly dorsal of sternaulus. Central propodeal area wide, length 1.2x width, slightly narrowed apically, carina apically obsolete. Hind femur length 2.6x height. Hind metatarsus about 0.42x as long as the hind tibia. Outer apical spur of hind tibia 0.4x as long as the hind metatarsus. Claws without visible teeth. Areolet 1.8x as long as wide, second recurrent vein lateral its middle, with one long bulla.

First tergite with smoothed structure in the apical half, with dorsal carina in the basal 2/3, spiracle with small tooth-like ventral extension and without a distinct lateral lamella, sides with dense whitish hairs. Second tergite 0.95x as long as wide, second and third tergites with tooth-like posterolateral extensions, punctate, fourth tergite with rounded extensions. Second and third tergites punctate and smoothed at hind margin centrally, following tergites rugulose-punctate (fig. 6).

Color: Black. Flagellum blackish. Yellow are margins of facial shield (fig. 22), spot on frontal orbit, and small posterolateral spots on second and third tergites (fig. 6). Front and middle femora and tibiae brownish frontally. Wings completely brownish, pterostigma black.

♂ unknown.

Distribution: Tanzania.

***Metopius (Metopius) palpoides nov.sp.***

Holotypus: (♀) Kenya Colony. Solai Dist. Sonje Valley. Laikipia Escarp. 14.IX.1919 T.J. Andersen (London).

Taxonomical remark: Closely related to *M. nigripalpis* BENOIT, but differs by the color of second maxillary palpomere and mesosoma, and the slenderer hind femur. From *M. hilaroides* BENOIT, the new taxon can be distinguished by the black hind leg and club-shaped metasoma.

## Description of ♀:

Body length 14 mm. Flagellum with 54 segments, preapical segments square. Mandible with one tooth. Second maxillary palpomere globose, about 1.25x as long as wide. Eyes slightly convergent ventrally. Facial shield with parallel sides, densely punctate and finely aciculate centrally, with strong carinae, length 1.25x width, weakly pointed below (fig. 21). Interantennal lamella high, with a strong subdistal impression and distinct distal tooth. Frons with fine transversal striation, partly punctate. Temple strongly narrowed behind eye, about 0.7x as long as eyes. Distance of lateral ocellus to eye 1.8x its diameter.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, with coarse striation

anteriorly. Epicnemial carina bent towards anterior margin of mesopleuron and running parallel to the margin up to subtegular ridge. Scutellum wide, lateral wings  $\nabla$  parallel. Central area of propodeum narrow, length 1.5x width, with lateral carinae and distinct central longitudinal ridge, costula indistinct. Hind coxa length 1.8x width. Hind femur slender, length 3.3x height. Hind metatarsus about 0.45x as long as hind tibia. Outer apical spur of hind tibia 0.45x as long as hind metatarsus. Front and middle claws with few short basal teeth. Areolet stalked, 2x wider than long, second recurrent vein with one bulla, reaching areolet in the middle.

Metasoma club-shaped, tergites 5 and 6 widened. First tergite with parallel sides, with dorsal carinae in the basal 0.5. Its spiracle with small tooth-like ventral extension and strong lateral lamella behind spiracle. Second tergite 1.1x longer than wide and with denticular posterolateral edges, third and fourth tergites with obtuse posterolateral edges, following tergites with rounded edges (fig. 9).

Color: Black. Metasoma with bluish shine. Flagellum black. Cream-yellow are second maxillary palp (blackish on inner side), sides of facial shield (fig. 21), interantennal lamella, ventral third of frontal orbit, tip on lateral wings of scutellum, postscutellum, small posterolateral spot of propodeum, frontal femur apically and frontal tibia frontally, spurs of hind tibia, posterolateral spots on first tergite and narrow apical bands on second to fourth tergites (fig. 9). Wings slightly infusate, darker at apex.

♂ unknown.

Distribution: Kenya.

#### ***Metopius (Ethimetopius) polyptichi* BENOIT, 1965**

M a t e r i a l : Mozambique, Manicato pr., 70 km SE Chimoio, 1 ♂ 23-24.XII.2003, leg. J. Halada (Linz); RSA, Mpumalanga, Blyde River Canyon, camp side, W of Mariep's Kop, 24°35'26.0''S 30°49'28.2''E, 800 m, 1 ♂ 25.XI.2008, leg. D. Bartsch (Stuttgart).

D e s c r i p t i o n o f ♂ :

Body length 19 mm, length of front wing 13 mm. Flagellum with 50 segments, all segments distinctly transverse. Mandible with two teeth, the lower one small and turned to the inner side of about 45°. Second maxillary palpomere club-like, about 2.2x as long as wide. Facial shield transverse, width 1.1x length. Interantennal process triangular, carina with a small tooth internally, triangular groove in front of anterior ocellus, the groove with small longitudinal carina in the middle. Distance of lateral ocellus to eye 2.0x its diameter. Genal carina faint near hypostomal carina.

Mesosoma covered with brownish hairs. Side of pronotum coarsely punctate, with striation ventrally. Mesoscutum coarsely punctate, depressed in front of prescutellar groove, notaulus indistinct. Scutellum transverse, coarsely punctate. Mesopleuron and metapleuron coarsely punctate, sternaulus distinctly impressed almost to hind margin of mesopleuron, with transversal ridges. Lateral carina of central propodeal area distinct in basal 0.3 only, costula present, apical parts of propodeum without distinct carinae. Hind femur length 2.7x height, hind tibia with longitudinal groove on the outer side, apically tooth-like expanded. Outer spur of hind tibia 0.36x as long as hind metatarsus. Areolet very oblique, second intercubitus with one bulla and about 4x longer than first intercubitus. Nervulus almost interstitial, second recurrent vein with two bullae.

Metasoma with transverse first tergite, 1.7x as wide as long, its sides almost parallel,

spiracle without tooth-like extension ventrally, dorsal carinae reaching the apical third, slightly divergent. Second and third tergite distinctly transverse (1.9x and 1.6 x resp.), all tergites coarsely punctate.

Color: Completely black, front and hind wings darkened basally and frontally.

D i s t r i b u t i o n : Zaire, new for Mozambique and RSA.

***Metopius (Metopius) pusillus* BENOIT, 1965: 47**

M a t e r i a l : Uganda, Mulange, 2 ♀ ♀ XI.1922 R. Dummer (Cape Town).

D e s c r i p t i o n o f ♀ :

Body length 9.5 mm. Flagellum with 34-35 segments. Mandible with one tooth. Second maxillary palpomere semi-globose, about 1.5x as long as wide. Head with dense whitish hairs. Face strongly narrowed ventrally. Facial shield coarsely punctate, centrally rugose, slightly narrowed ventrally, with strong carinae, length 1.15x width, almost rounded ventrally. Frons between antenna with triangular elevation, but without distinct interantennal lamella or tooth. Frons with fine transverse rugosity, vertex punctate. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.5x its diameter.

Mesosoma with whitish hairs. Side of pronotum coarsely punctate, smooth only at the anterior border. Epicnemial carina reaching anterior margin of mesopleuron above sternaulus. Scutellum in the hind part and postscutellum coarsely punctate. Central area of propodeum almost rectangular, length 1.2x width, with a more or less distinct median ridge, costula distinct. Hind femur length 2.8-2.9x height. Hind metatarsus about 0.42x as long as the hind tibia. Outer apical spur of hind tibia about 0.5x as long as hind metatarsus. Areolet short and strongly oblique, about 1.7x wider than long, second recurrent vein reaching areolet lateral to its middle, with one bulla.

Metasoma club-shaped, fifth and sixth tergites swollen. First tergite with strong dorsal carinae reaching the apex, its spiracle with a strong ventral tooth-like extension, lateral lamella behind spiracle low and short. Second and third tergites with rounded posterolateral edges, second tergite about 1.2x as long as wide.

Color: Black. Flagellum reddish-brown. Palps and legs except coxae and trochanters dark brownish, hind tibia reddish-brown. Yellow are margins of facial shield, lower third of frontal orbits, narrow apical bands (at most 1/5 of tergal length) of second to fourth tergites. Apical tergites with ± violet shine. Wings slightly infusate, front wing darker in the frontal fourth.

D i s t r i b u t i o n : DR Congo, new for Uganda.

***Metopius (Metopius) rauschi* nov.sp.**

H o l o t y p u s : (♂) Namibia D, Grootfontein Tiegerschluicht, NE Kombat 19°27'18''S 17°37'53''E, 1600-1700 m, 9.ii.1994, leg. H. & R. Rausch (Linz).

T a x o n o m i c a l r e m a r k : The ♂ is related to *Metopius latibalteatus* CAMERON, but differs by the short hind metatarsus (fig. 34), smaller size and form and structure of facial shield.

**Description of ♂:**

Body length 10 mm. Flagellum with 50 segments. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.8x as long as wide. Facial shield with rounded sides, coarsely punctate and centrally granulate, about as long as wide, pointed ventrally (fig. 16). Interantennal lamella high, with a shallow subdistal impression. Apical margin of clypeus elevated from labrum. Frons with fine transverse striation. Vertex punctate. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.5x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, coarsely striate anteriorly. Epicnemial carina obsolete above sternaulus. Central area of propodeum moderately wide, with strong lateral carinae, length 1.4x width, its apical carina obsolete, costulae lacking. Hind femur length 2.3x height. Hind metatarsus very short, about 0.33x as long as the hind tibia (fig. 34). Outer apical spur of hind tibia short, 0.5x as long as the hind metatarsus. Front and middle claws without teeth. Areolet 2.3x wider than long. Second recurrent vein reaching areolet lateral to middle, with one bulla.

First tergite with dorsal carinae in the basal 2/3, spiracle with spine-like extension ventrally. Second tergite with bluntly extended posterolateral edges, third and fourth tergites with rounded edges (fig. 4).

Color: Black. Flagellum reddish. Ivory are basal spot of mandible, palps, clypeus, malar space, face (fig. 16), frontal orbit up to lateral ocellus, scape ventrally, hind half of pronotal upper margin, subtegular ridge, spot on dorsal mesopleuron, prescutellar ridge, hind half of scutellum, postscutellum, posterolateral spot on propodeum, posterolateral edge of first tergite, apical bands (about 0.2-0.3 length of tergites) of all following tergites (fig. 4), hypopygium, clasper, front and middle coxae and trochanters, spots on hind coxa and trochanter, front and middle legs (femora basally blackish). Hind femur black, with ivory spots basally and apically. Hind tibia and tarsus brownish. Pterostigma yellowish, front wing not distinctly infusate apically.

♀ unknown.

**Distribution:** Namibia.

***Metopius (Metopius) rufigaster ssp. rufigaster nov.ssp.***

**Holotypus:** (♀) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 22, leg. F. Koch (Berlin).

**Paratypes:** (3♂♂) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 16, leg. F. Koch; (♂) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 17, leg. F. Koch; (♂) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 22, leg. F. Koch; (2♂♂) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 20, leg. F. Koch, (♂) R.S.A. Transvaal Wolkbg., 24°02'S/30°00'E, 12.-16.ii.1992, Falle 22, leg. F. Koch (coll. Riedel); (♀) Rhodesia, Chishawasha, xi.1979, A. Watsham (London).

**Description of ♀:**

Body length 12.5 mm. Flagellum with 55 segments. Mandible with one tooth. Second maxillary palpomere semi-globose, about 1.5x as long as wide. Facial shield punctate, narrowed ventrally, with strong carinae, length 1.25-1.3x width, slightly pointed ventrally and with a weak carina reaching the apical margin of clypeus (fig. 24). Interantennal lamella high, with a deep subdistal impression and a strong distal tooth. Frons with transverse striation, vertex punctate. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 2.0x its diameter.

Mesosoma with whitish hairs. Side of pronotum coarsely punctate, striate in the rim, smooth only at the anterior border. Epicnemial carina obsolete above sternaulus. Scutellum in the hind part and postscutellum coarsely punctate. Central area of propodeum wide, with strong lateral carinae but obsolete apical carina. Costula not developed. Hind femur length 2.6x height. Hind metatarsus 0.5x as long as the hind tibia. Outer apical spur of hind tibia 0.5x as long as the hind metatarsus. Front and middle claws with weak basal teeth. Areolet about 2.5x wider than long, second recurrent vein slightly lateral to middle and with one bulla.

First tergite with strong dorsal carinae in basal 2/3. Its spiracle with a strong spine-like extension ventrally. Second tergite with spine-like posterolateral edges, following tergites with rounded edges posterolaterally (fig. 10).

Color: Black. Red are flagellum, mandible except teeth, facial shield (fig. 24), frontal orbits up to the lateral ocellus, hind part of upper margin of pronotum, subtegular ridge confluent with a large spot on upper mesopleuron, prescutellar ridge, scutellum in the apical 2/3, postscutellum, narrow stripe at hind margin of metapleuron, legs except black hind coxa (with narrow reddish apical margin). First to fourth tergites reddish, following tergites black (fig. 11). Palps yellowish-red, clypeus brownish. Pterostigma yellowish-brown, wings slightly infusate, strongly infusate at apex.

#### Description of ♂:

Body length 12-13.5 mm. Flagellum with 54-58 segments. Second segment of maxillary palps club-shaped, about 1.7x as long as wide. Facial shield punctate, with almost parallel sides, with strong carinae, length 1.2x width, slightly pointed ventrally and with a weak carina reaching the apical margin of clypeus. Interantennal lamella high, with a deep subdistal impression and a strong distal tooth. Frons transversely striate, vertex punctate. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.7x its diameter.

Scutellum in the hind part and postscutellum with coarse but sometimes superficial puncture. Central area of propodeum wide, length 1.3x width, with strong lateral carinae but obsolete apical carina. Costula not developed. Hind femur length 2.3-2.7x height. Hind metatarsus about 0.45x as long as the hind tibia. Outer apical spur of hind tibia about 0.5 x as long as the hind metatarsus. Front and middle claws with some weak basal teeth. Areolet about 2.5x wider than long, second recurrent vein slightly lateral to its middle and with one bulla.

First tergite with strong dorsal carinae reaching to the apical third. Spiracle with a strong spine-like extension ventrally. Second tergite with bluntly extended posterolateral edges, following tergites with rounded posterolateral edges.

Color: Black. Flagellum reddish. Yellowish are palps, mandible except teeth, clypeus, face, scape ventrally, pedicel, frontal orbit up to the anterior ocellus, hind part of upper margin of pronotum, subtegular ridge confluent with a large spot on upper mesopleuron, prescutellar ridge, scutellum in the apical 2/3, postscutellum, narrow stripe at hind margin of metapleuron. Front and middle legs yellowish-red. Hind coxa black, with narrow reddish apical margin, hind leg otherwise reddish. First to fourth tergite reddish, fifth tergite with large reddish posterolateral spots often confluent in the middle, often this tergite with a diffuse yellowish coloration in the apical parts. Following tergites



black, sixth tergite sometimes with a narrow yellowish hind margin. Pterostigma yellowish-brown, wings almost hyaline and slightly infusate at apex.

**Distribution:** RSA.

***Metopius (Metopius) rufigaster ssp. zambiensis nov.ssp.***

**H o l o t y p u s :** (♂) Zambia C, 45 km SE Kitwe, 12-15.i.2003, leg. J. Halada (Linz).

**T a x o n o m i c a l r e m a r k :** Closely related to *M. rufigaster* s.str., but the available ♂ differs by smooth anterior half of pronotum, smooth apical parts of scutellum and postscutellum, smaller and pointed extension ventrally of the spiracle of first tergite, and more extensive yellowish coloration.

**D e s c r i p t i o n o f ♂ :**

Body length 11.5 mm. Flagellum with 54 segments. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.8x as long as wide. Facial shield punctate, with strong carinae, length 1.25x width, rounded below (fig. 18). Interantennal lamella high, with a deep subdistal impression and a small distal tooth. Frons finely granulate, vertex almost smooth and shining. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye 1.8x its diameter.

Mesosoma with whitish hairs. Side of pronotum coarsely punctate, almost smooth in the frontal half. Epicnemial carina obsolete above sternaulus. Scutellum in apical half and postscutellum very superficially punctate. Central area of propodeum wide, with strong lateral carinae but obsolete apical carina and ± developed longitudinal ridge centrally. Costula short, in the middle of central area. Hind femur length 2.7x height. Hind metatarsus about 0.45x as long as the hind tibia. Outer apical spur of hind tibia about 0.5x as long as the hind metatarsus. Front and middle claws without visible teeth. Areolet 2x wider than long, second recurrent vein in the middle and with one bulla.

First tergite with strong dorsal carinae reaching almost to apex. Spiracle with tooth-like extension ventrally. Second tergite with spine-like posterolateral edges, following tergites with rounded edges posterolaterally (fig. 11).

**Color:** Black. Flagellum yellowish-red below, brownish above. Yellowish are palps, labrum, mandible except teeth, face (fig. 18), frontal orbit up to the anterior ocellus, Scape and pedicel, upper margin of pronotum, subtegular ridge confluent with a large spot on upper mesopleuron, prescutellar ridge, scutellum almost completely, postscutellum, and front and middle legs completely. First to fourth tergites reddish, with diffuse yellowish apical bands (first tergite almost completely yellowish-red), fourth tergite blackened basally, following tergites black with narrow yellowish apical bands (fig. 11). Hypopygium mainly and parameres completely yellowish. Hind coxa with reddish apical margin, hind trochanter yellowish, hind femur, tibia and tarsus reddish, hind femur with yellowish spots basally and apically, spurs of hind tibia whitish. Posterolateral spots on propodeum reddish. Pterostigma yellowish-brown.

♀ unknown.

**D i s t r i b u t i o n :** Zambia.

***Metopius (Metopius) rufofrontalis nov.sp.***

H o l o t y p u s : (♀) Kenya, Ngon Hills, 8 km S Kiserian 1°27'S 36°38'E, 17.IV.2006, leg. E. Jendek (Linz).

P a r a t y p e s : (♀) Entebbe, Uganda, 30.v.1912, No 4061 C. G. Gowdey (London); (♀) Rhodesia: Salisbury, Chishawasha iv.1978 A. Watsam (London), (♀) Rhodesia, Salisbury iv.1980 A. Watsam (London); (♀) Uganda, Kiyanga, 1.v.1927 H. Hargeaves (London).

## D e s c r i p t i o n o f ♀ :

Small, body length 9-11 mm. Flagellum with 46-49 segments. Mandible with one tooth. Second maxillary palpomere semi-globose, about 1.5x as long as wide. Inner margins of eyes strongly narrowed ventrally. Facial shield with scattered puncture, lateral carinae narrowed below, length 1.15x as width, pointed below (fig. 23). Interantennal lamella high, with a wide but shallow subdistal impression, without or without short distal tooth. Frons finely and transversally striate and granulate. Temple strongly narrowed behind eye, 0.5x as long as eyes, superficially punctate. Distance of lateral ocellus to eye 1.6-1.7x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, ± strongly striate anteriorly. Epicnemial carina obsolete above sternaulus. Scutellum short (1.2x wider than long), coarsely punctate. Central area of propodeum length 1.5x width, with strong lateral carinae but confluent with the apical area, with central longitudinal ridge. Costula indistinct. Hind femur length 2.5x height. Hind metatarsus 0.44-0.47x as long as the hind tibia. Outer apical spur of hind tibia about 0.5-0.55x as long as the hind metatarsus. Front and middle claws with short basal teeth. Areolet about 2 x wider than long, stalked, second recurrent vein in the middle and with one bulla.

Metasoma slightly club-shaped, fifth and sixth tergites swollen. First tergite with strong dorsal carinae reaching almost to apex, lateral field in the hind part almost smooth, median field with coarse dense puncture. Spiracle with hook-shaped extension ventrally, apical lamella indistinct. Second tergite 1.1x as long as wide. Second and third tergites with bluntly extended posterolateral edges, fourth tergite with rounded posterolateral edge (fig. 12).

Color: Black. Reddish are palps, mandible, clypeus, face (fig. 23), upper frontal, vertical and often outer orbits, gena, and sixth and seventh tergites. Legs except hind coxa red, or coxae, trochanters, and hind femur infusate centrally, and hind tibia and tarsus dark brown. Cream-yellow are subtegular ridge, apical 0.3-0.5 of scutellum, postscutellum and apical bands on second to fifth tergites (fig. 12). Pterostigma brownish. Wings slightly darkened apically.

♂ unknown.

D i s t r i b u t i o n : Kenya, Uganda, Zimbabwe.

***Metopius (Metopius) strenuus* BENOIT, 1965: 39**

H o l o t y p u s : (♀) R W Tucker Nov 1918 [back] Kumati R Transv., *Metopius (Peltocarus) strenuus* n. sp. ♀ P.L.G. Benoit det., 1963 (Cape Town), type studied.

## D e s c r i p t i o n o f ♀ :

Body length 13 mm. Tips of flagella broken off. Mandible with one tooth. Second maxillary palpomere club-shaped, about 1.9x as long as wide. Frons transversely striate. Facial shield slightly narrowed ventrally, punctate and with strong carinae, length 1.1x

width, pointed below, with small median carina reaching clypeus. Interantennal lamella high, with small subdistal indentation and small distal tooth. Temple strongly narrowed behind eye.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, striate anteriorly. Epicnemial carina above sternaulus running to the mesopleural border and then parallel up to subtegular ridge. Central area of propodeum with parallel sides, open apically. Hind femur length 2.6x height. Hind metatarsus 0.5x as long as hind tibia. Outer apical spur of hind tibia 0.55x as long as hind metatarsus. Front and middle claws without visible teeth. Areolet 2.0x as long as wide, second recurrent vein lateral the middle and with two bullae.

First tergite with dorsal carina on the basal 0.5, aciculate in the apical half, spiracle with a small tooth-like extension and strong lamella ventrally. Second and third tergites with tooth-like posterolateral extensions, following tergites rounded posterolaterally.

Color: Black. Flagellum reddish. Palps reddish. Facial shield yellowish, reddish ventrally and with blackish central patch. Yellow are upper face and short stripe on frontal orbit, spot on dorsal mesopleuron combined with subtegular ridge, prescutellar ridge, scutellum completely, postscutellum and posterolateral spot on propodeum, first tergite completely, apical bands on second to fourth tergite (wider than half of tergite), on tergites 5-6 in apical 0.25. Front und middle legs yellow, front and middle coxae and femora basally brown. Hind coxa dark reddish-brown. Hind leg otherwise red. Wing darkened apically.

♂ unknown.

D i s t r i b u t i o n : RSA.

***Metopius (Metopius) zonurus* BENOIT, 1965: 58**

M a t e r i a l : Tanzania, Kigoma prov., 30 km NW Uvinza, 05°02'S 30°22'E 1500 m, 1♀ 20.XII.2006, leg. J. Halada (Linz); Namibia, Grootfontein Tiegerschluicht, NE Kombat 19°27'18"S 17°37'53"E, 1600-1700 m, 1♀ 9.II.1994, leg. H. & R. Rausch (Linz); Zimbabwe S, Selukwe, 1♀ 19.I.22 (London).

D e s c r i p t i o n o f ♀ :

Body length 10-11 mm. Flagellum with 47-51 segments. Mandible with one tooth. Second maxillary palpomere ± globose, about 1.3-1.5x as long as wide. Inner margins of eyes narrowed ventrally. Facial shield narrowed ventrally, with somewhat scattered puncture and strong carinae, length 1.2x width, pointed below. Interantennal lamella high, with distinct subdistal impression and ± strong distal tooth. Frons superficially punctate and granulate, matte, sometimes with fine transverse striation. Vertex punctate. Temple strongly narrowed behind eye, about 0.5x as long as eyes. Distance of lateral ocellus to eye 1.4-1.7x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, coarsely striate anteriorly. Epicnemial carina above sternaulus running to anterior margin and then parallel to anterior margin up to subtegular ridge (dorsal part sometimes faint or obsolete). Central area of propodeum wide, with strong lateral carinae, length 1.3-1.5x width, apical carina obsolete, costula short or obsolete, apical of middle. Hind femur length 2.5-2.6x height. Hind metatarsus about 0.45-0.5x as long as hind tibia. Outer apical spur of hind tibia long, 0.5x as long as hind metatarsus. Front and middle claws

with small basal teeth. Areolet 2x wider than long, recurrent vein in or lateral to the middle and with one bulla.

First tergite with dorsal carinae in the basal 0.5-0.7, sculpture on apical part somewhat smoothed. Spiracles with strong spine-shaped extension ventrally. Second tergite with dentiform posterolateral edge, third and fourth tergites with rounded edges.

Color: Black. Reddish are mandible, labrum, facial shield and frontal orbit up to anterior ocellus, scape, pedicel and flagellum, sometimes prescutellar ridge, spots on front and middle coxae, hind coxa apically, all legs except coxae and trochanters (tarsi ± darkened). Cream-yellow are palps, subtegular ridge, spot on upper half of mesopleuron, sometimes prescutellar ridges, apical half of scutellum, postscutellum, sometimes spot on middle coxae, posterolateral spot on first tergite, apical bands (0.1-0.2 of length) of second to fifth or sixth tergites (sixth tergite sometimes completely black). Pterostigma pale brown, front wing infusate apically.

♂ unknown.

D i s t r i b u t i o n : DR Congo, new for Namibia, Tanzania and Zimbabwe.

### *Metopius (Metopius) zuluanus* BENOIT, 1965: 51

H o l o t y p u s : (♀ ! ) M fongesi Zulul. W F Jones, *Metopius hilaris* var. *zuluanus* holotype ♂@ (Cape Town), type studied.

F u r t h e r m a t e r i a l : Namibia, Mahango Game Reserve, 18°14'S 21°43'E, 4♀ ♀ and 7♂ ♂ 2-5.III.1994, leg. Koch (Berlin); Namibia, Popa Falls, Kavango, 18°07'S 28°35'E, 1♂ 25.XI.1993, leg. Koch (Berlin); Namibia, Waterberg, 1♂ 15-17.I.1993, leg. Koch (Berlin); Zimbabwe, Matopos Nat. Park, 20°33'S 28°30'E, 3♂ ♂ 29.XI.1993, leg. Koch (Berlin); RSA, Northern Prov., Lekqalameetse Res., 24°12'S 30°20'E, 9♂ ♂ 18.XII.1995, leg. Koch (Berlin); RSA, St. Lucia Park (Charter's creek), 28°12'S 32°25'E, 3♂ ♂ 7.II.1995, leg. Koch (Berlin); RSA, Hluhluwe Game Res. 28°02'S 32°05'E, 1♀ 1♂ 9-12.II.1995, 1♀ 5.XII.1995, leg. Koch (Berlin); RSA, Hluhluwe Game Res. 27°30'S 31°20'E, 1♀ 1♂ 4-6.II.1994, leg. Koch (Berlin); RSA, Itala Game Res., 27°30'S 31°20'E, 5♂ ♂ 28.I.1994, leg. Koch (Berlin); RSA, Itala Game Res., 27°30'S 31°20'E, 1♂ 27-29.II.1994, leg. Göllner (Berlin); RSA, Natal, Itala Game Res., 27°30'S 31°20'E, 2♂ ♂ 19.II.1997, Falle 7, leg. Koch (Berlin); RSA, Drakenberge Royal Natal National Park, 28°43'S 28°53'E, 1♂ 9.II.1994, leg. Koch (Berlin); RSA, Thabazimbi 20 km north, 1♀ 23.II-17.III.1999, leg. J & R Oehlke (Eberswalde); RSA, Kw Natal S, 17 km SE Richmond, 1♀ 3.II.2000, leg. J. Halada (Linz); RSA, KW Natal, N Lowsburg Hala, 1♀ 9.II.2000, leg. J. Halada (Linz); RSA W, Cape N, EN of Clanwilliam, Doringbos, 4♀ ♀ and 1♂ 11.X.1999, leg. M. Halada (Linz); Kenya, Tana nr, Taerda cams env., 02°16'S 40°13'S, 1♀ 13.IV.2006, leg. E. Jendek (Linz); Kenya, Voi (Isavo) environment, 2♀ ♀ and 20♂ ♂ 22.XI.-2.XII.1996, leg. M. Halada (Linz); Zimbabwe, 40 km S Chipinge, Mt Selinda, 1♂ 13.XII.1998, leg. M. Halada (coll. Riedel); Mozambique, Sofala pr. 110 km NW Save, 1♂ 7.XII.2003, leg. J. Halada (Linz); Zambia, Copperbelt pr., 25 km W Chingola 1600m, 5♂ ♂ 16.I.2006, leg. R. Kmeco (Linz); Namibia, Tsumeb, 10 km SE Tsumeb, 1♀ 8.III.1990, leg. M. Schwarz (Munich); Guinea, Kindia env., 1♀ 30-31.I.2003, leg. J. Oehlke (Eberswalde); Tanzania, Mkonazi Game Reserve, Kisina Plot, 1♂ 16.IV.-2.V.1996, leg. S. van Noort (Cape Town); Tanzania, Mkomazi Game reserve, Ibay Camp, 3°58'S 37°48'E, 2♀ ♀ 3♂ ♂ 10-25.XII.1995, 2♀ ♀ 5♂ ♂ 14.IV.-3.V.1996, leg. S. van Noort (Cape Town); RSA, Kwazulu-Natal, Itala Game reserve, Ngubhu house, 720 m, 1♀ 6♂ ♂ 30.XI.-7.XII.1999, leg. S. van Noort (Cape Town).

### D e s c r i p t i o n o f ♀ :

Body length 11-14 mm. Flagellum with 46-55 segments. Mandible with one tooth. Second maxillary palpomere globose, 1.1-1.3x as long as wide (fig. 39). Facial shield with slightly narrowed sides, with dense to scattered puncture and strong carinae, length 1.2-1.3x width, pointed below. Interantennal lamella high, with distinct subdistal

impression and strong distal tooth. Frons with fine transversal striation or granulation, vertex punctate. Temple strongly narrowed behind eye, 0.4x as long as eye. Distance of lateral ocellus to eye 1.3-2.1x its diameter.

Mesosoma with long whitish hairs. Pronotum coarsely punctate, without distinct striation ventrally, smooth in anterior third (fig. 42). Epicnemial carina above sternaulus running anterior and then parallel to mesopleural border up to subtegular ridge (dorsal part sometimes very weak or obsolete). Central area of propodeum narrowed apically, bottle-shaped, with lateral carinae, length 1.2-1.5x width, apical carina obsolete, costula indistinct. Propodeum anterior to costula with smoothened surface. Hind femur length 2.5-2.7x height. Hind metatarsus 0.45-0.5x as long as hind tibia. Outer apical spur of hind tibia about 0.3-0.45x as long as hind metatarsus. Front and middle claws with small basal teeth. Areolet 2.0-2.3x wider than long, second recurrent vein with one bulla, reaching areolet in its middle.

First tergite with dorsal carinae in the basal half, with smoothend puncture in the apical half. Its spiracle with a shorter denticular or stronger spine-shaped ventral extension, with a strong apical lamella. Second and third tergites with dentiform posterolateral edges, following tergites with rounded edges (fig. 7).

Color: Black, often head, mesosoma and metasoma ± reddish (fig. 7). Flagellum reddish ventrally and brownish dorsally. Yellowish or reddish are palps, face, frontal orbit up to vertex, scape and pedicel beneath, upper margin of pronotum, subtegular ridge confluent with large spot on upper mesopleuron, prescutellar ridge, scutellum, postscutellum and posterolateral spot on propodeum, front and middle femora apically, front and middle tibiae and tarsi completely, apical spot on hind femur and spurs of hind tibia. Otherwise hind leg except coxa and trochanter reddish. Reddish are sometimes first tergite apically, sometimes fifth tergite, usually sixth tergite. First to fifth tergites with yellowish apical margins, these centrally narrowed (fig. 7). Front wing darkened at apex, pterostigma yellowish.

#### Description of ♂:

Body length 11-15 mm. Flagellum with 51-57 segments, distance of lateral ocellus to eye 1.4x its diameter. Face shield length 1.2-1.3x width, second segment of maxillary palps 2.0-2.1x longer than wide, Frons finely rugulose, matte. Temple strongly narrowed behind eye. Interantennal lamella with strong distal tooth. Epicnemial carina above sternaulus running anterior and then parallel to mesopleural border up to subtegular ridge. Area centralis of propodeum bottle-shaped, costula weak. Hind femur length 2.3-2.5x height. Front and middle claws with basal teeth. Areolet 2x as long as wide, second recurrent vein in the middle, with one bulla. Second and third tergites about as long as wide.

Color: Black. Flagellum reddish ventrally, brownish dorsally. Yellow are palpi, mandible, labrum, malar space, face, wide frontal orbit up to lateral ocellus, scape, pedicel, upper margin of pronotum, anterior 2/3 of mesopleuron in the upper half, hind 2/3-1/2 of scutellum, prescutellar ridge, postscutellum, spot of lateral propodeum, hind half of first tergite, following tergites with apical bands (on second to fourth tergites 1/3 of length, on fifth to seventh tergites narrower), and parameres, front and middle legs, spurs of hind tibia, hind trochanter, hind femur basally and apically. Reddish are central half of hind femur (sometimes blackish), hind tibia and hind tarsus, edge of propodeum at hind coxa, hind coxa dorsally. Pterostigma yellowish, fore wings darkened at apex.

**Distribution:** Widespread in tropical Africa, new for Guinea, Mozambique, Tanzania, and Namibia.

***Metopius (Metopius) zuluanoops nov.sp.***

**Holotypus:** (♀) R.S.A., Northern Transvaal, N of Nylstroom, 1200 m, 24°40'S 28°30'E, 14.i.2008, leg. M. Halada (Linz).

**Paratypes:** (♀) [blue] RSA, Transvaal Wolkbg, 24°02'S 30°00'E, 12-16.ii.1997, Falle 17, leg.: F. Koch (Berlin); (♀) [blue] RSA, Transvaal Wolkbg, 24°02'S 30°00'E, 12-16.ii.1997, Falle 20, leg.: F. Koch (Berlin); (♀) [blue] RSA, Transvaal Wolkbg, 24°02'S 30°00'E, 12-16.ii.1997, Falle 18, leg.: F. Koch (Berlin); (♀) Abercorn N. Rhodesia 10.12.1943 Nat. Museum S. Rhodesia (Cape Town).

**Taxonomical remark:** This new taxon differs from *M. zuluanus* BENOIT by the following features: body black, body with less extended reddish suffusion, second maxillary palpomere lesser swollen, facial shield less narrowed ventrally, dorsal carina of first tergite longer and temple less strongly narrowed.

**Description of ♀:**

Body length 12-14 mm. Flagellum with 59-62 segments, apical segments slightly longer than wide. Mandible with one tooth. Second maxillary palpomere club-shaped, 1.7-1.9x as long as wide (fig. 40). Facial shield with slightly narrowed sides, with rather scattered puncture and strong carinae, length 1.1-1.2x width, pointed ventrally, sometimes with a shallow carina running to the apical clypeal margin. Interantennal lamella high, with distinct subdistal impression and strong distal tooth. Frons with fine transverse striation or granulation, vertex ± punctate. Temple strongly and almost linearly narrowed behind eye, 0.5x as long as eye. Distance of lateral ocellus to eye 1.5-1.8x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, ± smoothed in anterior fourth. Epicnemial carina sharply bent above sternaulus towards anterior margin of mesopleuron and running parallel to the anterior margin up to subtegular ridge (sometimes faint). Central area of propodeum strongly narrowed apically, with lateral carinae, length 1.2-1.3x width, usually with central longitudinal ridge, apical carina obsolete, costula indistinct. Propodeum anterior to costula coarsely punctate. Hind femur length 2.5-2.6x height. Hind metatarsus 0.5x as long as hind tibia. Inner spur of hind tibia about 0.5x as long as hind metatarsus. Areolet 1.7-1.9x wider than long. Second recurrent vein with one bulla, reaching areolet lateral to its middle.

First tergite with dorsal carinae almost to the apex, coarsely punctate in the apical half. Its spiracle with rather short denticular extension ventrally, lateral carina behind spiracle lamelliform. Second tergite 1.3x as long as wide, with blunt posterolateral edges, third and fourth tergites with rounded edges (fig. 8).

Color: Black. Yellowish-red are mandible, labrum, clypeus in part, face (facial shield ± darkened centrally). Flagellum reddish-brown. Upper margin of pronotum with a reddish-yellow stripe. Yellow are palps, frontal orbit up to anterior ocellus, spot on subtegular ridge confluent with a large spot on upper mesopleuron, prescutellar ridge, apical 2/3 of scutellum, postscutellum and posterolateral spot on propodeum, front and middle femora apically, and front and middle tibiae and tarsi completely or on outer side. Legs otherwise red, hind coxa mainly or partly black, hind femur often with a central black spot on inner side, hind tarsus brownish. Metasoma black, first tergite with yellow band in the apical 2/3. Second to fourth tergites with wide apical yellow bands (fig. 8),

fifth and sixth tergites with narrow yellow apical margins. Front wings infusate at apex, pterostigma yellowish.

♂ unknown.

Distribution: RSA and Zimbabwe.

***Metopius (Metopius) zuluensis* BENOIT, 1965: 41**

Holotype: (♂) M fongosi Zulul. W E Jones, *Metopius (Peltocarus) zuluensis* n.sp. holotype ♂ P.L.G. Benoit det., 1963 (Cape Town), type studied.

Further material: Tanzania, Mkomazi Game Reserve, Ibaya Lau 3.58S 37.48E 1♂ 26.XI-10.XII.1995, leg. S van Noort (Cape Town); Zimbabwe, Matopos Nat. Park, 1♂ 29.XI.1993, leg. F. Koch (Berlin); RSA, Natal, Weenen, 1♂ III.1925, leg. H.P. Thomsset (London).

Description of ♂:

Body length 13-17 mm. Flagellum with 47-49 segments. Mandible with one tooth. Second maxillary palpomere club-sized, 2x as long as wide. Facial shield wide, length 1.0x width, with parallel sides, strong carina, coarsely punctate, pointed ventrally. Interantennal lamella high, without distinct notch or distal tooth. Frons granulate and superficially punctate, matte. Temple finely punctate, shining, narrowed behind eye, 0.6x as long as eye. Distance of lateral ocellus to eye 1.4-2.0x its diameter.

Mesosoma with long whitish hairs. Side of pronotum coarsely punctate, striate anteriorly. Epicnemial carina ends dorsal of sternaulus. Central propodeal area with lateral carina, narrowed apically, its carina obsolete apically. Hind femur length 2.6x height. Hind metatarsus about 0.45x as long as hind tibia. Outer apical spur of hind tibia 0.4-0.45x as long as hind metatarsus. Areolet 2.0x as long as wide, stalked, second recurrent vein lateral its middle and with one or two bullae.

First tergite with dorsal carina in basal 0.7 or nearly complete, spiracle with strong denticular extension ventrally, lateral lamella narrow. Second to fourth tergites with tooth-shaped posterolateral extensions, following tergites rounded posterolaterally.

Color: Black. Flagellum reddish-brown to dark brown. Yellow or cream-yellow are palps, base of mandible, labrum, face, frontal orbit up to anterior ocellus, scape and pedicel ventrally, spot on upper pronotal margin, often small spots on dorsal mesopleuron, subtegular ridge, prescutellar ridge, apical margin of scutellum, postscutellum, posterodorsal spot on propodeum, triangular dorsolateral spots on first to third tergites (or apical bands on second and third tergites), narrow apical bands on the following tergites. Front and middle legs cream-yellow, with red or brown stripes. Hind leg red to dark reddish-brown, sometimes cream-yellow spots on hind coxa, hind trochanter, base and apex of hind femur, hind tibia apical, and hind tarsus. Hind tarsus black. Pterostigma yellow to brown, wings slightly darkened apically.

♀ unknown.

Distribution: RSA, new for Tanzania.

## Discussion

The morphological features, such as number of bullae in second recurrent vein of fore

wing, form of spiracle and lateral lamella of first metasomal tergite, form of epicnemial carina and of central propodeal area, that were used by BENOIT (1965) for a characterization and differentiation of the species have been found to be variable in this study. In many cases, they are difficult to use for a correct determination. It seemed therefore helpful to re-describe the available *Metopius* species and construct a new key using a combination of morphological and color characteristics.

For several African *Metopius* species, only one sex has been described yet. Since there is a considerable sexual dimorphism in some taxa, the relation of sexes and probable synonymy of certain species remain unclear for several taxa in the available material. Due to the variability of structural characters and coloration, DNA studies and/or breeding results should be helpful in the future to solve this problem sufficiently.

Most of the material for this study came from the Southern and Eastern parts of Africa. I suggest that the number of *Metopius* species will increase significantly when the Ichneumonidae fauna of Western and Central African countries is better known.

### Key to the *Metopius* (Subgenus *Metopius*) species from Africa South of Sahara (except Madagascar)

(adapted from BENOIT, 1965 and modified):

Key for ♀ ♀ (of *M. eritreae* MORLEY, *M. rauschi* nov.sp., *M. rufigaster* ssp. *zambiense* nov.sp., and *M. zuluensis* BENOIT unknown):

- 1 Hind femur less stout, length at least 3.0x height.....2
- Hind femur very stout, length at most 2.8x height .....5
- 2 Facial sheath wide, as long as wide (fig. 15). Second recurrent vein usually with two bullae. Upper margin of pronotum and mesopleuron with yellow spots .....*M. clathratus* BENOIT, 1965
- Facial shield longer than wide (1.1-1.3x) (figs 16-24). Second recurrent vein with one bulla. Pronotum and mesopleuron black, without yellow spots.....3
- 3 Scutellum very short, lateral wing-like extensions not or slightly exceeding the median apical scutellar margin (fig. 32). Face and facial shield completely yellow .....*M. ethiopicus* nov.sp.
- Scutellum longer, lateral wing-like extensions exceeding far behind median apical scutellar margin (as fig. 33).....4
- 4 Legs mainly reddish. Frontal orbit and upper margin of facial shield reddish (fig. 20). Subtegular ridge yellowish .....*M. femoralis* nov.sp.
- Legs mainly black. Frontal orbit and upper margin of facial shield yellow (fig. 21). Subtegular ridge black.....*M. palpoides* nov.sp.
- 5 Wings completely brown or blackish, sometimes with violet shine.....6
- Wings hyaline, usually with ± infusate apex .....7
- 6 Mesosoma completely black, metasoma with small yellowish posterolateral spots on second to third tergites only. First tergite with dorsal carina reaching the apical third.....*M. nigrithorax* nov.sp.
- Mesosoma usually with some yellowish spots. Metasoma with extended pale coloration, at least tergites 3 and 4 with wide ivory apical bands. Dorsal carinae of tergite 1 distinct in the basal half, not reaching the apical third .....*M. lugubris* TOSQUINET, 1896



- 7 Antennae separated by a triangular elevation, interantennal lamella not developed. First tergite with strong and almost complete dorsal carinae. Mesosoma black, metasoma with second to fourth tergites with narrow yellow apical bands. Small species, body length 8-10 mm ..... *M. pusillus* BENOIT, 1965
- Antennae separated by a more or less strong lamella, often with a subdistal notch and distal tooth..... 8
- 8 First to fourth tergites red, fifth to seventh tergites black, sometimes with diffuse reddish or yellowish apical margins (fig. 10). Spiracle of first tergite with strong ventral tooth (as fig. 29)..... *M. rufigaster* ssp. *rufigaster* nov.ssp.
- Metasoma black or with diffuse reddish suffusion, with pale apical (yellow or ivory) spots or bands, sometimes partly reddish, but not complete tergites red (figs 1-9, 11) ..... 9
- 9 Epicnemial carina forms an acute angle above sternaulus and is bent towards anterior margin of mesopleuron where it runs parallel to the anterior margin up to subtegular ridge (sometimes carina  $\nabla$  obsolete and difficult to see)..... 10
- Epicnemial carina not extended above the sternaulus and not bent towards anterior margin of mesopleuron..... 15
- 10 Upper margin of pronotum yellow oder reddish. Lateral carina of tergite 1 distinctly widened behind spiracle, but narrow apically ..... 11
- Upper margin of pronotum black ..... 12
- 11 Second maxillary palpomere globose, at most 1.2x as long as wide (fig. 39). Face yellow. Mesosoma and metasoma often with diffuse reddish suffusion and with yellow spots (fig. 7). Hind femur reddish, usually with one or two yellow spots ..... *M. zuluanus* BENOIT, 1965
- Second palpomere club-shaped, almost 2x as long as wide (fig. 40). Face reddish. Mesosoma and metasoma black, with yellow spots (fig. 8). Hind femur completely red, without yellow spots..... *M. zuluanops* nov.sp.
- 12 Hind femur black or brown. Outer spur of hind tibia short, about 0.3-0.35x as long as hind metatarsus. Spiracle of first tergite with a rounded or small tooth-like ventral extension, lateral carina behind spiracle not lamelliform (as fig. 30). Second maxillary palpomere reddish, club-shaped (as fig. 40). Facial shield black or dark reddish-brown with reddish margins, frontal orbit reddish..... *M. hilaris* TOSQUINET, 1896
- Hind femur reddish. Outer spur of hind tibia longer, at least 0.4x as long as hind metatarsus..... 13
- 13 Facial shield yellow, with a black spot centrally ..... *M. upembanus* BENOIT, 1965
- Facial shield reddish, like the face narrowed ventrally..... 14
- 14 Second maxillary palpomere cream-yellow, semi-globose. Metasoma not club-shaped, fifth and sixth tergites not distinctly swollen, black. Mesopleuron with yellow spot. Male unknown..... *M. zonurus* BENOIT, 1965
- Second maxillary palpomere reddish, semi-globose. Metasoma club-shaped, fifth and sixth tergites swollen, reddish. Mesopleuron black ..... *M. rufofrontalis* nov.sp.
- 15 Pronotum and mesopleuron black. Spiracle of first tergite with strong spiniform extension (as fig. 29). Form of second maxillary palpomere variable ..... 16
- Pronotum and/or mesopleuron with yellow spots. Spiracle of first tergite variable. Second maxillary palpomere club-shaped, almost 2x as long as wide (fig. 37) ..... 20
- 16 Face and facial shield yellow, the later with large central black spot ..... 17
- Face and facial shield mainly black, only upper margins of facial shield with yellow stripes ..... 18
- 17 Outer spur of hind tibia short, about 0.35x as long as hind metatarsus. Second maxillary palp club-shaped, 2.0x as long as wide (as fig. 37). Hind leg reddish with yellow pattern..... *M. audens* TOSQUINET, 1896

- Outer spur of hind tibia longer, usually 0.5x as long as hind metatarsus. Second maxillary palpomere globose, about 1.3x as long as wide (fig. 35). Hind leg mainly black, with yellow pattern. Sometimes mesopleuron with yellow spot.....  
..... *M. albipictus* TOSQUINET, 1896
- 18 Mesosoma completely black. Second maxillary palpomere brown. Metasoma club-shaped, fourth to sixth tergite swollen. Legs mainly black. Small, body length 9 mm.....  
..... *M. nigripalpis* BENOIT, 1965
- Subtegular ridge and prescutellar ridge yellowish. Second maxillary palpomere red. Metasoma linear, apical tergites not distinctly swollen..... 19
- 19 Epicnemial carina ends at sternaulus. Legs except coxae red. Larger, body length 15 mm .....  
..... *M. hilaroides* BENOIT, 1965
- Epicnemial carina dorsal to sternaulus forming an angle and running to the anterior border of mesopleuron. Legs mainly black, with yellow pattern.....  
..... *M. paludicola* BENOIT, 1965
- 20 Pronotum black ..... 21
- Upper margin of pronotum with large reddish or yellow spot (figs 41-42). Face and facial shield completely yellow (as fig. 20)..... 22
- 21 Temple strongly and linearly narrowed behind eye. Face yellow dorsally, more reddish ventrally. Facial shield with dark central spot. Second recurrent vein with two bullae.....  
..... *M. strenuus* BENOIT, 1965
- Temple roundly narrowed behind eye. Face and facial shield completely cream-yellow (fig. 20). Second recurrent vein with one bulla ..... *M. gambiense* nov.sp.
- 22 Outer spur of hind tibia very short, about 0.25-0.3x as long as hind metatarsus. Spiracle of first tergite without distinct extension ventrally (fig. 31). Body black, with yellow pattern .....  
..... *M. latibalteatus* CAMERON, 1906
- Outer spur of hind tibia longer, 0.4-0.5x as long as hind metatarsus. Spiracle of first tergite with strong spiniform or hook-shaped extension ventrally (fig. 29). Body black or mainly reddish, with yellow pattern..... *M. discolor* TOSQUINET, 1896

Key for ♂♂ (unknown for *M. gambiense* nov.sp., *M. hilaroides* BENOIT, *M. nigripalpis* BENOIT, *M. nigrithorax* nov.sp., *M. senegalensis* BENOIT, *M. strenuus* BENOIT, *M. zonurus* BENOIT, and *M. zuluansops* nov.sp.):

- 1 Second recurrent vein with two bullae. Facial shield wide, about as long as wide (fig. 15). Upper margin of pronotum and/or mesopleuron with yellow spots ..... 2
- Second recurrent vein usually with one bulla. Facial shield usually longer than wide (figs 13-14, 17-18) ..... 4
- 2 Dorsal carinae of first tergite long, almost reaching the apical margin of tergite, its spiracle with strong denticular ventral extension. Facial shield yellow, with black spot centrally..... *M. zuluensis* BENOIT, 1965
- Dorsal carinae of first tergite shorter, not reaching the apical quarter of tergite, its spiracle without strong ventral extension. Facial shield completely yellow ..... 3
- 3 Hind femur slender, length 3.2x height. Inner eye margins slightly divergent ventrally. Second maxillary palpomere oval, length 1.4x width. Area centralis of propodeum with a longitudinal carina..... *M. eritreae* MORLEY, 1912
- Hind femur stouter, length 2.7-2.8x height. Inner eye margins parallel. Second maxillary palpomere club-shaped, about 1.8-1.9x as long as wide .....  
..... *M. clathratus* BENOIT, 1965
- 4 Antennae separated by triangular elevation, interantennal lamella not developed. First Tergite with strong and almost complete dorsal carinae. Mesosoma black. Small species, body length 8-10 mm..... *M. pusillus* BENOIT, 1965
- Antennae separated by ± strong lamella, often with distal frontal tooth. Mesosoma often with yellow color pattern..... 5

- 5 Hind metatarsus very short, length 0.33x length of hind tibia (fig. 34). Facial shield about as long as wide (fig. 16). Hind femur black, at base and apex with ivory spots. Female unknown ..... *M. rauschi* nov.sp. 6
- Hind metatarsus longer, at least 0.4x as long as hind tibia. Facial shield usually longer than wide ..... 6
- 6 Scutellum very short, its lateral wing-like extension not or slightly exceeding the median apical margin of scutellum (fig. 32). Hind femur slender, length 2.8-3.2x. Legs black with yellow color pattern ..... *M. ethiopicus* nov.sp. 7
- Scutellum longer, usually lateral wing-like extension distinctly exceeding the median apical margin of scutellum (fig. 33). Hind femur usually stouter ..... 7
- 7 Wings completely darkened. Facial shield ivory, with large central black spot. Legs except front and middle coxae and trochanters reddish or reddish-brown ..... *M. lugubris* TOSQUINET, 1896 8
- Wings hyaline or slightly infusate, often with apical dark spot or band ..... 8
- 8 Epicnemial carina with acute angle above sternaulus and bent towards anterior margin of mesopleuron where it runs parallel to the anterior margin up to subtegular ridge (sometimes carina  $\nabla$  obsolete and difficult to see). Face and facial shield completely yellow ..... 9
- Epicnemial carina not extended above the sternaulus and not bent towards anterior margin of mesopleuron. Color of face and facial shield variable ..... 10
- 9 Upper margin of pronotum with yellow stripe (fig. 42). Mesosoma often with diffuse reddish suffusion. Hind femur reddish, usually with one or two yellow spots ..... *M. zuluanus* BENOIT, 1965 11
- Upper margin of pronotum black. Hind femur yellow with a black stripe dorsally and/or on inner side ..... *M. hilaris* TOSQUINET, 1896 11
- 10 Basal tergites reddish. Spiracle of tergite 1 with strong ventral tooth ..... 11
- Metasoma black, with pale apical (yellow or ivory) spots or bands, sometimes with reddish suffusion, but basal tergites not completely red ..... 12
- 11 Larger, body length 12.5-14 mm. Tergites 1-4 red, tergites 5-7 black, sometimes with diffuse reddish or yellowish apical margins ..... *M. rufigaster* nov.sp. 13
- Smaller, 11.5 mm. Tergites 1-3 reddish, with diffuse apical yellowish bands, tergite 4 black basally, reddish apically, with yellowish apical margin, tergites 5-7 black, with yellow apical margins (fig. 11) ..... *M. rufigaster* ssp. *zambiensis* nov.ssp. 13
- 12 Facial shield ivory, with black central spot. Upper margin of pronotum black, mesopleuron with or without ivory spot ..... 13
- Facial shield completely yellow. Upper margin of pronotum and mesopleuron with yellow spots ..... 14
- 13 Legs mainly red ..... *M. audens* TOSQUINET, 1896 14
- Legs black, with ivory spots ..... *M. albipictus* TOSQUINET, 1896 14
- 14 Spiracle of first tergite without distinct ventral spine, but with lateral lamella (fig. 31). Apical spur of hind tibia short, not more than 0.35x as long as hind metatarsus. Temple strongly and almost linearly narrowed behind eye (as fig. 28). Hind coxa with scattered puncture ventrally ..... *M. latibalteatus* CAMERON, 1906 15
- Spiracle of first tergite with distinct denticular extension ventrally (fig. 29). Apical spur of hind tibia longer, about 0.5x as long as hind metatarsus. Temple roundly narrowed behind eye (fig. 26). Hind coxa distinctly punctate ventrally ..... 15
- 15 Temple slightly narrower (fig. 26). Yellow spots on mesopleuron and subtegular ridge widely confluent, hind coxa black or  $\pm$  reddish, without yellow spots ..... *M. discolor* TOSQUINET, 1896 15
- Temple slightly wider (fig. 25). Yellow spots on mesopleuron and subtegular ridge clearly separated. Hind coxa black with yellow spot ..... *M. alboornatus* CAMERON, 1906 15

## Acknowledgment

I would like to thank F. Gusenleitner and M. Schwarz from Biozentrum Linz, G. Broad from Natural History Museum London, F. Koch from Humboldt University Berlin, and S. Schmidt from Zoologische Staatssammlung Munich for their help and kind allowance to study their collections of African *Metopius*. Also, I wish to thank S. van Noort and A. Mayekiso for their generous loan of the *Metopius* material from the Cape Town Museum IZIKO, Cape Town/South Africa.

## Zusammenfassung

Für diese Untersuchung konnten 27 afrikanische Arten und eine Unterart der Gattung *Metopius* aus verschiedenen Museen untersucht werden.

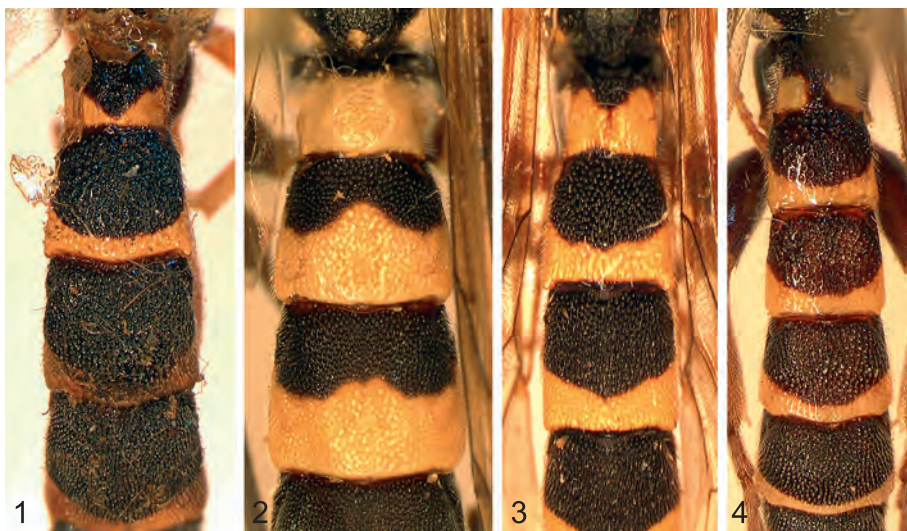
Die bekannten Taxa werden ausführlich charakterisiert, neun Arten und eine Unterart aus der Untergattung *Metopius* s.str. werden als neu beschrieben: *Metopius ethiopicus* nov.sp., *Metopius femoralis* nov.sp., *Metopius gambiense* nov.sp., *Metopius nigrithorax* nov.sp., *Metopius palpoides* nov.sp., *Metopius rauschi* nov.sp., *Metopius rufigaster* nov.sp., *Metopius rufigaster* ssp. *zambiense* nov.spp., *Metopius rufofrontalis* nov.sp., und *Metopius zuluanoops* nov.sp. Für zwei Arten können erstmals die ♂♂ beschrieben werden: *Metopius brevicornis* SEYRIG, 1935 und *Metopius clathratus* BENOIT, 1965. Das Taxon *Metopius alboornatus* CAMERON, 1906 wird als eigenständige Art erneut von *Metopius discolor* TOSQUINET, 1896 abgetrennt (rev.stat.) und *Metopius nigroornatus* CAMERON, 1906 als neues Synonym von *Metopius audens* TOSQUINET, 1896 (nov.syn.) bestimmt.

Zusätzlich wird ein Bestimmungsschlüssel für die ♀♀ und ♂♂ der Gattung *Metopius*, Subgattung *Metopius* aus Afrika südlich der Sahara angefügt.

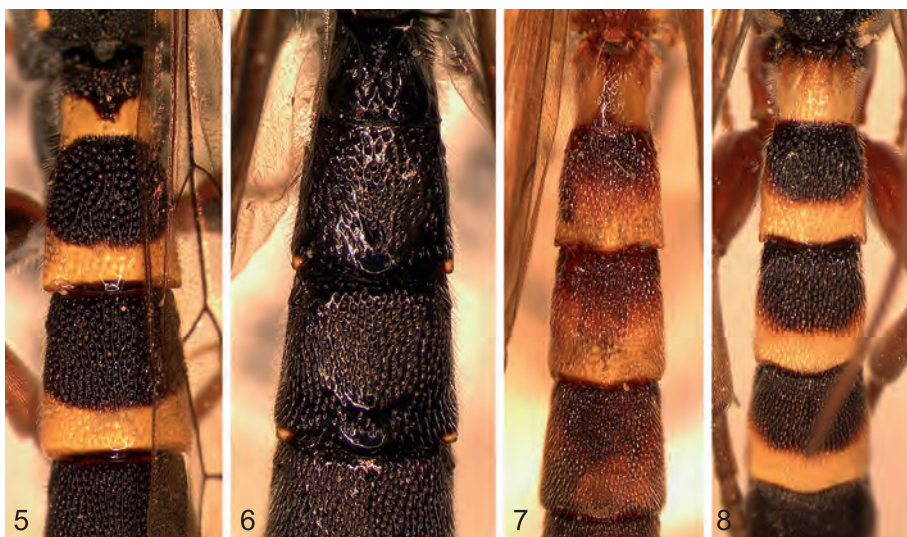
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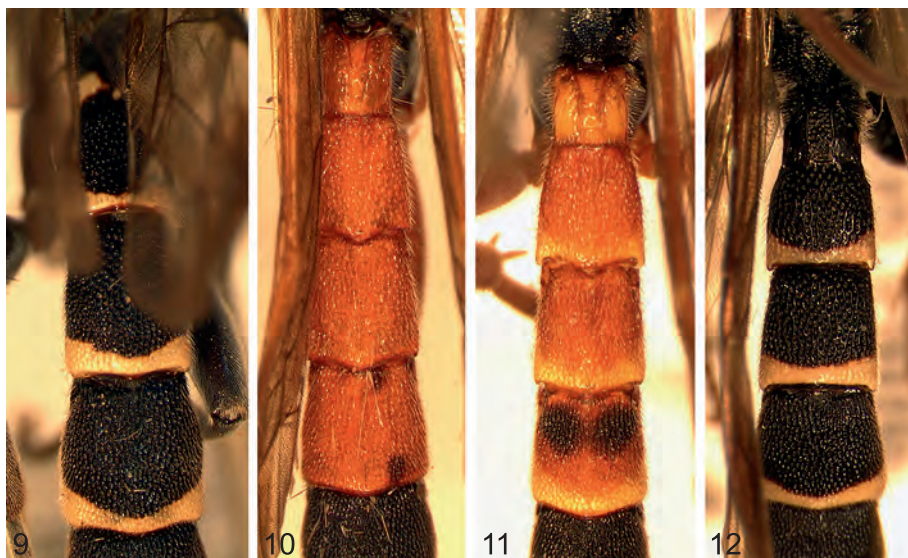


**Figs. 1-4:** Metasoma of ♂♂: (1) *Metopius alboornatus* CAMERON HT; (2) *M. clathratus* BENOIT, (3) *M. discolor* TOSQUINET; (4) *M. rauschi* nov.sp. HT.



**Figs. 5-8:** Metasoma of ♀♀: (5) *Metopius femoralis* nov.sp. PT; (6) *M. nigrithorax* HT; (7) *M. zuluanus* BENOIT; (8) *M. zuluopsis* nov.sp.





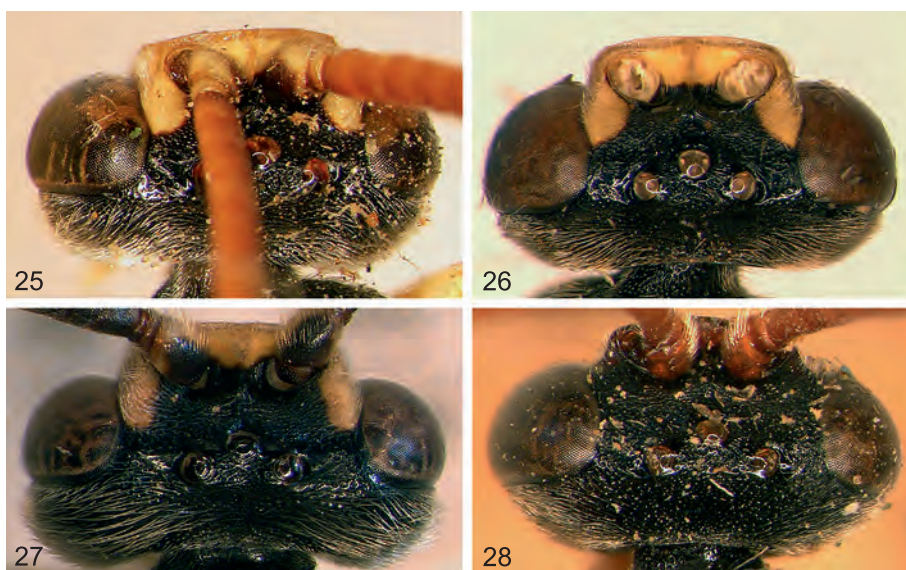
**Figs. 9-12:** Metasoma of ♀♀: (9) *Metopius palpoides* nov.sp. HT; (10) *M. rufigaster* ssp. *rufigaster* nov.sp. HT; (11) *M. rufigaster* ssp. *zambiense* nov.ssp. HT; (12) *M. rufofrontalis* nov.sp.HT.



**Figs. 13-18:** Face and facial shield of ♂♂: (13) *Metopius alboornatus* CAMERON; (14) *M. brevicornis* SEYRIG; (15) *M. clathratus* BENOIT; (16) *M. rauschi* nov.sp. HT; (17) *M. ethiopicus* nov.sp. PT; (18) *M. rufigaster* ssp. *zambiense* nov.ssp. HT.

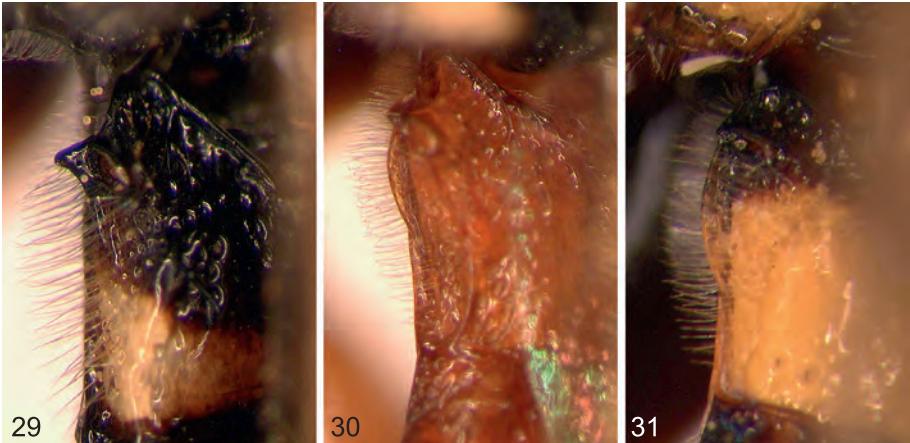


**Figs. 19-24:** Face and facial shield of ♀♀: (19) *Metopius femoralis* HT; (20) *M. gambiense* HT; (21) *M. palpoides* HT; (22) *M. nigrithorax* HT; (23) *M. rufofrontalis* PT; (24) *M. rufigaster* ssp. *rufigaster* HT.

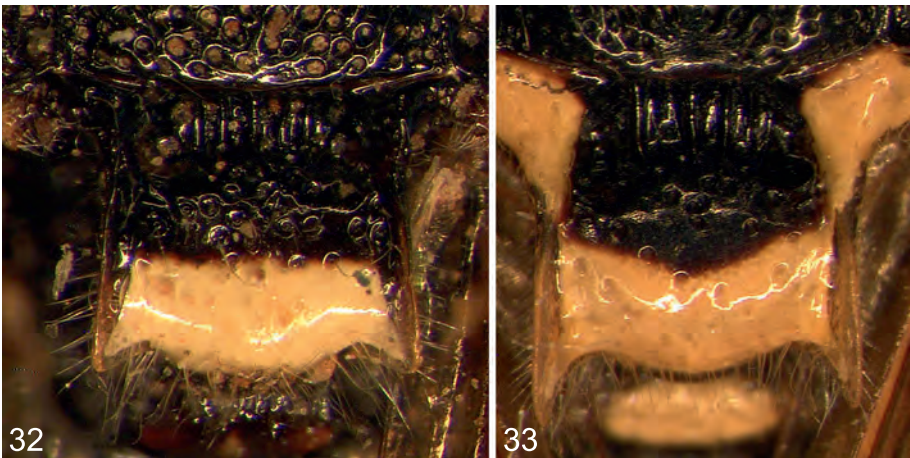


**Figs. 25-28:** Head from dorsal: (25) *Metopius alboornatus* CAMERON ♂; (26) *M. discolor* TOSQUINET ♂; (27) *M. clathratus* BENOIT ♂; (28) *M. femoralis* nov.sp. HT ♀.

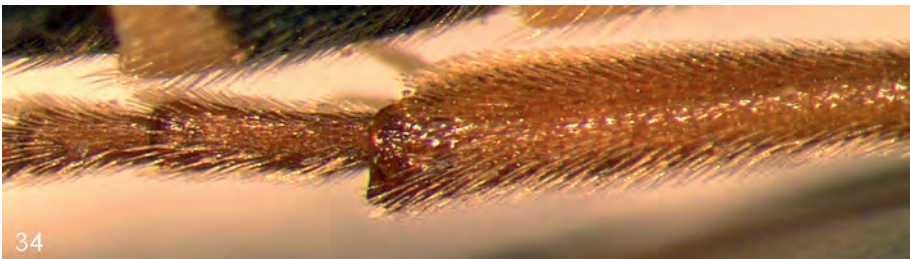




**Figs. 29-31:** Side of first tergite: (29) *Metopius discolor* TOSQUINET ♂; (30) *M. brevicornis* SEYRIG ♂; (31) *M. latibalteatus* CAMERON ♀.

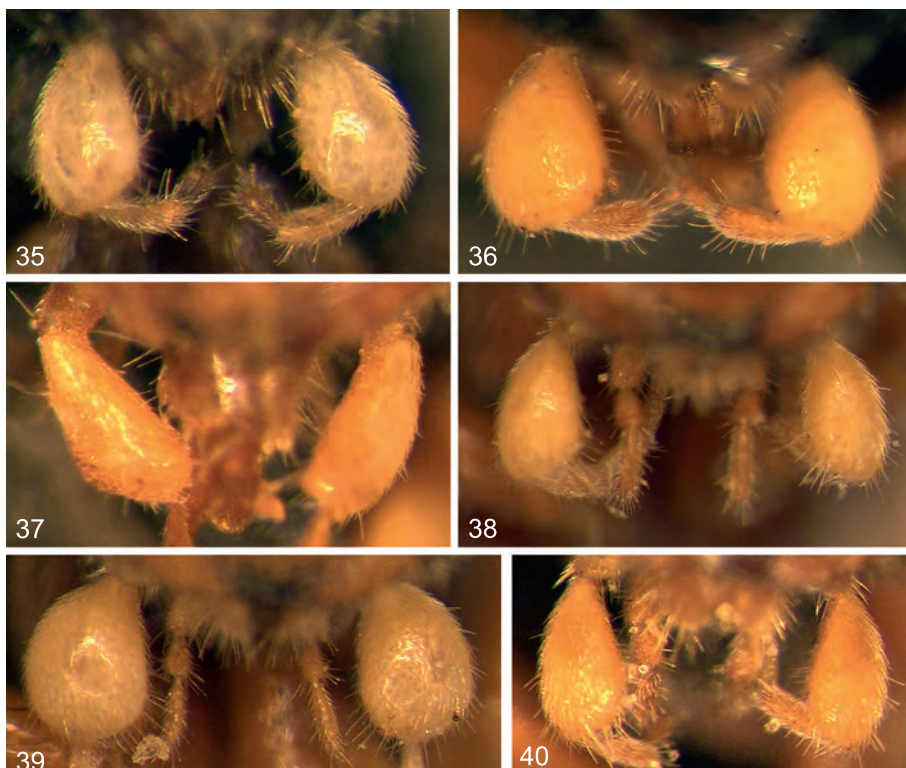


**Figs. 32-33:** Scutellum of: (32) *Metopius ethiopicus* nov.sp. ♀; (33) *M. clathratus* BENOIT ♂

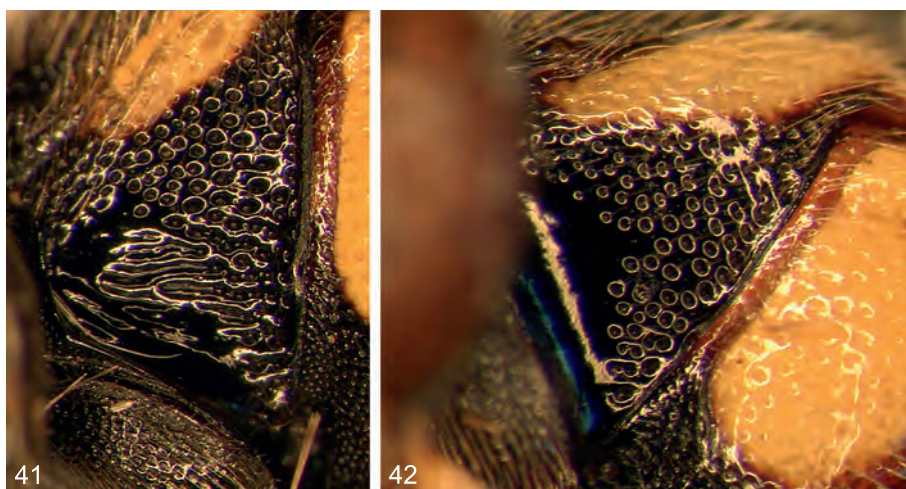


**Fig. 34:** Hind tibia and metatarsus of *Metopius rauschi* nov.sp. HT ♂.





**Figs. 35-40:** Second maxillary palpomeres of: (35) *Metopius albipictus* TOSQUINET ♀; (36) *M. femoralis* nov.sp. HT ♀; (37) *M. latibalteatus* CAMERON ♀; (38) *M. discolor* TOSQUINET ♀; (39) *M. zuluanus* BENOIT ♀; (40) *M. zuluanops* nov.sp. ♀.



**Figs. 41-42:** Pronotum of: (41) *Metopius discolor* TOSQUINET ♂; (42) *M. zuluanus* BENOIT ♂.