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Special Section: In memory of Valerio Sbordoni

New records of Orthoptera from Zambia (Tettigoniidae; Pamphagidae)

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Keywords: new records, new tribe, synonymies, taxonomy.

SUMMARY

The African Natural History Research Trust in Zambia collected specimens representing many new findings for research. The new tribe Oxyecoini is described for the genus *Oxyecous*, and the following synonymies are established: *Clonia whalbergi maculosa* (Walker, 1869) = *Clonia whalbergi* Stål, 1855 (Tettigoniidae, Saginae), *Cultrinotus luanensis* Uvarov, 1953 = *Cultrinotus poultoni* Bólivar, 1915 (Pamphagidae, Porthetinae). Further, the following species are recorded for the first time from Zambia: *Pardalota haasi* Griffini, 1908, *Melidia brunneri* Stål, 1876, *Phaneroptera nigropunctata* Chopard, 1955, *Dannfeltia nana* Sjöstedt, 1902 (Tettigoniidae, Phaneropterinae), and *Enyaliopsis petersii* (Schaum, 1853) (Tettigoniidae, Hetrodinae). Some taxonomic considerations are also made about the specialization of the inner side of the hind femur in the genus *Cultrinotus*.

INTRODUCTION

The African Natural History Research Trust (ANHRT, Hereford, UK), established as a charity trust in 2010, is an institute dedicated to the study of African insects. The team of ANHRT was organized in 2023-2025, conducting collecting and research expeditions to Zambia in partnership with host institutions and gov¬ernment bodies. The ANHRT sent a remarkable number of collected specimens (297 on the whole) of Orthoptera (mainly Phaneropterinae) for identification to me. From the orthopterological point of view, this area has been sufficiently explored (e.g.: Hemp 2013; Hemp & Heller 2019; Naskrecki & Guta 2019; Massa 2021). This paper presents the results of the most valuable species. Additionally, some new species of the genus

Eurycorypha Stål, 1873 will be de-scribed in a separate paper within the revision of the genus in collaboration with Claudia Hemp, Bayreuth University, Germany.

MATERIALS AND METHODS

Insect sampling

Captures of insects in Zambia were carried out by the ANHRT researchers in 2023-2025. The ANHRT is mainly focusing on Lepidoptera, but other insect orders were also sampled, including Coleoptera, Hemiptera, Diptera, Hymenoptera, Orthoptera and Mantodea. Four main methods to collect Orthoptera are used. 1) Hand collecting: grasshoppers and katydids are collected using nets whenever they are spotted; 2) light trap: nocturnal insects are attracted to a specially engineered white tent containing a bright mercury vapour bulb (MV), where they can be collected. The ANHRT-designed Edwards' Trap is placed under the bulb collecting the smallest insects which would otherwise be missed. As different insects are attracted to different wavelengths of light, smaller ultraviolet lights are also used, in combination with an automatic bucket trap (Lepiled and Actinic traps); 3) Malaise traps: a fine mesh tent is stretched across an insect flight path, usually in forest areas. Insects fly into the mesh, and either fall down and are caught in a tray at the bottom of the trap, or fly upwards and into the collecting jar; 4) a few insects were captured inside traps baited with carrion or banana. Among these the most fruitful method to collect Orthoptera is the light trap, using different kinds of lamps, which has been revealed to be very attractive for most Ensifera species (Massa 2021, 2022).

Study Areas

Insects have been collected in the following sites:

1) Zambia, Muchinga province, Mutinondo Wilderness Area 12°27'06"S 31°17'30"E (1460m) (Fig. 1) - MV light trap, bucket trap, and general collecting: dry miombo / granite rocky outcrops

2) Zambia, Kafue National Park, Chunga gate 14°56'54.2"S 25°51'12.6"E (1115m) - General collecting by hand and bucket traps in miombo woodland and mixed open grass savannah. Recently burnt vegetation.

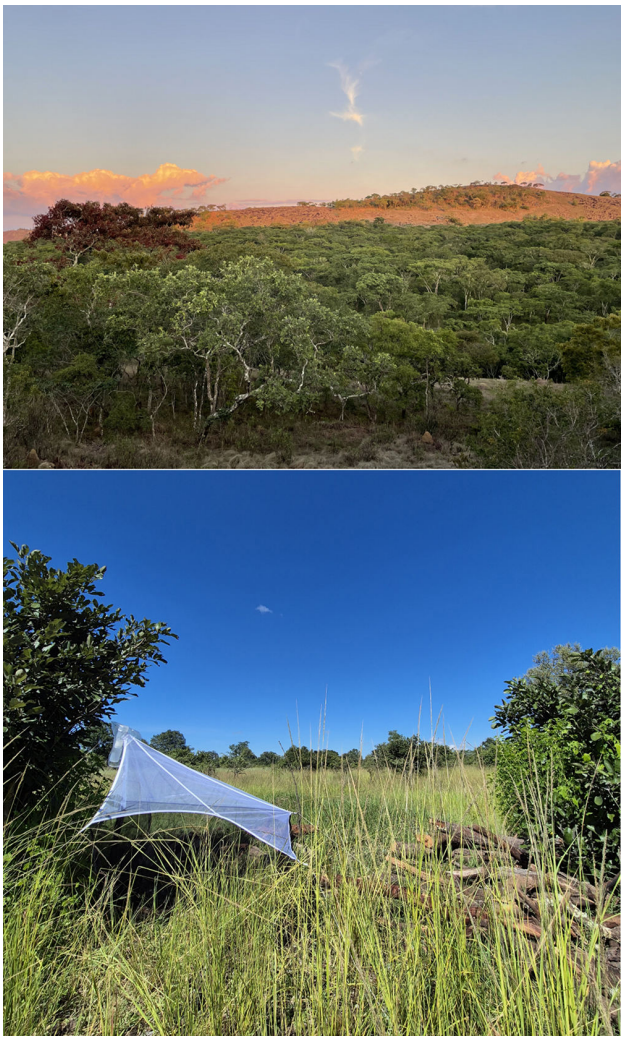


Figure 1. Above: Zambia, Muchinga province, Mutinondo Wilderness Area (Photo by Lauren Morgan); below: Zambia, Kafue National Park, Mayukuyuku Bush camp with Malaise trap (Photo by Lauren Morgan).

3) Zambia, Kafue National Park, Malala river, 15°47'36.7"S 25°48'09.9"W (1045m) - Bucket traps and collecting by hand: River, miombo woodland, open grass savannah patches.

4) Zambia, Kafue National Park, Malala Wilderness Campsite and trails 15°48'05"S 25°50'02"E (1038m) - MV light trap, bucket traps and collecting by hand: Seasonal flood plain, miombo woodland, open grass savannah patches.

5) Zambia, Kafue National Park, Mayukuyuku Bush camp 14°54'54.1"S 26°03'50.1"E (1077m) (Fig. 1) - MV light trap by River. Bucket traps and collecting by hand in miombo woodland and granite boulders.



Figure 2. Above: Zambia, Muchinga province, Makutu Mountains, eastern slope (Photo by Lauren Morgan); below: Zambia, view from top of Makutu Mountains (Photo by Lauren Morgan).

6) Zambia, Mumbwa GMA, Roy's Kafue camp and campsite 14°57'05.4"S 25°54'53.1"E (1076m) - MV light trap by River. Along the riverbank we encountered riverine vegetation. Bucket traps and collecting by hand in miombo woodland and mixed open grass savannah.

7) Zambia, Muchinga province, Makutu Mountains, eastern slope, 10°27'29"S 33°12'21"E (1790m) (Fig. 2) - Bucket traps & collecting by hand: Montane forest / rocky outcrops at peak of mountain / Miombo on the slopes / gallery forest (mushitu) in the gullies.

8) Zambia, Muchinga province, Benyanga village 10°40'41"S 33°27'45"E (1250m) and Kabhaira Hill 10°40'37"S 33°28'11"E (1440m) - MV light trap, bucket trap and collecting by hand: miombo near rocky hill overgrown with dry miombo

9) Zambia, Muchinga province, Jombo village, 10°27'01"S 33°14'30"E (1400m) - MV light trap, bucket trap and collecting by hand: miombo / cane thickets along a stream

10) Zambia, Muchinga province, Muyombe, Mama Muwowo's Lodge 10°32'40"S 33°26'05"E (1230m) - MV light trap, bucket trap and collecting by hand: sand forest / wet grassland.

11) Zambia, Muchinga province, 30 km N Mpika, Danger Hill 11°37'38"S 31°33'56"E (1640m) - MV light trap, bucket trap and collecting by hand: wet grassland (dambo) / gallery forest (mushitu) / sparse woodland (I don't know the type, but it is not miombo, which is supposed to be with dominance of Fabaceae trees).

12) Zambia, Lusaka, Chimbwi Farm 15°16'14"S 28°26'03"E (1119m).

13) Zambia, Eastern province, 48 km N Lundhazi, Lake Beu 11°53'56"S 33°08'51"E (1140m) (Fig. 3) - MV light trap in sand forest. Actinic bucket / LepiLED light trap on the edge of a wet grassland.



Figure 3. Zambia, Eastern province, 48 km N Lundhazi, Lake Beu (Photo by Lauren Morgan).

Study of specimens

Selected specimens or their genitalia and stridulatory apparatus were photographed with a Nikon Coolpix 995 digital camera, mounted on a Wild M3 Stereomicroscope and with an Olympus Stylus TG-5 Tough (cf. Mertens et al. 2017). Photographs were integrated using the freeware CombineZP (Hadley 2008). Identification has been carried out with available literature (cited along the text) and following the web site Orthoptera Species File (https://orthoptera.speciesfile.org/, accessed December 2025).

Abbreviations used in the text

ANHRT: African Natural History Research Trust, Leominster, UK; **BMPC**: Bruno Massa Personal Collection, Palermo, Italy; **CHC**: Claudia Hemp Collection, Bayreuth; **MfN**: Museum für Naturkunde, Berlin, Germany; **MNHN**: Muséum Nationale d'Histoire Naturelle, Paris, France; **MZLU**: Lund Museum of Zoology, Lund, Sweden; **NHM**: Natural History Museum, London, UK; **NRM**: Naturhistoriska Riksmuseet, Stockholm, Sweden; **OSF**: Orthoptera Species File online; **RBINS**: Royal Belgian Institute Natural Sciences, Bruxelles, Belgium.

RESULTS

Fam. Tettigoniidae Krauss, 1902

Subfam. Saginae Brunner von Wattenwyl, 1878

Clonia whalbergi Stål, 1855

Stål C. 1855. Nya Orthoptera. Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlinger, 12, 348–353; type locality: South Africa: Eastern Cape; depository: NRM, Sweden.

Clonia whalbergi maculosa (Walker, 1869) new synonym

Saga maculosa Walker, 1869 in de Saussure H. 1888. Synopsis de la tribu des Sagiens. Orthoptères de la famille des Locustides. Annales de la Société Entomologique de France, 8, 127–160; type locality: Cape of Good Hope; depository: NHM, London.

Material examined. Zambia, Muchinga province, Mutinondo Wilderness Area 15-17.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂) (ANHRT).

Remarks. According to Kaltenbach (1971, 1990) *Clonia whalbergi* is represented by two subspecies: 1) *C. w. whalbergi*, presently known from South Africa, Zimbabwe, Mozambique (provinces Maputo, Sofala, and Manica) and Zambia (Kaltenbach 1971, Naskrecki & Guta 2019, Massa 2022); 2) *C. w. maculosa* (Walker, 1869) known from Zambia via Botswana and western Transvaal to southwestern Africa and the Cape.

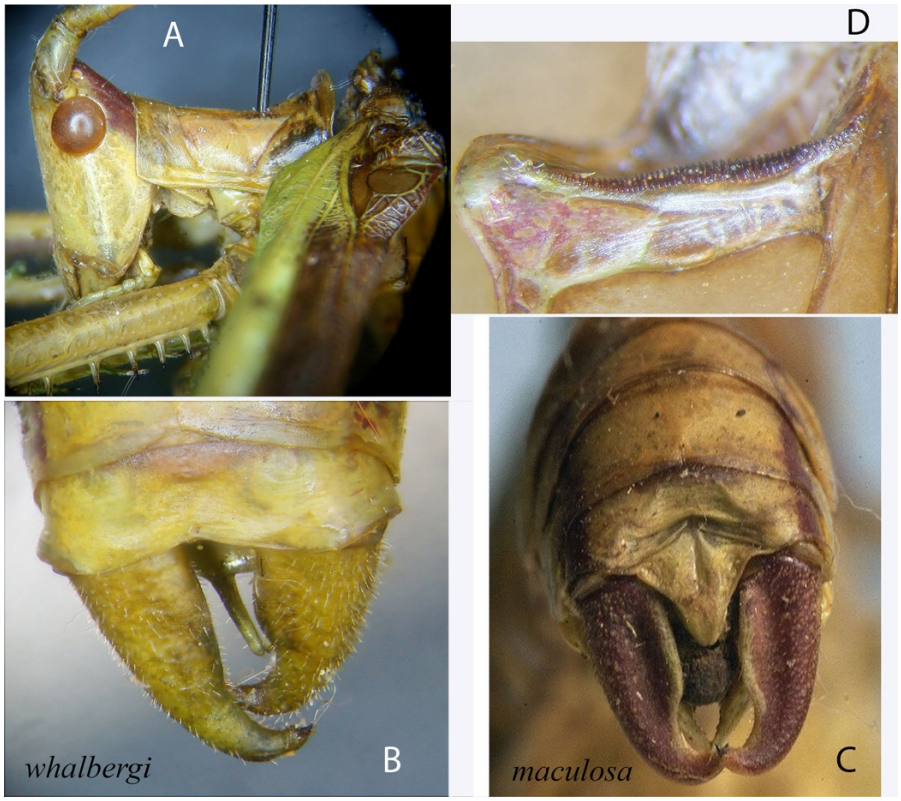


Figure 4. *Clonia whalbergi* Stål, 1855 from Mutinondo Wilderness Area (Zambia). A) lateral view of the head and pronotum; B) dorsal view of male cerci; C) dorsal view of male cerci of the *Clonia whalbergi* subsp. *maculosa* (Walker, 1869) (after OSF); D) stridulatory file under the left tegmen.

Kaltenbach (1971) reports that the subspecies *C. w. maculosa* in all essential characteristics corresponds to the nominal subspecies and is widespread across most of South Africa. The black basal spots on the pronotum disc are much weaker and often indistinct (transitions to the pronotum markings of *C. w. wahlbergi* occur) (Fig. 4A). The paranotal suture is visible beyond the anterior transverse furrow. In individual specimens, identification is difficult in borderline cases and impossible without comparative material. Elytra of male 6.8 to 8.8, of female 6.2 to 7.9, ovipositor 2.8 to 4.0 times as long as pronotum (cf. also measurements in Naskrecki & Guta 2019). Spines on the femora are as in the nominate species, and no differences are detectable in the shape of the cerci (Figs. 4B, 4C). Additionally, the distribution of the two subspecies overlaps in South Africa, Eastern Cape.

Given the insignificant differences between the two taxa, it is appropriate to consider *Clonia whalbergi maculosa* (Walker, 1861) junior synonym of *Clonia whalbergi whalbergi* Stål, 1855; thus *Clonia whalbergi* results a monotypic taxon.

Stridulatory file. It consists of approximately 60 teeth, whose length is 2.1 mm, that are more or less equidistant, shorter at both ends (Fig. 4D).

Subfam. Phaneropterinae Burmeister, 1838

Tribe Oxyecoini new

Since Chopard (1935) does not provide the etymology of the word *Oxyecous*, its origin must be interpreted. It could be the synthesis of Οξύς = sharp and ήχος (echo) = continuous sound or returning sound. There is another term reported by Homer, ὀξὺἀκούειν, referring to those who have perfect hearing, but if this were the case, the translation into *Oxyecous* would be incorrect due to the replacement of the a with the e (H. Tsolakis, pers. comm.). According to the Article 29.3.1 of the ICZN (1999), if the genus name is a Latinization of the Greek Oxyekos, then Oxyeko- must be used as the base, and therefore the correct name for the tribe should be Oxyecoini (A. Ballerio, pers. comm.).

Type genus: *Oxyecous* Chopard, 1935

When Chopard (1935) described the genus *Oxyecous* considered it related to *Weissenbornia* Karsch, 1888, presently belonging to the tribe Preussiini Karsch, 1890. He highlighted the following unique characters: inner tympanum of fore tibiae covered by a large rounded protruding blade in the male, much sorter in the female, fore coxae with a small lamellar extension, fore femora flattened, frontal rostrum between antennae (see also Ragge 1956a). The uniqueness of these characters justifies the establishment of a separate tribe.

Characters of the tribe Oxyecoini are: fastigium verticis much narrower than first antennal segment, prominent as a small rostrum above the fastigium of frons, face smooth without fronto-genal carinae, eyes round, prozona of pronotum narrower than head (reason for which the genus *Angustithorax* Massa, 2015 has been described, presently synonym of Oxyecous: Nakrecki & Guta 2019), large central ocellus, lamellar anterior coxal spine, presence of plectrum on right tegmen, diffuse hairiness on the body, fore femora flattened, spines on lower margins of fore and mid femora, hind femora with few small spines, tympanum of fore tibia closed with a large operculum or open without operculum, tegmina longer than wings, ovipositor normal.

While the males and the females of *Oxyecous lesnei* Chopard, 1935 have closed tympana on inner fore tibiae (Fig. 5C), the males and females of *Oxyecous apertus* Ragge, 1956 and *O. magnus* Ragge, 1956 have open tympana (Fig. 5G). This is an interesting case of species belonging to the same genus in which some of them have closed inner tympana in the fore tibiae, others have open tympana. This could be evidence that, from a systematic point of view, the shape of the tympana of fore tibiae has no value.

Oxyecous lesnei Chopard, 1935

Chopard L. 1935. Memórias e Estudos do Museu Zoológico da Universidade de Coimbra, 85, 43 pp.; type locality: Mozambique, Manica, Mont Malenge region, Vandouzi; Depository: MNHN, Paris.

Material examined. Zambia, Kafue National Park, Chunga gate 11-15.III.2025, Lepiled Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂); Zambia, Kafue National Park, Chunga gate 11-15.III.2025, Actinic Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂); Zambia, Kafue National Park, Malala river 17-19.III.2025, Actinic Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂) (ANHRT).

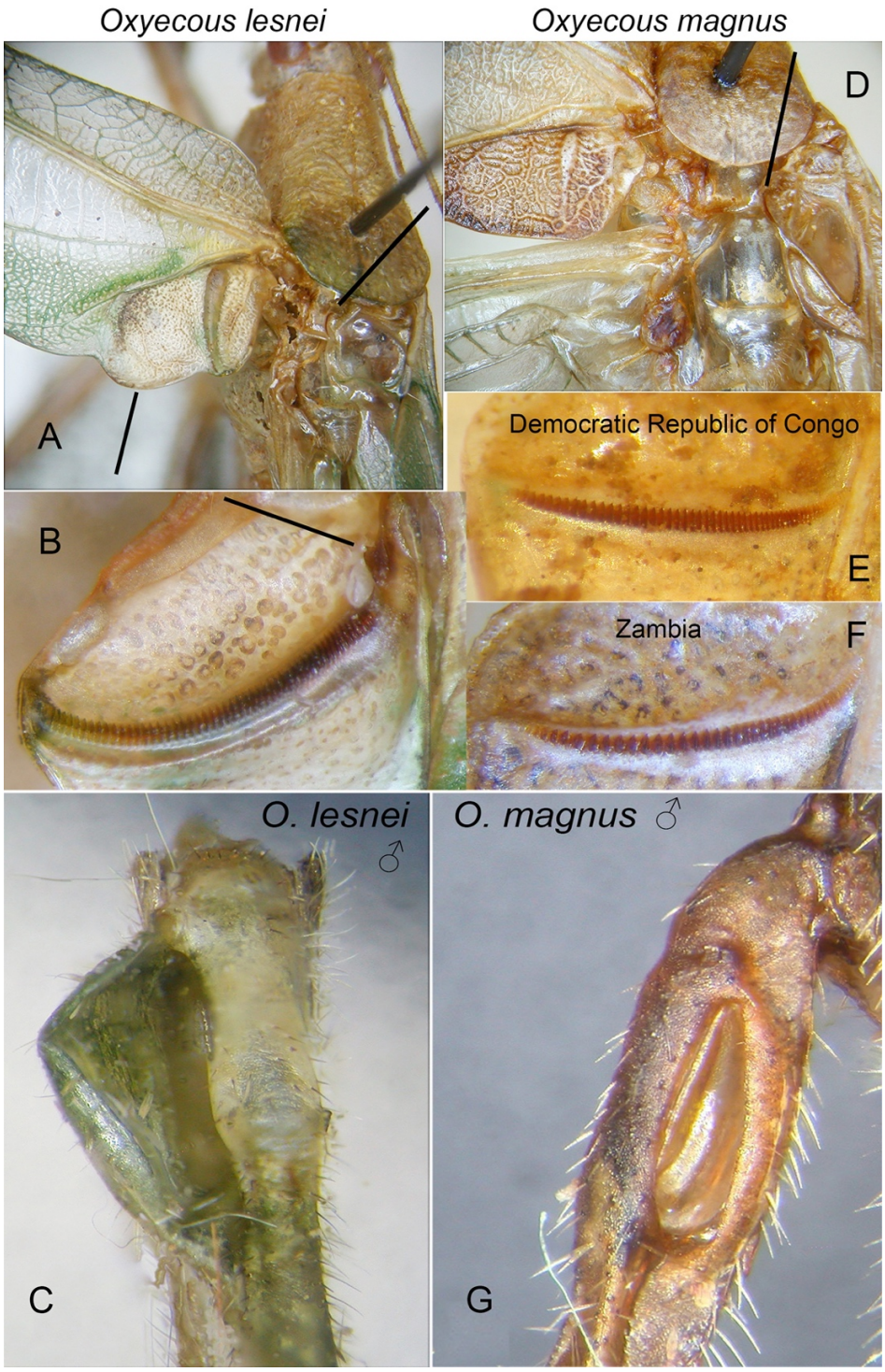


Figure 5. *Oxyecous lesnei* Chopard, 1935 and *O. magnus* Ragge, 1956 from Zambia. A) dorsal view of stridulatory area of *O. lesnei* (the upper indicator points at the plectrum, the lower one the basal lobe of left tegmen); B) stridulatory file of *O. lesnei* under the left tegmen (the indicator points at the isolated inner big tooth); C) closed tympanum on male fore tibia of *O. lesnei* with the characteristic large ear-flap; D) dorsal view of stridulatory area of *O. magnus* (the indicator points at the plectrum); E) stridulatory file under the left tegmen of *O. magnus* collected in the Democratic Republic of Congo; F) stridulatory file of *O. magnus* collected in Kafue National Park, Zambia; G) open tympanum on male fore tibia of *O. magnus*.

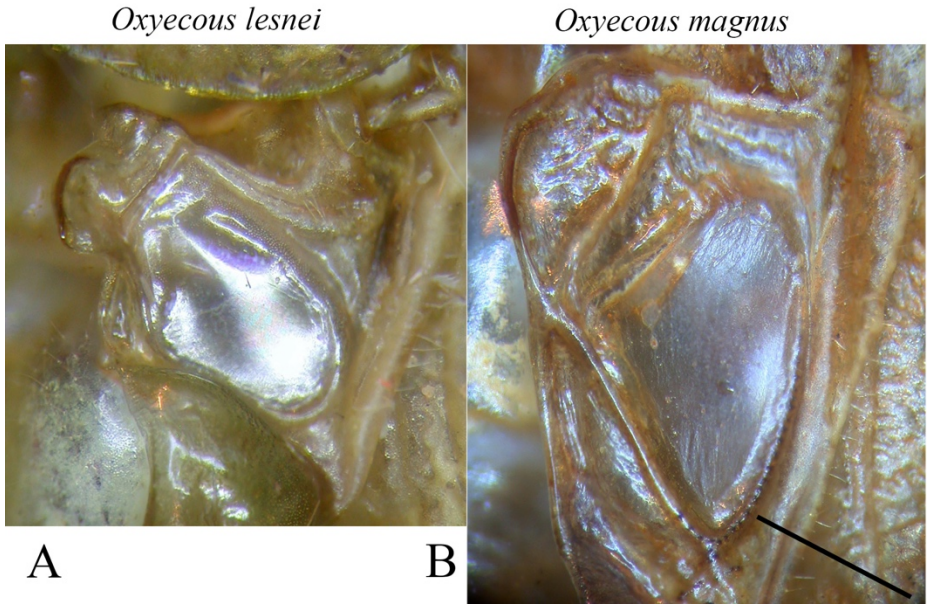


Figure 6. Mirror on the right tegmen of *Oxyecous lesnei* (A) and *O. magnus* (B). The black line points at small teeth on the right of mirror.

Distribution. Mozambique, Democratic Republic of the Congo, Zambia, Zimbabwe, Malawi, and South Africa (Naskrecki & Guta 2019).

Remarks. The male of this species is very characterized by the large operculum (called 'ear-flap' by Ragge 1956a) on inner tympanum of fore tibiae, a basal lobe on the left tegmen, and the transparent region near the base of the right tegmen. Its stridulatory file is very peculiar, consisting of ca. 60 arched and regularly spaced teeth, the last tooth is similar to a hook, longer and bigger than previous ones; it probably produces a sound similar to a click rubbing against the particular relief present on the right tegmen, on the left of mirror, which probably functions as a plectrum (Figs. 5A, 5B, 5C, 6A). A transparent region on the right tegmen is present also in the male *O. apertus*, but it is not present in *O. magnus* and *O. undulatus* Ragge, 1956.

Oxyecous magnus **Ragge, 1956**

Ragge D.R. 1956. Proceedings of the Royal Entomological Society of London (B), 25, 183–190; type locality: Tanzania, Morogoro Region, Kilosa; depository: NHM, London.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂) (ANHRT).

Distribution. It is known from Democratic Republic of Congo, Tanzania, Mozambique and Zambia (Naskrecki & Guta 2019, Massa 2021).

Remarks. The shape and the size of the mirror on the right tegmen of *O. magnus* differs from that of *O. lesnei*, and on the left of mirror it is present a similar relief (plectrum) observed on the right tegmen of *O. lesnei* (Figs. 5D, 6B). Additionally, on the right of the mirror about 20 teeth are present, possibly also involved in the stridulation (Fig. 6B, arrow). The stridulatory file is much simpler than that of *O. lesnei*, consisting of approximately 40 regularly spaced teeth; no substantial differences between the stridulatory files of specimens from the Democratic Republic of Congo and Zambia have been detected (Figs. 5E, 5F) .

Tribe Pardalotini Brunner von Wattenwyl, 1878

Pardalota haasi **Griffini, 1908**

Griffini A. 1908. Mémoires de la Société entomologique de Belgique, 15, 74–86; type locality: Democratic Republic of the Congo, Kananga; depository: RBINS, Bruxelles.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 5-10.III.2025, general collection, M. Bashford, A. Kirk-Spriggs, M. Petricic

(1♂, 1♀); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, banana bait, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀); Zambia, Kafue National Park, Chunga gate 11-13.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀) (ANHRT).

Distribution. Previously known from Democratic Republic of Congo (Griffini 1908, Massa 2017), presently recorded also from Zambia.

Tribe Phaneropterini Burmeister, 1838

***Melidia pif* Massa, 2022**

Massa B. 2022. Fragmenta Entomologica, 54(1), 27–44; type locality: Zambia, Chirundu, Gwabi River Lodge; depository: ANHRT, Leominster, UK.

Material examined. Zambia, Kafue National Park, Malala Wilderness Campsite and trails 16-22.III.2025, MV Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂); Zambia, Kafue National Park, Malala Wilderness Campsite and trails 16-22.III.2025, Lepiled Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♂); Zambia, Kafue National Park, Malala Wilderness Campsite and trails 17-19.III.2025, Actinic Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♂) (ANHRT).

Distribution. Described from Zambia (Massa 2022), now still recorded from other Zambian localities.

***Melidia brunneri* Stål, 1876**

Stål C. 1876. Bihang till Kongliga Svenska Vetenskaps-Akademiens Handlingar, 4(5), 1–58; type locality: Namibia, Erongo, Damaraland; depository: NRM, Sweden.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 6-10.III.2025, Lepiled Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♂); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♀); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, carrion bait trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♀); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, banana bait trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀); Zambia, Kafue National Park, Malala river, 17-22.III.2025, carrion bait trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀); Zambia, Kafue National Park, Malala Wilderness Campsite and trails 16-22.III.2025, MV Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀); Zambia, Kafue National Park, Chunga gate 11-13.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀) (ANHRT).

Distribution. It is known from Namibia, Zimbabwe, South Africa, Mozambique, and Nigeria (Ragge 1980, Naskrecki & Guta 2019, Massa 2022), and newly recorded from Zambia.

***Phaneroptera nigropunctata* Chopard, 1955**

Chopard L. 1955. South African Animal Life; Results of the Lund University Expedition in 1950-1951, 2, 266–300; type locality: South Africa, Cape Province, Drakensbergen; depository: MZLU, Lund.

Material examined. Zambia, Muchinga province, Makutu Mountains, eastern slope 3-4.XII.2023 Actinic Light trap, M. Bashford, G. László, L. Morgan, A. Volynkin (1♂) (ANHRT).

Remarks. Even if the type of this species has many black spots on the body, the Zambian specimen only shows a low number of black markings on the stridulatory area, similar to the specimen collected in Mozambique, illustrated by Naskrecki & Guta (2019); dorsal spines of hind tibiae are of normal size, not as in *P. longispina* Ragge, 1955 (type locality: Mount Ruwenzori, in the border between Uganda and the Democratic Republic of the Congo), which has 20-30 large and widely spaced dorsal spines (Ragge 1956b, 1960); cerci and subgenital plate correspond with those of *P. nigropunctata* (Ragge 1956b, Naskrecki & Guta 2019). The stridulatory area is blackish, the mirror (Fig. 7A) in the Zambian specimen is wider than in *P. sparsa* Stål, 1857. The stridulatory file consists of approximately 60 very small teeth, closely spaced on the inner side and wider and more widely spaced on the central-outer one (Fig. 7B). Cerci are pointed and incurved, and the male subgenital plate has an evident apical concavity (Fig. 7C).

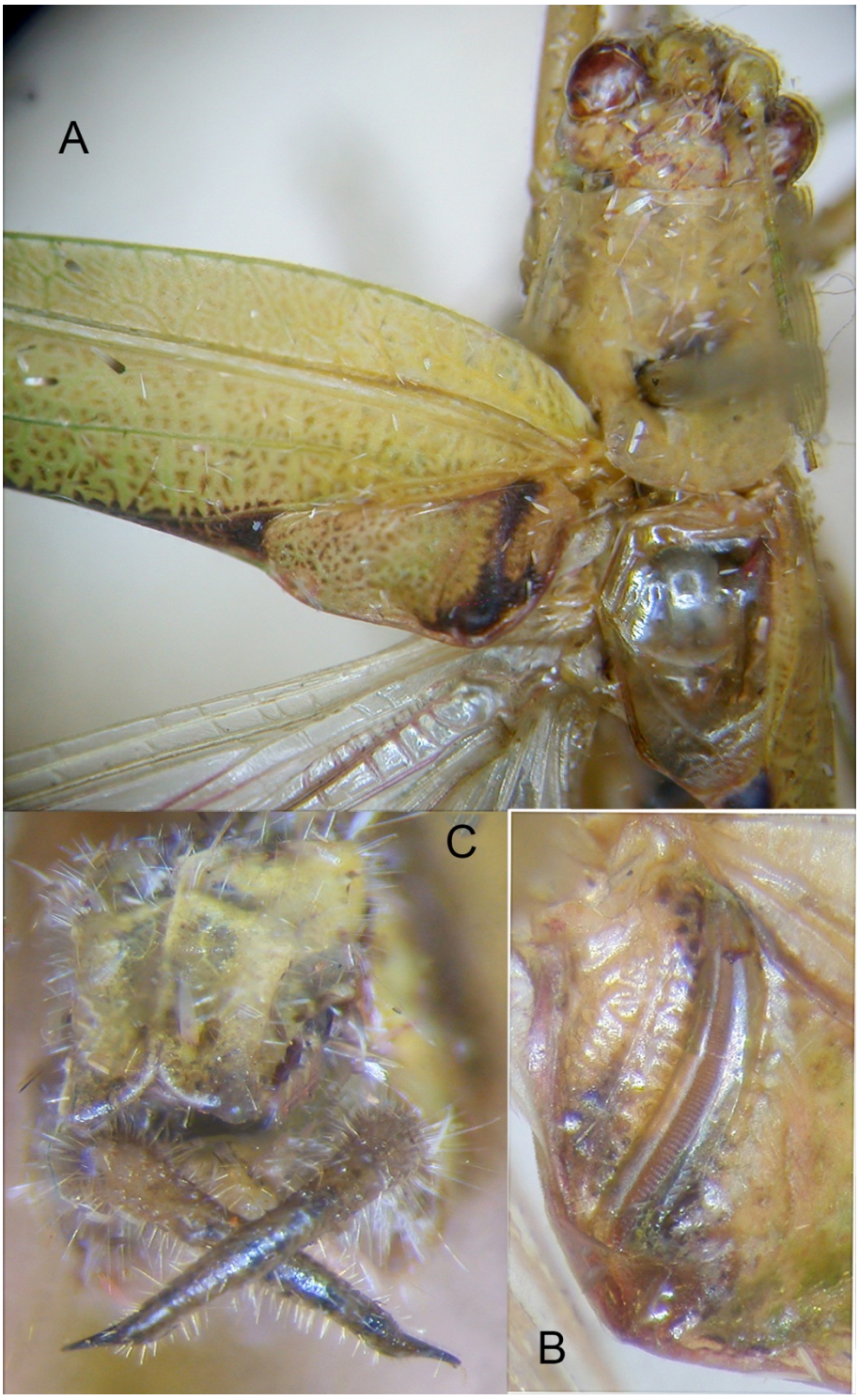


Figure 7. *Phaneroptera nigropunctata* Chopard, 1955 from Makutu Mountains, Zambia. A) dorsal view of the stridulatory area; B) stridulatory file under the left tegmen; C) ventral view of male subgenital plate and cerci.

Distribution. Previously recorded from South Africa (Chopard 1955), Lesotho (Maluti Mountains: Ragge 1956b), and Mozambique (Naskrecki & Guta 2019), now also recorded from Zambia.

***Dannfeltia nana* Sjöstedt, 1902**

Sjöstedt Y. 1902. Bihang till Kongliga Svenska Vetenskaps-Akademiens Handlingar, 27(3), 1–45, pls. I-IV; type locality: Democratic Republic of Congo; depository: NRM, Sweden.

Material examined. Zambia, Muchinga province, Benyanga Vill. 28.XI.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Benyanga Vill. 7-12.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Jombo vill., 30.XI-5.XII.2024, MV Light trap, M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Jombo vill. 30.XI-5.XII.2024, general coll., M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (1♀) (ANHRT).

Distribution. It is presently known from Democratic Republic of Congo (holotype), Mozambique, Gabon, Central African Republic, and Ivory Coast (Massa 2021, 2022), and newly recorded from Zambia.

Tribe Amblycoryphini Brunner von Wattenwyl, 1878

***Plangia geroi* Massa, 2022**

Massa B. 2022. Fragmenta Entomologica, 54(1), 27–44; type locality: Zambia, Sinazongwe, Lakeview Lodge; depository: ANHRT, Leominster, UK.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 4-10.III.2025, MV Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, carrion bait, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀) (ANHRT).

Distribution. Presently known only from Zambia.

Tribe Acrometopini Brunner von Wattenwyl, 1878

***Horathosphaga scalata* Hemp, 2019**

Hemp C. in: Hemp C. & Heller K.-G. 2019. Zootaxa, 4671(2), 151–194; type locality: Tanzania, Dodoma Region, Bahi District, East Chenene Forest Reserve; depository: CHC, Bayreuth.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 6-10.III.2025, Actinic Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♂); Zambia, Kafue National Park, Mayukuyuku Bush camp 5-9.III.2025, general coll., M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀); Zambia, Mumbwa GMA, Roy's Kafue camp and campsite 13-15.III.2025, Malaise trap, M. Bashford, A. Kirk-Spriggs, M. Patricic (1♂); Zambia, Kafue National Park, Chunga gate 11-15.III.2025, Actinic Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (2♂); Zambia, Kafue National Park, Chunga gate 11-15.III.2025, Lepiled Light trap, M. Bashford, A. Kirk-Spriggs, M. Petricic (1♂, 1♀) (ANHRT).

Distribution. Known from Tanzania and Zambia (Hemp & Heller 2019, Massa 2022).

***Horatosphaga hemporum* Massa, 2021**

Massa B. 2021. Annales de la Société Entomologique de France, 57(1), 29–76; type locality: Zambia, North-Western Province, Nyangombe Falls; depository: ANHRT, Leominster, UK.

Material examined. Zambia, Muchinga province, Benyanga Vill., 10°40'41"S 33°27'45"E (1250m) 7-12.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (23♂); Zambia, Muchinga province, Benyanga Vill. 7-12.XII.2023, Actinic Light trap, G. László, L. Morgan, A. Volynkin (8♂); Zambia, Muchinga province, Benyanga Vill. 7-12.XII.2023, Lepiled Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Muyombe, Mama Muwowo's Lodge 6-7.XI.2023, Actinic Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, 30 km N Mpika, Danger Hill 13-15.XII.2023, Actinic Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Jombo vill. 30.XI-5.XII.2024, Actinic Light trap, M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Jombo vill. 30.XI-5.XII.2024, MV Light trap, M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (2♂); Zambia, Muchinga province, Kabhaira Hill 9-11.XII.2023, Actinic Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Lusaka, Chimbwi Farm 18-26.IV.2023, MV Light trap, W. Miles (3♂); Zambia, Muchinga province, Mutinondo Wilderness Area 15-17.XII.2023, Actinic Light trap, G. László, L. Morgan, A. Volynkin (11♂); Zambia, Muchinga province, Mutinondo Wilderness Area 15-17.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂) (ANHRT).

Distribution. Presently known only from Zambia (Massa 2021).

Subfam. Conocephalinae Kirby & Spence, 1826

Tribe Copiphorini Karny, 1912

***Pseudorhynchus pungens* (Schaum, 1853)**

Conocephalus pungens Schaum H.R. 1853. Bericht über die zur Bekanntmachung geeigneten Verhandlungen der königlich Preussischen Akademie Wissenschaften zu Berlin, 2, 775–780; type locality: Mozambique; depository: MfN, Berlin.

Material examined. Zambia, Lusaka, Chimbwi Farm 18-26.IV.2023, MV Light trap, W. Miles (1♀); Zambia, Muchinga province, Muyombe, Mama Muwowo's Lodge 6-7.XI.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (2♂, 1♀); Zambia, Muchinga province, Jombo vill. 30.XI-5.XII.2024, MV Light trap, M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (1♀); Zambia, Muchinga province, Benyanga Vill. 7-12.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♀) (ANHRT).

Remarks. The long basal spine on the cerci easily allows the distinction from *P. lanceolatus* (Fabricius, 1775), which, however, is bigger in size (body length according to Ragge, 1969: *P. lanceolatus*: ♂♂ 63.2-81.0; ♀♀ 72.5-89.4; *P. pungens*: ♂♂ 41.6-62.8; ♀♀ 50.4-71.9); Ragge (1969) has also highlighted the differences in the stridulatory file under the left tegmen (see Fig. 8).

Distribution. *P. pungens* is widespread in tropical Africa with three subspecies based only on the presence of black markings or spots, whose taxonomic value is certainly to be reconsidered in the future. It is already known from Zambia (Ragge 1969, Hemp 2021).

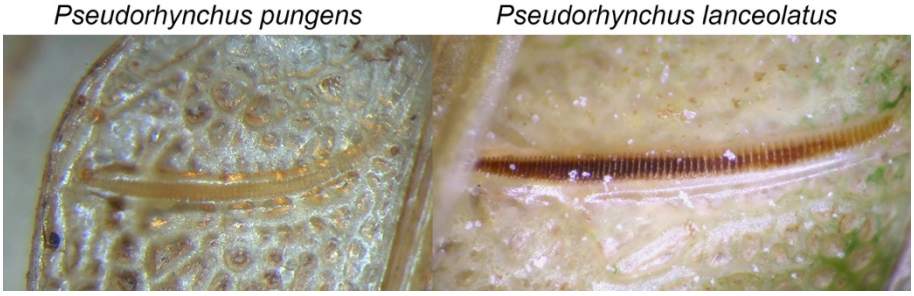


Figure 8. A) stridulatory file under the left tegmen of *Pseudorhynchus pungens* (Schaum, 1853) from Zambia; B) stridulatory file of *P. lanceolatus* (Fabricius, 1775) from Mozambique.

Subfam. Hetrodinae Brunner von Wattenwyl, 1878

Tribe Enyaliopsini Weidner, 1955

***Enyaliopsis petersii* (Schaum, 1853)**

Hetrodes petersii Schaum H.R. 1853. Bericht über die zur Bekanntmachung geeigneten Verhandlungen der königlich Preussischen Akademie Wissenschaften zu Berlin, 2, 775–780; type locality: Mozambique; depository: MfN, Berlin.

Material examined. Zambia, Muchinga province, Benyanga Vill. 7-12.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Muchinga province, Mutinondo Wilderness Area 15-17.XII.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (1♂); Zambia, Eastern province, 48 km N Lundhazi, Lake Beu 11°53'56"S 33°08'51"E (1140m) 26-27.XI.2023, general coll., M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (2♂, 1♀); Zambia, Muchinga province, Muyombe, Mama Muwowo's Lodge 29-30.XI.2023, MV Light trap, G. László, L. Morgan, A. Volynkin (2♂); Zambia, Muchinga province, Jombo vill. 30.XI-5.XII.2024, MV Light trap, M. Bashford, A. Collins, G. László, L. Morgan, A. Volynkin (1♂) (ANHRT).

Other material examined. Zambia NW, 150 km S of Mwinilunga 2.X:2008, Snizek (1♀); Zambia NW, Kasema, E of Mufumbwe 5.XI.2008, Snizek (1♀) (BMPC).

Remarks. The genus *Enyaliopsis* Karsch, 1887 is related to *Gymnoproctus* Karsch, 1887, which has 4 to 6 spines on the prozona, and 6 to 8 on the metazona of pronotum, while *Enyaliopsis* has 6 spines on the prozona and 11 on metazona margin; in addition, the

paired anterior spines of *Gymnoproctus* are widely separated (Glenn 1991), and a spine is present above the pronotum stigma in *Enyaliopsis*, absent in *Gymnoproctus* (Weidner 1941, Hemp 2021). *E. petersii* (Schaum, 1853) (type locality: Mozambique), *E. guilielmi* Sjöstedt, 1926 (type locality: Rwanda), *E. nyasa* Glenn, 1991 (type locality: Malawi) and *E. bloyeti* (Lucas, 1885) (type locality: Tanzania) have folded and blunt titillator (not bifid) (Glenn 1990), but the shape of male and female subgenital plates suggest that Zambian specimens belong to *E. petersii*.

The stridulatory file under the left tegmen consists of ca. 40 evenly spaced teeth (Fig. 9A) rather similar to that reported in Orthoptera Species File online (Cigliano et al. 2025) (Fig. 9B), while that of under the right tegmen consists of less than 20 evenly spaced teeth (Fig. 11C); titillator (Fig. 9) corresponds to the drawing of Glenn (1991) (Fig. 9E). Also subgenital plates of male (Fig. 9F) and female (Fig. 9G) are very similar to the drawings of Glenn (1991), while the ovipositor looks alike that of *E. iaculator* Naskrecki & Guta, 2019 from Mozambique, whose other characters, however, differ from those of present Zambian specimens.

Distribution. Previously known from Mozambique, not recorded from Zambia.

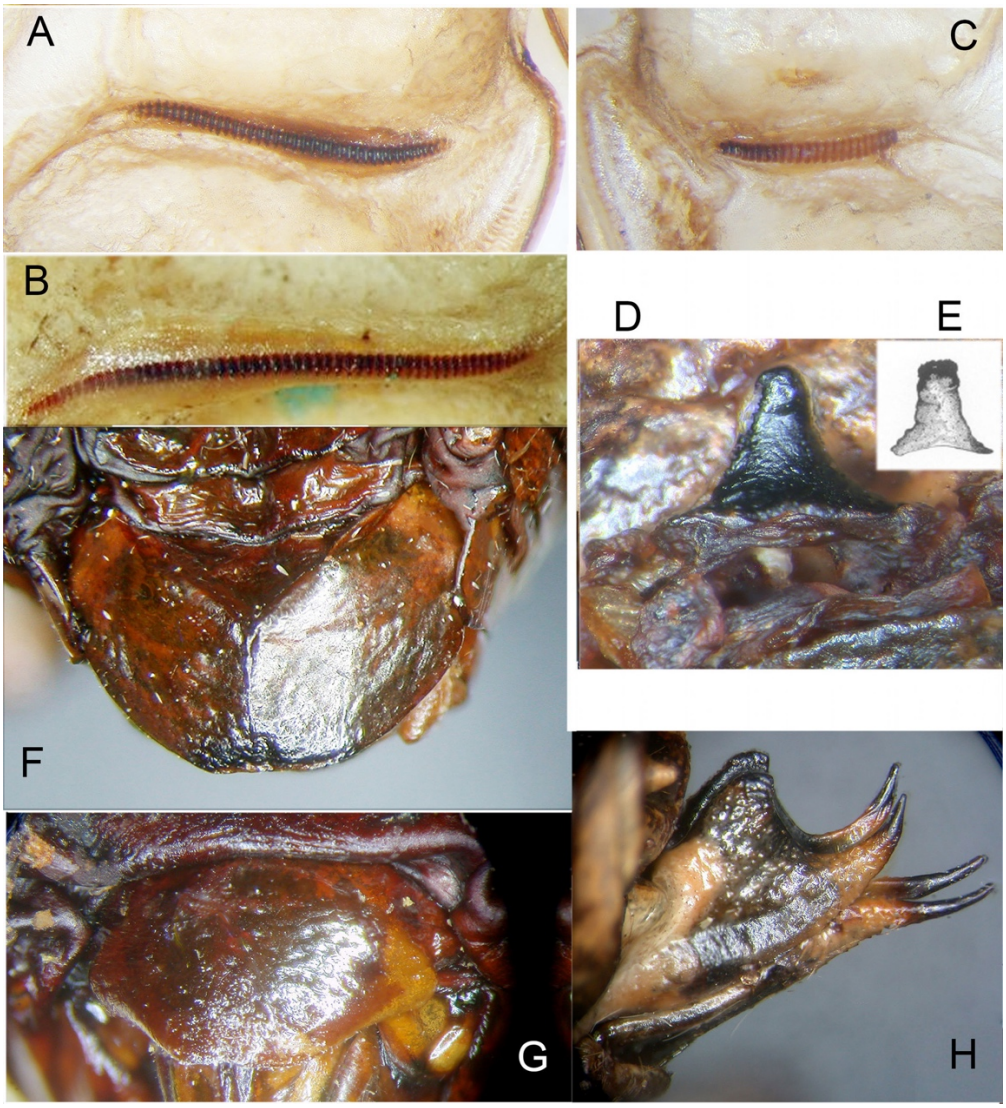


Figure 9. *Enyaliopsis petersii* (Schaum, 1853) from Zambia. A) stridulatory file under the left tegmen; B) the same after OSF online; C) stridulatory file under the right tegmen; D) frontal view of titillator of a specimen from Zambia; E) titillator in a drawing of Glenn (1991); F) ventral view of male subgenital plate; G) ventral view of female subgenital plate; H) lateral view of ovipositor.

Fam. Pamphagidae Burmeister, 1840

Subfam. Porthetinae Bólivar, 1916

Of the 12 genera belonging to the subfamily Porthetinae (excluding the tribe Trachypetrellini Uvarov, 1943), the females are always wingless, while the males can be fully winged or brachypterous. In all species belonging to seven genera examined by Massa (2020), the Krauss plate is more or less wrinkled; at the same time, the inner part of the hind femur has ridges or rows of bristles that rub against the plate and produce a faint sound (however, this is not the only source of sound emission in Porthetinae). In the case of *Cultrinotus* Bolívar, 1915, Massa (2012, 2020) examined only the male sex, finding no specialization on the inner side of the hind femora. The female listed below, on the other hand, has a wrinkled Krauss plate and the inner part of the hind femurs with evident ridges (Fig. 10). This suggests that in females of this genus, the Krauss plate has a role that it cannot have in males, possibly to attract the opposite sex. This sexual difference has not previously reported for the African subfamily Porthetinae and would suggest that it is the female that emits sounds to attract the male. Considering that in at least 7 of the 12 genera, a specialization in the hind femurs of males and females has been detected, while in *Cultrinotus* it is present only in females, it is possible that the femur character evolved primarily in females and subsequently in males, and therefore *Cultrinotus* could be one of the most ancestral genera of the subfamily Porthetinae.

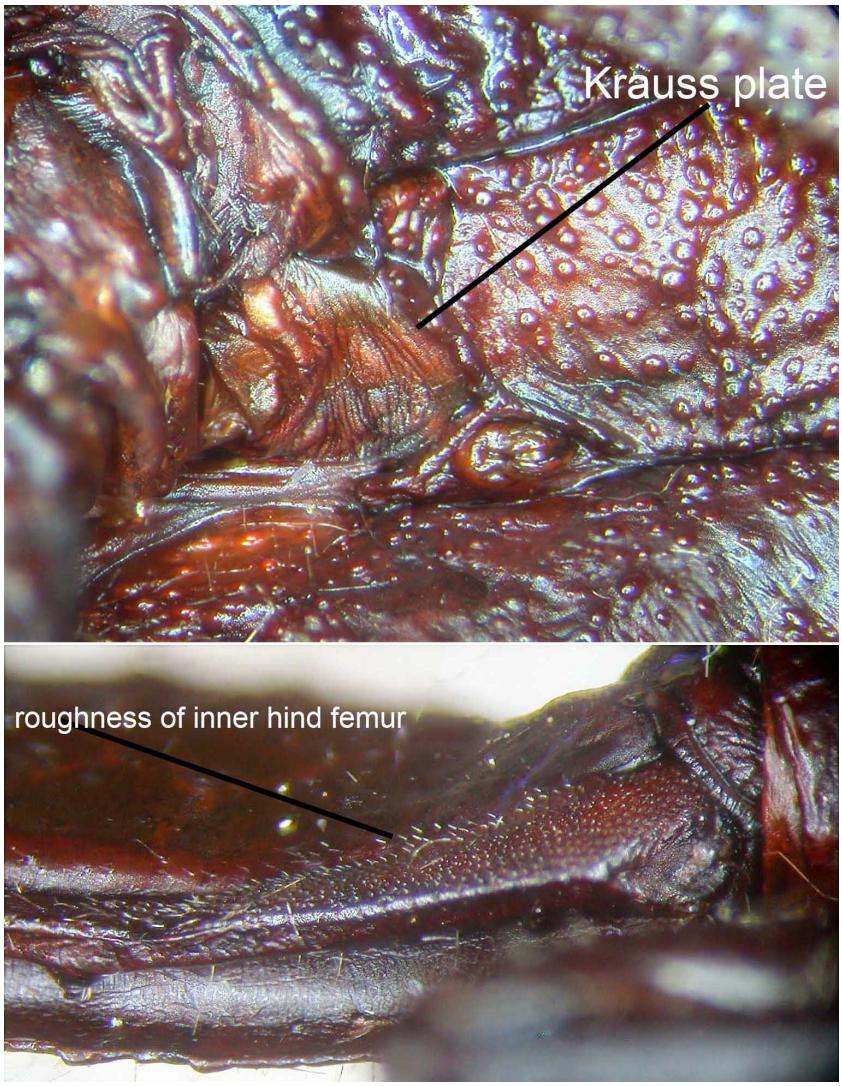


Figure 10. Female of *Cultrinotus poultoni*; above: the clearly striated Krauss plate; below: the inner side of hind femur with numerous reliefs certainly used to rub them on the Krauss plate.

***Cultrinotus poultoni* Bólivar, 1915**

Bólivar I. 1915. Boletín de la Real Sociedad Española de Historia Natural, 15, 86–90; type locality: Zimbabwe, Harare, Salisbury District; depository: NHM, London.

Cultrinotus luanensis Uvarov, 1953, new synonym

Uvarov B.P. 1953. Transactions Congress Entomology Amsterdam, 2, 157–159; type locality: Zambia, Lusaka, Luano Valley; depository: NHM, London.

Material examined. Zambia, Kafue National Park, Mayukuyuku Bush camp 5-10.III.2025, general coll., M. Bashford, A. Kirk-Spriggs, M. Petricic (1♀) (ANHRT).

Remarks. The genus *Cultrinotus* Bólivar, 1915 presently include three species. The male of *C. apicalis* (Walker, 1870) is long-winged and is known from "East Tropical Africa", while males of *C. poultoni* and *C. luanensis* Uvarov, 1953 are brachypterous, with vestigial hind wings; females are apterous. According to Dirsh (1958) only a few differences in the shape of pronotum, fastigium and antennal segments exist to separate the two species, and Willemse (1994) noted a high similarity in the types of the two species. Massa (2020), studying some specimens from Mozambique found that they resulted to be similar to both *C. poultoni* and *C. luanensis*, and considered reasonable to propose the synonymy between *C. poultoni* Bolívar, 1915 and *C. luanensis* Uvarov, 1953. The present specimen from Zambia, identified as *C. poultoni*, further demonstrates the identity of the two species and therefore their synonymy is reiterated here.

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