

Distributional and nomenclatural notes on some African Eumolpinae (Insecta: Coleoptera: Chrysomelidae)

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Abstract

New distributional data are provided for the following African Eumolpinae species: *Microeurydemus africanus* (Jacoby, 1900), *Afroeurydemus hopei* (Bryant, 1938), *A. nubiensis* (Harold, 1877), *A. parvomaculatus* Zoia, 2019, *Menius subcostatus* Jacoby, 1893, *Phasacus pallidus australis* Zoia, 2019, *Melindea denticrus* (Burgeon, 1941), *Heteraspis costata* (Jacoby, 1894), *Pseudedusia fulvipes* Jacoby, 1898, *Pseudocolaspis cupreofemorata cupreofemorata* Jacoby, 1900.

The following nomenclatural changes are provided: *Microeurydemus fasciolatus* new combination for *Liniscus fasciolatus* Fairmaire, 1893; *Syagrus irides-cens* Pic, 1940 new synonym of *Zohrana sansibarica* (Lefèvre, 1885); *Colasposoma viridinotatum* new name for *C. collare* Zoia, 2020, non Achard, 1923

Key words: Afrotropical Region, Eumolpinae, distributional data, new synonym, new name, new combination

Introduction

The present contribution deals with some species of African Eumolpinae from the collections of the Naturkundemuseum Erfurt, with the addition of several specimens belonging to my own and a few other collections. The examined material, although referred to a few species only, highlighted once more our low level of knowledge about the distribution of Afrotropical taxa.

Some nomenclatural changes are provided, to fix an incorrect genus attribution, a synonymy and a homonymy.

Material and methods

The studied specimens are preserved dry, glued on mounting cards or pinned, and belong to the following collections:

JBcoll	Jan Bezdek collection (Brno, Czech Republic)
MSNG	Museo Civico di Storia Naturale “G. Doria” (Genoa, Italy)
NME	Naturkundemuseum Erfurt (Germany)
RBINS	Royal Belgian Institute of Natural Sciences, Brussels
SZcoll	Stefano Zoia collection (Milan, Italy)

Photographs of type specimens of the taxa discussed in the present study are provided on the Author’s website: http://www.chrysomelidae.it/afr_Eum

Locality data are here reported as they appear on the specimen labels.

Microeurydemus africanus (Jacoby, 1900)

Pseudosyagrus africanus Jacoby, 1900: 228

Examined material. Kenya: Kenya SE, SW of Voi, 8–12.12.2009, M. Snížek lgt. (1 ex. SZcoll); **Tanzania:** Tanzania bor., Mombo or., 9–11.1.1996 lgt. M. Snížek (1 ex. SZcoll). **Botswana:** 21°21'06.1"S 23°40'16.9"E, Central Kalahari Game Reserve, Sunday Pan, Sand/Trockensavanne, 17.02.2018, 971 m üNN, leg. Schnitter BO 10 LF (9 exx. NME; 2 exx. SZcoll); Botswana bor., Maun 2–15.1.1994 Island Safari Lodge env., Lgt. Snížek (1 ex. SZcoll). **South Africa:** Northern Transvaal, 9.2.2003, Ganzakulu reg., Groot Letaba riv., cross R–529, lgt. M. Snížek (1 ex. NME); Maputoland, SW of Emangusi, 29.1.2003, lgt. M. Snížek (1 ex. NME); N Transvaal, Mmabolela estate 22,40S – 8,15E, 6.3.1973; E-Y: 16 mercury vap. light, leg. Endrödy-Younga (1 ex. ZScoll); Kruger Nat. Pk, Lower Sabie 16 km SW, 25.10 S – 31.47 E, 22.2.1995; E-Y: 3114, UV light & trap, leg. Endrödy-Younga (1 ex. SZcoll); O.F.S., Orange riv., S of Philippolis, 26.12.2007, lgt. M. Snížek (1 ex. SZcoll).

Notes. The species is widely distributed in southern and eastern Africa. Described from “Matabeland, near Tati” (northeastern Botswana), it was subsequently reported from Saudi Arabia (MEDVEDEV 1996), Yemen,

Eritrea and Sudan (SELMAN 1973), Chad (SELMAN 1963), Namibia (BRYANT 1959). *M. africanus* is here recorded for the first time from Kenya, Tanzania and South Africa. The recent detection in Somalia of an undescribed taxon, morphologically very close to *M. africanus* but distinct in aedeagal characters, suggests a need to confirm the presence of the species in its northeastern distributional area by examination of further material.

***Microerydemus fasciolatus* (Fairmaire, 1893) n. comb.**
Liniscus fasciolatus Fairmaire, 1893: 155

Notes. A specimen labelled “Somalia Ouebbi Dr Keller [handwritten] – *Liniscus fasciolatus* Fairm. typ Somalis [handwritten] – det. Fairmaire 1893 – Type” is preserved in the RBINS (a photograph is provided by Zoia: http://www.chrysomelidae.it/afr_Eum/Zohrana%20fasciolata.html) and must be considered a Syn-type. For sure, Fairmaire (1893) had the opportunity to examine more than one specimen, as he briefly described the variability in the elytral coloration. However, no further specimens have yet been detected in the same or other collections that I have had the opportunity to study. The examined specimen agrees well with the original description, and the taxon is here moved to *Microerydemus* based on characteristics of pronotum, the very large tooth of the profemora and the large eyes. This taxon may probably be a synonym of *M. semivittatus* (Jacoby, 1899), which was originally described in *Eurydemus* based on two specimens collected at “Lago Bass Narok” (Lake Turkana at the Ethiopia-Kenya boundary); the synonymy is not here formalized, as it awaits the opportunity to examine further specimens from different localities in the recorded distributional area of *M. semivittatus* (Somalia, Yemen, Saudi Arabia, Chad).

***Afroerydemus hopei* (Bryant, 1938)**
Syagrus hopei Bryant, 1938: 595

Examined material. **Zambia:** Kasempa env., 17.II.2006, lgt. Z. Jindra (2 exx. NME; 2 exx. SZcoll); Lusaka env., 14.I.2006, lgt. R. Kmeco (4 exx. NME; 2 exx. SZcoll); Livingstone, Victoria Falls, 31.XI.1987, R. Mourglia leg. (2 exx. SZcoll). **South Africa:** Maputoland, SE of Ndumo, 24.I.2003, lgt. M. Snížek (1 ex. NME).

Notes. *A. hopei* was described from Hope Fountain (Zimbabwe) and subsequently reported from Congo (SELMAN 1970) and Democratic Republic of Congo (SELMAN 1972). The species is here recorded for the first time from Zambia and South Africa.

***Afroerydemus nubiensis* (Harold, 1877)**
Eurydemus nubiensis Harold, 1877: 100
Eurydemus geniculatus Jacoby, 1904: 250
Afroerydemus nubiensis Selman, 1965: 151

Examined material. **Ethiopia:** Oromia st., 25 km SE Mega, 1400 m, N 03°55'37" E 38°26'53" leg. J. Halada 15.4.2016 (3 exx. NME, 1 ex. SZcoll); Oromia st. S of Umer alt. 1200 m, N 06°54'20" E 40°51'03" leg. J. Halada 20.IV.2016 (1 ex. NME); Oromia st. Wachile env. alt. 1070 m, N 04°32'34" E 39°03'08" J. Halada leg. 16.4.2016 (1 ex. NME); SNNRP st. 20 km SE Konso, 850m, N 05°15' E 37°32' leg. J. Halada 13.4.2016 (4 exx. NME, 2 exx. SZcoll); Chencha prov., secondary forest 5 km SW from Arba Minch, 5°58,139'N 037°32,329'E, 19.vi.2011, V. Hula leg. (14 exx. SZcoll); Oromia region, 6 km NW Dolomena (H = 1.400 m) IV.2017 leg. R. Beck (1 ex. SZcoll); Ethiopia (S) Mago N.P. V.2013 leg. R. Beck & R. Wanninger (2 exx. SZcoll); Gamo Gofa, V.2008 30 km S Arba Minch, Lake Chamo 1150 m, R. Beck, G. Riedel (1 ex. SZcoll); Ethiopia, Bale Prov., Sof Omar 2–4.v–2003 B. Malec leg. (2 exx. JBColl.). **Somalia:** Belet Amin (Giuba) Apr. 1923 Patrizi (num. exx. MGE, 4 exx. SZcoll); Bidi-Scionde, Basso Giuba, Patrizi 1924 (num. exx. MGE; 2 exx. SZcoll); Jach Sciumo (Giuba), Patrizi 1923 (1 ex. SZcoll). **Kenya:** Kenya NE, S of Garissa, 40 km N of Bura, Snížek 25.4.2011 (1 ex. SZcoll); S of Garissa, Bura env., Snížek 4.12.2010 (2 exx. SZcoll); Kenya NE, S. of Garissa, 10 km S of Hola, Snížek 27.4.2011 (7 exx. SZcoll); Coast E of Garsen, W of Witu, Snížek 7.12.2010 (1 ex. SZcoll); Kenya SE, Voi, S Foot Sagala Mts 12.12.2007 Lgt. Snížek (3 exx. SZcoll). **Zambia:** Zambia NE, 240 km SE Mansa 25 km SE Mukuku 29.11.2004 Snížek (1 ex. NME). **South Africa:** Kap prov., Karoo, Graaf-Reinet Camp, 32°14'S 24°32'E, 500 mNN, 29.XI-01.12.1996, leg. M. Hartmann (1 ex. SZcoll).

Notes. *A. nubiensis* was described from Sennar (Sudan) and subsequently recorded from other localities of Sudan (SELMAN 1973), southern Kenya (WEISE 1910),

Tanzania (WEISE 1913) and Mozambique (WEISE 1910, CLAVAREAU 1914). The species is actually widely diffused in Central-Eastern Africa and it is here reported for the first time from Ethiopia, Somalia, Zambia and South Africa.

Afroeurymedus parvumaculatus Zoia, 2019

Syagrus quadrimaculatus Pic, 1940: 7

Afroeurymedus parvumaculatus Zoia, 2019a: 6

Examined material. **Botswana:** Nata, Kubu Island, Salzpfanne (Sowa Pan), 20°53'23.5"S 25°49'27.2"E, 14.02.2018, 913 m üNN, leg. Schnitter BO 07 LF/HF (2 exx. NME; 1 ex. SZcoll).

Notes. The specimens here examined agree in their exoskeletal characteristics with the Lectotype preserved in the Musée National d'Histoire Naturelle, Paris, which is labelled "Mikindani" (Tanzania) (ZOIA 2019a). The taxon is here reported for the first time from Botswana.

Menius subcostatus Jacoby, 1893: 97

Examined material. **Cameroon:** Attogondama, Muni Exp. 28.V.1913, Escherich S.G. (1 ex., SZcoll); Barombi-Stat., Zeuner S. (1 ex. SZcoll). **Equatorial Guinea:** Nkolentangan, XI.07–V.08, G. Treßmann S.G. (1 ex. SZcoll). **Gabon:** Gabon E, Ogooué-Ivindo Prov., Makokou 5–9 km SW, Ivindo NP, Ipassa forest research station (0°30'52"N, 12°48'21"E) 3–4 km around, 18.VI.2016, 480–540 m, primary and secondary lowland rainforest, leg. D. Telnov (1 ex. NME).

Notes. The species was described from Gabon and it is here recorded for the first time from Cameroon and Equatorial Guinea. The specimen from Cameroon does not differ in its exoskeletal and aedeagal characteristics from the other examined specimens.

Zohrana sansibarica (Lefèvre, 1885)

Liniscus sansibaricus Lefèvre, 1885: 130

Syagrus iridescens Pic, 1940: 8 **n. syn.**

Examined material. **Tanzania:** Pwani prov., 4 km E Utete, Kindwitwi at Rufiji river, 35 m, 1–4.12.2014, Martinů lgt. (1 ex. NME); Iringa prov., 20 km E Ilula, 760 m, Msingi school, 26.11.2014, Martinů Ivo lgt.

(1 ex. SZcoll); c. or., 350 m, 60 km N of Morogoro, 6°25.4'S 37°30.4'E, 13.1.2007 leg. F. Kantner (1 ex. SZcoll).

Notes. Both *L. sansibaricus* (www.chrysomelidae.it/afr_Eum/Zohrana%20sansibarica.html) and *S. iridescens* (www.chrysomelidae.it/afr_Eum/Syagrus%20iridescens.html) are described from Zanzibar and types of the two taxa bear the same label "Zanzibar, Raffray". Examination of types preserved in the Museum National d'Histoire Naturelle, Paris, shows that the two names refer to the same species, and I here formalize the synonymy *Zohrana sansibarica* (Lefèvre, 1885) = *Syagrus iridescens* Pic, 1940 **n. syn.**

The name *Zohrana* was introduced by ASLAM (1968) to correct the homonymy of *Liniscus* Lefèvre, 1885 with *Liniscus* Dujardin, 1845 (Nematoda).

Phascus pallidus australis Zoia, 2019b: 317

Examined material. **Kenya:** SE, Voi, 10.12.1999 Lgt. M. Snížek (2 exx. SZcoll); Voi (Tsavo) 22.XI–2.XII.1996 M. Snížek leg. (26 exx. SZcoll); SE, SW of Voi 8–12.XII.2009 M. Snížek lgt. (1 ex. SZcoll); SE, Voi, S Foot Sagala Mts., 12.12.2007 Lgt. Snížek (2 exx. NME); Voi env., Sagala env., 750m, 13–19.11.2011, Snížek (2 exx. SZcoll); E of Mwingi, W of Nguni, 1.12.2010 Snížek (2 exx. SZcoll); Eastern, E of Thika, Kangonde, 25.XI.2011, 1500 m, M. Snížek lgt. (1 ex. SZcoll); SE, Kiboko env., 21.XI.1999 M. Snížek leg. (1 ex. SZcoll); Coast est of Garsen, W of Witu, 21.4.2008, Lgt. M. Snížek (2 exx. SZcoll); idem, 7.XII.2007 Lgt. M. Snížek (3 exx. SZcoll); idem, 19.XII.2009 M. Snížek (1 ex. SZcoll). **Zambia:** bor., Kalambo Falls, Tanganyika lake env., 900 m, Tanzania border, 30 km N of Mbala, Zd. Jindra lgt. (1 ex. NME; 2 exx. SZcoll).

Notes. *P. pallidus australis* was described from Namibia, highlighting a wide geographical gap from the nominal form. The present data from Kenya and Zambia strongly reduce this gap which is largely due to lack of knowledge. *P. pallidus pallidus* Lefèvre, 1884 was described from Eritrea (type locality: "haut plateau de l'Amacen") and subsequently recorded from Saudi Arabia (MEDVEDEV 1996, 1997; DACCORDI 1979).

Having no availability of male specimens from Eritrea, the differences between the two subspecies highlighted

in ZOIA (2019b) are related to exoskeletal characteristics only. A few Arabian specimens (Yemen, Al Mahwit) subsequently examined clearly differ from *P. pallidus australis* also for the median lobe of aedeagus more strongly folded near mid-length (nearly 90°) in lateral view, and wider in its distal part in dorsal view with sides almost parallel before the tip. The study of male specimens from Eritrea is required to better define the nomenclatural status of the subsp. *australis* and to confirm the identity of the specimens from Yemen, as they could either belong to *P. p. pallidus* or be referred to a still undescribed taxon.

***Melinidea denticrus* (Burgeon, 1941)**

Mashonania denticrus Burgeon, 1941: 168

Melinidea denticrus Selman, 1965: 164

Examined material. Gabon: Ogooué-Ivindo Prov., Makokou 5–9 km SW, Ivindo NP, Ipassa forest research station, 0°30'52"N 12°48'21"E, 24–25.VI.2016, 480–540 m, edge of secondary lowland rainforest, white light trap in canopy, leg. D. Telnov (2 exx NME); Makokou, Parc Nat. Ivindo, Ipassa 16.II/1.III.2012, 400 m, S. Biondi leg. (3 exx. SZcoll); idem, XII.2013, 400 m, S. Biondi leg. (5 exx. SZcoll); idem, 15–25.VI.2016, S. Biondi leg. (1 ex. SZcoll); Ogooué-Ivindo Prov., Makokou, Parc National Ivindo, 12°43'00"E 0°28'00"N, 0°30'N 12°48'E, Ipassa, XII.2013, F. Gallizia leg. (2 exx. SZcoll).

Notes. The species was described based on two specimens (♂ and ♀) from Cameroon, and it is here recorded for the first time from Gabon.

The following characteristics observed in the specimens from Gabon are here highlighted as not perfectly in agreement with the description of BURGEON (1941), but considered within the variability of the species: in several specimens the elytra are uniformly brown with only the inner part of suture blackish, totally lacking the large dark sutural band present in other specimens and in the two types; the onychium of the tarsi is not distinguished in lighter color; the second antennomere is longer than half the length of the third, and can reach nearly 2/3 of the length of the third. BURGEON (1941) do not report the evident widening of the first protarsomere in ♂, which is wider than the apex of the protibia.

***Heteraspis costata* (Jacoby, 1894)**

Scelodonta costata Jacoby, 1894: 519

Scelodontomorpha tricolorata Pic, 1938: 26

Examined material. Central African Republic: Lo-baye Pr. near Grima, 50 km NE Bambio, 450 m, 13–14.6.2009, Ngoto For., A. Kudrna Jr. Lgt. (1 ex. SZcoll). **Gabon:** Gabon E, Ogooué-Ivindo Prov., Makokou 5–9 km SW, Ivindo NP, Ipassa forest research station (0°30'52"N, 12°48'21"E) 3–4 km around, 24–25.VI.2016, 480–540 m, primary and secondary lowland rainforest, leg. D. Telnov (1 ex. NME); idem, 0°30'N 12°48'E, XII.2013 F. Gallizia leg. (1 ex. SZcoll); idem, 16.IX/3.XII.2017, F. Gallizia leg. (1 ex. SZcoll); Makokou, Parc Nat. Ivindo, Ipassa 16.II/1.III.2012, 400 m, S. Biondi leg. (3 exx. SZcoll); idem, 15/25.VI.2016, S. Biondi leg. (2 exx. SZcoll).

Notes. *H. costata* was described from Kuilu (Congo) and subsequently reported for Equatorial Guinea (WEISE 1907) and the Congo (PIC 1938, under the name *S. tricolorata*). The species is here recorded for the first time for Central African Republic and Gabon.

***Pseudedusia fulvipes* Jacoby, 1898: 229**

Examined material. Tanzania: Ruvuma prov., 50 km N Songea, XI.1993, K. Werner leg. (1 ex. SZcoll). **Zambia:** bor., 27.11.2006, Kalambo Falls, Tanganyika lake env., 900 m, Tanzania border, 30 km N of Mbala, Zd. Jindra lgt. (1 ex. NME). **Zimbabwe:** centr., Masvingo, lake Mutirikwi, 25.11.1998, M. Snížek leg. (2 exx. SZcoll). **Mozambique:** N, Maua 9–12/XI/1999, 13,52S 37,09E, G. Curletti leg. (3 exx. SZcoll); 50 km S Inchope, S 19°36'E 33°55', 160 m, 27.11.2005, lgt. Kadlecová (1 ex. SZcoll).

Notes. The species was known only from the type locality Salisbury (Zimbabwe). It is here recorded for the first time from Tanzania, Zambia and Mozambique

***Colasposoma viridinatatum* new name**

Colasposoma collare Zoia, 2020: 70

Notes. A new name *Colasposoma viridinatatum* is proposed for *C. collare* Zoia, 2020, a junior homonym of *C. collare* Achard, 1923. The new name refers to the characteristic green spots on the elytra.

Pseudocolaspis cupreofemorata cupreofemorata

Jacoby, 1900: 225

Examined material. Zambia: bor. occ., Kasempa env., 17.11.2006 lgt. Z. Jindra (2 exx. NME); NW, Solwezi env., 1–3.XII.2002 J. Halada leg. (1 ex. SZcoll); NW, 40 km SSW Solwezi, 8.12.2004 Snížek, Tichý lgt. (1 ex. ZScoll).

Notes. The species was described from Salisbury (Zimbabwe) and subsequently recorded from Democratic Republic of Congo (BURGEON 1940) and Rwanda (BURGEON 1942). The species is here recorded for the first time from Zambia.

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References

ACHARD, J. (1923): Nouveaux *Colasposoma* d'Afrique (Col. Chrysomelidae). – Bulletin de la Société entomologique de France: 187–191.

ASLAM, N. A. (1968): Nomenclatorial notes on Chrysomeloidea (Coleoptera). – Journal of natural History **2**: 127–129.

BRYANT, G. E. (1938): New species of Chrysomelidae (Coleoptera) from Africa. – Annals and Magazine of Natural History: Series **11**, 2:12, 593–599.

– (1959): Coleoptera: Chrysomelidae I. pp. 194–226. – in: HANSTRÖM, BRINK & RUDEBECK, South African Animal Life, vol. VI.

BURGEON, L. (1940): Les *Pseudocolaspis* et genres voisins (Col. Chrysom.) du Congo belge. – Revue de Zoologie et de Botanique Africaines **34** (1): 109–130.

– (1941): Nouveaux Eumolpides (Col. Chrysom.) des collections du Musée du Congo belge. – Revue de Zoologie et de Botanique Africaines **34** (2): 168–191 (p. 168).

– (1942): Chrysomelidae. S. Fam. Eumolpinae. – Exploration du Parc National Albert, Mission G. F. de Witte (1933–1935), Bruxelles **37**: 1–31.

CLAVAREAU, H. (1914): Chrysomelidae: 11. Eumolpinae. Pars 59: 215 pp. – in: W. JUNK & S. SCHENKLING – Coleopterorum Catalogus, Gravenhage, Berlin (1911–1940).

DACCORDI, M. (1979): Insects of Saudi Arabia. Coleoptera: fam. Chrysomelidae subfam. Eumolpinae e Chlamisinae – Fauna Saudi Arabia **1**: 304–307.

DUJARDIN, F. (1845): Histoire naturelle des Helminthes or vers intestinaux. – Roret, Paris, pp. i-xvi + 1–654.

FAIRMAIRE, L. (1893): Note sur quelques Coléoptères des pays Somalié. – Annales de la Société Entomologique de Belgique **37**: 144–156 (p. 155).

HAROLD, E. v. (1877): Coleopterorum species novae. – Mitteilungen des Münchner Entomologischen Vereins **1**: 97–111.

JACOBY, M. (1893): Descriptions of some new species of Eumolpidae and Halticidae from Africa (Gaboon). – The Entomologist **26**, Suppl.: 97–102.

– (1894): Descriptions of new genera and species of Phytophagous Coleoptera from Africa and Madagascar. – Novitates Zoologicae **1**: 508–534.

– (1899): Some new genera and species of Phytophagous Coleoptera collected during Captain Bottego's last expedition. – Annali del Museo civico di Storia naturale di Genova **39**, 2, serie 19: 521–535.

– (1900): On new Genera and Species of Phytophagous Coleoptera from South and Central Africa. – Proceedings of the Zoological Society of London, pp. 203–266, 1 plate.

– (1904): Another contribution to the knowledge of African Phytophagous Coleoptera. – Proceedings of the Zoological Society of London (**1**): 230–270, 1 plate.

LEFÈVRE, E. (1884): *Melindea*, *Phascus*, *Pagria* nn. gemm. – Annales de la Société entomologique de France, Paris, Bull.: LXV–LXVII.

– (1885): Eumolpidarum hucusque cognitarum catalogus, sectionum conspectu systematico, generum sicut et specierum nonnullarum novarum descriptionibus adjunctis. – Mémoires de la Société royale des sciences de Liège, 2 série, 11: 172 pp.

MEDVEDEV, L. N. (1996): The Chrysomelidae of Arabia – Fauna of Saudi Arabia **15**: 211–263.

– (1997): New records and new species of Chrysomelidae from Arabia. – Fauna of Saudi Arabia **16**: 319–326.

PIC, M. (1938): Nouveautés diverses, Mutations. – Mélanges exotico-entomologiques, Moulins, **70**: 1–36.

– (1940): Opuscula martialis. – L'Echange, Revue Linnéenne, Moulins, Num. spéc.: 1–16.

SELMAN, B. J. (1963): Coléoptères Chrysomélides récoltés par M. J. Matteu dans l'Emmedi et au Tchad. – Bulletin de l'Institut française d'Afrique Noire, Paris, Dakar, sér. A, **25**: 1148–1162.

– (1965): A revision of the Nodini and a key to the genera of Eumolpidae of Africa (Coleoptera: Eumolpidae). – Bulletin of the British Museum (Natural History) Entomology **16** (3): 143–174.

– (1970): Mission A. Villiers et A. Descarpentries. – Contribution à la faune du Congo (Brazzaville). XCV. Coléoptères Chrysomelidae Eumolpinae – Bulletin de l'Institut française d'Afrique Noire, Paris, Dakar (A) **32** (1): 251–261.

– (1972): Eumolpinae (Coleoptera: Chrysomelidae). – Exploration Parc national de la Garamba. Mission H. de Saeger **55**: 1–95.

– (1973): Coleoptera from North-East Africa. Chrysomelidae: Eumolpinae. (Zoological contribution from the Finnish expeditions to the Sudan No. 34). – Notulae Entomologicae **53** (4): 159–166.

WEISE, J. (1907): Chrysomelidae et Coccinellidae aus dem Spanischen Guinea. – Memorias de la Sociedad española de Historia natural **1** (21) (1906): 379–401.

– (1910): Chrysomelidae und Coccinellidae. pp. 153–266, taf.4. – in: STÖSTEDT Y. Wissenschaftliche Ergebnisse der Schweizerischen Zoologischen Expedition nach dem Kilimandjaro, dem Meru und den umgebenden Massaiesteppen Deutsch-Ostafrikas 1905–1906, 7, 12.

– (1913): Chrysomelidae. pp. 127–163. – in: Wissenschaftliche Ergebnisse der Deutschen Zentral-Afrika-Expedition 1907–1908, Bd. 4, Lfg 7. Leipzig (Klinkhardt & Biermann).

ZOLA, S. (2019a): Nomenclature changes in African Eumolpinae with reference to type specimens preserved in the Muséum national d'Histoire naturelle, Paris (Coleoptera: Chrysomelidae). – Annales de la Société entomologique de France (N.S.): 26 pp.

– (2019b): New data on African Eumolpinae with description of new taxa from the collections of the Natural History Museum of Erfurt (Insecta: Coleoptera: Chrysomelidae) – Vennate **38**: 305–333.

– (2020): New data on the Eumolpinae from Malawi with description of five new species (Coleoptera, Chrysomelidae). – Spixiana **43** (1): 63–79.

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