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Taxonomic, nomenclatural and faunistic data for galerucine leaf beetles from Africa, with description of *Rohania leonardii* n. sp. from Kenya (Coleoptera: Chrysomelidae: Galerucinae)

Ron Beenen

Abstract - Taxonomic and nomenclatural changes in African Galerucinae are explicated. *Rohania leonardii* n. sp. is described from Kenya. The new combination *Palpoxena nigripennis* (Weise 1907) is proposed. Besides, additional information on the distribution of the following other African species is presented: *Calomicrus weisei* (Jacoby 1897), *Exosoma apicale* (Weise 1902), *E. tibiale* (Jacoby 1899), *Huillania salisburiensis* (Jacoby 1903), *Megalognatha suturalis* Baly 1878, *M. bisulcata* Laboissière 1927, and *Polexima citernii* (Jacoby 1899).

Key words: Africa, Chrysomelidae, Coleoptera, faunistics, Galerucinae, new combination, new species.

Riassunto - Dati tassonomici, nomenclaturali e faunistici per crisomelidi galerucini dell'Africa, con descrizione di *Rohania leonardii* n. sp. del Kenya (Coleoptera: Chrysomelidae: Galerucinae).

Sono discussi cambiamenti tassonomici e nomenclaturali di Galerucinae africane. Viene descritta *Rohania leonardii* n. sp. del Kenya. Viene proposta la nuova combinazione *Palpoxena nigripennis* (Weise 1907). Sono inoltre forniti dati inediti sulla distribuzione delle seguenti specie di Galerucinae: *Calomicrus weisei* (Jacoby 1897), *Exosoma apicale* (Weise 1902), *E. tibiale* (Jacoby 1899), *Huillania salisburiensis* (Jacoby 1903), *Megalognatha suturalis* Baly 1878, *M. bisulcata* Laboissière 1927, *Polexima citernii* (Jacoby 1899).

Parole chiave: Africa, Chrysomelidae, Coleoptera, faunistica, Galerucinae, nuova combinazione, nuova specie.

INTRODUCTION

During the preparation of a catalogue of African Galerucinae, some taxonomic and nomenclatural issues that need explication were recognized. These explications and the description of a new species are presented here. Besides, this paper presents some faunistic additions and corrections. All species treated here are part of the tribe Luperini of Galerucinae *s. str*. The data are presented in three sections: a first section on taxonomy, a second on nomenclature and the third on faunistics. In each section, the genera are presented in alphabetical order.

Martinus Nijhoffhove 51, NL 3437 ZP Nieuwegein, The Netherlands
E-mail: r.beenen@wxs.nl

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MATERIAL AND METHODS

Specimens from the following collections were available for this study, or will serve as depository:

BMNH: Natural History Museum, London, United Kingdom (Michael Felix Geiser)
JBCB: Jan Bezděk collection, Brno, Czech Republic
JMCB: Joachim Mauser, Ballrechten-Dottingen, Germany
MCZH: Museum of Comparative Zoology, Harvard, USA
MDCV: Mauro Daccordi collection, Verona, Italy
MLCL: Michael Langer collection, Lichtenwalde, Germany
RBCN: Ron Beenen collection, Nieuwegein, The Netherlands
RMNH: Naturalis Biodiversity Center, Leiden, The Netherlands (Hans Huijbregts, Oscar Vorst)
UHCB: Uwe Heinig collection, Berlin, Germany

Measurements were made using an ocular grid on a Zeiss SR stereo microscope. Body length was measured in two ways. Total length (TL) of the specimen was measured from the apical part of the head to the apex of the abdomen. As this length is influenced by the way the specimen is mounted (head with mandibles forward or downward) and by the state of the abdomen, also the length from the anterior border of the eyes to the tip of the elytra is given (SL). The width of the head is measured as the maximum distance across the eyes. The length of the pronotum was measured from apical to basal margin along midline. The maximal width of the pronotum was measured at the widest part and this width is given with an indication of the location. Drawings were made using a camera lucida in combination with a Zeiss SR stereo microscope.

TAXONOMY

***Rohania leonardii* n. sp.**
urn:lsid:zoobank.org:act:4333657D-2C71-4147-972D-E241EC28D20F

Holotype ♂: [Kenya] Ngong / iv 1941 / G. van Someren (BMNH).

Paratypes: [Kenya] Ngong / iv 1941 / G. van Someren (BMNH: 9 ex.); [Kenya] Ngong / iv – vii 1934 / G. van Someren (BMNH: 9 ex.); Kenya / Nyeri / 1 vii 1937 / C. D. Knight. No 990 (MBNH: 1 ex.); [Kenya] Kijabe / iv 1937 / H. J. A. Turner // IMP. INST. ENT. / coll no 10747 (BMNH: 1 ex.); Kenya / Nairobi iii 1993 / leg Mauser (RBCN: 1 ♂, JBCB: 1 ♂, JMCB: 1 ♀).

Description

Length: 5.1 – 6.2 mm (TL); 4.6 – 6.0 mm (SL). Macropterous. General colour orange-yellow. Outer half of elytra dark metallic blue-green. Sides of pronotum and sides of frons, dorsal part of tibiae and tarsi black. First antennal segment and maxillary palpi brown, Three apical antennites brown. Elytra covering abdomen completely. Variation in colour: in some specimens, outer parts of head and pronotum are dark metallic blue-green and/or antennites either completely yellow or completely dark brown. Habitus as in figure 1.

Head: Maximum width of head across eyes 1.10 – 1.40 mm. Upper surface impunctate, with minute reticulation and a velvet sheen. Frontal tubercles well delimited, triangular, impunctate, shining. Antennal length in male about 1.2 times the body length; in female about 0.9 times. Length ratio of antennomeres: 20-5-20-27-25-24-23-21-20-20-20.

Pronotum: Maximal width 1.10 – 1.50 mm (at three-quarters from basal margin). Length in middle 0.70 – 0.95 mm. Front border straight. Basal border slightly convex. Front corners straight, basal corners blunt. All corners with seta bearing pore. Lateral borders almost straight and diverging towards front corners. Almost straight in apical quarter. Surface shining with very fine reticulation, impunctate. In some specimens the reticulation is stronger and the surface with a velvet sheen. Strong depression at each side of middle in basal third. Front border not margined; basal and lateral borders margined.

Scutellum: Triangular, impunctate, with minute reticulation, shining.

Elytra: Width over shoulders wider than base of pronotum. Greatest width 1.95 – 2.15 mm (at three-quarters from elytral base). Surface flat, reticulate with very shallow small punctures; with a velvet sheen. Humeri rounded. Lateral borders straight and slightly diverging towards apex. Regularly curved towards apex in apical quarter.

Underside: Front coxal cavities completely closed. Claws appendiculate.

Sexual dimorphism: Males have the first segment of pro- and meso-tarsus more elongate, and the first also is wider. In females, antennae slightly shorter than body length; in males slightly longer. Last abdominal sternite in males withs two incisions leaving a square in the middle. Last abdominal sternite regularly curved and without incisions in females.

Aedeagus: In ventral view slender and parallel in the middle, slightly diverging towards apex; apex bluntly curved, ending in a sharp denticle. In lateral view regularly curved, slender; near the apex ventral line slightly curved upwards ending in a horizontal directed apex. Apical part slightly twisted (Fig. 2).

Diagnosis

Among the species in *Rohania*, the new species is the only species with bicoloured elytra and pronotum. Other species in *Rohania*, have uniformly coloured elytra: yellow-brown, black or metallic blue or purple. The only species with bicoloured elytra, *R. apicalis* Laboissière 1922, has elytra yellow-brown, with base and apex black, in combination with uniform black pronotum.

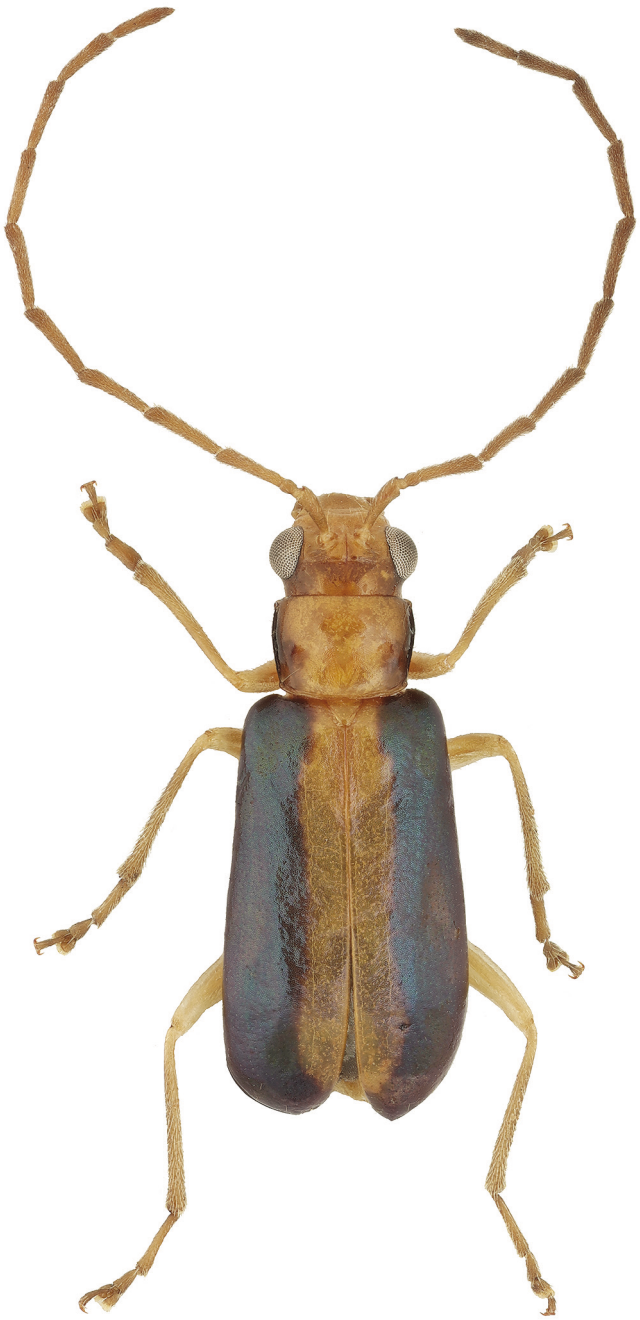

Fig. 1 - *Rohania leonardii* n. sp. Habitus of male. / Habitus del maschio. (Photo: / Foto: Jan Bezděk).

Etymology

This species is dedicated to Carlo Leonardi, an excellent researcher of leaf beetles and a long-time friend.

Comment on generic attribution

The characters of the new species fit most the discriminative characters of *Rohania,* the elongate form, the long antennae and the appendiculate claws. However, the front coxal cavities are completely closed, whereas other species in *Rohania* have front coxal cavities not completely closed (Beenen, 2011). In other luperine genera, for example *Monolepta* Chevrolat 1836, the degree of closure of the front coxal cavities is variable too (Wagner, 2004), and assumed not to be reliable for generic delimitation. It is evident that many species described in the different genera of *Platyxanthites* do not fit the discriminative characters of the genera they are attributed to. It is likely that changes are needed after a comprehensive revision of *Platyxanthites*.

Distribution

Known from central and southwestern Kenya.

***Palpoxena nigripennis* (Weise 1907) n. comb.**

Weise (1907) described *Aenidea nigripennis* from Mundame in Cameroon. Subsequently this species was never listed again, neither in the catalogue by Weise (1924), nor in the catalogue by Wilcox (1973, 1975). Since *Aenidea* is a junior synonym of *Palpoxena* the new combination *Palpoxena nigripennis* (Weise 1907) is proposed.

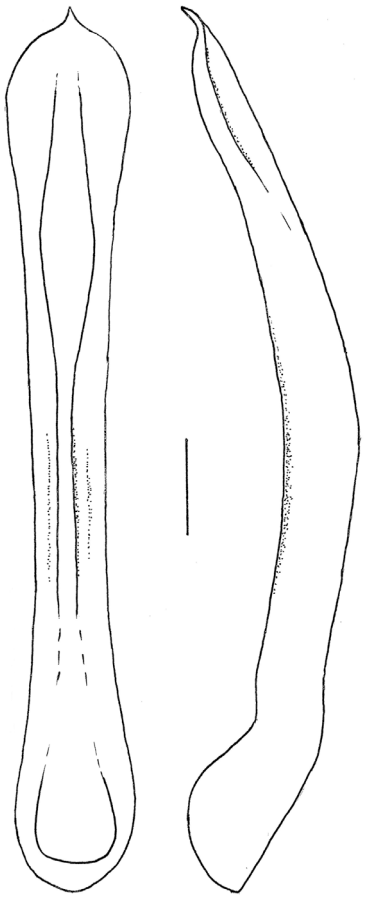

Fig. 2 - *Rohania leonardii* n. sp. Aedeagus. Left: ventral view; right: lateral view. Scale = 0.5 mm. / Edeago. A sinistra vista ventrale; a destra vista laterale. Scala = 0,5 mm.

NOMENCLATURE

***Exosoma fulvonigrum* Laboissière 1939**

Wilcox (1973) lists *Exosoma nigrofulvum* Laboissière 1939 and refers to page 112 of Laboissière (1939). On this page this name does not occur; however, the name *Exosoma fulvonigra* does. It is supposed to be an error by Wilcox.

Laboissière (1939) used two different spellings for the species he described in the genus *Exosoma*: *Exosoma fulvonigna* with the formal description on page 112, and *Exosoma fulvonigra* with the diagnosis on the same page. The first spelling is likely to be an error (*lapsus calami*). The spelling *Exosoma fulvonigra* is according article 24.2.3 of the ICZN (1999) hereby fixed as the correct spelling. According article 30.1.2 of the ICZN the gender of genus group names that are transliterated from Greek words take the gender for that word in Greek dictionaries. In this case a noun ending on 'soma' is neuter.

***Kanahiiphaga abdominalis* (Laboissière 1926)**

Laboissière (1921) described *Aenidea nigriventris* Laboissière 1921 from Uganda. Since Allard (1989) already described a species as *A. nigriventris* from Malaysia, Laboissière (1926) replaced his name by *Aenidea abdominalis*. Laboissière (1937) moved his *Aenidea nigriventris* to *Kanahiiphaga*.

According article 75.2 of the ICZN, the junior primary homonym (in this case *Aenidea nigriventris* Laboissière 1921) is permanently invalid. The replacement name, *abdominalis*, in the combination *Kanahiiphaga abdominalis* (Laboissière 1926) is the valid name. Wilcox (1973) apparently did not know the remarks on this taxon in Laboissière (1937), and erroneously placed this species in the genus *Palpoxena*. The same holds for the following species.

***Kanahiiphaga hauseri* (Weise 1903)**

Weise (1903) described *Aenidea hauseri* Weise 1903 from Kenya. Laboissière (1937) moved this species to *Kanahiiphaga.* Wilcox (1973) apparently was not aware of Laboissière's decision, and placed this species in the genus *Palpoxena*.

***Ornithognathus aenipennis* Laboissière 1924**

When Laboissière (1924) introduced *Ornithognathus aenipennis*, he did not spell it as '*aeneipennis*'. When he listed this species again (Laboissière, 1925) he spelled it as *Ornithognathus aeneipennis*. This might be an indication of a lapsus calami in the sense of article 32.5.1. of the ICZN. However, on the label of the type specimen the

name is also clearly spelled '*Ornithognathus aenipennis*' in the handwriting of Laboissière. The spelling is to be regarded as an incorrect Latinization and thus not treated as inadvertent error. According article 32.5.1 of the ICZN the name *Ornithognathus aenipennis* is not to be corrected.

FAUNISTICS

***Calomicrus weisei* (Jacoby 1897)**

Material: **Republic of South Africa**: Malvern, Natal 3. 97; 2nd Jacoby Coll.; TYPE, 18169 (red label); weisei Jac. (MCZH).

Distribution: Zimbabwe (Jacoby, 1897; Weise, 1924). First record for Republic of South Africa.

Comments: Jacoby (1897) described *Luperus weisei* from one or more specimens collected by G. Marshall in Mashonaland, nowadays Zimbabwe. However, a specimen from the second Jacoby collection, labelled as type, from Malvern Natal (nowadays Kwazulu-Natal in South Africa), is hosted in the Museum of Comparative Zoology (see MCZ database of zoological collections available at mczbase.mcz.harvard.edu). Although this specimen looks typical and could have been compared with the type and hence labelled, it cannot be regarded as a syntype, because the collecting locality is not mentioned in the original description.

***Exosoma apicale* (Weise 1902)**

Material: **Rwanda**: Pref. Cyangugu, Umg. Nyakubuye, xii 1982, leg. H. Mühle (RBCN: 2 ex.); 1-30 xii 1982, leg. H. Mühle (RBCN: 1 ex); 27 ix 1984, leg. H. Mühle (RBCN: 4 ex.); 30 i – 3 ii 1984, leg. H. Mühle (RBCN: 2 ex.); 20-25 x 1985, leg. H. Mühle (RBCN: 1 ex.).

Distribution: Democratic Republic of Congo (Congo Kinshasa), Kenya and Tanzania (Beenen, 2020). First record for Rwanda.

***Exosoma tibiale* (Jacoby 1899)**

Material: Tanzania: Lushoto Umg., Irente Lodge, 1400m., 04°48'S 38°15'E, 21-22 ii 2008, Lichtfang, leg U. Heinig (UHCB: 1 ex.; RBCN: 1 ex.).

Distribution: Ethiopia (Jacoby, 1899), Kenya (Weise, 1902; Laboissière, 1937) and Tanzania (Weise, 1902). From Somalia, *Exosoma tibiale* has not been recorded.

Comments: Jacoby (1899) described *Malacosoma tibialis* in a paper on leaf beetles "obtained by the late Capt. Bottego on his last expedition in the Somali-Land and Upper Sobat". Weise (1924) interpreted this as if all described specimens have been collected in Somalia. In his catalogue he listed this species from Somalia and Usambara. In Usambara this species was captured by Weise's son Paul (Weise, 1902). Jacoby (1899) named the type locality as "Da Sancurar agli Amarr Burgi", which is Italian for "between Sancurar and Amarr", two cities in Ethiopia. Captain Vittorio Bottego, the collector of the type specimen, travelled into the then unknown region of the upper Juba, Lake Rudolf and the Sobat. He tried to return through Ethiopia, where his expedition was attacked by an Oromo tribe and where he died (Narducci, 1943). Bottego apparently also collected in Ethiopia.

***Huillania salisburiensis* (Jacoby 1903)**

Material: **Republic of South Africa**: Natal, Santa Lucia, 29 x 1981, Klapperich leg. (MDCV: 4 ex.; RBCN: 4 ex.).

Distribution: Zimbabwe (Jacoby, 1903; Weise, 1924). First record for Republic of South Africa.

***Megalognatha suturalis* Baly 1878**

Material: **Malawi**: Kahingina Forest Reserve, 70 km N of Kasungu, 29-30 xii 2001, J. Bezděk leg (JBCB: 14 ex; RBCN: 3 ex.); **Tanzania**: Lushoto, Usambara MT, 10-18 iii 2000, Hromádka lgt, (JBCB: 1 ex.); **Zambia**: Kittwe Farm Proj., 1 i 1966, R. Schippers (RMNH: 2 ex.); Wlufwanyama, 3 xii 2002, leg J. Secky (UACB: 1 ex.); Hillwood, Ikelenge, S 11°16'02" E24°18'59", 1400m., 21-28 x 2013, general coll., leg,. R. Smith, H. Takano, L. Chmurova & L. Smith (BMNH: 1 ex.).

Distribution: Kenya, Malawi, Republic of South Africa, Somalia, Tanzania, Zimbabwe (Grobbelaar, 1993) and Mozambique (Laboissière, 1931). First records for Zambia.

***Megalognatha bisulcata* Laboissière 1927**

Material: **Rwanda**: Bugesera / Gako, 8 ii 1985, leg H.Mühle (MLCL: 2 ex.; RBCN: 1 ex.);

Gikondo, xi 1969, leg J. Roggeman (RBCN: 1 ex.); Gikondo, xii 1969, leg J. Roggeman (RBCN: 1 ex.).

Distribution: Angola (Laboissière, 1927). First record for Rwanda.

***Polexima citernii* (Jacoby 1899)**

Material: **Ethiopia**: Arba Minch, 05°59'92,4"N 037°32'69,8"E, 16+29 iv 2010, 1.330m., leg. Monika & Michael Dietl, Robert Beck & Hailu Bekel (MLCL: 2 ex.).

Distribution: *Polexima citernii* is known from Ethiopia (Jacoby, 1899); no records from Somalia are available.

Comments: Jacoby (1899) described *Platyxantha citernii* in a paper on leaf beetles "obtained by the late Capt. Bottego on his last expedition in the Somali-Land and Upper Sobat". Weise (1924) interpreted this as if all described specimens had been collected in Somalia. In his catalogue he listed this species from Somalia. Jacoby (1899) named the type locality as "Dai Baddítu a Dimé" which is Italian for "between Baddítu and Dimè, two cities in Ethiopia. For further details, see above with *Exosoma tibiale*.

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