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Description of *Nigidius grosseri* from Uganda and *Dorcus maryi* from New Guinea *(Coleoptera, Lucanidae)*.

Klaus-Dirk Schenk

Abstract

A new species of the genus *Nigidius* MAC LEAY 1819, *Nigidius grosseri* spec. nov. from Uganda and a new species of the genus *Dorcus* MAC LEAY, 1819, *Dorcus maryi* spec. nov. from New Guinea Island (West Papua) are described, pictured and compared with the related taxa.

Key words

Coleoptera, Lucanidae, *Nigidius grosseri, Dorcus maryi,* Uganda, New Guinea Island, West Papua.

***Nigidius grosseri** spec. nov.*

Fig. 1: ***Nigidius grosseri*** spec. nov., ♂ holotype, dorsal and ventral view, Uganda, Kisoro District.

Holotype. ♂, south-western Uganda, Kisoro District, 10 km east of Kisoro, Euchya Forest Reserve, 2277 m, S 01°25´545´´ / E 29°79´565´´, 5. - 6. II. 2016, W. Grosser legit, in coll. K. - D. Schenk, Wehretal, Germany.

Paratypes. 1 ♀, same collecting data, in coll. K. - D. Schenk, Wehretal, Germany. 15 specimens, same collecting data, in coll. W. Grosser, Opava, Czech Republic, 2 specimens in coll. F. Cerný, Osecna, Czech Republic and 3 specimens in coll. Z. Malinka, Opava, Czech Republic.

Etymology. The name is dedicated to the collector of the new species, Walter Grosser.

Description and diagnosis. ♂ holotype (Fig. 1), total length 21,4 mm, prothorax width 7,2 mm, elytra length 10,5 mm, elytra width 6,7 mm. Total length of the paratypes: 17,1 - 21,5 mm. Head, mandibles, elytra downside are black and shining, pronotum dark reddish-brown. The body is convex, cylindrical and elongate. The head is broad, unequally and scattered punctured, depressed in front.
In the middle the depression is reaching the hind margin and is covered by bigger, conjoining and irregular grooves. The canthi are broad, angular in front, broadest behind ending in a right angle. The mandibular processes are rather slender and strait, moderately curved inward at the rounded apex and have a tiny knob at the inner side.
The pronotum is smooth with a well defined, trisinuate, punctured front marginal band. There is a small tubercle in the middle of the pronotum and a longitudinal depression with some scattered punctures behind it. The lateral parts of the pronotum are more densely punctured. The lateral margins of the pronotum are round and somewhat emarginated in front, behind concave and strongly convex broadening to the hind angles. The elytra bear strong, narrow and shining costae. Each interval contains a row of large, round, shallow and dull pits. The apices are densely punctured. The anterior tibiae have four small teeth behind the final fork; the middle and hind tibiae have two lateral spines.
Mentum and submentum are coarsely rugose. The metasternum is coarsely rugose lateral and punctured at the middle. There are two depressions in the middle of the metasternum. The sternites of the abdomen are laterally rugose and in the middle more scattered punctured.

The closest taxa to *Nigidius grosseri* spec. nov. are *Nigidius cartereti* Bomans et Bartolozzi, 1991 and *Nigidius bega* Kriesche, 1922. Those taxa are figured in the “Illustrated Catalogue of the Lucanidae from Africa and Madagascar” (Bartolozzi & Werner, 2004). Up to now only the type specimen of *N. cartereti* is known. The type was collected on Kadjudju Island, Kivu region, Zaire and is stored now at BMNH London. The type of *N. bega* is coming from northern Tanganyika but could not be found in the museums (personal information by L. Bartolozzi, Italy). The specimen identified as *N. bega* and figured in the before mentioned book has the following collecting data: Congo Belge, Foret Mubilila (Nyamuragira), 2100 m, Parc Albert, 26.VI.1935, leg. de Witte.

Nigidius grosseri spec. nov. can be separated from *N. cartereti* and *N. bega* by the following external morphological characters:

- body black but prothorax dark reddish-brown
- apophysis of the mandibles with a small tubercle at the inner side
- depressions of the vertex stronger, epistom longer
- anterior angles of the pronotum stronger and more emarginated
- pronotum significant wider at the middle of the lateral margins
- metasternum with two central depressions

Dorcus maryi *spec. nov.*

Fig. 2: ***Dorcus maryi*** spec. nov., ♀ holotype, dorsal and ventral view, head and prothorax enlarged, New Guinea Island, West-Papua, Sarmi District, Gauttier / Foja Mountains.

Holotype. ♀, New Guinea Island, West-Papua, Sarmi District, Gauttier / Foja Mountains, 17 km from Bora Bora, Gauttier / Foja Mountains, 1200 m, S 02°20´259´´ / E 138°51´288´´, 7.- 8.V.2016, collected by light trap, Gil Bretschneider legit., in coll. K.- D. Schenk, Wehretal, Germany.

Paratypes. 6 ♀, same collecting data, in coll. R. Wemcken, Bannewitz, Germany.

Etymology. The name is dedicated to Mary Bretschneider, the wife of the collector of the new species.

Description. ♀ holotype (Fig. 2), total length 27,5 mm, mandibles length 2,7 mm, prothorax width 10,8 mm, elytra length 15,5 mm, elytra width 10,8 mm. Total length of the female paratypes: 23,0 - 33,0 mm. Dorsally and ventrally uniform black. The head, mandibles, prothorax and downside of the body are shining. The elytra have shining costae and dull intervals. The dorsal surface of the head is punctured in front and laterally. There is a transverse flat elevation behind the vertex. The surface of the head is shining and smooth behind this elevation. There are two other smooth elevations in front of the eyes. The canthi are relatively narrow, round in front but with an acute hind angle. The eyes are not completely divided by the canthi. The mentum is coarsely wrinkled.
The mandibles are about as longer as the head. They are slightly curved inward and have an acute tip. There is an acute tooth about at the middle of the inner margin. The upper inner rim is somewhat elevated. The antennal clubs are formed by 3 lamellate antennomeres followed by two smaller triangular antennomeres with small setae at the tip.
The pronotum is smooth and shining. Only the lateral and hind margins are dull and sparsely punctured. The lateral margins are convex, the median angles are obsolete and the posterior angels are round. The triangular scutellum is shining and punctured.
The elytra are oval elongated, about as wide as the prothorax. The suture and 4 longitudinal costae are elevated, smooth and very shining. Those costae are getting less wide towards the lateral margins; they are not reaching the apex of the elytra. In contrast the intervals between the costae, the lateral margins and the apices of the elytra are confluently wrinkled and totally dull. The protibiae have 5 teeth behind the apical fork. The lateral margins of mesotibiae and metatibiae have one spine.

The ♂ of *Dorcus maryi* spec. nov. is still unknown.

Diagnosis. *Dorcus maryi* spec. nov. has been collected at a very remote area of West Papua, the Gauttier / Foja mountain range with untouched primary rain forest. Research on flora and fauna of this very inaccessible area did start in 2006. No Lucanidae have been collected before at this location.

Dorcus maryi spec. nov. looks a little bit like the female of *Serrognathus costatus* (Boileau, 1898) = *Dorcus metacostatus* Kikuta, 1985 (synonym). The shape and the structure of the body of *Dorcus maryi* spec. nov. make it easy to separate it from all other species of the genera *Dorcus* and *Serrognathus*. In particular the structure of the elytra with the strong shining costae and the dull intervals is very characteristic and is not found at any other taxon known so far from New Guinea Island.

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