



### New and little known species of the genus *Orphnus* MacLeay (Coleoptera: Scarabaeidae: Orphninae) from the East African Rift

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The East African Rift, especially Eastern Arc Mountains, are renown for exceptionally high biodiversity and endemism (Olson & Dinerstein 1998, Burgess *et al.* 2007). About 20 species of the scarab beetle genus *Orphnus* MacLeay, 1819 (Coleoptera: Scarabaeidae: Orphninae) were described or recorded from this region (Paulian 1948, Petrovitz 1971) but many of them are still known only from the type series. *Orphnus planicollis* Petrovitz, 1971, was described from a single male specimen from “Nyassa-Land” with no additional data about this species published until now. Examination of the Orphninae material housed in European museums revealed additional specimens from southern Eastern Arc Mountains, Tanzania, which allowed us to clarify distribution of this rare species and study its sexual dimorphism and variability. In addition, two specimens of a new, putative sister species, *O. demeyeri* **new species**, were found in the material from Upemba National Park (south-eastern Democratic Republic of Congo).

The material used for this study was borrowed from the following institutions: Museum of Natural History of Carmagnola, Italy (MCSNC); Museum of Natural History, Prague, Czech Republic (NMPC); Museum of Natural History of Humboldt-Universität, Berlin, Germany (ZMHUB); Museum of Natural History, Geneva, Switzerland (MHNG); and Zoological Museum of University of Copenhagen, Copenhagen, Denmark (ZMUKK). Preparation of specimens follows the common technique used in entomological research. Photographs were taken with a Leica MZ9.5 stereo microscope and a Leica DFC290 digital camera from dry specimens except for internal sac sclerites, which were photographed in glycerol. Partially focused serial images were combined in Helicon Focus software (Helicon Soft Ltd.) to produce completely focused images. Distribution map was prepared with ArcGIS software (ESRI Inc.).

#### *Orphnus planicollis* Petrovitz, 1971

Figs. 1, 3, 5, 6, 9, 11

**Type material.** Holotype, male with a label “Nyassaland” (MHNG).

**Additional material.** TANZANIA: Iringa Region, Uzungwa Scarp Forest Reserve, above Chita village, 1450 m, 4–9.xi.1984, pitfall traps, N. Scharff leg., 7 males and 5 females (ZMUKK); Iringa Region, Mafinga, 7–19.i.1996, G. Curletti leg., 6 males and 3 females (MCSNC); “Upangwa Dtsch. O. Afr.”, 1 female (ZMHUB); “Deutsch-O.Afrika”, 1 female (ZMHUB).

**Female.** Differs from male in having protibiae with elongate spur; clypeus without horn; pronotum narrower, feebly depressed on disc and without umbones and medial tubercle.

**Variability.** Body length of examined specimens varies from 6.5–9.0 mm. Clypeal horn of males varies from very short (wider than long) to 3 times longer than wide. Medial tubercle on pronotum and especially umbones are less developed in some specimens.

**Distribution.** The species was described from “Nyassa-Land” without more precise locality. The two exact localities known (Uzungwa Scarp Forest Reserve near Chita and Mafinga) are situated in Uzungwa—the southernmost and largest bloc of Eastern Arc Mountains (Burgess *et al.* 2007). The other locality, Upangwa, refers to the part of Livingstone Mountains south of Uzungwa. Available data suggest that *O. planicollis* inhabits mid-altitude afro-montane forests and is apparently a litter dweller.