

# A new species of *Megarthrus* from Mount Elgon (Coleoptera, Staphylinidae, Proteininae)

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## A new species of *Megarthus* from Mount Elgon (Coleoptera, Staphylinidae, Proteininae)

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*Megarthus geginati* sp. n. is described from Mount Elgon. It strongly resembles *M. dominicae*, from the nearby Ruwenzori range.

Keywords: Taxonomy, Uganda, East Africa.

### INTRODUCTION

The Muséum d'histoire naturelle, Geneva (MHNG) received two specimens of *Megarthus* collected above 3'000 meters on Mt. Elgon (Uganda). They represent a new species described below. It is the twenty-eighth species of *Megarthus* occurring in the region of the Great Lakes of Africa, the fourth one recorded from Mt. Elgon, and, together with *M. spinosus* Cuccodoro & Löbl, 1995, the second probably endemic to this ancient extinct volcano (Cuccodoro & Löbl 1995).

### *Megarthus geginati* sp. n.

Holotype ♂: «EAU [= Uganda], Mt. Elgon, Mbale, Sasa Hut, 3100–3200 m, 18.12.1994 b, leg. Geginat, Rinne unterh. Sasa Hut, Gesiebe aus Mulm und abgest. *Senecio*.»

Paratype ♀: «EAU [= Uganda], Mt. Elgon, Mbale, Caldera, 3700–3800 m, 23.12.1994 a, leg. Geginat, Krater int., unter Steinen, Humus Gesiebe.»

*Description:* Habitus as in Fig. 1. Combined length of pronotum and elytra = 1.8–2.0 mm. Maximal pronotal width = 1.2–1.3 mm.

Head, metasternum and abdomen blackish. Pronotum and elytra dark brown. Legs and antennomeres 1–4 pale brown.

Dorsal pubescence fairly uniform, recumbent. Medial frontal setae directed backward. Elytral and pronotal setae slightly arcuate, recumbent; pronotum with a few longer setae at base of medial groove. Metasternal pubescence shorter than that of prosternum, becoming denser laterally and longer anteriorly.

Vertex covered with nearly contiguous oval granulations; granules about as high as their small diameter. Frons with shallow, sparse granulation becoming evanescent anteriorly. Pronotum, elytra, and anteriolateral part of metasternum densely covered with shallow, posteriorly foveolate granulations. Prohypomera and abdomen almost smooth.

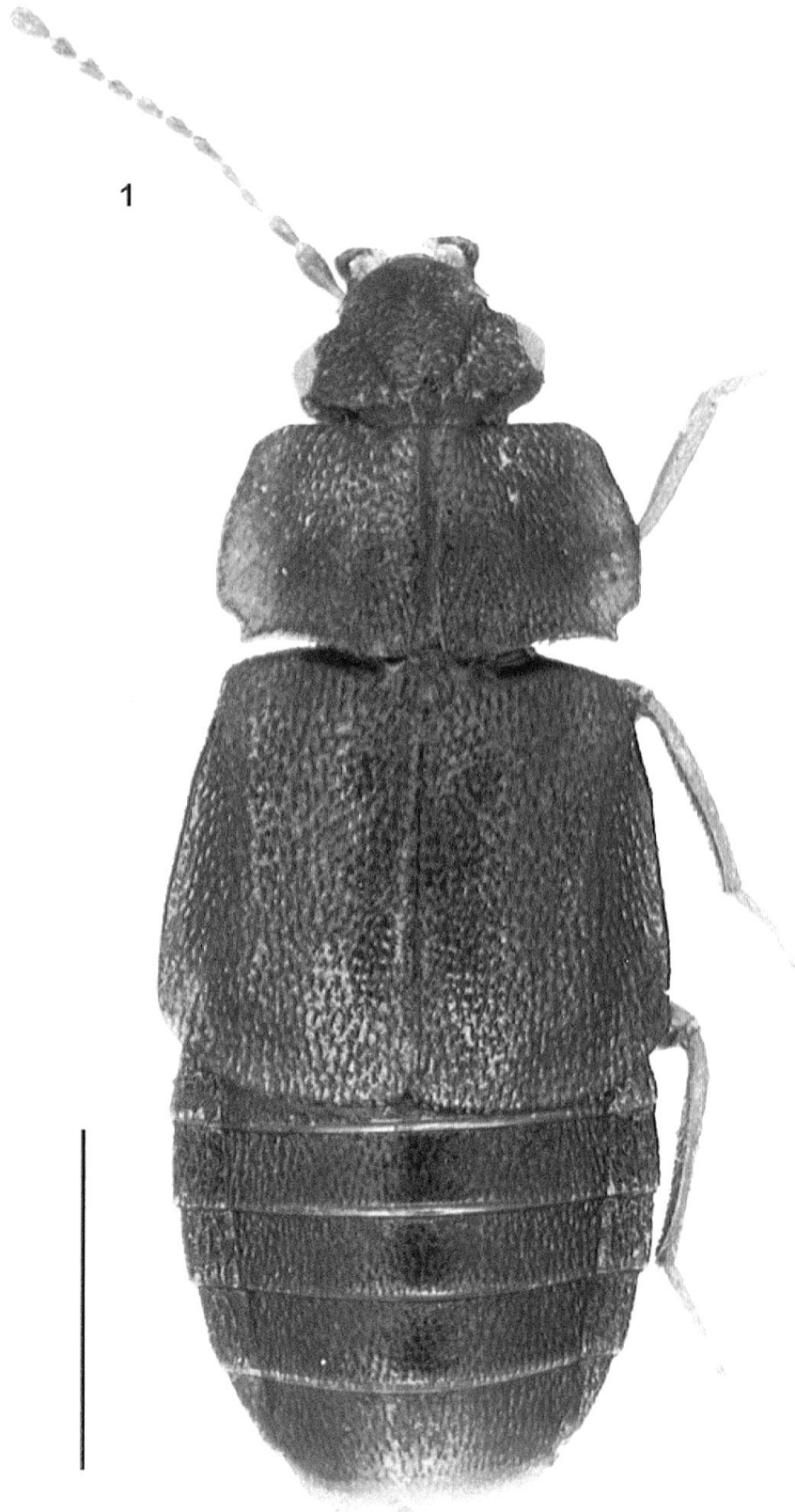
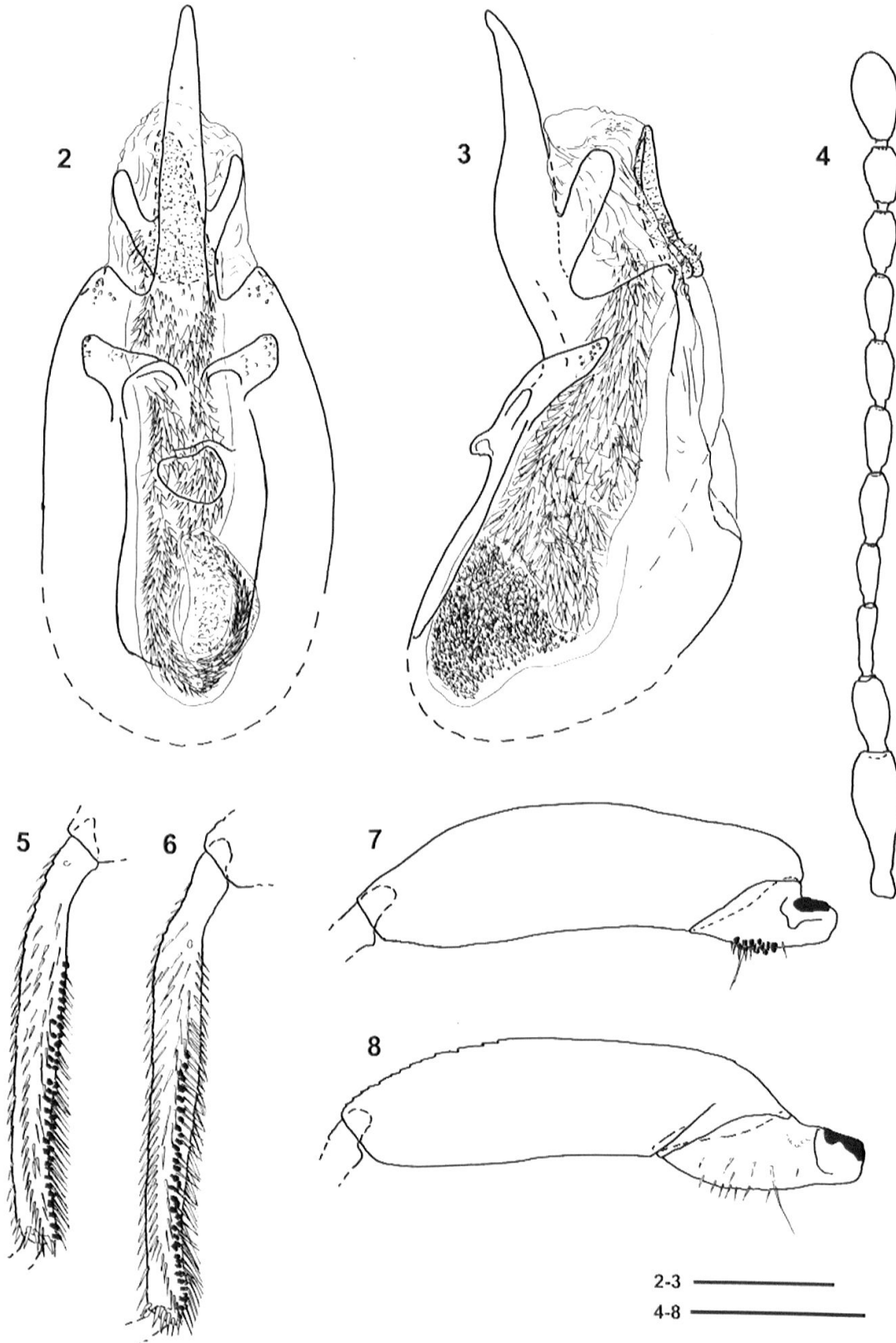


Fig. 1. *Megarthus geginati* sp. n., habitus, male (holotype), tip of abdomen, left legs and right antenna dissected. Scale bar = 1.0 mm.



Figs 2–8. *Megarthus geginati* sp. n., male (holotype). Aedeagus in ventral (2) and lateral (3) views; antenna (4); mesotibia (5); metatibia (6); mesotrochanter and mesofemur (7); metatrochanter and metafemur (8). Scale bars = 0.2 mm.

Frons raised above level of vertex, forming above clypeus a blunt ridge, the latter evenly arcuate in dorsal view; mesal portion of disc evenly, slightly convex in lateral view; U-shaped frontal impression shallow. Eyes not reaching level of vertex. Temples weakly convex in dorsal view. Occipital ridge indistinct. Maxillary palpomeres 3 subcylindrical. Antennae (Fig. 4) two times as long as pronotum. Pronotum (Fig. 9) with center weakly convex in frontal view; mesal portion fairly flat in lateral view; disc moderately depressed along lateral edges, and shallowly depressed along posterior portion of medial groove; the latter slightly arcuate in lateral view, deep, parallel-sided; hypomera (Fig. 9) without discal ridge, nor pit. Prosternal medial ridge absent. Protrochanters without transverse ridge. Metasternum with postmesocoxal ridge arcuate in the middle. Scutellum with anterior margin angulate in middle, posterior margin slightly arcuate toward obtusely angular apex. Elytra gradually widened (Fig. 1); humeral callus low, moderately convex; disc with low swellings, shallowly depressed posteriorly along lateral edge; suture weakly convex toward obtuse apical angle.

Male: Apical margin of elytra slightly arcuate near suture. Pubescence on abdominal sternites IV–VII becoming longer and denser posteriomediaally, each with a pair of subapical macrosetae. Protarsomeres 1 bearing tenent setae. Mesofemora (Fig. 7) shorter than metafemora (Fig. 8). Mesotibiae (Fig. 5) shorter than metatibiae (Fig. 6). Peg-like setae arranged in two rows on mesotrochanters (Fig. 7), grouped into a field on mesotibiae and metatibiae. Abdominal sternite VIII, hemitergites IX, sternites VIII and IX, and terminal segments as in Figs 10–15. Aedeagus as in Figs 2–3.

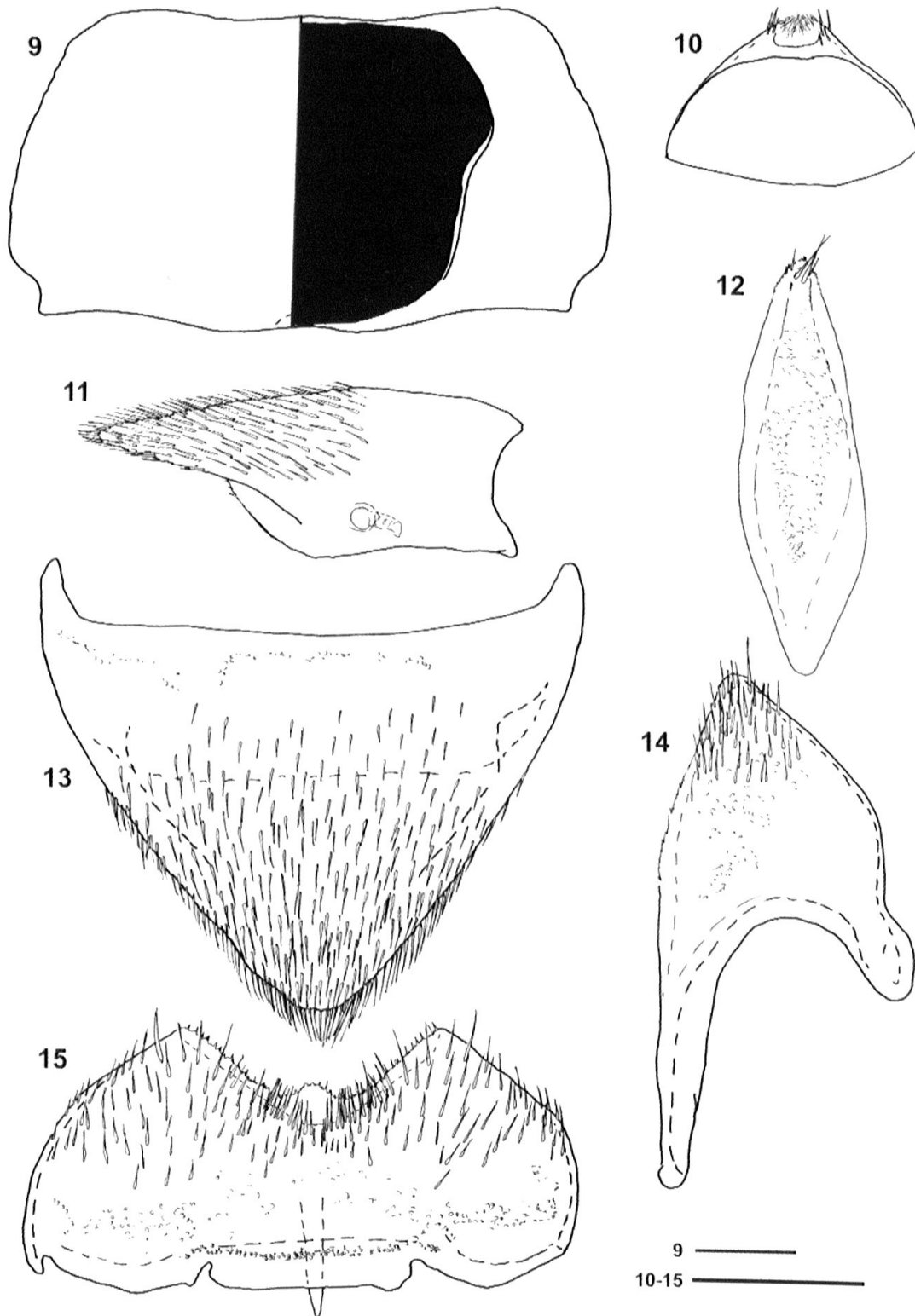
Female: Apical margin of elytra somewhat sinuate near suture. Pubescence on abdominal sternites IV–VII uniform, each with a pair of subapical macrosetae. Abdominal tergite VIII (Figs 17–18) bearing a medioapical projection. Sternite VIII as in Fig. 16. Genitalia as in Figs 19–21; gonocoxal plate without mediodorsal ridge.

*Etymology:* The species is named after its collector Gernot Geginat, Mainz.

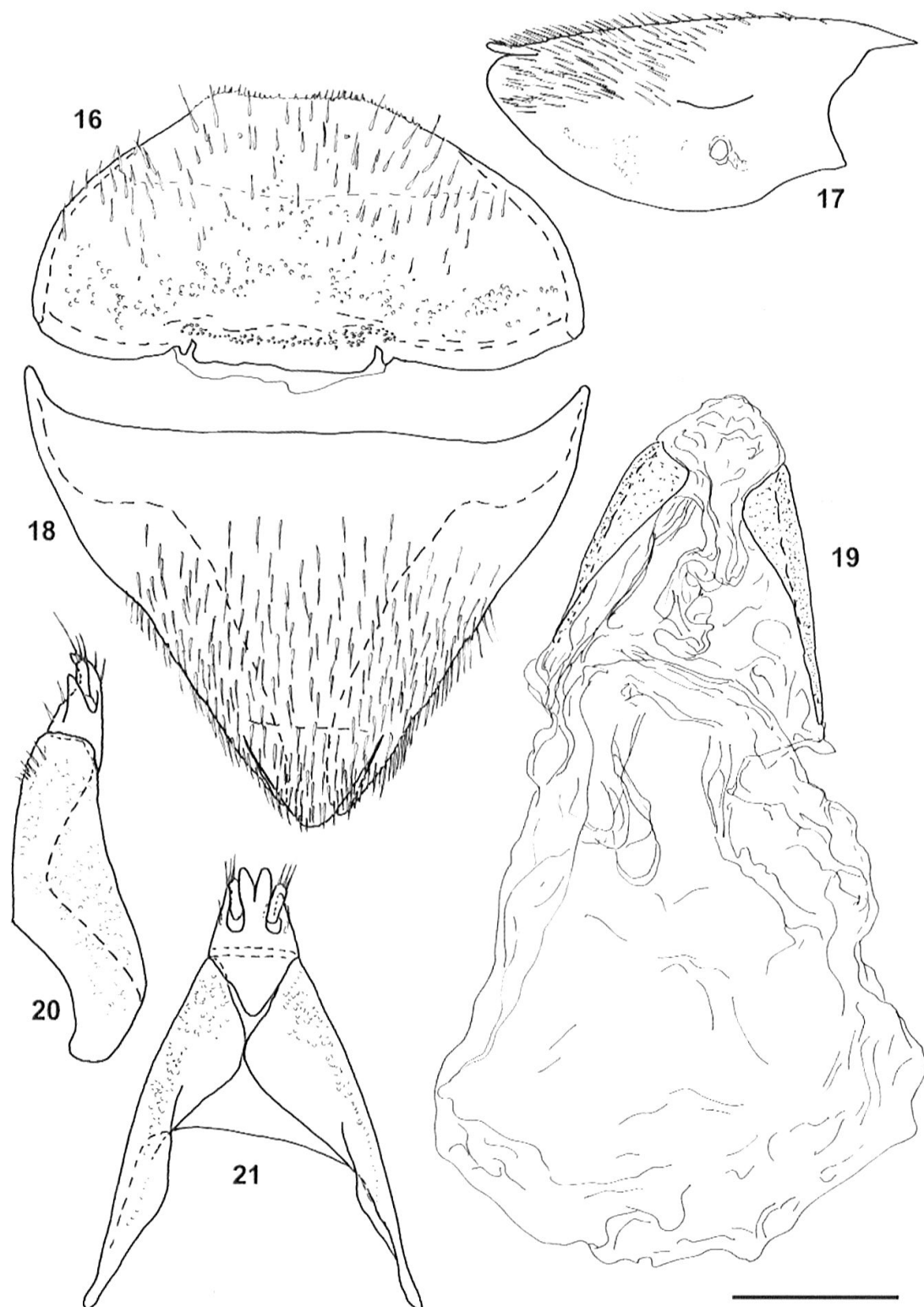
*Distribution and natural history:* *Megarthus geginati* occurs on Mt. Elgon at elevations ranging from 3100 to 3800 m a.s.l, where it was collected in humus and decaying *Senecio*.

*Comments:* In the region of the Great Lakes of Africa, *M. nanus* Cuccodoro & Löbl, 1995, from the Mt. Kilimanjaro, *M. twa* Cuccodoro & Löbl, 1995, from the Mt. Aberdares and from Kivu, *M. dominicae* Cuccodoro & Löbl, 1995, from the Ruwenzori Range, and *M. geginati* are the only members of the genus to have the metasternum and abdomen blackish, instead of brown. In *M. nanus* and *M. twa*, the combined length of pronotum and elytra does however not exceed 1.4 mm, while it reaches at least 1.8 mm in *M. dominicae* and *M. geginati*. *Megarthus geginati* shares most other features with *M. dominicae*, from which it is easily distinguished by the presence of metatibial peg-like setae in the male and, in the female, by the apical margin of the eighth abdominal sternite which is truncate, instead of arcuate. The conformation of their aedeagus is also diagnostic.

Elsewhere in Africa, only the members of the Ethiopian species complex consisting of *M. negus* Cuccodoro & Löbl, 1995, *M. ras* Cuccodoro & Löbl, 1995, *M. rougemonti* Cuccodoro & Löbl, 1995 and *M. simienensis* Fagel, 1957 are similarly coloured as *M. dominicae* and *M. geginati*, and can have the body almost as large.



Figs 9–15. *Megarthus geginati* sp. n., male (holotype). Pronotum (9) in dorsal (left) and ventral (right) views; terminalia in ventral view (10); tergite VIII in lateral (11) and dorsal (13) views; sternite IX in ventral view (12); right hemitergite IX in ventral view (14); sternite VIII in ventral view (15). Scale bars = 0.2 mm.



Figs 16–21. *Megarthus geginati* sp. n., female. Sternite VIII in ventral view (16); tergite VIII in lateral (17) and dorsal (18) views; genitalia, tergites in ventral view (19), and ventrites in lateral (20) and dorsal (21) views. Scale bar = 0.2 mm.

However, these Ethiopian species all have the mesofemora about as long the metafemora, while *M. dominicae* and *M. geginati* have the mesofemora markedly shorter than the metafemora.

To take account of this new taxon, the identification keys to the Afrotropical species of *Megarthus* in Cuccodoro & Löbl (1995) should be modified as follows:

Key to males:

- 25 Mesotrochanteral peg-like setae arranged in a single row ..... 26  
 — Mesotrochanteral peg-like setae arranged in two rows ..... 25a  
 25a Ventral wall of aedeagal median lobe with two subbasal lobes .....  
 ..... *M. geginati* sp. n.  
 — Ventral wall of aedeagal median lobe without subbasal lobes .....  
 ..... *M. clarkei* Cuccodoro & Löbl, 1995

Key to females:

- 18 Length of pronotum and elytra combined exceeding 1.7 mm ..... 18a  
 — Length of pronotum and elytra combined not exceeding 1.7 mm ..... 19  
 18a Eighth abdominal sternite with apical margin truncate ..... *M. geginati* sp. n.  
 — Eighth abdominal sternite with apical margin arcuate .....  
 ..... *M. dominicae* Cuccodoro & Löbl, 1995

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REFERENCE

- Cuccodoro, G. & Löbl, I. 1995. Revision of the Afrotropical rove-beetles of the genus *Megarthus* (Coleoptera, Staphylinidae, Proteininae). — *Revue suisse de Zoologie*, 102: 655–761.

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