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Scapanoclypeus hardap (Coleoptera: Scarabaeidae: Melolonthinae: Tanyproctini), a new species from Hardap province, Namibia

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Abstract

Scapanoclypeus hardap Sehna, new species (Coleoptera: Scarabaeidae: Melolonthinae: Tanyproctini), from Hardap province, Namibia, is described and an updated key to species of *Scapanoclypeus* Evans, 1987 is presented.

Key words: taxonomy, key, map, Afrotropical region

Introduction

The genus *Scapanoclypeus* Evans, 1987 (Coleoptera: Scarabaeidae: Melolonthinae: Tanyproctini) belongs to the fifth group of Afrotropical tanyproctines sensu Lacroix (2007), which is characterized as having simple claws without clefts or teeth at base, a weakly conical labrum, and the third antennomere of equal length to the fourth. Other than *Scapanoclypeus*, *Achloa* Erichson, 1840, *Kabindeknomiosoma* Lacroix, 2005, *Oedanomerus* Waterhouse, 1875, *Pseudachloa* Péringuey, 1904, and *Taphrocephala* Quedenfeldt, 1888 are listed in the same group (Lacroix 2007). The genera *Scapanoclypeus* and *Oedanomerus* differ from each other in the following respects: *Scapanoclypeus*—protibia with or without a subapical calcar, antennal club at least three times longer than antennomeres 1–6 combined, clypeus bent at nearly right angle to the plane of frons, frontoclypeal carina high and variously shaped, body flat (Lacroix 2007, Sehna 2013); *Oedanomerus*—protibia always with a subapical calcar, antennal club as long as antennomeres 1–6 combined, clypeus in the same plane as frons, frontoclypeal carina flat, body columnar (Evans 1987, Lacroix 2007). Currently, there are eight species belonging to *Scapanoclypeus*. Six of them were already listed by Evans (1987): *S. testaceus* Evans, 1987 from the Republic of South Africa; *S. cornutus* Evans, 1987 from Namibia; *S. carinatus* Evans, 1987 from the Republic of South Africa; *S. aulacocoleatus* Evans, 1987 from the Republic of South Africa and Namibia; *S. brunneus* Evans, 1987 from Namibia; and the type species, *S. aberrans* (Frey, 1974), from the Republic of South Africa and Namibia. An additional two species were recently described by Sehna (2013): *S. triapicalis* Sehna, 2013 and *S. sinepunctatus* Sehna, 2013, both from Northern Cape, Republic of South Africa.

Last year, the Russian entomologist Sergey Murzin provided me with interesting specimens of *Scapanoclypeus* collected in Namibia, which proved to be a new species. Examination of the new material revealed that this is a second species of *Scapanoclypeus* with a subapical calcar on its protibia. This contradicts Lacroix (2007), according to whom one of the characters separating *Scapanoclypeus* from *Oedanomerus* is absence of the inner calcar. The definition of the genus *Scapanoclypeus* thus needs to be emended.

Material and methods

Specimens were examined with a Novex stereomicroscope; measurements were taken with an ocular grid. Length measurements are from the anterior margin of the clypeus to apices of the elytra. The habitus photographs were taken with a Canon MP-E 65mm/2.8 1–5× Macro lens on bellows attached to a Canon EOS 550D camera. Partially focused images of each specimen were stacked using the Helicon Focus 3.20.2 Pro software. The new species is provided with one red printed label: “*Scapanoclypeus hardap* sp. n., HOLOTYPE [or PARATYPE with type number], ♂, Richard

Sehna det. 2014". Exact label data are cited for the material examined. Separate labels are indicated by a double slash “//”, lines within each label are separated by a slash “/”. Our remarks and additional comments are placed in brackets.

The following acronyms identify the collections housing the material examined (curators names are in parentheses):

BMNH	The Natural History Museum, London, United Kingdom (Maxwell V.L. Barclay)
NMPC	Národní muzeum, Praha, Czech Republic (Jiří Hájek)
RSCV	Richard Sehna collection, Velenice, Czech Republic
TMSA	Ditsong National Museum of Natural History (formerly Transvaal Museum), Pretoria, Republic of South Africa (Ruth Müller)

Scapanoclypeus hardap Sehna, new species

(Figs 1–5)

Type locality. Namibia, Hardap province, Auob Camp, 24°51'S, 16°09'E.

Type material. Holotype and 8 paratypes (all males): “NAMIBIA, Hardap distr. / Auob Camp N Gochas, 1090 m / 24.86639S, 16.160041E / 3-4.1.2013 S. Murzin leg.” [printed label]. Type depository: Holotype in NMPC, paratypes numbers 1–6 in RSCV, paratype number 7 in TMSA, paratype number 8 in BMNH.

Description of holotype (♂). Body 8.6 mm long, elongate. Head dark blackish brown with brown clypeal margin; pronotum brownish yellow with darker disc and vague brownish black spots laterally. Elytra yellowish brown with brownish-black margins and darker suture. Tibiae yellowish brown; protarsi, mesotarsi, and metatarsi yellowish brown with only apices of protibial lateral teeth black. Dorsum, abdomen, and antennae yellowish brown (Fig. 1).

Head. Clypeus broadly rounded, concave in spoon-like fashion; entirely covered by irregularly spaced, fine punctures; weakly rugose, without macrosetae, center with two groups of large punctures, each side with 2–3 large, deep punctures each of which bears one long columnar macroseta (often broken off); sides slightly elongate backward. Frontoclypeal suture very faint, medially with a defined long edge and toward frons with a very broad-based, tricuspid process (Fig. 3); anteromedial termination rugopunctate, non-setose. Labrum reduced, triangular; lobes rounded. Frons deeply rugose; edge of clypeus strongly punctate, each puncture bearing a long, semierect, posteriorly inclined yellow macroseta; macrosetae longest at edge of clypeus and around eye canthus. Eyes large, exceeding genae externally in dorsal aspect; distance between eyes in ventral aspect shorter than diameter of eye. Genae rugopunctate, with a group of long macrosetae. Antenna with 9 antennomeres, antennal club curved in basal third, then straight, then curved apically, and at least 4.5x longer than antennal stalk (antennomeres 1–6 combined). Antennomeres 1–3 and 5–6 without macrosetae, only antennomere 4 with 2 long, erect macrosetae; entire club densely punctate, without smooth areas. Antennomere 2 bulbous and as long as antennomeres 3–4 combined (Fig. 2). Terminal maxillary palpomere elongate, longer than palpomeres 2 and 3 combined; subbasally with apically rounded, flat, oval alutaceous area slightly expanding toward apex.

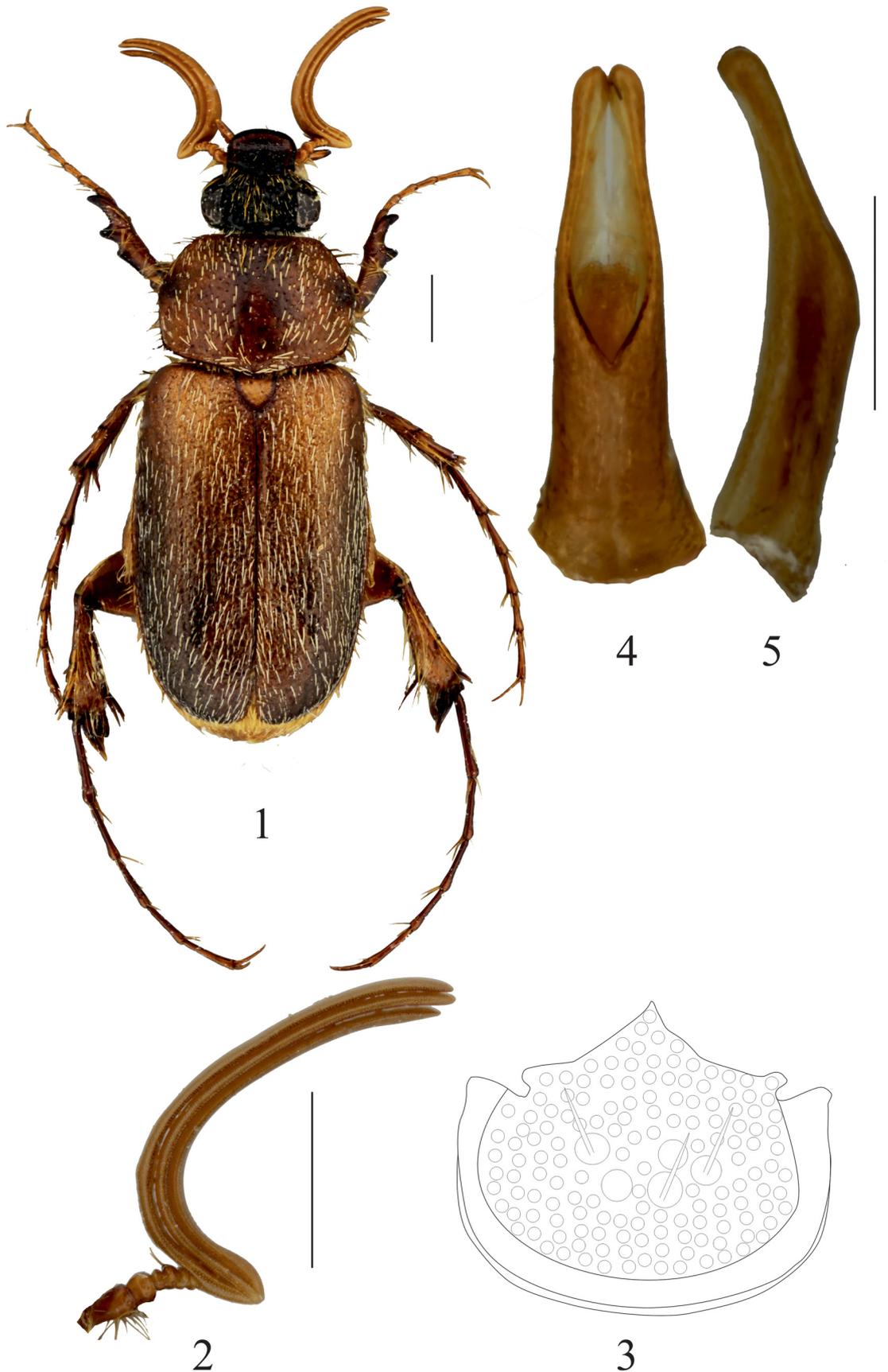
Pronotum weakly convex, approximately heptagonal; 1.27x wider than long, broadest approximately at midlength, with very finely impressed medial line; border complete except for broad frontal interruption. Anterior and posterior angles gently rounded, poorly defined. Surface with long and short, yellow macrosetae; irregularly, sparsely punctate except on disc. Anteriorly a puncture with adjacent macrosetae twisted around disc toward base.

Scutellum as long as wide, triangular; sides straight, apex acute and without punctures, lateral margins without macrosetae.

Elytra moderately convex, slightly dilated posteriorly. Elytral disc strongly wrinkled and punctate; punctures evenly distributed, separated approximately by more than triple their diameter. Surface macrosetose as on pronotum, but setae longer; macrosetae inclined posteriorly, absent from distinct sutural interval. Elytral sides punctate but not wrinkled. Lateral margin and apex of elytron darker than discal part.

Macropterous.

Legs. All femora shiny; irregularly, coarsely punctate; macrosetae relatively long. Protibia tridentate with subapical calcar, protibial teeth short. Claws simple, each with small blunt bulges at base. Mesotibia moderately expanded apically. Metatibiae strongly expanded apically, with one oblique carina externally; apical edge with a row of short, stout macrosetae of equal length; terminal calcars stout, long, lower calcar little shorter than upper. Protarsomeres, mesotarsomeres, and metatarsomeres without patches of short, dense macrosetae; metatarsomeres ventrally with sparse, long macrosetae.



FIGURES 1–5. *Scapanoclypeus hardap* Sehnal, new species, holotype male. 1—habitus, dorsal view, scale bar = 1.0 mm; 2—antenna, dorsal view, scale bar = 1.0 mm; 3—clypeus, frontal view, scale bar = 0.5 mm; 4—parameres, dorsal view, scale bar = 0.25 mm; 5—parameres, lateral view, scale bar = 0.25 mm.

Abdominal sternites dark yellowish brown; with long, yellow, recumbent macrosetae. Pygidium flat, finely punctate, with brown margins and yellow center.

Male genitalia (Figs 4–5). Aedeagus symmetrical; parameres slender, relatively long.

Female. Unknown.

Variability in males. Paratypes somewhat variable in body length (8.2–9.7 mm), slightly variable in dorsal punctation density and length and distribution of macrosetae. Color as in holotype.

Differential diagnosis. *Scapanoclypeus hardap* is similar to *S. sinepunctatus* Sehnal, 2013, from which it differs in having a punctate clypeus with macrosetae and in the shape of protibial teeth. Based on characters stated by Evans (1987), the new species is similar to *S. cornutus* Evans, 1987, from which it differs by the presence of subapical calcar on the protibia.

Etymology. Derived from area of origin of the new species, the Hardap province (Namibia); noun in apposition.

Geographical distribution. Namibia, Hardap province (Fig. 6).

This species will key to couplet 1(2) (*Scapanoclypeus sinepunctatus* Sehnal, 2013) in the key to *Scapanoclypeus* species (Sehnal 2013). The following modifications to the key will accommodate the new species:

- 1' (2) Protibia with subapical calcar. Clypeus without punctures, protibial teeth long, apical tooth distinctly separated from middle tooth..... *S. sinepunctatus* Sehnal, 2013.
 1'' Clypeus with double punctures, protibial teeth short and evenly spaced *S. hardap* Sehnal, new species
 2 (1) Protibia without subapical calcar.

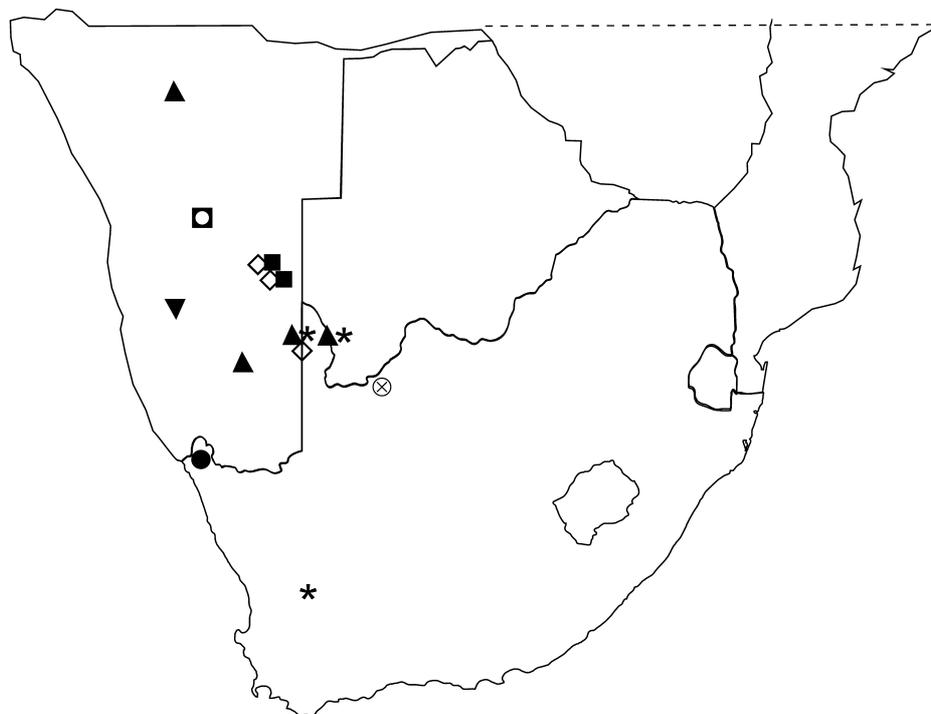


FIGURE 6. Southern African distribution map of *Scapanoclypeus* Evans, 1987. ▼—*S. hardap* Sehnal, new species; *S. cornutus* Evans, 1987; *—*S. testaceus* Evans, 1987; ▲—*S. aberans* (Frey, 1974); ⊗—*S. triapicalis* Sehnal, 2013 and *S. sinepunctatus* Sehnal, 2013; ●—*S. carinatus* Evans, 1987; ◆—*S. aulacocoleatus* Evans, 1987; ■—*S. bruneus* Evans, 1987.

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