

# *Sphincticraerus barclayi* sp.n. from South Africa (Coleoptera: Curculionidae: Anthonomini)

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## Abstract

A new species of *Sphincticraerus* MARSEUL, 1871 (Coleoptera: Curculionidae: Curculioninae: Anthonomini), *S. barclayi*, is described from South Africa (KwaZulu-Natal Province). It is related to *S. longisetis* (MARSHALL, 1932) from South Africa. Lectotypes are designated for *S. longisetis* (MARSHALL, 1932) and *S. zizyphi* (MARSHALL, 1932). The South African species of this genus are keyed.

**Key words:** Coleoptera, Curculionidae, Curculioninae, Anthonomini, *Sphincticraerus*, taxonomy, new species, South Africa.

## Introduction

The genus *Sphincticraerus* (type species: *S. constrictus* MARSEUL, 1871) was described by MARSEUL (1871) from Algeria. In the original description, the most striking generic character, a sharply incised deep constriction of the head beyond the eyes was pointed out, and the genus was regarded as intermediate between *Anthonomus* GERMAR, 1817 and *Bradybatus* GERMAR, 1824<sup>1</sup>.

The genus *Sphincticraerus* now comprises a few species occurring in the Palearctic, Afrotropical and Oriental regions, the taxonomic position and the validity of which require revision. Especially in the Afrotropical Region, additional new species are to be expected. Species of the genus *Zizyphus* (Rhamnaceae) were reported as host plants of the genus (OSELLA & MEREGALLI 1986).

During a collecting trip to the province of KwaZulu-Natal (South Africa), the author collected several specimens of *Sphincticraerus*, which turned out to be a new species that is described below.

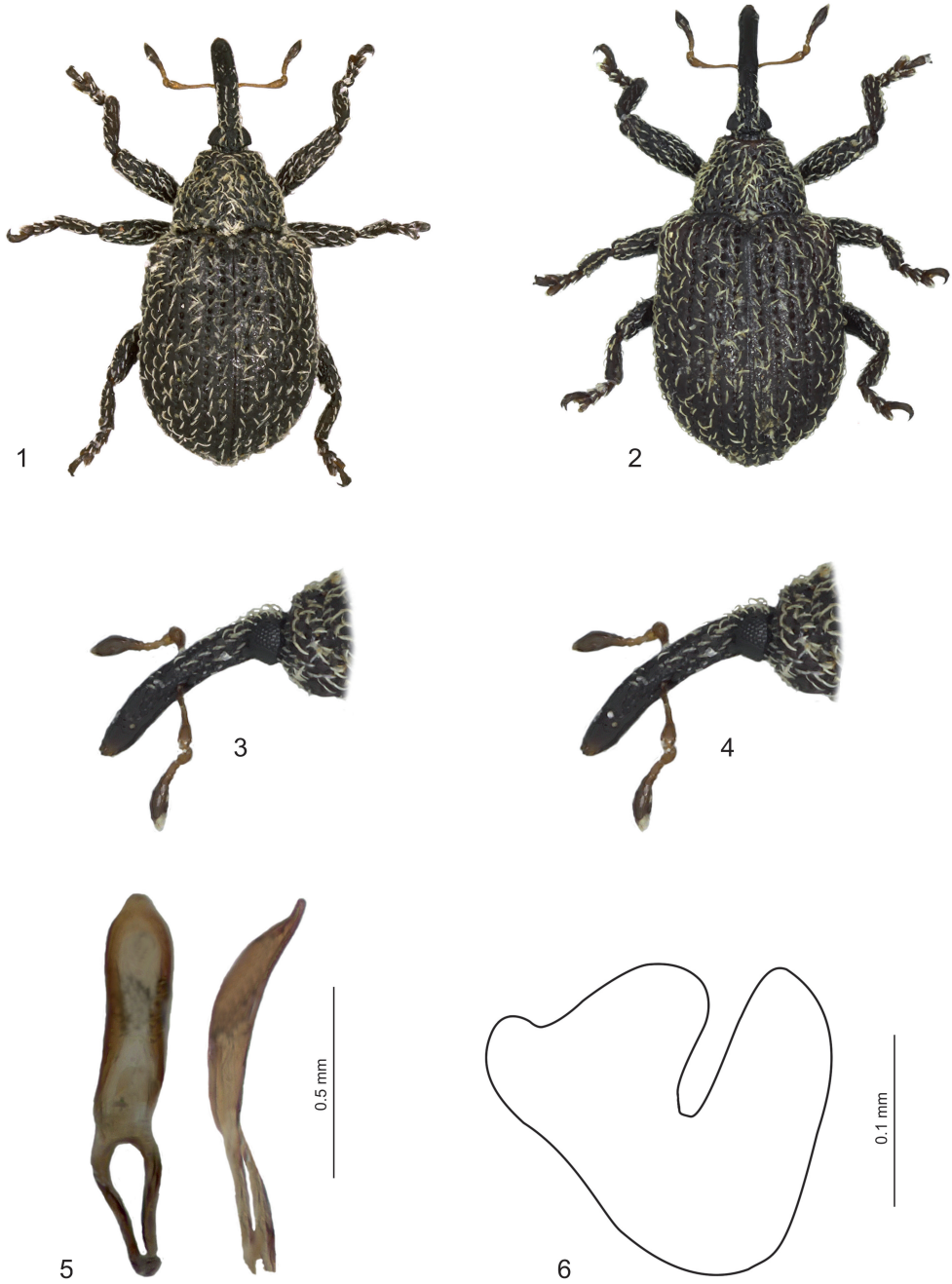
## Material and methods

All measurements, their interpretation, treatment and mounting of genital structures, devices used, photography, and picture processing follow KOŠŤÁL (2018).

### Abbreviations:

El/Ew	elytral length/elytral width
l/w	length/width
Pl/Pw	pronotal length/pronotal width
Rl/Pl, Rl/Rw	rostrum length/pronotal length, rostrum length/rostrum width
BMNH	Natural History Museum, London, UK
KO	Collection Michael Košťál, Šoporňa, Slovakia
KR	Collection Petr Kresl, Spůle, Czechia
NMW	Naturhistorisches Museum Wien, Austria

<sup>1</sup> According to BOUSQUET (2016: 211), referring to ERSCH (1828: 1166) and other literature sources, this genus was described in 1823. However, in ERSCH & GRUBER (1855: 403) and in a countless number of catalogues the year of publication of E.F. Germar's work (Coleopterorum species novae aut minus cognitae, descriptionibus illustratae. Halae: Hendelii et filii, xxiv + 624 pp., 2 pls.) was cited as 1824. It seems unwise to change the date to 1823 after almost 200 years even though some review copies of the book obviously have been available in 1823. In order to maintain stability 1824 should be conserved by the International Commission on Zoological Nomenclature.



Figs. 1–6: *Sphincticraerus barclayi*, 1) habitus, male (paratype), 2) habitus, female (paratype), 3) head of male paratype, lateral view, 4) head of female paratype, lateral view, 5) penis in a) ventral and b) lateral view, 6) spermatheca.

*Sphincticraerus barclayi* sp.n.

**Holotype** ♂ (KO): "SOUTH AFRICA KWAZULU NATAL bor.[ealis] Balelesberg Mts. Michael Košťál leg. \ Utrecht env. 15 km NW 1350 m S 27°34.1' E 30°10.9' 22.xi.2017". **Paratypes**: 7 ♂♂, 19 ♀♀ (KO), 1 ♀ (BMNH), 1 ♀ (NMW), 8 ♂♂, 12 ♀♀ (KR): same data.

**DIAGNOSIS**: This species is recognizable by the small short body ( $El/Ew < 1.3$ ), blackish to dark brown colour, relatively shallow, very densely arranged to confluent punctures forming elytral striae, rostrum moderately widened at antennal insertion (in males), and by the slightly sinuate apex of the penis, which is distinctly bent dorsad.

**DESCRIPTION**: Holotype: Completely preserved, 2.29 mm long. Integument (Fig. 1): blackish, femora blackish-brown, tibiae and tarsi brown, antennae and ventrites 3–5 reddish-brown.

**Head**: Rostrum moderately stout, long ( $RI/Rw$  4.4,  $RI/PI$  1.25); in dorsal view widest at antennal insertion, slightly broadened from base to antennal insertion, then subparallel to very slightly narrowed to apex, in lateral view (Fig. 3) moderately and evenly curved, of approximately same width from base to apex; in its whole length finely rugulous with scattered fine indistinct longitudinal ribs, in basal part with indicated thin carina; basal part covered with suberect arched whitish elongate scales, apical part almost bare. Head between eyes of 0.9 rostrum width at base. Eyes large, rounded, with striking postero-lateral angles, posteriorly bounded by very deep, sharply incised conspicuous constriction reaching median margin of eye. Antennae inserted shortly before middle of rostrum length, very sparsely covered with subrecumbent elongate whitish scales, club with very fine sensilla at apex; scape in basal 3/4 thin, almost straight, in distal 1/4 clavate, 1.6 times as long as funicle, funicular segment 1 large, slightly longer than wide, segments 2–5 markedly narrower than segment 1, isodiametric, club spindle-shaped, almost three times as long as wide, apically pointed.

**Pronotum**: Wider than long ( $PI/Pw$  0.71), widest at base, moderately convergent from base to 0.6 of its length, then abruptly constricted, and moderately narrowed anteriorly, anterior margin in median third with semicircular emargination, in lateral view in basal half almost flat, then moderately slanting to anterior margin; with very densely arranged, large, deep punctures of irregular shape, interstices between punctures small, with sparsely granulated structure, partly shiny, much smaller than puncture diameters; moderately densely covered with suberect curved, mostly anteriorly oriented, elongate whitish scales, which are longer than puncture diameters; in prescutellar area with small patch formed by clustered, almost recumbent whitish scales.

**Scutellum**: Small, tubercle-like, protruding, sparsely covered with tiny whitish scales.

**Elytra**: Longer than wide ( $El/Ew$  1.28), sides to approximately 2/3 of length subparallel to very slightly rounded, in posterior part broadly, somewhat unevenly rounded; widest in mid-length, in preapical area between interstriae 2 and 5 with shallow impression; interstriae on disc flat, narrow, of approximately same width, with very fine grainy structure and unevenly arranged small punctures laterally and at apical margin, partly shiny; striae narrower than interstriae, formed by very densely arranged, subround, relatively shallow punctures, septa between punctures much narrower than puncture diameters, reaching height of interstriae, some punctures almost confluent; interstriae with single, slightly irregular rows of subrecumbent to suberect, arched, yellowish and whitish, elongate ( $l/w$  5–8) scales, which are mostly longer than interstriae widths, striae without scales.

**Legs**: Femora slightly swollen in median part, profemora with small sharp teeth, meso- and metafemora with very small sharp teeth; tibiae straight, with tiny sharp mucro; tarsomeres 1–2 approximately as long as wide, tarsomere 3 bilobed, wider than long, onychium of 2/3 length of tarsomeres 1–3 combined, claws toothed, fused at base; femora and tibiae covered with markedly elongate, suberect, curved whitish scales, tarsomeres 1–2 with subrecumbent broader whitish scales.

Penis: Body of penis (Fig. 5a) elongate in ventral view, very slightly narrowed to apex, bluntly tapered and slightly sinuate at apex, temones approximately as long as half-length of body, manubrium tegmeni as long as tegmen diameter, parameres developed, shorter than tegmen diameter, separated; in lateral view (Fig. 5b) body thicker, on ventral side slightly arched, at apex bent dorsad.

Female (Fig. 2): Rostrum (Fig. 4) longer (Rl/Pl 1.48) and thinner (Rl/Rw 6.0), in apical part with finer texture, without longitudinal ribs. Spermatheca (Fig. 6) with robust body and cornu, ramus developed.

COMPARATIVE NOTES: *Sphincticraerus barclayi* is closely related to *S. longisetis* (MARSHALL, 1932) from South Africa. *Sphincticraerus barclayi* differs from *S. longisetis* in blackish to dark brown colour, male rostrum widened at antennal insertion, broader pronotum (Pl/Pw 0.71 vs. 0.85), shorter elytra (El/Ew 1.28 vs. 1.36), narrowly isolated to confluent punctures in elytral striae, in shorter and stouter male profemora, which are less than three times as long as protibiae, and in the more distinctly dorsally bent apex of the penis.

The new species is also related to *S. zizyphi* (MARSHALL, 1932) from South Africa. It differs from the latter in smaller body size, blackish to dark brown colour, male rostrum widened at the antennal insertion, moderately broader pronotum (Pl/Pw 0.71 vs. 0.75), markedly shorter elytra (El/Ew 1.28 vs. 1.41), longer setiform scales on elytral interstriae of disc (in *S. barclayi* longer or as long as elytral interstria width, in *S. zizyphi* always shorter than elytral interstria width), and in the arched ventral side of the penis in lateral view.

VARIABILITY: Body length: ♂♂ 2.28–2.33 mm, ♀♀ 2.18–2.43 mm. In some specimens the colour of the integument is dark brown, the prescutellar scale patch on the pronotum is often missing, and the preapical elytral impression may be inapparent.

DISTRIBUTION: So far known only from the Balelesberg Mountain near Utrecht (KwaZulu-Natal Province, South Africa).

BIONOMICS: The type series was collected by beating *Zizyphus* sp. (Rhamnaceae).

ETYMOLOGY: The species is dedicated to Maxwell V.L. Barclay (BMNH), an eminent entomologist always ready to help his colleagues.

### *Sphincticraerus longisetis* (MARSHALL, 1932)

TYPE MATERIAL EXAMINED: **Lectotype** ♂, by present designation, deposited in the BMNH (Marshall collection): “Bothaville... [illegible] ...Dr.Brauns [handwritten on reverse side of mounting card] / Type [round red-outlined label] / Pres. by Imp.Inst.Ent. Brit Mus 1932-295. / *Apopnictus longisetis*, Mshl. TYPE ♂”. **Paralectotype** ♀ (BMNH): “Bothaville... [illegible] ...Dr.Brauns [handwritten on reverse side of mounting card] / Paratype [round yellow-outlined label] / DATA under card / G.A.K. MARSHALL COLL. B.M. 1950–255 APOPNICTUS longisetis, Mshl. COTYPE ♀”.

NOTE: This species was originally placed in the genus *Apopnictus* MARSHALL, 1932. It was described after two specimens (1 ♂, 1 ♀) collected near Bothaville (Free State Province, South Africa). No holotype was designated in the original publication (MARSHALL 1932).

The lectotype is 2.25 mm long and lacks the left hind leg and the right pro- and mesotarsal onychia; I have dissected the genitalia.

***Sphinctraerus zizyphi* (MARSHALL, 1932)**

TYPE MATERIAL EXAMINED: **Lectotype** ♂, by present designation, deposited in the BMNH (Marshall collection): “Type [round red-outlined label] / Pretoria June 1931 HKMunro / Pres. by Imp.Inst.Ent. Brit.Mus. 1932-295. / Ex *Zizyphus zeyheriana* / *Apopnictus zizyphi*, Mshl. TYPE ♂”. **Paralectotypes** (BMNH): 2 ♂♂, 2 ♀♀ (BMNH), same label data as lectotype, but “Cotype” resp. “Paratype” [yellow-outlined] instead of “Type”.

NOTE: This species was originally placed in the genus *Apopnictus* MARSHALL, 1932. It was described after 10 specimens (6 ♂♂, 4 ♀♀) collected at Pretoria (Gauteng Province, South Africa). No holotype was designated in the original publication (MARSHALL 1932). The whereabouts of the remaining five syntypes (3 ♂♂, 2 ♀♀) are unknown.

The lectotype is pinned, 3.18 mm long, completely preserved; I have dissected the genitalia.

**Key to the species of *Sphinctraerus* of South Africa**

- 1 Body size larger (3.13–3.33 mm), setiform scales on interstriae of elytral disc shorter than width of elytral interstriae..... *zizyphi*
- Body size smaller (2.18–2.43 mm), setiform scales on interstriae of elytral disc longer than width of elytral interstriae..... 2
- 2 Body colour reddish-brown, rostrum in dorsal view of approximately same width from base to apex, elytra longer (El/Ew > 1.3), punctures in elytral striae deep, clearly separated, apex of body of penis in lateral view slightly bent dorsad ..... *longisetis*
- Body colour blackish to dark brown, rostrum in males in dorsal view widened at antennal insertion, elytra shorter (El/Ew < 1.3), punctures in elytral striae relatively shallow, narrowly separated, apex of body of penis in lateral view distinctly bent dorsad ..... *barclayi*

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