A new cylindromorphine genus and species from Central Africa with comments on its relationships within the tribe (Coleoptera: Buprestidae: Cylindromorphini)

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Abstract. *Afro cylindromorphus platysonus* gen. n. et sp. n., from Central Africa, is described and illustrated. A differential diagnosis of the new genus comparing it with all genera of Cylindromorphini Portevin, 1931 together with a key to the genera is presented.

Taxonomy, new genus, key, Coleoptera, Buprestidae, Cylindromorphini, Afrotropical region

Introduction

The most important papers thus far discussing the generic and tribal classification of Afrotropical Cylindromorphini are by Obenberger (1928), Théry (1947, 1954), Cobos (1953, 1960) and Bellamy (1992, 1995). Although all of these previous publications were, for their time, complete, none included a key to the entire generic complex. Therefore, by including a new genus to the fauna, we will provide a complete key for all cylindromorphine genera.

The following abbreviations are used:
MRAC Musée Royal de l’Afrique Centrale, Tervuren, Belgium
NMPC National Museum, Prague, Czech Republic
TMSA Transvaal Museum, Pretoria, South Africa

*Afro cylindromorphus* gen. n.

*Type species.* *Afro cylindromorphus platysonus* sp. n. (by monotypy).

Body rather small, robust and flattened; completely lacking vestiture; sculpture of head consisting of fine, sparse, simple punctures; scutellum microsculptured;
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elytral sculpture of shallow punctures and short, transverse rugae; ventral surface distinctly less lustrous with very fine, basal microsculpture; last abdominal sternum roughly granulate.

Head transverse, slightly bilobed, narrower than pronotum; clypeus small, deeply incised anteriorly, V-shaped; frons deeply grooved medially, lateroanterior angles projecting anteriad just dorsad antennal cavities; vertex very wide with narrow medial groove; eyes small, nearly elliptical; distance between eye and pronotal margin equal to transverse diameter of eye; genae with deep groove for antennae in repose (Fig. 2); antennae short, first two antennomeres enlarged, nearly spherical; antennomeres 3-5 very small, slightly longer than wide; 6-10 sharply serrate; 11 elongate.

Pronotum flattened, 1.5x as wide as long, slightly narrowing anteriad; without anterior, lateral or posterior marginal carinae; anterior margin nearly straight; posterior margin twice deeply and widely incurved with small, additional, prescutellar incurvation. Scutellum small, triangular.

Elytra flattened, especially in anterior half, 2.6-2.7x as long as wide: apices finely serrate and separately rounded; humeral swelling feebly developed: epipleura narrow but reaching nearly to apex.

Prosternum very slightly grooved at anterior margin; prosternal process flat, parallel, triangularly rounded apically; suture between abdominal sterna 3 and 4 well developed with small, rounded and depressed gland on each side: sternum 5 with double margin posteriorly (Fig. 3).

Legs short, meso- and metatibiae slightly enlarged in distal half; tarsomeres 1-4 with well developed pulvilli; 5 with claws hook-shaped, slightly enlarged in basal half (Fig. 4).

Etymology. The masculine generic name is derived from the continent of origin (Africa) and from the generic name "Cylindromorphus" to stress the relation with this genus.

Differential diagnosis. Afrocylindromorphus gen. n. differs from all other members of the Cylindromorphini and is apparently closest to the Palaearctic genus Cylindromorphus Kiesenwetter, 1857. Both genera differ from the other genera of the tribe (Heromorphus Obenberger, 1916; Paracylindromorphus Théry, 1928; Catonius Théry, 1929; Franchetia Théry, 1947 = Capeneria Cobos, 1953; Zita Bellamy, 1992; Zitella Bellamy, 1992) by the completely vaulted or flattened pronotum without any transverse groove or elevation and by the absence of the supralateral pronotal carinae. Paracylindromorphus is known from the Palaearctic, Oriental and Afrotropical regions. Franchetia, Zita and Zitella are strictly from continental Subsaharan Africa, while the monotypic Heromorphus is known only from Madagascar. Cantonius contains only a few species from Southeast Asia.

In addition to different distribution, Cylindromorphus and Afrocylindromorphus gen. n. differ as indicated in the following table.
Key to the genera of Cylindromorphini

1 (2) Pronotum more than twice as wide as long; all tibiae conspicuously arched, femurs without grooves for tibiae in repose; antennae usually 10-segmented, rarely 11-segmented; only SE Asia ............................................................. Cantonitus Théry

2 (1) Pronotum less than twice as wide as long; tibiae straight or only slightly arched, femurs with more or less distinct grooves for tibiae in repose; antennae 11-segmented only very rarely 10-segmented (Zitella Théry); whole Asia, Africa and Europe.

3 (4) Whole body flattened, pronotum smooth without any transverse grooves, keels or swellings (Fig. 1); lateral sides of pronotum without lateral carina, pronotum slightly narrowing anteriorly; head narrower than pronotum; genae with deep grooves for antennae in repose (Fig. 2); Congo .............................................................. Afrocylindromorphus gen. n.

4 (3) Body cylyndrical or subcylindrical, not flattened; pronotum narrowing posteriorly or subparallel with transverse grooves, keels or simple, transverse swellings; lateral sides of pronotum with well developed lateral carina, usually also with supralateral carina; head usually wider than pronotum; genae without or with very feebly developed grooves for antennae in repose.

5 (6) Pronotum subparallel with well developed, S-shaped lateral carinas but without supralateral carinas; scutellum very small, punctiform; frons with deep and rather narrow medial groove which is nearly pit-shaped in its midlength; pronotum with well developed transverse groove and rather high transverse carina and basal swelling; claws with large, basal tooth (Fig. 6); Madagascar .............................................................. Heromorphus Obenberger

6 (5) Pronotum narrowing posteriorly, rarely subparallel with straight lateral carinas and usually with well developed supralateral carinas; scutellum small but well developed, triangular; frons with shallow, medial groove or with wide but not deep, medial, open V-shaped depression; pronotum usually with transverse swellings, rarely with transverse carina; claws simple; Central and Southern Africa.
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7 (10) Pronotum anteriorly bordered by a smooth, more or less, wide band and sometimes reduced to a simple, small costa but always limited posteriorly by one simple stria and not by groove; disc convex, more rounded in middle, widely and transversely impressed on the posterior 1/3, against the base, these impressions ascending each side, with the superior carinae and sometimes slightly evident.

8 (5) Head, more or less, globular, not excavated in middle, more or less profoundly grooved and sometimes divided into two round lobes on the sides on which are placed the eyes; base of frons with fringe of bright setae, close together and directed to the base; form more often subcylindrical; more or less pubescent; apex of elytra dentate or not .................................................. Paracylindromorphus Théry

9 (8) Head, more or less, depressed on the apex of the frons and vertex; wide, generally projecting, more or less, past the apex of pronotum; form, more or less, short and depressed, sufficiently broad; body glabrous; apex of elytra not dentate .................................................. Franchechta Théry

10 (7) Pronotum without anterior marginal band, the disc transversely grooved and a slight distance posteriad the anterior margin, more widely grooved at the base, the space between the two grooves elevated and more or less distinctly carinate, interrupted in middle or shortened on each apex; head generally wide and excavated on the front and vertex, the eyes situated against the anterior margin of the frontal excavation; apex of elytra always, more or less, distinctly dentate.

11 (12) Antennae with 11 antennomeres, 6 most distal serrate .................................................. Zita Théry
12 (11) Antennae with 10 antennomeres, 5 most distal serrate .................................................. Zitella Théry

Afrocyllindromorphus platysomus gen. n. et sp. n.
(Figs 1-5)

Body small, flattened and rather robust (Fig. 1), black and lustrous, completely asetose species; ventral side distinctly less lustrous due to fine, dense microsculpture.

Head large, transverse, slightly bilobed, narrower than pronotum; eyes small, nearly elliptical, very slightly projecting beyond outline of head; frons widely grooved, its anterolateral angles projecting anteriorly forming two small lobes; sculpture of head consisting of small, simple punctures, interstices between them being twice (frons) or four times (vertex) wider than their diameter; third antennomere slightly triangular, antennomeres 4-10 sharply triangular, as wide as long.

Pronotum slightly narrowing anteriorly, 1.5x as wide as long, its lateral margins very slightly arched, nearly straight; anterior pronotal margin almost straight, its medial lobe nearly indistinct; pronotal sculpture consisting of wide but shallow and sparse punctures, interstices between them being 2-3x wider than their diameter; lateral sides of pronotum regularly bent ventrally without any carina.

Elytra 2.6-2.7x as long as wide, flattened and very feebly serrate on their apices; elytra slightly narrowed behind humeral swellings, then subparallel and regularly attenuated in their apical fourth, not caudiform; elytral sculpture consisting of shallow, rounded punctures which form longitudinal rows (especially on lateral parts of elytra) and by short, transverse rugae which are rather indistinct on apical third of elytra.
Prosternal process simply but rather deeply punctured, parallel, not margined. Anal sternum roughly granulate, rounded with double margin posteriorly and finely incurved apically (Fig. 3). Legs short, meso- and metatibiae of both sexes flattened and enlarged in their distal half. Tarsi short, last tarsal segment much shorter than the rest tarsomeres together. Claws flat, hook-shaped, slightly enlarged in their basal half.

Aedeagus (Fig. 5) short, parameres enlarged posteriorly, median lobe with well separated lateral parts.

Length: 4.9-5.7 mm (holotype 4.9 mm); width: 1.3-1.5 mm (holotype 1.3 mm).
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Holotype and allotype deposited in MRAC, paratypes in MRAC, NMPC and TMSA.

Etymology. The specific name is derived from the Greek adjective "platos" - wide and substantive "soma" - body to emphasize the body shape.

Afrocylindromorphus platysomus gen. n., sp. n. belongs among the largest and most robust species of Cylindromorphini differing from all members of the tribe by its flattened body, well developed groove for antennae in repose, absence of lateral, pronotal carina, very short last tarsomere which is much shorter than the rest of tarsus and by other characters given in the differential diagnosis of the genus and in the key of the genera.

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Souhrn

Popis nového rodu a druhu, Afrocylindromorphus platysomus gen. n., sp. n., z Konga. Klíč rodů tribu Cylindromorphini a diskuze o postavení rodu Afrocylindromorphus v tribu Cylindromorphini.

References