

A new species of the genus *Mamboicus* Bates, 1886 from Mozambique (Coleoptera: Carabidae: Scaritinae)

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Taxonomy, new species, Coleoptera, Carabidae, Scaritini, *Mamboicus*, Afrotropical Region, Mozambique

Abstract. *Mamboicus bittencourtae* sp. nov. from Mozambique is described as a new species. The new species is illustrated including its aedeagus, and compared with the related taxa.

INTRODUCTION

The genus *Mamboicus* Bates, 1886 was revised by Bänninger (1939), who keyed all species known that time. Later only Bulirsch (2016) described another new species. The genus *Mamboicus* is closely related to the genus *Scarites* Fabricius, 1775, so that some earlier authors, including Bänninger (1939), considered it as a subgenus of the latter genus. I consider the description of the following new species as helpful and needful for the next studies of the genus.

MATERIAL AND METHODS

The study of dry-mounted type specimen as well as several other specimens of the genus, including measurements and examination of the microsculpture, was done at a magnification up to 56×. All available specimens were measured. Length and width of different parts of body (total lengths including closed mandibles) are given with accuracy 0.1 mm, other measurements, ratios and means are rounded to two decimal places. Label data of all specimens are quoted verbatim. Aedeagi were fixed with water soluble glue on small cards and placed on the same pins below the beetles.

All to date known taxa from this genus were studied for comparison as follows: several diverse specimens from the Bänninger's collection (now in ETHZ, Zürich) including samples of the type material; several specimens including types from MFNB as well as some type specimens from BMNH, also the extensive material from the author's collection, and finally, diverse material from several other collections.

The following abbreviations are used to indicate the depository of specimens:

BMNH Natural History Museum, London, U.K;

ETHZ Eidgenössische Technische Hochschule, Zürich, Switzerland;

MFNB Museum für Naturkunde der Humboldt Universität zu Berlin, Bereich Zoologisches Museum, Berlin, Germany;

PBPC private collection, Petr Bulirsch, Praha, Czech Republic.

Other abbreviations:

HT: holotype, PT: Paratype, DSP: dorsal setiferous punctures, SP: setiferous punctures.

RESULTS

genus *Mamboicus* Bates, 1886

It consists of 13 currently known taxa (11 species and two subspecies) strictly occurring in the Afrotropical Region. All of them (except *M. nguruensis* Bulirsch, 2016) were revised and keyed by Bänninger (1939). Members of the genus can be easily distinguished of the genus *Scarites* s. str. especially by the combination of following characters: the head have the facial furrows deep and narrow; the metasterna are distinctly shorter than hind coxae and the median tibiae have only one preapical lateral tooth.

Mamboicus bittencourtae sp. nov.

(Figs. 1-2)

Type material. Holotype (♂): Mozambique, 1290 m / Mt Inago / -15.15344°; 37.42950° / 8-12.xii.2018, G. Bittencourt leg. / BMNH(E) 2019-22 (BMNH).

Description. Habitus as in Fig. 1. Upper surface entirely black, outer antennomeres and mouthparts dark fuliginous. Total length 18.4 mm; width 5.5 mm, width of head 5.1 mm; pronotum 1.67 times as broad as long, elytra 1.66 times as long as broad.

Head. Mandibles rather long, moderately broad; outline in middle barely concave, inner keel blunt, indistinctly elevated basally, indistinct in apical half; surface between outline and keel very gently bisinuate, rather slightly concave, shiny, without wrinkles, in posterior fourth slightly convergent basally; inner margin of inner tooth of left mandible prolonged apically, with two narrowly rounded teeth (small posterior and rather large anterior), with fine excision between them and with another, very small and very blunt tooth just before apex; right mandible with complementary structure of inner margin, both mandibles without wrinkles except very fine vestigial ones on base of both teeth. Eyes rather small, strongly vaulted; genae slightly shorter than eyes, in dorsal view narrowly rounded, distinctly broader than eyes, gently overlapping its posterior edge, separated from vertex by deep, moderately broad and sharp facial furrow. Frontal furrows moderately deep, narrow, almost parallel, rather short, vanishing at about mid-eye level, anteriorly connected by very fine transverse furrow, latter deeper and broader antero-laterally, running to anterior part of supraantennal plates. Latter strongly, regularly broadened in posterior half, in middle rather narrowly rounded, then directly narrowed to anterior clypeal margin with distinct, narrowly rounded sublateral tooth on each side of moderately concave, slightly bisinuate anterior clypeal margin. Surface moderately shiny, posteriorly with very fine reticulation, with few fine, superficial wrinkles between facial and frontal furrows; neck with very broad, laterally moderately deep, medially superficial transverse channel and almost without fine punctures.

Antennae moderately long, antennomeres 5-10 distinctly longer than broad, antennomere 2 shorter than 3. One pair of clypeal and one of facial SP.

Pronotum. Rather flattened in lateral view, outline regularly, rather slightly broadened below anterior angles, then rather slightly, regularly convex, moderately narrowed posteriorly, in lateral view finely and sparsely dotted; anterior angles rounded, its tip obliquely cut (as in Fig. 1), posterior angles with distinct, rather sharp tooth; lateral parts of base with slightly deeper and broader channel, slightly s-sinuate, almost directly narrowed medially and connected with moderately protruding median part at narrowly rounded, obtuse angle. Anterior transverse furrow very broad and very superficial, almost vanishing medially; median line narrow, moderately deeply impressed. One anterior and one posterior lateral SP in moderately broad, rather superficial lateral channel. Surface on disc moderately shiny, with fine reticulation, latero-basally rather dull, with distinct reticulation. Basal foveae large and superficial, with fine and dense microtubercles.

Elytra. Anteriorly distinctly flattened in lateral view, rather dull, with regular and distinct isodiametric reticulation, distinctly deeper latero-apically; apex dull, with dense and fine microtubercles. Disc not concave in anterior fourth in lateral view; outline long ovate, slightly convexly broadened below midlength, rather narrowly rounded in apical half; base slightly concave medially, then with long, almost direct humeral ridge with large, rather sharp humeral tooth; maximal width distinctly below midlength. Striae impunctate, striae 1-4 narrow, moderately fine, 5 and 6 very broad and superficial, broader than interval 6 between them, 7 just recognizable below humeri; intervals 1-4 almost flat, interval 5 slightly vaulted basally, 6 narrow and moderately vaulted basally, 7 strongly, narrowly elevated, basally curved inwards below humeral tooth; carinate along stria 6 in its whole length, forming outline below humeri and above apex; interval 8 divided from 7 by fine and blunt keel. Lateral channel deep and very narrow below humeri, gradually broadened apically. Base and humeral area with moderately broad row of small and few larger tubercles. Third interval with three DSP in / near stria 3: anterior DSP of left elytron distinctly above, on right below midlength, two posterior ones in apical fourth.

Lower surface. Mentum laterally broadly vaulted, slightly, rather narrowly beaded, laterally without distinct wrinkles, medially surface with rests of (sub)longitudinal wrinkles and tubercles, with moderately distinct reticulation; antero-lateral angles gently sharp, very narrowly rounded; median part rather slightly deepened, with broad, rather blunt median ridge; its anterior margin rather slightly elevated, directly narrowed to slightly bent down anterior tooth; broad paragenes moderately excised in inner anterior third, inner tooth small and rather sharp; inner posterior margin shortly, indistinctly prolonged postero-laterally by elevation; surface of paragenes shiny, with fine micropunctures and fine reticulation and with very distinct and long keel, running subparallel with lateral margin from inner tooth posteriorly below posterior margin of paragenes, more elevated posteriorly. Prosternal process without latero-basal setae; metasterna without setae, almost twice shorter than hind coxae; metepisterna short and broad, its anterior margin almost twice narrower than in episterna. Sternit 3 (= sternit 2 in Bänninger (1939)) medially with strongly reduced group of fine punctures, without visible setae (abraded?), all sterna with fine and dense punctures mixed with wrinkles and with indistinct reticulation; sterna basally without transverse

furrows. Proepisterna smooth, rather shiny, with moderately fine reticulation; epipleura moderately shiny, with very few indistinct, transverse ridges, very broad to anterior margin of sternite 1, posteriorly rather slightly narrowed, with irregular, very fine reticulation and without transverse ridges. Hind trochanters with one seta each

Legs. Anterior tibiae with four gradually decreasing lateral teeth below final spine, first of them very long and narrow. Connection between terminal tooth and anterior margin of first lateral tooth barely above lower margin of protibiae.

Aedeagus. Shape of median lobe laterally and parameres as in Fig. 2. In lateral view rather short and broad, with strongly narrowed, sinuate apex; apical part in dorsal (or ventral) view moderately long and slightly convexly narrowed before short, moderately broadly rounded apex. Length of median lobe 2.4 mm.



Fig. 1. *Mamboicus bittencourtae* sp. nov. Habitus (HT). Actual length 18.4 mm.

Fig. 2. *Mamboicus bittencourtae* sp. nov. Aedeagus (HT): median lobe in left lateral view and parameres. Actual length of median lobe 2.4 mm.

Differential diagnosis. *M. bittencourtae* sp. nov. differs from all to date known species of the genus by the combination of the following characters: the body laterally moderately flat; the head having narrowly rounded, laterally strongly protruding genae; the pronotum having a sharp posterior lateral angles and the elytra having rather rough reticulation, very broad striae 5-6 and carinate interval 7.

According to the key in Bänninger (1939) and study of all known taxa, only *M. semigranulatus* (Bänninger, 1929) and its subspecies *M. s. singularis* (Bänninger, 1935), have interval 7 forming the outline of the elytra below the humeri and concurrently sharp pronotal postero-lateral angles (teeth) as well as distinct stria 7 on the elytra. The new

species can be easily distinguished from both latter taxa especially by the head with the antennae much longer (in *M. semigranulatus* the antennomeres 5-10 are transverse) and with the frontal furrows being shorter and parallel (in *M. semigranulatus* are furrows longer, distinctly divergent posteriorly); by the elytra being more strongly flattened in the lateral view and having striae 5-6 strongly broadened anteriorly. *M. s. singularis* differs moreover by the elytra being basally without rough reticulation.

Name derivation. Patronymic, in honour of the collector, a herpetologist Gabriela Bueno Bittencourt-Silva (BMNH).

ACKNOWLEDGEMENTS. My hearty thanks are due to Beulah Garner, Maxwell V. L. Barclay and Michael Geiser (BMNH), Rod Eastwood (ETHZ), Bernd Jaeger and Johannes Frisch (MFNB) for loan of type material for the comparison and / or for loan of unidentified material used for the description, and last but not least to Jiří Hájek (NMPC) for the assistance in making the pictures.

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Received: 16.9.2020

Accepted: 20.10.2020

Printed: 31.3.2021

