

## A second species of *Smetanabatrus* (Coleoptera: Staphylinidae: Pselaphinae)

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**Abstract:** *Smetanabatrus ghecu* sp. n. from Myanmar is described, illustrated, and compared to its only congener *S. kinabalu* Yin & Li, 2013 in Borneo. Male secondary sexual modifications of the new species are much less developed than in males of *S. kinabalu*, in addition to genitalic differences.

**Keywords:** Taxonomy - Asian biodiversity - new species - morphology - Myanmar.

### INTRODUCTION

The monotypic genus *Smetanabatrus* Yin & Li currently contains a single species, *S. kinabalu* Yin & Li, from Sabah, northern Borneo (Yin & Li, 2013). During the course of a study on the Pselaphinae material from the Museo Civico di Storia Naturale “Giacomo Doria”, Genova (MSNG), we discovered a new species of *Smetanabatrus* collected in central Myanmar by Leonardo Fea during 1888. Unlike *S. kinabalu* which has strongly modified legs and abdomen in adult males, the new species appears much more ‘simple’ in possessing male characters only on the protibiae, venter of the head, and sternite V. Based on study of this second species, it seems that the expanded maxillary palpomeres IV and the broadly transverse aedeagal basal bulb may be considered as possible synapomorphies since they are shared by both species. With a large geographical span between the type localities of *S. kinabalu* and the new species, additional members of *Smetanabatrus* are expected to be found in Southeast Asia.

### MATERIAL AND METHODS

The type series of the new species described below is deposited in MSNG (Roberto Poggi).

The label data are quoted verbatim. A slash is used to separate different labels. Authors’ supplementary notes are included in square brackets. The following abbreviations are applied: AL—length of the abdomen along the midline; AW—maximum width of the abdomen; EL—length of the elytra along the sutural line; EW—maximum width of the elytra; HL—length of the

head from the anterior clypeal margin to the occipital constriction; HW—width of the head across eyes; PL—length of the pronotum along the midline; PW—maximum width of the pronotum. Length of the body is a combination of HL + PL + EL + AL.

### TAXONOMIC PART

#### *Smetanabatrus ghecu*, new species

Figs 1-2

**Type locality:** Central Myanmar, southern Shan State, Carin Asciuii Ghecù.

**Type material** (3 ♂♂, 16 ♀♀): Holotype [MSNG]: MYANMAR: ♂, labeled ‘Carin Asciuii Ghecù [approximate coordinate: 19°41’N, 97°00’E, (Schillhammer, pers. comm.)], 1400-1500 m, L. Fea. III-IV. [18]88. / Museo Civico di Genova’. Paratypes [MSNG]: MYANMAR: 2 ♂♂, 14 ♀♀, same data as holotype; 2 females, same data, except ‘1300-1400 m’.

**Diagnosis:** Body large-sized, average length 3.3 mm. Head and pronotum coarsely granulate, vertex with a distinct median carina, pronotum with discal carinae and distinct median and lateral sulci; maxillary palpi IV greatly broadened; tergite IV largest, about four times as long as tergite V. Male with large ocular canthi, and abdominal sternite V possessing a trapezoidal protuberance at middle. Tergite VII of female shorter than that of male, and posterior margin at middle more emarginate than in male; genital complex weakly sclerotized, transverse.



**Description:** Male (Fig. 1A). BL 3.29-3.31 mm. Body reddish brown, tarsi lighter in color; most part of dorsal surface densely setose. Head distinctly transverse, HL 0.63-0.69 mm, HW 0.77-0.82 mm; surface coarsely granulate; vertex slightly convex, foveae below level of posterior margins of eyes, with reverse U-shaped sulcus connecting foveae, median carina present from base toward apex of frons; eyes relatively large, each

composed of about 55 facets; with large ocular canthi (Fig. 2A); maxillary palpi (Fig. 2E) with greatly broadened palpomeres IV; antennomeres each elongate, clubs indistinct (Fig. 1A). Pronotum nearly cordiform, wider than long, PL 0.69-0.71 mm, PW 0.74-0.78 mm, coarsely granulate; with large antebasal spines, with deep median sulcus, thin, curved discal carinae, and sinuate lateral sulci; lateral margins rounded, gradually



Fig 1. Dorsal habitus of *Smetanabatrus ghecu* sp. n. (A) Male. (B) Female. Scales: 1.0 mm.



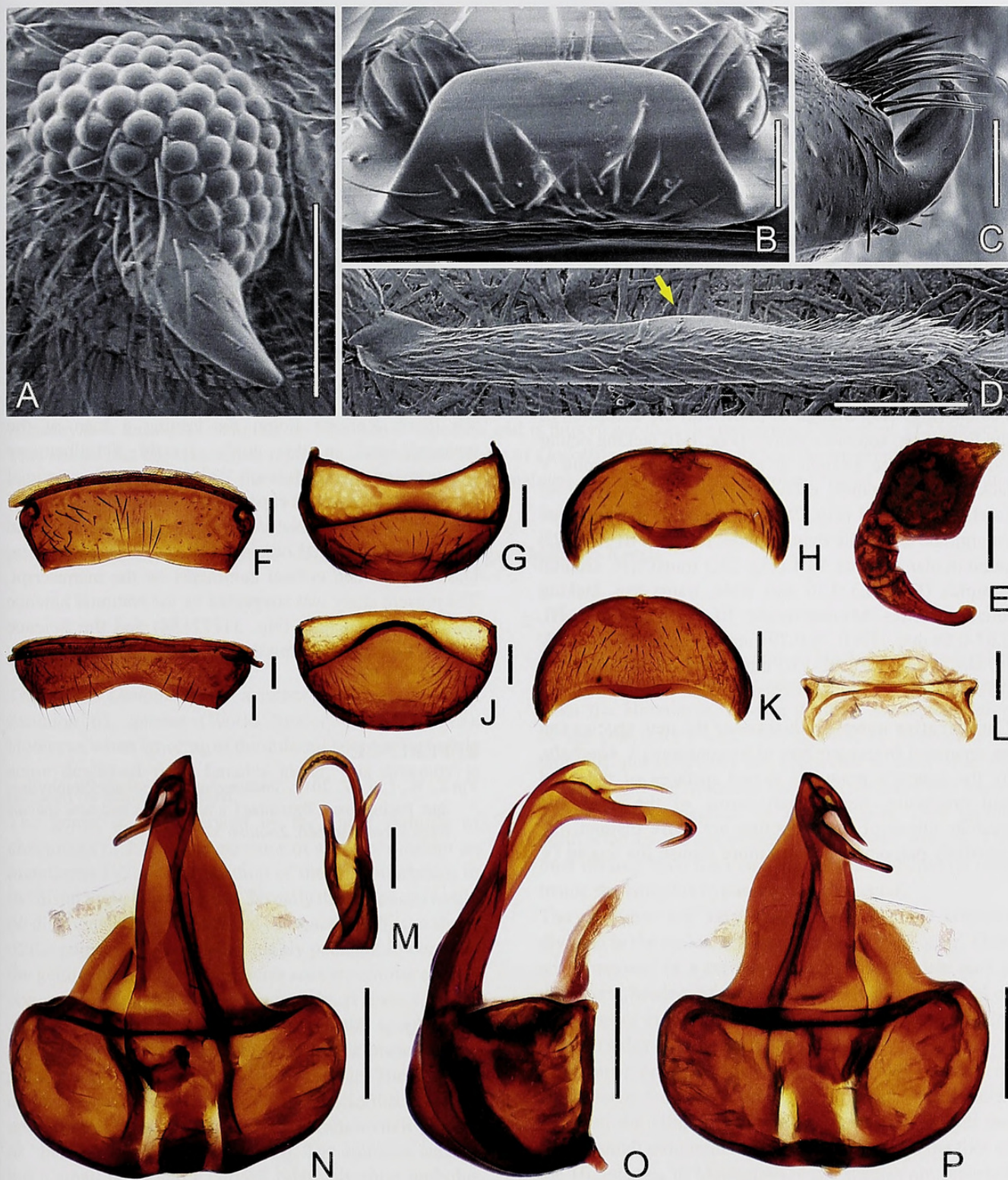


Fig 2. Diagnostic characters of *Smetanabatrus ghecu* sp. n. (A-D, E-H, M-P Male. I-L Female). (A) Compound eye and ocular canthus. (B) Protuberance of sternite V, in ventral view. (C) Same, in lateral view. (D) Protibia. (E) Maxillary palpus. (F, I) tergite VII. (G, J) tergite VIII. (H, K) sternite VIII. (L) Genital complex. (M) Apex of aedeagal ventral lobe, in axial view. (N) Aedeagus, in dorsal view. (O) Same, in lateral view. (P) Same, in ventral view. Scales: A, D, N-P = 0.2 mm; E-L = 0.1 mm; B, C, M = 0.05 mm.



narrowed from middle toward base. Elytra slightly wider than long, EL 1.03-1.05 mm, EW 1.17-1.20 mm; surface finely punctate; with three large, deep basal foveae. All legs simple, except protibiae (Figs 1A, 2D) slightly expanded at mesal margins near middle. Abdomen slightly wider than long, AL 0.88-0.92 mm, AW 1.10-1.12 mm; tergite IV largest, simple, about four times as long as tergite V, tergites VI-VII successively shorter, tergite VII (Fig. 2F) shallowly emarginate at middle of posterior margin, tergite VIII (Fig. 2G) semicircle; sternite V with trapezoidal protuberance at middle (Fig. 2B, C), sternite VIII (Fig. 2H) transverse. Aedeagus (Fig. 2N-P) asymmetric, length 0.37 mm; transverse basal bulb with large foramen; ventral lobe elongate, broad at base, apex split to three thin sclerites (Fig. 2M); ventral membrane transverse, lamellate. Female (Fig. 1B). Similar to male with the exception of the following: antennae shorter (Fig. 1B), lacking ocular canthi; protibiae straight at mesal margins; sternite V lacking protuberance; each eye composed of about 45 facets. Tergite VII (Fig. 2I) with posterior margin more emarginate at middle than in male; tergite VIII (Fig. 2J) semicircular, sternite VIII (Fig. 2K) transverse. Genital complex (Fig. 2L) 0.36 mm wide, transverse, lacking lateral sclerites. Measurements: BL 3.29-3.32 mm, HL 0.67-0.68 mm, HW 0.78-0.79 mm, PL 0.69-0.71 mm, PW 0.74-0.76 mm, EL 1.02-1.03 mm, EW 1.18-1.20 mm, AL 0.88-0.93 mm, AW 1.07-1.08 mm.

**Comparative notes:** Both sexes of the new species can be separated from members of its congener, *S. kinabalu*, by the coarsely granulate dorsal surfaces of the head and pronotum, the median carina of the head and median sulcus of the pronotum are more distinct, the maxillary palpomeres IV are more robust, the tergite IV

is relatively much longer, and the structures of the male and female genitalia are distinctly different. The males of *Smetanabatrus ghecu* have unmodified profemora, metatibiae, and abdominal tergites (Fig. 1A), while those of *S. kinabalu* have the profemora greatly spinose at ventral margins, the metatibiae angularly expanded at basal third of the lateral margins, and possess dramatically modified abdominal tergites IV-VII (Yin & Li, 2013: figs 1-2).

**Distribution:** Myanmar: southern Shan State.

**Etymology:** The specific name is taken from the type locality, Carin Asciuii Ghecù.

## ACKNOWLEDGMENTS

We thank Roberto Poggi for issuing a loan of the material used in this study. Harald Schillhammer (Naturhistorisches Museum Wien, Austria) provided coordinates of L. Fea's expedition in Myanmar. Ivan Löbl (Muséum d'Histoire Naturelle, Geneva, Switzerland) and Christopher Carlton (Louisiana State Arthropod Museum, U.S.A.) provided critical comments on the manuscript. The present study was supported by the National Science Foundation of China (No. 31172134) and the Science and Technology Commission of Shanghai Municipality (No.15YF1408700).

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Yin, Zi-Wei and Li, Lizhen. 2020. "A second species of *Smetanabatrus* (Coleoptera: Staphylinidae: Pselaphinae)." *Revue suisse de zoologie* 122(2), 377–380.

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