

## A New Species of the Genus *Eobrosicus* (Coleoptera, Carabidae) from Northern Vietnam<sup>1)</sup>

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**Abstract** A new broscine carabid beetle, *Eobrosicus* (*Orobrosicus*) *uenoi* sp. nov., is described from northern Vietnam. It is mainly characterized by dark coloration with greenish lustre on the elytra, intermediate body size, and robust aedeagus.

In this paper, I am going to describe a new species belonging to the carabid genus *Eobrosicus*, which was very recently collected in northern Vietnam. The discovery of this broscine beetle, though only a pair of the specimens are available for this study, is of deep interest from taxonomic and zoogeographic viewpoints. Judging from its tarsal structure, this Vietnamese species must belong to the subgenus *Orobrosicus* (MORITA, 1990, p. 159). However, chaetotaxy on the anal sternite in the male, which was regarded in my previous study as one of the diagnostic characters of the subgenus, does not accord with that of the known members of the subgenus because it has only a pair of the setae and an additional seta. At this opportunity, therefore, I will give an account on this problem.

Besides, my expectation noted in my previous paper is fulfilled by this discovery, which fills in a wide blank in our knowledge of the distribution of the genus *Eobrosicus*.

The abbreviations used herein are as follows: HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the median line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; M – arithmetic mean.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for reading the manuscript of this paper and giving me the opportunity to study on the invaluable material. Thanks are also due to Dr. Masataka SATÔ of Nagoya Women's University and Dr. Mamoru OWADA of the National Science Museum (Nat. Hist.), Tokyo, for their help.

All the type specimens are deposited in the collection of the Department of

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*Eobrosclus (Orobrosclus) uenoi* MORITA, sp. nov.

(Figs. 1-8)

Length: 15.89 mm in the holotype, 16.34 mm in the allotype (from apical margin of clypeus to apices of elytra).

Colour almost black with slightly purplish lustre; elytra with greenish lustre, especially in the holotype; ventral side, clypeus and appendages dark brown to brown.

Head convex, with several oblique wrinkles; frontal furrows rather deep and divergent behind; eyes prominent; genae relatively convex; vertex convex and without wrinkles; neck with wide and deep transverse sulcus; mentum tooth bifid and rounded at each tip; mentum with two pairs of setae (cf. MORITA, 1990, fig.

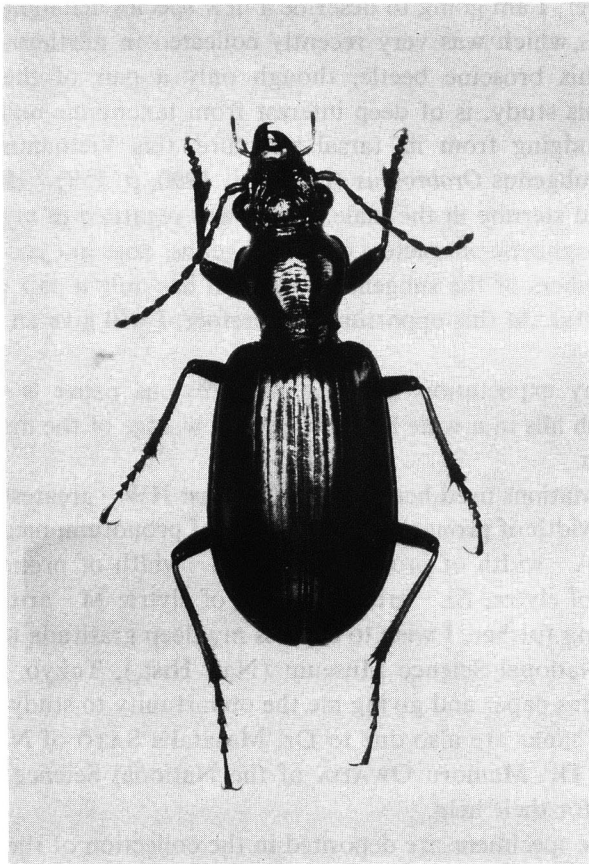
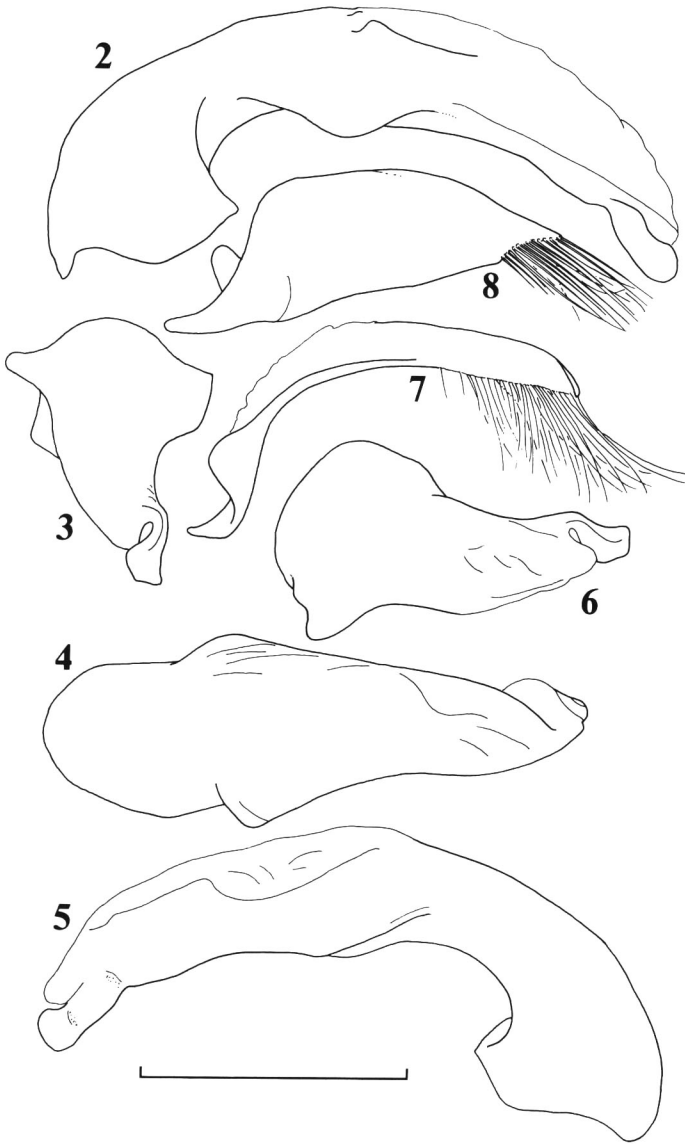


Fig. 1. *Eobrosclus (Orobrosclus) uenoi* MORITA, sp. nov., ♂, from the Hoang Lien Son Mts. in northern Vietnam.



Figs. 2-8. Male genital organ of *Eobrosus* (*Orobrosus*) *uenoi* MORITA, sp. nov.; 2, aedeagus, left lateral view; 3, apical part of aedeagus, apical view; 4, aedeagus, slightly dorso-apical view; 5, aedeagus, slightly right dorso-lateral view, showing the shape of apical lobe; 6, aedeagus, dorso-apical view; 7, right style, left lateral view; 8, left style, left lateral view. (Scale: 1.5 mm.)

13); submentum with three pairs of setae and an additional seta at the left side in the holotype, four pairs of setae in the allotype; each side of gula with two oblique foveae; the area between the two foveae strongly convex; apical margin of labrum

almost straight and weakly emarginate at median part and with six setae in the holotype, four setae in the allotype; clypeus with a pair of setae; microsculpture almost vanished; surface microscopically punctate; relative lengths of antennal segments as follows: I: II: III: IV: V: VI: XI  $\cong$  1 : 0.52 : 1.34 : 0.97 : 0.93 : 1.00 : 1.10 in the holotype, 1 : 0.50 : 1.39 : 0.93 : 1.04 : 1.07 : 1.21 in the allotype.

Pronotum cordate, convex, a little wider than long, and widest at about 3/10 from apex in the holotype, 1/3 in the allotype, PW/HW 1.13 in the holotype, 1.08 in the allotype; PW/PL 1.12 in the holotype, 1.10 in the allotype; PW/PA 1.32 in the holotype, 1.26 in the allotype; PW/PB 1.42 in the holotype, 1.44 in the allotype; apex almost straight, PA/PB 1.07 in the holotype, 1.14 in the allotype; sides moderately arcuate in front, deeply sinuate and then divergent towards hind angles; apical angles a little produced and rounded at the tips; hind angles nearly rectangular and blunt at the tips; median line shallow, reaching neither apex nor base; anterior pair of setae situated at about the widest part, with no additional seta, posterior one situated a little before hind angles; basal part sparsely and coarsely punctate; no appreciable basal foveae; base arcuate throughout; surface microscopically punctate throughout; disc with transverse wrinkles; microsculpture almost vanished, but partially composed of transverse meshes, especially on basal part.

Elytra oblong-ovate, widest a little behind the middle; EW/PW 1.62 in the holotype, 1.69 in the allotype; EL/EW 1.53 in the holotype, 1.59 in the allotype; shoulders rounded and convex; striae shallow, finely punctate and obsolete at the sides; stria 8 obsolete in basal half, but wide and deep at apical part; apical striole wide, deep, joining stria 7 and with a single pore; basal pore present, situated on stria 2; marginal series composed of three pores, anterior pore situated at about 1/4 from base in the holotype and 1/5 in the allotype, middle one situated at about 3/4 from base in the holotype, 7/10 in the allotype, posterior one situated on stria 8; intervals almost flat, and with wrinkles which are irregularly transverse or oblique; microsculpture distinct, consisting of polygonal meshes.

Prosternum and prepisternum sparsely and finely punctate in the holotype, rather coarsely so in the allotype; sides of metasternum with transverse wrinkles in the holotype, almost smooth in the allotype; sides of sternites with fine punctures and wrinkles; anal sternite provided with a pair of setae and an additional seta on the left side in the holotype, with two pairs of setae and an additional seta on the right side in the allotype.

In the holotype, claw segments of meso- and metatarsi each with inner and outer longitudinal sulci on dorso-lateral sides in about proximal 1/2–3/4, though they are usually shallow or rudimentary; in the allotype, all claw segments almost smooth except for a pair of setae.

Aedeagus elongate, arcuate and with three wings; right wing (rw: cf. MORITA, 1990, figs. 1–2) with several longitudinal wrinkles on dorsal surface;

left wing (1w) wide and rounded at the tip; dorsal surface of dorsal wing (dw) membranous though the proximal margin is heavily and widely sclerotized; apical part slightly inclined to the right; apical lobe strongly compressed, widely and irregularly rounded in right dorso-lateral view; viewed laterally, apical lobe rounded at apex. Right style arcuate, elongate and a little longer than the left; left style gradually narrowed towards apex; each style with a row of hairs.

*Type series.* Holotype: ♂, Hoang Lien Son Mts., north of Mt. Phang Si Pang, 1,840 m alt., Lao Cai Prov., 9-X-1994, M. SATÔ leg. Allotype: ♀, Sa Pa, 1,500 m alt., Lao Cai Prov., 12-X-1994, M. OWADA leg.

*Range.* Northern Vietnam.

*Notes.* According to my own study (1990, p. 156), the subgenus *Orobrosicus* MORITA (1990, p. 156) was characterized by the following combination of morphological features: anal sternite provided with two pairs of setae in both sexes; in ♂, two proximal segments of each protarsus furnished beneath with adhesive hairs; claw segments smooth on the dorsal surface. As for the chaetotaxial condition of anal sternite in *E. masumotoi*, the type species of *Orobrosicus*, I regarded all the setae as being ordinary, not additional. This conclusion was based on my observation that they were almost of the same size, though the two setae on each side lie close to each other. However, the holotype of this new species has a pair of setae and a short additional seta. Though no other male specimen than the holotype is available for this study, I believe that the other characters mentioned above may suffice for higher classification of broscine beetles, and that *Orobrosicus* is a valid subgenus in *Eobrosicus*. In order to grasp the exact range of variation, it is necessary to accumulate more data from various parts of Asia. This new species is separable from the two known members of the subgenus by having intermediate body size, darker coloration with greenish lustre on the elytra, robust aedeagus, and strongly produced right and dorsal wings of the aedeagus.

According to Dr. UÉNO, both the specimens of the type series were caught at light. The holotype was taken near the edge of a natural forest, while the allotype was found in the town of Sa Pa lying in a deforested area. The two localities are about 6 km distant in a bee-line, but lie on the same branch ridge of the Hoang Lien Son Mountains.

## References

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