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RESEARCH ARTICLE

A new species of *Omaloplia* from Turkey (Coleoptera: Scarabaeidae: Sericinae)

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Abstract: *Omaloplia settorum* **sp. nov.** is described based on a single specimen from Cappadocia, central Turkey. The new species is close to *O. depilis* from northern Greece, from which it is well distinct by the structure of the aedeagus.

Key words: Taxonomy, new species, *Omaloplia*, Scarabaeidae, Anatolia, Cappadocia.

Introduction

The taxonomy of the genus *Omaloplia* Schönherr, 1817 is well known, thanks to a first revision proposed by Baraud (1965) and to the imposing comprehensive work by Rößner & Ahrens (2004), who revised the genus fixing several taxonomic and nomenclatural issues. According to the latter paper, 28 species-level taxa (25 species, 3 subspecies) arranged in two subgenera are currently recognised for this genus, whose range extends from Central Europe to Middle East and to Central Asia. An additional taxon from China (Sichuan) is referred to *Omaloplia* due to a wrong generic assignment and is actually considered *incertae sedis* (Ahrens 2006).

To date, the fauna of Anatolia counts nine species of *Omaloplia* (one of them separated into two subspecies); an additional new species is described in the present paper.

Material and methods

The specimen, dry preserved, was relaxed and degreased by soaking it into 50% acetone. The aedeagus was dissected and mounted by vinyl glue on the tip of a cardboard pinned under the specimen. The latter was mounted with water-soluble glue.

The image of the habitus was produced after a stack photos taken by a Pentax K10D camera equipped with a Sigma 105mm 1:2.8 DG macro lens and a Raynox DCR-250 additional lens. The original photos were mounted with CombineZP software and the resulting image was retouched with Photoshop CS6 software. The images of the anatomical details were produced in the same way, except that the original photos were taken by a Canon Eos 400D camera mounted on a Meiji Techno RZ stereoscope equipped with a MA751 photo attachment and a MA150/50 tube.

The holotype of the new species was compared with 6 specimens of *Omaloplia depilis* Müller, 1910 having the following data: Greece, Macedonia, Athos, leg. A. Schatzmayr, ex coll. G. Leonhard, coll. 1♂, 4♀. Greece, Athos, Daphni, leg. A. Schatzmayr, ex coll. L.v. Heyden, 1♀. All specimens were identified by Rößner in 1995 (coll. Senckenberg Deutsches Entomologisches Institut Müncheberg).

The nomenclature of the parts of the aedeagus follows Rößner & Ahrens (2004).

Results

***Omaloplia* (*Omaloplia*) *settorum* sp. nov.** (Figs. 1-5)

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Diagnosis: Species with carinate elytral epipleura, hence belonging to the subgenus *Omaloplia*. Wings present. Body large-sized (9 mm), black. Dorsal surface almost glabrous, with conspicuous setae only along the clypeus, the anterior margin and sides of the pronotum and the elytral epipleura, elsewhere with sparse micro-setae being scarcely visible. Pygidium with sparse punctures, separated by about 1-3 times their diameter. Aedeagus peculiar, well different from all the other species of the genus: lobus dorsalis and lobus ventralis flat, spatuliform; lobus externus, lobus sinister and lobus dexter fused in a single piece, with lobus externus in form of a long stalk with hooked tip, lobus sinister in form of a short hook, lobus dexter not recognizable.

Material examined: 1 specimen.

Holotype: ♂ labelled “Turkey, Central Cappadocia, Erciyes Dagi, Copsita Dag, m 2500, 3.VIII.1994, leg. G. Sette” (Coll. Muséum d'histoire naturelle de Genève).

Description:

Size: Body length: 9.0 mm (from the anterior margin of the clypeus to the apex of the abdomen; the head partly extended forward), 4.5 mm from the apex of the scutellum to the apex of the elytra. Body maximum width 4.8 mm (in the distal half of the elytra).

Colour of the integuments: Uniformly black, both on the dorsal and the ventral surface, with the exceptions of the antennal articles 1-4, palps and tarsi, which are dark brown. Integuments quite dull.

Morphology: Clypeus slightly sinuate, with broadly rounded anterior angles and regular, slightly curved lateral sides. Margins raised, in particular near the anterior angles. Clypeus covered with dense, irregular punctures, including large and shallow foveate ones. Frontoclypeal suture visible; frons with regular, smaller punctures. Pronotum strongly transverse, 1.7 times as wide as long. Lateral margin convergent forward, regularly curved, anterior angles acute and sharp, posterior angles obtuse and broadly rounded. All margins with marginal line, although poorly visible near posterior angles. Pronotal surface uniformly covered with punctures similar to those of the frons, although slightly more spaced.

Scutellum with sparse punctation, similar to that of the pronotum. Elytra with ten striae, poorly impressed. Punctation sparse, with poorly defined, shallow punctures, which are denser along striae and on even intervals. Odd intervals, in particular 1, 3 and 5, poorly punctuated and slightly raised. Epipleural carina short, only present in the basal fifth of the elytra. Wings present. Pygidium with sparse well-defined punctures, similar to those of the pronotum although less dense, separated by about 1-3 times their diameter. Among the punctures, the integument of the basal half is smooth, that of the distal half is irregularly microsculptured. Basal angles impressed. Protibia with blunt teeth, the anterior ones truncated at the apex (possibly worn), posterior tarsi without punctures.

Pilosity: Pilosity coverage overall scarce. All setae, both on dorsal and ventral side, are yellow. Clypeus with sparse, erect setae. The rest of the head glabrous but for few setae near the eyes. Pronotum with sparse, erect or semi-erect setae along the anterior (Fig. 2) and the lateral edges, and along the sides, near the anterior and the posterior angles, which bear respectively longer and shorter setae. The rest of the pronotal surface glabrous. Elytra with sparse micro-setae, and few recumbent longer setae (0.15-0.20 mm long) along the odd intervals. Elytral epipleura with a fringe of long setae, whose length is decreasing from the base to the apex. Pygidium with sparse recumbent, short setae and few erect setae near the apex. Ventral side of the femora, episterna and sternites with sparse setae.

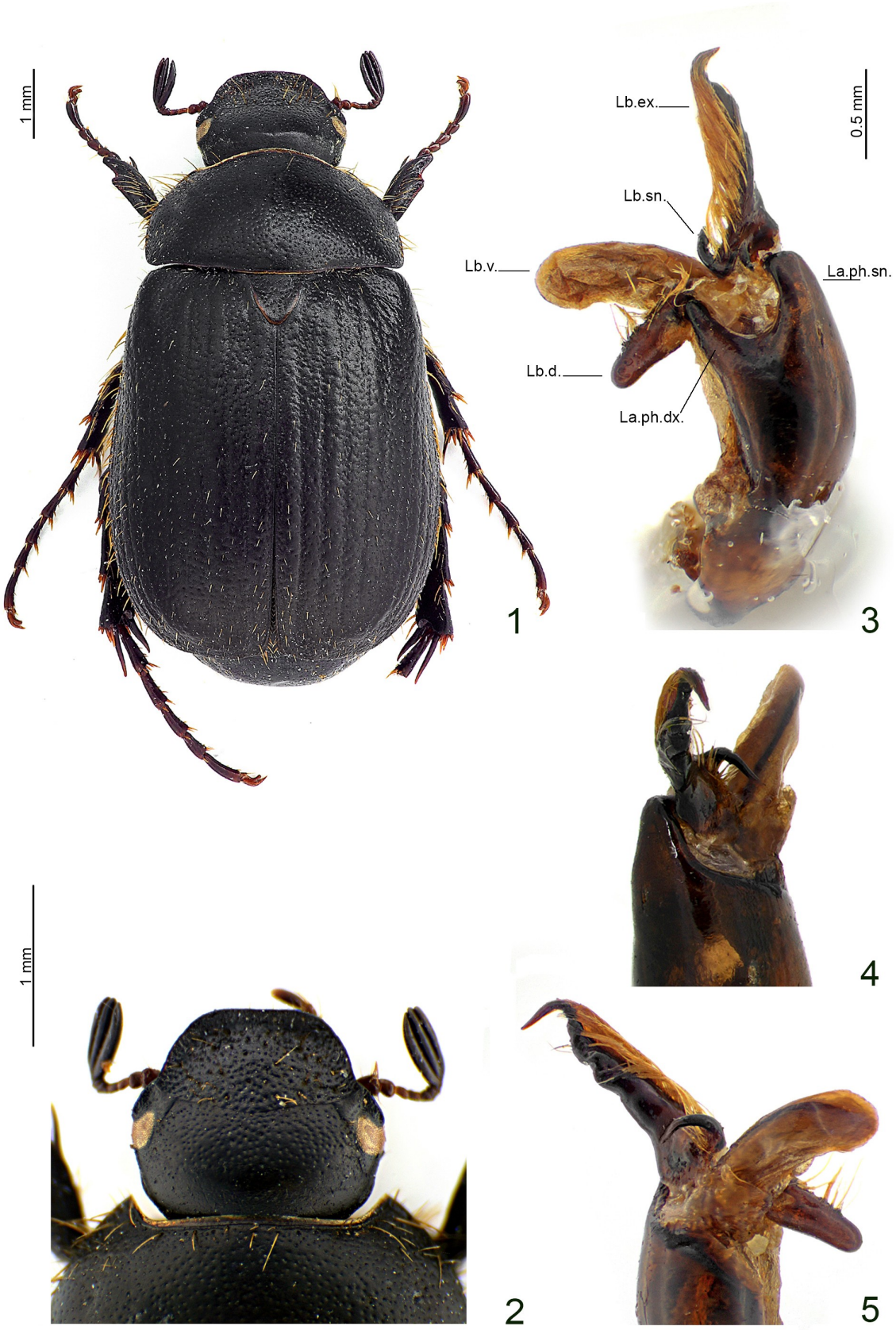
Aedeagus: Peculiar, clearly distinct from all other species of the genus. Dorsal view of the phallobasis only showing the left lamina. Right view of the phallobasis showing a broad, semi-elliptical notch between the left and the right lamina, the two connected without any suture. Lobus dorsalis and lobus ventralis flat, spatuliform. Lobus externus, lobus sinister and lobus dexter fused in a single bifid piece, with lobus externus in form of a long stalk with hooked tip, and lobus sinister in form of a short, roughly semicircular, hook. Lobus dexter not recognizable (Figs. 3-5).

Etymology: The new species is dedicated to the brothers Giancarlo and Alberto Sette (Verona, Italy), who respectively collected and donated me this interesting specimen.

Discussion

Based on external and edeagic characters *O. settorum* **sp. nov.** is most similar to *O. depilis* (Müller, 1910), a species only known from Chalkidiki peninsula in northern Greece, to which it was directly compared. Aedeagic differences between the two species are conspicuous and obviously identifiable by comparing the figs. 3-5 with the drawings by Rößner & Ahrens (2004: 127-128). External differences can be summarized as follow: in *O. settorum* the body size is larger (9.0 mm against 7.1-7.8 mm in *O. depilis*, and namely 7.1 in the only examined male), the elytra shape is different: they are less widened (ratio elytral length/width: 1.16 in *O. settorum*, 1.08 in the male of *O. depilis*) and have maximum width at two thirds of the length (maximum width at half length in the male of *O. depilis*), the dorsal surface is darker and more shiny, the elytral intervals are more flat, the elytral sculpture is more confuse, with singular punctures being less defined, and the punctures of the pygidium are much smaller and sparser (punctures parted by 1-3 diameters in *O. settorum*, parted by <1 diameter in *O. depilis*).

It was not possible to ascertain the placement of the type locality “Copsita Dag”, nor to verify the existence of any similar locality name. The collector of the specimen, upon request, confirmed the name and referred that it was most likely noted from a local road sign. Unfortunately, even assuming a spelling mistake, “Copsita Dag” does not seem to match any similar locality name, nor any Turkish word, with special reference to those indicating



Figures 1–5. *Omaloplia settorum* **sp. nov.**, holotype. **1,** habitus; **2,** detail of the head and the pronotum; **3,** aedeagus, right view; La.ph.dx.: lamina phallobasis dexter, La.ph.sn.: lamina phallobasis sinister, Lb.d.: lobus dorsalis, Lb. ex.: lobus externus, Lb. sn.: lobus sinister; Lb.v.: lobus ventralis; **4,** aedeagus: dorsal view; **5,** aedeagus, left view.

geographic features (L. Gültekin, pers. comm.). Assuming as reliable the high quote recorded, the placement on the Erciyes Dagi would be anyway confirmed, since no other peak of Cappadocia reach quote 2500.

Associated Scarabaeoidea fauna, based on specimens received from the collector with the same label: *Chaetopteroplia segetum velutina* (Erichson, 1847) and *Blitopertha nigripennis* (Reitter, 1888).

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References

Ahrens D. 2006. Scarabaeidae Sericinae, pp. 229–248. In: *Catalogue of Palaearctic Coleoptera*. Vol. 3 (I. Löbl and A. Smetana, editors). Stenstrup, Apollo Books, 690 pp.

Baraud J. 1965. Revision du genre *Homaloplia* Stephens (Col. Scarabaeidae). *Atti della Società Italiana di Scienze Naturali* 104: 393–448.

Rößner E. & Ahrens D. 2004. Taxonomie und Chorologie der Gattung *Omaloplia* (Coleoptera: Scarabaeidae: Sericini). *Dissertation.de - Verlag im Internet GmbH*, Berlin: 1–153.

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