



HOLOTIPUS ARTICLE





Figures 1-2. Pelonium aulaeum n. sp. Holotype, habitus.

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Pelonium aulaeum n. sp., a new checkered beetle from French Guiana (Coleoptera: Cleridae)

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Abstract.

Pelonium aulaeum n. sp., a new species of Pelonium Spinola, 1844, from French Guiana, is described and figured. The new species is distinguishable from its congeners on the basis of colour, setal pattern and elytral sculpturing.

Introduction

The genus *Pelonium* Spinola, 1844 includes 111 species (Opitz, 2018; Opitz, 2019; Zappi, 2021), distributed in the New World. Eight of them are found in French Guiana: P. amabile Spinola, 1844, P. careoitum Opitz, 2018, P. falcatum Opitz, 2019, P. leukotaxium Opitz, 2018, P. plicatum Opitz, 2018, P. regina Opitz, 2018, P. semirufum Gorham, 1877 and P. spectabile (Peracchi, 1960).

The species of the genus Pelonium differ from those of other Peloniinae (sensu Opitz, 2010) in the following combination of characters: body shape oblong rectangular, about 3 times longer than broad; maxillary and labial terminal palpomeres securiform or subsecuriform; antenna eleven-segmented, capitate, capitulum longer than combined length of funicular antennomeres, capitular antennomeres 9 and 10

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KEYWORDS: COLEOPTERA, CLERIDAE, PELONIUM, NEW SPECIES, FRENCH GUIANA, NEOTROPICAL REGION.

may show collateral branch, branch more prominent in males, antennomere 11 oblong; pronotal arch scabrose and pronotal lateral margins with tubercle; elytral disc with minute or large asetiferous punctures; tibial spur formula 0-1-1; tarsal pulvillar formula 3-3-3; claws without basal denticle (Opitz, 2017).

The members of the genus Pelonium are predacious, both as larvae and as adults, on other arthropods (mainly insects) associated with woody plants.

Recently, I had a chance to examine an undescribed species of this genus from French Guiana, which I describe and figure in this paper.

Material and Methods

Morphological observations were undertaken using Meiji EMZ 13 stereomicroscope, with an ocular micrometer for measurements.

Abbreviations used in this paper are defined as follows: EW/FW = eye width (frontal view)/frons width (frontal view); PW/PL = pronotal width (from left tubercle extremity to right tubercle extremity)/ pronotal length (midline from pronotal anterior margin to posterior margin); EL/EW = elytral length (from humeral angle to apex)/elytral width (greatest dorsal width of one elytron). Body length is the distance measured from the apical clypeal margin to the elytral apex. Body width is taken as the greatest observable width across the widest portion of the elytra in dorsal view. The micrographs were taken with a Canon MP-E 65mm f/2.8 1-5x Macro Photo lens on a Canon EOS 600D (18.0 MP) digital camera. CombineZM was used to create the stacked images. The data for the type specimen are cited verbatim in the original spelling and are given in double quotation marks ("") and a slash (/) separates the rows.

The following abbreviation is used in the text:

IZCI = Iuri Zappi Collection, Casalecchio di Reno, Bologna, Italy.

Results

Pelonium aulaeum n. sp.

(Figs. 1-2)

Material examined

Holotype female: "GUYANE FRANÇAISE / Matiti, X-XI.2020 / J. L. Giuglaris leg." (IZCI) {Pre-printed label}.

Diagnosis

This species is distinguished from all other congeners by having the following characters: pronotum greenishblue with metallic sheen and with apex and sides of the base testaceous, elytra densely and finely punctate and with a large blue macula with metallic sheen, pubescence not uniformly distributed, with dense patches of whitish setae. No known species resembles Pelonium aulaeum n. sp. The only species with elytra with metallic sheen are those belonging to the P. viridipenne-group, i.e. P. effusum Opitz, 2018, P. lustroatum Opitz, 2018, P. rossi Schenkling, 1916 and P. viridipenne (Kirby, 1818). However, they are larger species, with completely different elytral patterns, elytral punctuation coarse on the anterior half and fine

and scattered on the posterior half and finally, sparse, evenly distributed, pubescence.

Description of the Holotype

Size: Length 8.1 mm: width 2.9 mm.

Habitus: As in Figs. 1-2.

Colour: Mouthparts dark yellow, except mandibles black and last maxillary and labial palpomeres castaneous; cranium greenish with metallic sheen; antenna with scape and capitulum dark yellow, pedicel and funicle castaneous; pronotum greenish-blue with metallic sheen and with apex and sides of the base testaceous; scutellum, prosternum, mesosternum and mesepisternum dark yellow; metasternum and abdominal sternites blue metallic; elytra with a large and complex blue macula with metallic sheen, the remaining dark yellow on the anterior third and gradually whitish towards the apex; coxae and trochanteres dark yellow; profemora predominantly dark yellow with a limited metallic greenish portion in dorsal view; mesofemora blue metallic with bases and apices dark yellow; metafemora blue metallic with only apices dark yellow; tibiae greenish with metallic sheen; tarsi infuscated.

Head: Cranium very coarsely punctured, covered with whitish setae of different lengths; head, including eyes, slightly broader than pronotum; labrum shallow, incised distally; last maxillary and labial palpomeres subsecuriform; eyes large, protruding laterally, coarsely faceted, emarginated anteriorly at antennal base and with scattered whitish erect setae among ommatidia; frons narrower than width of eye (EW/ FW 2.16); antenna eleven-segmented, capitate, scape feebly arcuate and flat at the posterior margin, pedicel long about 1/2 the length of the scape, funicular antennomeres: 3rd long as pedicel, from 4th to 6th equal size, 7th and 8th equal size but shorter than 6th, combined length of funicular antennomeres about 3/7 the length of capitulum, capitular antennomeres 9 and 10 with collateral branch, antennomere 11 oblong-subtruncate.

Thorax: Pronotum slightly oblong (PW/PL 0.90), covered with whitish setae of different lengths; lateral margin with a well-developed tubercle; disc finely punctate with small glabrous regions, one of them in the centre near base; prointercoxal process slightly expanded distally; pronotal projections long, acuminate, they do not reach prointercoxal process; elytra densely and finely punctate, profusely vested with whitish setae of different length and denser in the lighter parts (EL/EW 3.80); protibial anterior margin spinose.

Abdomen: Glossy, moderately convex, finely and widely punctate, covered with fine, scattered, posteriorly oriented, yellowish and whitish setae; 3rd and 4th visible sternites each with two lateral smooth and nearly hairless areas; 6th visible sternite deeply incised; pygidium scutiform with straight apex.

Distribution

This species is known only from French Guiana.

Etymology

The trivial name, aulaeum, is a Latin noun meaning of "tapestry"; with reference to the elytral colour pattern and vestiture of this beetle.

Biology

The single known specimen lacks information about its biology or collecting method.

Acknowledgements

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Literature cited

Opitz, W. (2010) Classification, natural history, phylogeny, and subfamily composition of the Cleridae and generic content of the subfamilies (Coleoptera: Cleroidea). Entomologica Basiliensia et Collectionis Frey 32: 31-128.

Opitz, W. (2017) Classification, natural history, and evolution of the subfamily Peloniinae. Part VII. The world genera of Peloniinae. Linzer biologische Beiträge 49 (1): 29-117.

Opitz, W. (2018) Classification, Natural History, and Evolution of the Subfamily Peloniinae Opitz (Coleoptera: Cleroidea: Cleridae). Part X. Taxonomic revision of the New World genus Pelonium Spinola. Entomofauna 39 (2): 337-527.

Opitz, W. (2019) Descriptions of new genera and new species of Western Hemisphere checkered beetles (Coleoptera, Cleroidea, Cleridae). Linzer biologische Beiträge 51 (2): 959-1076.

Zappi, I. (2021) New genus, two new species and new country records of Checkered Beetles from the Neotropical region (Coleoptera: Cleridae: Peloniinae). Munis Entomology & Zoology 16 (1): 33-40.

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Front cover image Pelonium aulaeum **n. sp**. Holotype, habitus.

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