

***Leiodes armeniaca* sp. nov., new European species of the family Leiodidae
(Coleoptera) and new faunistic record from Armenia**

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Abstract. *Leiodes armeniaca* sp. nov. from Armenia is described and compared to a similar species. *Agathidium pseudopallidum* Hlisnikovský, 1964 is recorded for Armenia for the first time.

INTRODUCTION

Perreau in the updated Catalogue of Palaearctic Coleoptera (2015) listed 73 European species of the genus *Leiodes* Latreille, 1796. Among them there are three species that were described in the 19th century in several words that did not provide enough information to allow an identification of the species. The types of the three, doubtful species - *Leiodes marshami* (Stephens, 1829), *L. minima* (Rey, 1889) and *L. nigriclavis* Stephens, 1829 seem to be lost (Daffner 1983). No *Leiodes* later found could be assigned to them due to insufficient their original description. Moreover, the original description of one of them - *L. nigriclavis* indicates that it is a monstrose specimen having two foveae on pronotum, while the original description of the second one - *L. marshami* indicates that it is no *Leiodes*. Some characters mentioned in the original description in fact almost exclude the possibility that the species belongs to *Leiodes* (flattened body, black legs, feeble punctuation of elytra). On the other hand Perreau (2015) assigned *L. dilutipes* J. Sahlberg, 1903 to the Asian fauna only. Letting aside the three doubtful species and taken into account that *Leiodes dilutipes* has been collected also in France, it could be counted 71 European species. Meantime, approximately almost at the same time when the Catalogue of Palaearctic Coleoptera (2015) was published, two new European species of the genus *Leiodes* were described - *Leiodes hlavaci* Švec, 2014 from Croatia and *L. kociani* Švec, 2015 from Caucasus. Taking into account the species new to science described in this paper, the European fauna comprises altogether 74 species of the genus *Leiodes*. The Armenian *Leiodes* fauna is poorly known as only two species of the genus have been recorded for the country up to now. Therefore only three species of the genus *Leiodes* are known from Armenia at present.

MATERIAL AND METHODS

Among leiodid material, collected in Armenia recently that was provided by Michael Schülke (Berlin) for the determination, one species of the genus *Leiodes* new to science have

been detected. In addition, the material comprises one female of *Agathidium pseudopallidum* Hlissnikovský, 1964. The species is recorded as new to Armenia in the present paper.

Abbreviations:

MSBC Collection M. Schülke (Museum für Naturkunde Berlin, Germany);

NMPC National Museum, Praha, Czech Republic;

ZSPC Zdeněk Švec private collection, Praha, Czech Republic.

AI-AXI antennomeres I-XI.

L length.

W width.

W/L ratio of the relevant measurements.

The examined specimens have been compared with the types and other material deposited in the NMPC and ZSPC. The material mentioned in this paper is preserved in the collections of MSBC and in ZSPC.

Measurements of the body length and the individual body parts were measured to the first decimal place of millimetre.

The dissected male genitalia were mounted in water soluble medium polyvinylpyrrolidone (Lompe 1986) on a transparent label added to the same pin as the type specimen; spermatheca was mounted on the same label as the relevant specimen. The type specimens are indicated by a red labels added to the same pin bearing the status of the specimen (holotypus, paratypus respectively), its name, name of the author and year of the designation.

Data quoted from the labels accompanying the specimens are reproduced verbatim; an oblique line (/) indicates a line break on a label.

The terminology concerning to the type of the mesoventral longitudinal carina follows that in Švec (2008).

DESCRIPTION

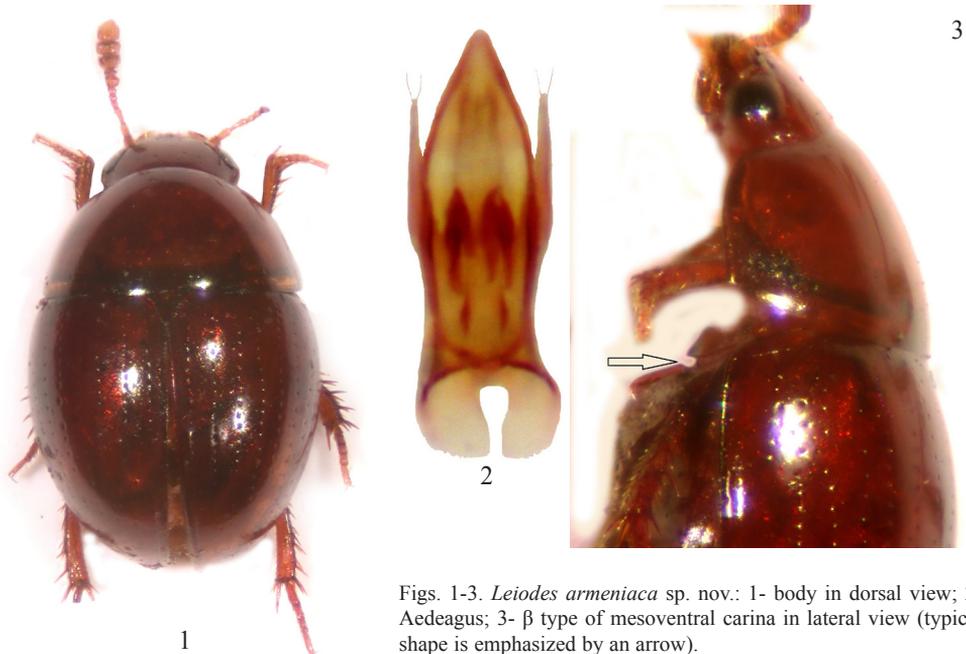
Key to the identification of the Armenian *Leiodes* Latreille, 1796

- 1 Elytra without transversal wrinkles. Body broadly oval, strongly convex.....2
- Elytra with transversal wrinkles. Body oblong oval, flatly convex. Antennae light, unicolorous. Mesoventral carina type A. Parameres multisetose with appendix. 3.5 mm. Azerbaijan, Armenia.....
.....*L. pilifera* Reitter, 1885
- 2(1) Elytra matt with very distinct densely arranged punctures in intervals. Parameres bisetose, with appendix. Mesoventral carina of type A. 3.0 mm. Armenia. *L. punctatissimata* Hatch, 1929
- Elytra shining with very finely and sparsely arranged punctures in intervals. Parameres bisetose without dix. (Fig.. 2). 1.7-1.9 mm. *L. armeniaca* sp. nov.

Leiodes armeniaca sp. nov.

(Figs. 1-3)

Type material. Holotype (♂): “ARMENIA [AR17-26a] ENE/ Dilijan, Hovk, 1920 m /40°47'39" N, 45°01'17"E, stream / valley, moist litter near stream / sifted, 3.vii. 2017, leg. Schülke”, (MSBC); paratypes (1 ♂, 1 spec. sex indet.): the same data, (MSBC, ZSPC); (1 ♂, 1 spec. sex indet.): the same data but - “ARMENIA [AR17-26]..., stream valley, / litter beneath Acer sifted /...”, (MSBC, ZSPC).



Figs. 1-3. *Leiodes armeniaca* sp. nov.: 1- body in dorsal view; 2- Aedeagus; 3- β type of mesoventral carina in lateral view (typical shape is emphasized by an arrow).

Description. Length of body 1.7-1.9 mm, in holotype 1.8 mm. Length of body parts in holotype: head 0.2 mm, pronotum 0.6 mm, elytra 1.0 mm, antenna 0.6 mm, aedeagus 0.4 mm. Maximum width of body parts: head 0.6 mm, pronotum 1.1 mm at base, elytra 1.2 mm at basal third of its length.

Broadly oval (Fig. 1), dorsum, unicolorous antennae and legs lightly red-brown. Venter reddish, margins of coxal cavities and longitudinal mesoventral carina dark. Dorsum punctured, without any microreticulation or strigosites.

Head. Dorsal surface with distinct punctures separated by 2-3 times their own diameters, vertex with 4 large punctures. Last antennomere almost as wide as the previous, only a little narrower than AX. AIV-AVI longer than wide, AVII-AXI wider than long. Ratio of length of antennomeres II-XI (AII=1.0): 1.0-1.3-0.5-0.5-0.5-0.8-0.4-0.9-1.0-1.5. Ratio of width of antennomeres II-XI (AII=1.0): 1.0-0.8-0.8-0.8-0.8-2.3-1.8-3.3-3.5-3.3. W/L AII-AXI: 0.5-0.3-0.8-0.8-0.8-1.5-2.3-1.9-1.8-1.1.

Pronotum. Widest at base. Sides almost conically tapered anteriorly in dorsal view; straight in basal third then roundly tapered anteriorly in lateral view. Posterior angles acute shortly rounded in dorsal view and obtuse, angulate in lateral view. Puncturation sparser on disc (punctures separated by about 3-4 times their own diameter), denser toward base and lateral sides.

Scutellum. Smooth.

Elytra. Broadest approximately at basal third of their length. With nine punctured striae. Stria 9 short, very feebly oblique almost parallel to lateral channel, much more distant from lateral margin than from 8th stria, not joining lateral channel. Punctures of striae fine but

distinctly developed, separated predominantly by 1-2 times their own diameter medially, sparsely arranged toward lateral side up to distance 3-4 times their own diameter. Interval puncturation similar as that on pronotal disk; punctures fine but distinct, separated by about 3-4 times their diameters.

Sutural stria deepened, long, confined approximately to mid-length of elytra. Lateral channel without larger punctures or foveae.

Legs. Anterior tarsomeres I-IV extremely slightly widened in male, anterior tibiae very slim not fully 2times as wide apically as at base. Lateral terminal large thorn on anterior tibia slim, long - longer than tarsomeres 1+2 together. Hind margin of metafemur with very small lobe apically, hind tibiae very feebly simply curved.

Mesoventrite. Longitudinal carina of type β (Fig. 3).

Genitalia. Aedeagus as in Fig. 2.

Differential diagnosis. *Leiodes armeniaca* sp. nov. is very similar to *L. badia* (Sturm, 1807) in the size, colour and shape of the body and aedeagus having triangularly tapered tegmen toward shortly rounded, almost pointed apex and having slim bisetose parameres. The new species differs mainly by the well developed internal sac composed of paired sclerites. On the other hand the internal sac is almost not detectable in *L. badia*. Both species can be safely distinguished by the type of mesoventral carina that is of the type β in the new species while the same is of the type α in *L. badia* (types of mesoventral carina see in Švec 2008).

Etymology. The name of the new species is derived from the name of the country of origin.

FAUNISTICS

Agathidium pseudopallidum Hlisnikovský, 1964

Material examined: ARMENIA [AR17-28a] WSW/ Dilian, Kalavan, 40°3752" N / 45°05'46"E, 1960 m. deciduous/ forest, bark of dead oak sifted / 5.vii.2017, leg. M. Schülke", (1 ♀), (MSBC).

Distribution: Armenia, Bosnia Herzegovina, Bulgaria, Croatia, Greece, Hungary, Italy, Macedonia, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine. New to Armenia.

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