

## *Allecula olexai* sp. nov. (Coleoptera: Tenebrionidae: Alleculinae) from Abkhazia

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**Abstract.** A new species of the genus *Allecula* Fabricius, 1801 from Abkhazia is described as *Allecula olexai* sp. nov.

**Key words.** Taxonomy, new species, description, Coleoptera, Tenebrionidae, Alleculinae, *Allecula*, Palaearctic region.

### INTRODUCTION

The genus *Allecula* Fabricius, 1801 was introduced by Fabricius (1801) for *Allecula morio* (Fabricius 1787), originally described in the now suppressed genus *Cistela* Geoffroy, 1762. The species in this genus have a worldwide distribution. Novák & Pettersson (2008) list 65 species in the Palaearctic region. From the western part of this region only seven species are described: *Allecula morio* (Fabricius, 1787) and *A. rhenana* Bach, 1856 (both occur in many European countries); *A. divisa* Reitter, 1883 (Armenia, Caucasus, Turkmenistan and Uzbekistan); *A. oronthea* Baudi di Selve, 1881 (Lebanon and Turkey); *A. estriata* Seidlitz, 1896, *A. janssoni* Novák, 2011 and *Allecula turcica* Novák, 2011 (all from Turkey) and *A. suberina* Novák, 2012 (Italy). The last three species were recently described and caught in traps set to collect saproxylic beetles (Novák et al. 2011, 2012).

In the present paper, *Allecula olexai* sp. nov. from Abkhazia is described and illustrated. The new species clearly differs from all known European species in that its antennomeres 9–11 are each distinctly shorter than each of antennomeres 4–8; while in all European species of *Allecula* each of antennomeres 9–11 is approximately as long or longer than each of antennomeres 4–8.

### MATERIAL AND METHODS

Two important morphometric characteristics used in the descriptions of species of the subfamily Alleculinae, the “ocular index” (Campbell & Marshall 1964) and “pronotal index” (Campbell 1965), are also used in this paper. The ocular index is:  $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$ . The pronotal index is:  $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$ .

In the list of type material, a slash (/) separates data in separate rows. The following abbreviation is used for the collection used in this study: VNPC – private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in the text are as follows: AL – total antennal length, BL – maximum body length, EL – maximum elytral length, EW – maximum elytral width, HL – maximum length of head (visible part), HW – maximum width of head, OI – ocular index dorsally, PI – pronotal index dorsally, PL – maximum pronotal length, PW – pronotal width at base, RLA – ratios of relative lengths of antennomeres 1–11 from base to apex ( $3=1.00$ ), RL/WA – ratios of length / maximum width of antennomeres 1–11 from base to apex, RLT – ratios of relative lengths of tarsomeres 1–5, respectively 1–4 from base to apex ( $1=1.00$ ).

Measurements were made using a Olympus SZ 40 stereoscopic microscope with continuous magnification and Soft Imaging System AnalySIS.

## TAXONOMY

### *Allecula olexai* sp. nov.

(Figs 1–5)

TYPE LOCALITY. Abkhazia, Soči.

TYPE MATERIAL. **Holotype** (♂): Abkhazia, “Abchasia Soči / SSSR VI. 1961 / A. Olexa, in VNPC”. – **Paratype** (1 ♀): same data as holotype, in VNPC. The types are provided with one printed red label: *Allecula olexai* sp. nov. / HOLOTYPUS [resp. PARATYPUS] / V. Novák det. 2015.

DESCRIPTION OF HOLOTYPE. Habitus as in Fig. 1, body elongate, from ochre yellow to brown, slightly shiny, dorsal surface covered with setae, BL 7.44 mm. Widest roughly half way along length of elytra; BL/EW 2.83.

Head (Fig. 2). Posterior part brown, with dense punctuation and sparse, pale brown setae, setae behind eyes dark. Anterior part brown with dense punctuation and dense ochre yellow setae, distinctly paler than posterior part, clypeus pale brown with ochre yellow setae. Punctures small. HW 1.34 mm; HW/PW 0.74; HL (visible part) 0.86 mm. Eyes very large, transverse, strongly excised, space between eyes narrow, OI equal to 32.87, approximately as wide as diameter of one eye; distinctly wider than length of antennomere 3.

Antennae (Fig. 3). Relatively long, brown, with short dark brown setae, dense punctuation and microgranulation, mat. Punctures small and coarse. Antennomeres 1–3 slightly shiny and slightly paler than antennomeres 4–11. AL 5.02 mm; AL/BL 0.67. Antennomere 2 shortest, antennomeres 4–10 serrate and distinctly longer than antennomere 3. Antennomeres 9–11 each shorter than each of antennomeres 4–8.

RLA (1–11): 0.71 : 0.48 : 1.00 : 1.97 : 1.97 : 1.86 : 1.94 : 1.88 : 1.65 : 1.45 : 1.54.

RL/WA (1–11): 1.35 : 1.11 : 1.81 : 2.56 : 2.84 : 2.88 : 2.83 : 2.94 : 2.79 : 2.82 : 3.08.

Maxillary palpus pale brown with ochre yellow and brown setae, microgranulation and punctuation, punctures very small. Palpomeres 2 and 3 distinctly narrowest at base and broadest at apex with few long setae on apex. Ultimate palpomere axe-shaped.

Pronotum (Fig. 2) brown, with pale setae, fine microgranulation and dense punctuation, punctures shallow and small, distinctly narrower than elytra. PL 1.17 mm; PW 1.82 mm; PI equal to 64.52. Border lines complete, lateral margins of posterior half straight, of anterior part arcuate. Posterior angles distinct, finely obtuse, anterior angles slightly conspicuous, obtuse.

Elytra. Pale brown, distinctly paler than pronotum, with short, pale setae, slightly shiny. EL 5.41 mm; EW 2.63 mm. EL/EW 2.06. Elytral striae with distinct rows of small punctures. Elytral intervals with fine microgranulation and shallow, sparse and very small punctures.

Scutellum. Brown, the same colour as pronotum, distinctly darker than elytra, sides narrowly darker, more pentagonally shaped than triangular, shiny, with a few setae and fine microgranulation.

Elytral epipleura well-developed, pale brown, the same colour as the elytra, shiny, with a few setae and one row of large punctures, widest near base, distinctly narrowing to ventrite 1, then relatively wide and parallel.

Legs. Pale brown, thin and long, with fine microgranulation, shallow, small punctures and ochre yellow setae. Tarsi and tibia with denser setation than on the femora. Femora relatively thick, tibia very slightly wider at apex. Penultimate tarsomere of each tarsus distinctly wider and lobed. RLT: 1.00 : 0.43 : 0.42 : 0.52 : 1.01 (protarsus); 1.00 : 0.31 : 0.26 : 0.28 : 0.57 (mesotarsus); 1.00 : 0.31 : 0.26 : 0.44 (metatarsus).

Anterior tarsal claws with 5 visible teeth.

Ventral side of body brown without distinct microgranulation, with sparse, pale setae and punctuation. Abdomen pale brown with relatively sparse, pale setae, dense punctuation and fine

microgranulation. Punctures very small and shallow. Ultimate ventrite distinctly paler, ochre yellow.

Aedeagus (Figs 4, 5) small, ochre yellow. Basal piece slightly rounded laterally and slightly narrowing dorsally. Apical piece narrowly elongate, slightly beak-shaped dorsally and laterally with rounded tip. Ratio of length of apical piece to length of basal piece 1: 3.50.

Female. Body more robust, pronotum wider (PI equal to 69.14). Antennae shorter than those of male (AL/BL 0.53). Antennomere 3 only slightly shorter than each of the antennomeres 4–9. Space between eyes distinctly wider than in males (OI equal to 46.62); distinctly wider than diameter of one eye.

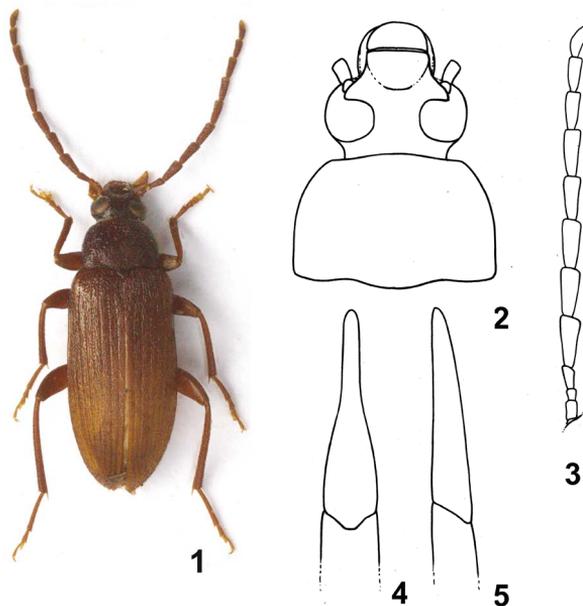
Measurements of female body parts. BL 8.60 mm; HL 0.88 mm; HW 1.39 mm; PL 1.42 mm; PW 2.05 mm; PI equal to 69.14; EL 6.30 mm; EW 3.06 mm; HW/PW 0.68; BL/EW 2.81; EL/EW 2.06; AL 4.52 mm; AL/BL 0.53.

RLA (1–11): 0.67 : 0.45 : 1.00 : 1.59 : 1.48 : 1.53 : 1.56 : 1.49 : 1.42 : 1.16 : 1.30.

RL/WA (1–11): 1.53 : 1.17 : 2.20 : 2.87 : 2.67 : 2.57 : 2.97 : 2.69 : 2.78 : 2.48 : 3.07.

Anterior tarsal claws with 5 visible teeth.

**DIFFERENTIAL DIAGNOSIS.** *Allecula olexai* sp. nov. clearly differs from the other European *Allecula* species – *A. morio* (Fabricius, 1787), *A. rhenana* Bach, 1856 (both occur in many European countries); *A. divisa* Reitter, 1883 (Armenia, Caucasus, Turkmenistan and Uzbekistan); *A. oronthea* Baudi di Selve, 1881 (Lebanon and Turkey); *A. estriata* Seidlitz, 1896, *A. janssoni* Novák, 2011 and *A. turcica* Novák, 2011 (both occur in Turkey) and *A. suberina* Novák, 2012 (Italy), mainly in antennomeres 9–11 distinctly shorter than each of antennomeres 4–8; while in *A. divisa*, *A. estriata*, *A. janssoni*, *A. morio*, *A. oronthea*, *A. rhenana*, *A. suberina* and *A. turcica* each of the



Figs 1–5. *Allecula olexai* sp. nov. (male holotype): 1 – Habitus; 2 – head and pronotum; 3 – antenna; 4 – aedeagus, dorsal view; 5 – aedeagus, lateral view.

antennomeres 9–11 are as long or longer than each of antennomeres 4–8. Distribution of this species is that cited by Novák & Pettersson (2008).

NAME DERIVATION. New species is dedicated to the collector – Aldo Olexa, Czech entomologist and expert in the beetle family Histeridae.

DISTRIBUTION. Abkhazia.

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