

Three new species of the genus *Lesteva* Latreille, 1797 (Coleoptera: Staphylinidae: Omaliinae: Anthophagini) from Uzbekistan, Tadjikistan and Afghanistan

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Shavrin A. 2010. Three new species of the genus *Lesteva* Latreille, 1797 (Coleoptera: Staphylinidae: Omaliinae: Anthophagini) from Uzbekistan, Tadjikistan and Afghanistan. *Baltic J. Coleopterol.*, 10(2): 147 - 152.

Lesteva aculeata sp. n. from Uzbekistan (Tian-Shan, Chingan), *L. barsevskisi* sp.n. from Tadjikistan (Gisar Mts., Kondara) and *L. haarlovi* sp.n. from Afghanistan (Koh-i-Baba mountains) are described and illustrated.

Key words: Coleoptera, Staphylinidae, Omaliinae, *Lesteva*, Palaearctic, Middle Asia, Tadjikistan, Uzbekistan, Afghanistan, taxonomy, new species.

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INTRODUCTION

The genus *Lesteva* Latreille, 1797 of the tribe Anthophagini currently includes 105 nominal species and subspecies, and it is distributed in Palaearctic, Nearctic and Oriental regions (Herman, 2001:309; Smetana, 2004:246; Li & al., 2005:111; Shavrin & al., 2007:37; Zanetti, 2008:993; 2009:943).

The species of the genus in the Middle Asia are very poorly known. Only seven species were previously known in the fauna of this region, including three from Uzbekistan: *L. binotata* Reitter, 1901 (type locality: "Turkestan, Taschkent"), *L. bucharica* Fauvel, 1900 (type locality: "Buchará") and *L. turkestanica* Luze, 1904 (type locality: "Seravschan: Boschara"); three from Turkmenistan: *L. fasciata* Luze, 1903 (type locality: "Transkaspien, Gr. Balchan"), *L.*

transcaspica Bernhauer, 1935 (type locality: "Transkaspien: Ljutfabad") and *L. longoelytrata* (Goeze, 1777), recorded by Eppelsheim (1892); and one species from Kazakhstan: *L. nova* Bernhauer, 1902, southern Kazakhstan (type locality: "Aulie Ata [Taraz]"). Review of all known middle Asiatic *Lesteva* will be published separately by the present author.

In this study, based on private and institutional collections, I describe three new species from Uzbekistan, Tadjikistan and Afghanistan, which are distinct morphologically from the other species of the genus.

MATERIAL AND METHODS

The examined material is deposited in the following institutions and private collections

(curators are given in parentheses): CS – private collection of A. V. Shavrin (Daugavpils, Latvia); MNHUB – Museum für Naturkunde der Humboldt-Universität zu Berlin, Berlin, Germany (J. Frisch, J. Willers); ZMUC – Zoological Museum of Copenhagen University, Copenhagen, Denmark (A. Yu. Solodovnikov).

The following measurements are used in this paper and are abbreviated as follows: WH - maximum width of head including eyes; LH - length of head (from base of labrum to neck constriction along the head midline); LE - longitudinal length of eye; LT - length of temple (from posterior margin of eye to neck constriction); LA - length of antenna; LP - length of pronotum; WPmax - maximal width of pronotum; WPmin – minimal width of pronotum; LES - sutural length of elytra (length of elytra from apex of scutellum to posterior margin of sutural angle); WE - maximal width of elytra; WA - width of segment IV of abdomen; LAE - length of aedeagus.

All measurements of the entire lengths of the beetles are given in millimeters. Measurements of body parts were made with a stereoscopic microscope using an ocular micrometer. The length of the body was measured from the base of the labrum to the apex of the abdomen.

The morphological studies were carried out using a *Zeiss Discovery V8* and *Zeiss Discovery V12* stereomicroscopes. All the figures were enhanced using Adobe Photoshop software.

RESULTS

Lesteva barsevskisi **Shavrin, sp.n.**
(Figs. 1-2)

Type material. Holotype: male, Tadzhikistan, 20-23.v.88, Gissarskiy Mts., Kondara, 1200-1300 m, V. Shilenkov (CS);

Paratype: female, same data as the holotype except E. Berlov leg. (CS).

Description. Measurements (holotype - paratype): WH: 0.72 - 0.78; LH: 0.44 - 0.54; LA: 1.7 - 2.2; LE: 0.22; LT: 0.12 - 0.14; LP: 0.74 - 0.84; WPmax: 0.88 - 0.98; WPmin: 0.68 - 0.78; LES: 1.46 - 1.6; WE: 1.42 - 1.62; WA: 1.12 (VI tergite) - 1.52 (IV tergite); LAE: 0.8. Body length: 3.6.

Body brown; abdomen darker, brownish black; legs, mouthparts, ocelli and antennae yellowish brown. Body covered by white setae, on head pronotum irregular and sparser, on abdomen shorter and denser.

Head visible smaller than pronotum, 1.4-1.6 times wider than long; temples short, rounded to neck constriction. Eyes large, strongly convex, 1.5-1.8 times longer than temples. Anteocelellar depressions weakly deep. Punctuation regular, dense and fine, interstices 1-2 times as broad as diameter of punctures, without microsculpture, glossy. Ocelli small, distance between ocelli 1.5 times the distance between ocellus and posterior margin of eye. Antennae relatively long, reaching anterior third of elytra, with small setae on all antennomeres; antennomere I elongate, 3 times longer than wide, 1.4 times as long as II, antennomeres III-IV and V-X with similar proportions. Length/width of antennomeres are: I: 0.26×0.08 ; II: 0.18×0.06 ; III-IV: 0.16×0.06 ; V-X: 0.18×0.06 ; XI: 0.22×0.09 .

Pronotum relatively short, wide, heart-shaped, weakly convex, 1.8 times longer than wide, sides of pronotum at minimal width parallel-sided, posterior angles relatively triangular; in medial part on either side of the median line of disc with two indistinct oval impressions. Punctuation regular, denser and coarser than that on head; interstices between punctures 1-1.5 times as broad as diameter of puncture, without microsculpture, glossy.

Scutellum large, triangular with several small and fine punctures, without microsculpture, glossy.

Elytrae large, convex, approximately as long as wide, covering first 4-5 tergites. Punctuation regular, deeper and larger than that of pronotum;

interstices between punctures 1–1.5 times as broad as diameter of a puncture, without microsculpture, glossy. Wings fully developed.

Male. First four tarsomeres of protarsi weakly dilated. Aedeagus (Fig. 1) oblong; median lobe strongly narrowed anteriorly, rounded apically; lateral parts of aedeagus semicircular, tapering toward apex and not exceeding apex of median lobe. Paramerae short, reaching anterior third of apex of aedeagus. Endophallus with numerous thorns, with M-like sclerotized structure in apical part. Apex of aedeagus laterally as in Fig. 2. Sternite VIII with deep semicircular apical emargination.

Female. Tarsomeres of protarsi not dilated. Sternite VIII without emargination, straight apically.

Comparative notes. Based on the type of aedeagus, the new species is closely related to *L. haarlovi* sp.n., from which it differs by larger body, coloration, enlarged pronotum, more prominent body, by the distinct shape of aedeagus and endophallus.

Etymology. The new species is named in honour of my colleague Prof. Arvids Barševskis (Daugavpils, Latvia).

***Lesteva haarlovi* Shavrin, sp.n.**
(Figs. 3–4)

Type material. Holotype: male, Central Afghanistan, Koh-i-Baba mountains, Puistagoli, 02.08.1948, N. Haarlov/“3. Centralasiatische Exp., Coleoptera, im.147. Puistagoli, from the very wet hillside, 2.8.48, N. Haarlov leg.” / *Lesteva* sp. det. Zanetti 2010 (ZMUC). Additional label provided.

Description. Measurements: WH: 0.6; LH: 0.44; LA: 1.0; LE: 0.18; LT: 0.12; LP: 0.9; WPmax: 0.78; WPmin: 0.6; LES: 1.16; WE: 1.2; WA: 0.96 (VI tergite); LAE: 0.64. Body length: 3.0.

Body small, reddish yellow; apical margins of abdomen darker, brown; antennae, mouthparts,

ocelli yellow. Body covered by relatively long white setae, shorter on abdomen.

Head visible smaller than pronotum, 1.3 times wider than long; temples relatively long, weakly rounded to neck constriction. Eyes large, weakly convex, 1.5 times longer than temples. Anteocellar depressions weakly deep. Punctuation irregular, dense and fine, interstices 1–2 times as broad as diameter of punctures, without microsculpture, glossy; surface between anteocellar depressions and ocelli without punctures. Ocelli relatively small, distance between ocelli 1.1 times the distance between ocellus and posterior margin of eye. Antennae relatively long, reaching anterior third of elytra, with small setae on all segments; antennomere I 2.5 times longer than wide, 1.6 times as long as II, antennomeres II–III, IV–V and VI–VIII with similar proportions. Length/width of antennomeres are: I: 0.2×0.08 ; II–III: 0.12×0.06 ; IV–V: 0.1×0.06 ; VI–VIII: 0.12×0.06 ; IX: 0.12×0.08 ; X: 0.14×0.08 ; XI: 0.24×0.09 .

Pronotum short, heart-shaped, weakly convex, 1.15 times longer than wide; sides of pronotum at minimal width parallel-sided; posterior angles weakly rounded. Pronotum midlined by impunctate stripe; punctuation denser and coarser than that on head; interstices between punctures 1–2 times as broad as diameter of punctures, without microsculpture, glossy.

Scutellum small, triangular, without punctuation and microsculpture.

Elytra flattened, wide, dilated posteriorly and obtusely rounded to apex, long, covered first five tergites, approximately as long as wide, 1.2 times longer than pronotum. Punctuation regular, deeper and larger than those of pronotum; interstices between punctures 1–1.5 times as broad as diameter of a puncture, without microsculpture, glossy. Wings fully developed.

Abdomen convex, weakly tapering towards apex, 1.8 times narrower than width of elytra [elytra-plural, elytron – singular], without punctuation on all tergites, with distinct large isodiametric microsculpture, visible on low magnification.

Male. Aedeagus (Fig. 6) oblong, narrow; median lobe strongly sclerotized, parallel sided in median half, strongly narrowed anteriorly, rounded apically; lateral parts of aedeagus tapering toward apex and not exceeding apex of median lobe. Paramerae very short. Apex of aedeagus laterally as in Fig. 7. Sternite VIII with semicircular apical emargination.

Female unknown.

Comparative notes. Based on the type of aedeagus, the new species is closely related to *L. barsevskisi* Shavrin sp.n., from which it differs by smaller and less prominent body, coloration, by transverse pronotum, by larger puncturation, by the shape of aedeagus and endophallus.

Remarks. First record of the genus for the fauna of Afghanistan.

Etymology. The new species is named in honour of Mr. Niels Haarlov, Danish entomologist, who

collect the type specimen in Afghanistan during 3rd Danish Centralasiatic Expedition.

Lesteva aculeata Shavrin, sp.n.
(Figs. 5-7)

Type material. Holotype: male, Sowjetunion [Uzbekistan], Tien-Schan, Tschingan, 14.6.1988, leg. M. Mey (MNHUB).

Paratypes: 2 females, same data as the holotype (MNHUB).

Description. Measurements: WH: 0.76-0.8; LH: 0.44-0.6; LA: 2.1; LE: 0.22-0.24; LT: 0.1; LP: 0.84-0.92; WPmax: 0.94-0.96; WPmin: 0.64-0.76; LES: 1.44-1.64; WE: 1.5-1.8; WA: 1.38-1.56 (V tergite); LAE: 0.8. Body length: 4.3-4.8.

Body brown to brownish black; elytra paler, yellowish brown to brown with reddish enlarged areas in middle; legs, mouthparts, and ocelli yellow to yellowish brown. Body covered by

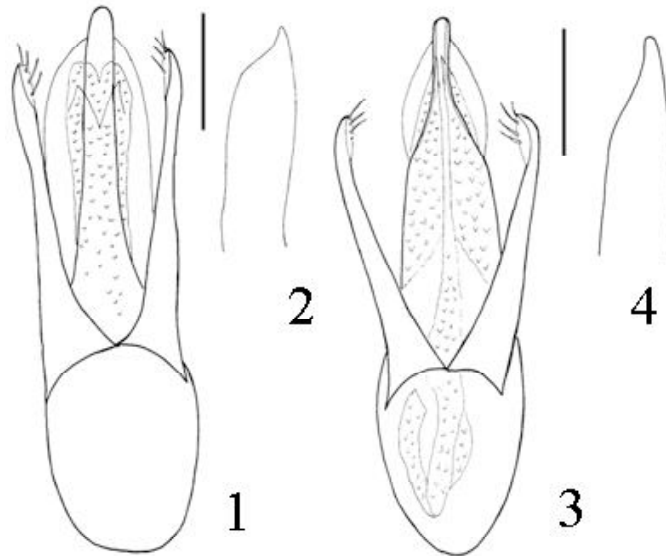


Fig. 1-4. *Lesteva barsevskisi* Shavrin, sp.n.: 1 – aedeagus, ventral view; 2 – apex of aedeagus, dorsal view; *L. haarlovi* Shavrin, sp.n.: 3 – aedeagus, ventral view; 4 – apex of aedeagus, dorsal view. Scale bar: 0.2 mm.

yellow setae, pubescence on head irregular and sparse, on pronotum and elytra longer and denser.

Head distinctly smaller than pronotum, 1.3-1.7 times wider than long; temples short, weakly rounded to neck constriction. Eyes large, convex, relatively twice longer than temples. Anteocellar depressions relatively deep. Punctuation regular, dense and fine, interstices 1-2 times as broad as diameter of punctures, without microsculpture, glossy. Ocelli relatively small, well visible at low magnification, distance between ocelli 1.2 times the distance between ocellus and posterior margin of eye. Antennae long, with enlarged antennomeres, reaching anterior third length of elytra, with long setae on all antennomeres; antennomere I twice as long as wide and 1.3 times as long as II, antennomeres IV-V and VIII-X with similar proportions. Length/width of antennomeres are: I: 0.22×0.1 ; II: 0.16×0.07 ; III: 0.2×0.07 ; IV-V: 0.16×0.08 ; VI: 0.19×0.08 ; VII: 0.17×0.08 ; VIII-X: 0.16×0.08 ; XI: 0.24×0.09 .

Pronotum large, heart-shaped, weakly convex, 1-1.1 times wider than long; sides of pronotum at

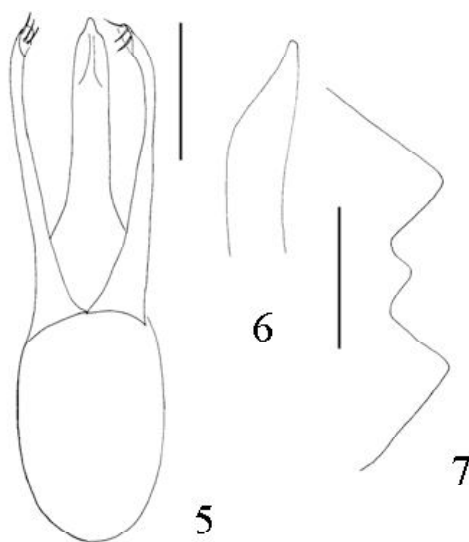
minimal width parallel-sided; posterior angles rectangular; medial part on either side of the median line of disc with two oval impressions. Punctuation regular, denser and coarser than those of head; interstices between punctures 1-1.5 times as broad as diameter of a puncture, glossy, microsculpture absent.

Scutellum large, triangular, with fine small punctures, without microsculpture.

Elytra large, approximately as long as wide; covering first three tergites. Punctuation regular, deeper and larger than those of pronotum; interstices between punctures 1-1.5 times as broad as diameter of a puncture, glossy, without microsculpture. Wings fully developed.

Abdomen convex, narrower than elytra; without punctuation on all tergites, with distinct isodiametric microsculpture visible at low magnification.

Male. First four tarsomeres of protarsi weakly dilated. Aedeagus (Figs. 5) oblong, narrowing to



FIGURES 5-7. *Lesteva aculeata* Shavrin, sp.n.: 5 – aedeagus, ventral view; 6 – apex of aedeagus, dorsal view; 7 – apex of sternite VIII, male. Scale bar: 0.2 mm (Figs. 5-6), 0.3 mm (Fig. 7).

medial part, with nipple-shaped apex. Apex of aedeagus laterally as in Fig. 6. Paramerae long, curved apically, and almost exceeding apex of aedeagus. Sternite VIII (Fig. 7) with deep semicircular emargination, with large tooth in central part of emargination.

Female. Tarsomeres of protarsi not dilated. Sternite VIII without apical emargination, margin straight.

Comparative notes. Based on the type of aedeagus, the new species is closely related to *L. binotata* Reitter, 1901 from which it differs by less prominent and wider body, by the presence of longitudinal impressions on pronotum, by the presence of medial tooth in sternite VIII of male and by the shape of aedeagus (medial and apical parts of aedeagus of new species significantly narrower, paramerae shorter).

Etymology. The name derives from Latin adjective (aculeatus, -a, -um [aculeus]) meaning “thorny”, and alludes to the presence of tooth in emargination of male sternite VIII.

ACKNOWLEDGEMENTS

I wish to thank V.G. Shilenkov and E. Ya Berlov (both from Irkutsk, Russia) for gift of specimens of *L. barsevskisi* Shavrin, sp.n. I thank A.Yu. Solodovnikov (Copenhagen, Denmark), J. Frisch and J. Willers (Berlin, Germany) for making the material available for study. I am grateful to my colleague Jan Klimaszewski (Québec, Canada) for correction of the English text of the manuscript.

The research was conducted within the framework of the project of European Social Fund (No2009/0206/1DP/1.1.1.2.0/09/APIA/VIAA/010).

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Received: 20.11.2010.

Accepted: 15.12.2010.