# Stenerophlina afghanica sp. nov. (Coleoptera: Tenebrionidae: Alleculinae: Cteniopodini)

## Vladimír Novák

Nepasické náměstí 796, CZ–190 14 Praha 9 – Klánovice, Czech Republic; e-mail: alleculinae.vn@centrum.cz

Received 1 December 2021; accepted 7 September 2022 Published 27 October 2022

**Abstract**. A new species of the genus *Stenerophlina* Reitter, 1906 from Nengrahar province, Afghanistan is described as *Stenerophlina afghanica* sp. nov. The new species is illustrated and compared with morphologically similar species *S. hauseri* (Reitter, 1894) and *S. levipes* Dubrovina, 1973.

**Key words**. Taxonomy, new species, description, Coleoptera, Tenebrionidae, Alleculinae, Cteniopodini, *Stenerophlina*, Afghanistan, Palaearctic Region.

#### INTRODUCTION

Reitter (1906) described the genus *Stenerophlina* with the type species *Omophlina hauseri* Reitter, 1894. Another species was desribed by Dubrovina (1973) as *Stenerophlina levipes*. Currently only two species are known from Turkmenistan and Uzbekistan in the Palaearctic Region (Novák 2020).

A new species from Afghanistan is described as *Stenerophlina afghanica* sp. nov. New species is illustrated and compared with both so far known species of this genus.

#### MATERIAL AND METHODS

Two important morphometric characteristics used to describe species in the subfamily Alleculinae, the "ocular index" (Campbell & Marshall 1964) and "pronotal index" (Campbell 1965), are also used in this paper. The ocular index equals (100 × minimum dorsal distance between eyes / (maximum width of head across eyes). The pronotal index is calculated as (100 × length of pronotum along midline) / (width across basal angles of pronotum).

In the list of type material, a slash (/) separates data in separate rows a double slash (//) separates different labels. The following collection codes are used:

MMBC - Moravian museum, Brno, Czech Republic;

VNPC - private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in text are as follows: AL- total antennae 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).

Other abbreviation used in text: bl= beige label.

Measurements were made using an Olympus SZ 40 stereoscopic microscope with continuous magnification and the Soft Imaging System AnalySIS. Photographs were taken using a Canon EOS 550 D camera and Canon Macro Photo Lens MP-E and software Helicon Focus 5.2.

#### **TAXONOMY**

## Stenerophlina afghanica sp. nov.

(Figs. 1–6)

Type Locality. Eastern Afghanistan, Nengrahar Province, Darunta, 750 m.

Type Material. Holotype (3): bl: "O. Afghanistan / Prov. Nengrahar / D. Povolný et coll." // bl: "(105) Darunta / 24. 4. 1967 750 m", (MMBC). – Paratypes: (1 3): bl: same data as holotype, but "2. 5. 1967", (MMBC); (1 3): bl: "O. Afghanistan / Prov. Nengrahar / Povolný & Tenora" // bl: "(66) Darunta / 18. 4. 1966 750 m", (VNPC); (1 3): bl: "O. Afghanistan / Prov. Nengrahar / D. Povolný et coll." // bl: "(100) Jalalabad / 16.–17. 4. 1967 580 m", (MMBC).

The types are provided with a printed red label: "Stenerophlina / afghanica sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2021".

DESCRIPTION OF HOLOTYPE (3). Habitus as in Figs. 1–2, body small, narrow, rather flat, dorsal surface from ochre yellow to blackish brown, slightly shiny, with punctuation, microgranulation and pale setation, BL 5.46 mm. Widest in apical third elytra length; BL/EW 3.93.

Head (Figs. 2, 3) narrow, distinctly longer than wide, shiny, widest through the eyes, slightly narrower than pronotum. Dorsal surface shiny, with punctuation. Posterior part blackish brown with short and sparse, pale setae and dark setae behind eyes, anterior half brown with long, pale setae, clypeus pale brown, transverse, with sides rounded, long, pale setae, punctures and distinct microgranulation. Mandibles glabrous, shiny, pale brown, with apex darker. HW 0.80 mm; HW/PW 0.90; HL (visible part) 0.88 mm. Eyes large, slightly excised, space between eyes wide, wider than diameter of one eye, approximately as wide as length of ultimate antennomere; OI equal to 56.81.

Antennae relatively long, distinctly exceeding half body length, AL 3.33 mm; AL/BL 0.61, antennomeres 1–5 ochre yellow, slightly shiny, antennomeres 6–11 pale brown, rather matte, antennomeres with short, pale setation, microgranulation and small punctures, antennomeres 3–10 distinctly widest in apex. Antennomere 2 shortest, antennomere 11 longest, antennomeres 4–11 distinctly longer than antennomere 3.

```
RLA (1–11): 0.76 : 0.43 : 1.00 : 1.13 : 1.19 : 1.10 : 1.28 : 1.50 : 1.57 : 1.53 : 1.93.
RL/WA (1–11): 1.90 : 1.35 : 2.77 : 2.33 : 2.97 : 2.72 : 2.56 : 3.48 : 3.77 : 3.67 : 5.56.
```

Maxillary palpomeres ochre yellow, slightly shiny, with pale setae and fine microgranulation. Palpomeres 2–4 distinctly narrowest at base and widest at apex, ultimate palpomere longest.

Pronotum (Figs. 2, 3) brown, narrow, square shaped, slightly shiny, distinctly narrower than elytra at humeri. Dorsal surface with long, recumbent, pale setae, fine microgranulation and punctures, slightly smaller than those in posterior part of head. PL 0.79 mm; PW 0.89 mm; PI equal to 88.76. Border lines not clearly distinct. Posterior angles obtuse, anterior angles almost rectangular. Lateral margins very slightly, base distinctly arcuate, anterior margin distictly roundly excised.

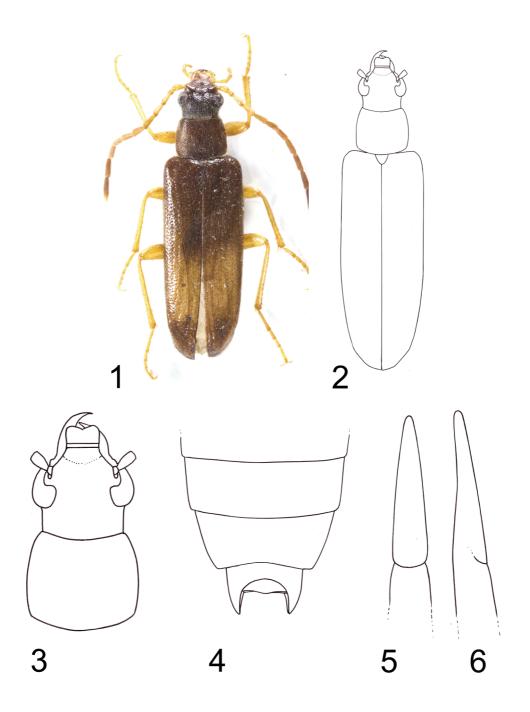
Elytra. Pale brown, narrow, elongate, rather flat, widest in apical third elytra length, shiny. EL 3.49 mm; EW 1.39 mm; EL/EW 2.51. Dorsal surface with recumbent, pale setation. Rows of punctures in elytral striae distinct, punctures approximately as large as those in pronotum. Elytral interspaces with small punctures and fine microgranulation.

Epipleura well-pronounced, pale brown, regularly narrowing to abdominal ventrite 1, with pale setae and punctures, narrow and parallel in apical half.

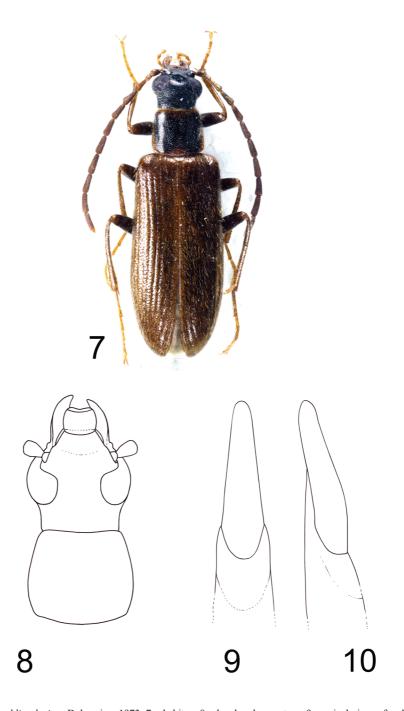
Scutellum. Blackish brown, almost semi-elliptical, with fine microgranulation, more matte.

Legs. Ochre yellow, long and narrow, with pale setae and very fine microgranulation. Tarsomeres narrow, penultimate tarsomeres not widened and lobed.

RLT: 1.00 : 0.63 : 0.61 : 0.65 : 1.44 (protarsus), 1.00 : 0.58 : 0.49 : 0.45 : 1.26 (mesotarsus), 1.00: 0.46 : 0.39 : 0.97 (metatarsus). Both protarsal claws with 5 small, visible teeth.



Figs. 1–6. *Stenerophlina afghanica* sp. nov., holotype,  $\circlearrowleft$ . 1, 2 – habitus; 3 – head and pronotum; 4 – abdomen; 5 – apical piece of aedeagus, dorsal view; 6 – apical piece of aedeagus, lateral view.



Figs. 7–10. Stenerophlina levipes Dubrovina, 1973. 7 – habitus; 8 – head and pronotum; 9 – apical piece of aedeagus, dorsal view; 10 – apical piece of aedeagus, lateral view.

Ventral side of body brown with pale setae and punctures. Abdomen blackish brown, shiny, with long, pale, recumbent setation and dense punctuation, punctures small. Ultimate ventrite roundly excised as in Fig. 4.

Aedeagus (Figs. 5 and 6) ochre yellow, rather matte. Phallobasis rounded laterally and narrowing in dorsal view. Parameres narrow, triangular and beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 4.14. Female. Unknown.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=4). BL 6.21 mm (5.46–6.92 mm); HL 1.06 mm (0.88–1.20 mm); HW 0.96 mm (0.80–1.09 mm); OI 55.70 (50.20–59.52); PL 0.88 mm (0.79–0.99 mm); PW 1.06 mm (0.89–1.24 mm); PI 83.02 (79.84–88.76); EL 4.20 mm (3.79–4.73 mm); EW 1.69 mm (1.39–2.04 mm).

DIFFERENTIAL DIAGNOSIS. Similar species are *Stenerophlina hauseri* (Reitter, 1894) from Turkmenistan and Uzbekistan and *S. levipes* Dubrovina, 1973 from Uzbekistan.

Stenerophlina afghanica sp. nov. clearly differs from *S. levipes* mainly by wider space between eyes (OI in males is approximately 56), by head through the eyes slightly narrower than pronotum, by legs, maxillary palpus and antennomeres 1–6 ochre yellow; while *S. levipes* has space between eyes narrower (OI 40 – examined male or 46 – according to Dubrovina 1973); head through the eyes is slightly wider than pronotum, tibiae, femora, maxillary palpus and antenna are brown. *Stenerophlina afghanica* is distinctly different from species *S. hauseri* mainly by dorsal surface of body from pale brown to brown, covered by pale setation and by double punctuation of elytra; while *S. hauseri* has dorsal surface black with dark setation, elytra has punctures of approximately same diameter in elytral striae and in elytral interspaces (according to Reitter 1894, 1906). NAME DERIVATION. Named after the country of its origin – Afghanistan.

DISTRIBUTION. Afghanistan, Nengrahar province.

## Stenerophlina levipes Dubrovina, 1973 (Figs. 7–10)

Stenerophlina levipes Dubrovina, 1973: 284 (original description).

Type Locality. Uzbekistan, Qashqadaryo Region, Kamaschi.

Material examined. (1  $\circlearrowleft$ ): "Uzbekistan, 13 km SE of G'uzor, N 38°30.044'N E 066°19.857"E, 729 m, 16. v. 2019, W. Grosser lgt.", (VNPC).

MEASUREMENTS OF MALE BODY. BL 7.06 mm; HL 1.26 mm; HW 1.16 mm; OI 39.94; PL 1.04 mm; PW 1.12 mm; PI 92.86; EL 4.76 mm; EW 2.09 mm; AL 4.62 mm; AL/BL 0.65; HW/PW 1.04; BL/EW 3.38; EL/EW 2.78; AED 1:3.33.

```
RLA (1–11): 0.72 : 0.51 : 1.00 : 1.31 : 1.29 : 1.39 : 1.44 : 1.45 : 1.36 : 1.37 : 1.61. RL/WA (1–11): 1.62 : 1.63 : 2.64 : 2.85 : 3.03 : 3.27 : 3.13 : 3.07 : 2.74 : 3.31 : 5.19. RLT: 1.00 : 0.76 : 0.72 : 0.69 : 1.50 (protarsus), 1.00 : 0.51 : 0.38 : 0.75 (metatarsus). DISTRIBUTION. Uzbekistan, Qashqadaryo region.
```

#### Acknowledgements

My sincere thanks are due to Jiří Kolibáč and Petr Baňař (MMBC) for loaning me material under their care. Special thanks are due to Zuzana Čadová Liberec, Czech Republic) for the excellent drawings and David Král (Charles University, Praha, Czech Republic) for critical comments on manuscript.

### REFERENCES

- CAMPBELL J. M. 1965: A revision of the genus Charisius (Coleoptera: Alleculidae). *Coleopterist's Bulletin* 19: 43–56. CAMPBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). *Coleopterist's Bulletin* 18: 42.
- DUBROVINA M. I. 1973: A new species of the Genus Stenerophlina (Coleoptera, Alleculidae) from Uzbekistan. *Zoologičeskij Žurnal* 52: 284–286.
- Novák V. 2020: Subfamily Alleculinae Laporte, 1840. Pp. 417–453. In: IWAN D. & LÖBL I. (eds.): Catalogue of Palaearctic Coleoptera. Volume 5. Revised and Updated Second Edition. Tenebrionoidea. Leiden & Boston: Brill, 945 pp.
- REITTER E. 1894: [new taxa]. In: HAUSER E. (ed.): Beitrag zur Coleopteren-Fauna von Transcaspien und Turkestan. Deutsche Entomologische Zeitschrift 38: 17–74.
- REITTER E. 1906: Uebersicht der Coleopteren-Unterfamilie: Omophlini der Alleculidae aus Europa und den angrenzenden Ländern. Verhandlungen des Naturforschenden Vereins in Brünn 44: 115–175.