

# The genus *Laena* Dejean, 1821 (Coleoptera: Tenebrionidae) in Afghanistan, with descriptions of three new species

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## The genus *Laena* Dejean, 1821 (Coleoptera: Tenebrionidae) in Afghanistan, with descriptions of three new species

by Wolfgang Schawaller<sup>1)</sup>

**Abstract.** Three new species of the genus *Laena* Dejean, 1821 (Tenebrionidae: Lagriinae) from Afghanistan are described (*Laena kabakovi* sp.nov., *Laena kunarica* sp.nov., *Laena waygalica* sp.nov.). A species key for all five known species from Afghanistan is provided. The genus appears to be restricted to the north-eastern regions and is absent from the arid central, south and western parts. These species are not conspecific with their numerous congeners from adjacent Pakistan (Chitral, Swat, etc.).

**Key words.** Coleoptera – Tenebrionidae – Lagriinae – *Laena* – new species – species key – Afghanistan

### Introduction

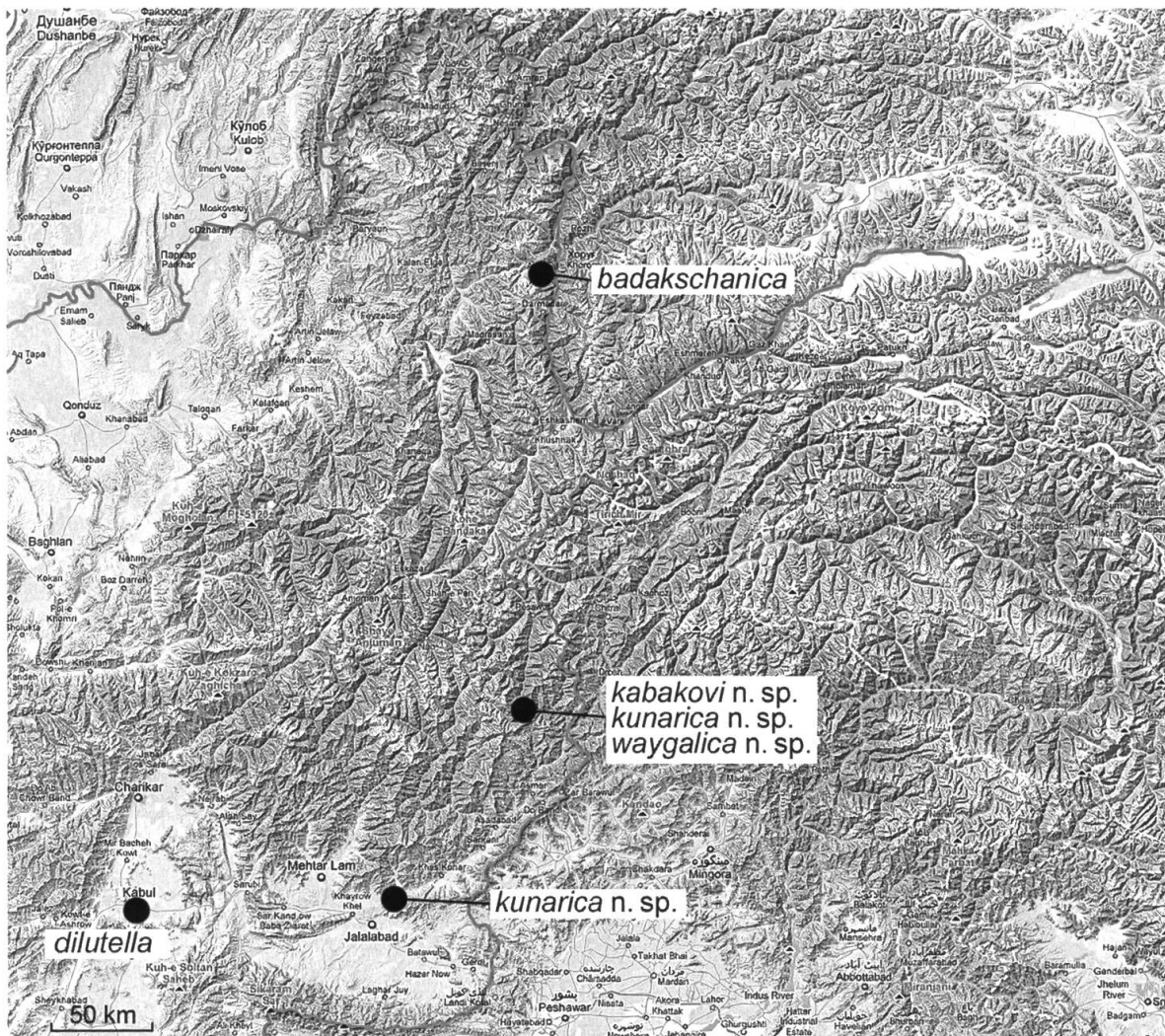
In the course of revisions of the species-rich genus *Laena* Dejean, 1821 (Tenebrionidae: Lagriinae) from various Asian regions in recent years (e.g. SCHAWALLER 1995, 2006, 2009), some specimens from Afghanistan have come to light, which are treated in the current paper. Previously, only a single species had been described (KASZAB 1960), distributed in the northern province of Badakshan. New specimens, assigned herein to three new species (in addition to *Laena dilutella* Solsky, 1881), were collected by Dr. Oleg Kabakov (St. Petersburg) and Christoph Reuter (Hamburg) further to the south of the country, in the provinces of Nuristan and Kunar. In Afghanistan, the genus appears to be restricted to the north-eastern regions and is absent in the arid central, south and western parts (distribution map Fig. 1). The new species have probably only small ranges of distribution, eventually in relict forests, and are not conspecific with numerous unpublished congeners from adjacent Pakistan (Chitral, Swat, etc.) (revision in preparation). In contrast, *Laena dilutella* is widespread in Central Asia (SCHAWALLER 1995).

### Material and methods

The following abbreviations are used for the collections in which the material is held:

HNHM ..... Hungarian Museum of Natural History, Budapest  
SMNS ..... Staatliches Museum für Naturkunde, Stuttgart  
ZIP ..... Zoological Institute, Russian Academy of Sciences, St. Petersburg

<sup>1)</sup> Contribution to Tenebrionidae no. 91. – For no. 90 see: Spec. Bull. Jap. Soc. Scarab. (Masumushi) 1, 2011.



**Fig. 1.** Known distribution of *Laena* species in Afghanistan (modified Google map).

The aedeagus was dissected out and mounted in water-soluble adhesive on the same card as the corresponding male. The sex of the specimens can be determined only by such extraction; in order to avoid unnecessary damage, it was therefore not checked in all paratype specimens. Photographs were taken with a Leica DFC320 digital camera on a Leica MZ16 APO microscope. The digital photographs were subsequently processed in Auto-Montage (Synchroscopy) software.

## Taxonomy

### *Laena badakschanica* Kaszab, 1960

(Fig. 4)

**Type material examined.** Afghanistan, Badakshan, Shiva, 2900 m, 11.VII.1953 leg. J. Klapperich, 1 ♂ paratype HNHM.

**New material.** Afghanistan, Shiva Lake, 2800–2900 m, 19.–21.VII.2008, leg. C. Reuter, 1 ex. SMNS.

**Distribution.** North-eastern Afghanistan (Badakshan around Shiva).

***Laena dilutella* Solsky, 1881**

**New material.** Afghanistan, Kabul, 1800–2000 m, 10.IV.1970 & 15.IV.1971 leg. O. N. Kabakov, 6 ex. ZIP, 2 ex. SMNS.

**Distribution.** Widely distributed in Central Asia from northern Iran and Turkmenia up to Uzbekistan, Kirghizia, and Afghanistan (SCHUSTER 1916, SCHAWALLER 1995).

***Laena kabakovi* sp.nov.**

(Fig. 2)

**Type material.** Holotype ♀: Afghanistan, Nuristan, N Waygal (35°13'N, 70°59'W), 2700 m, 6.VII.1972, leg. O. N. Kabakov, SMNS.

**Description.** Body length 5.0 mm. Eyes not prominent. Pronotum (Fig. 2) with distinct punctures set 2–6 diameters apart, most punctures with longer adpressed setae; surface flat and lustrous; lateral margin unbordered; propleura with similar punctuation and setation as on disc. Elytra (Fig. 2) with rows of punctures without striae, punctures of rows similar to punctures on pronotum, most punctures with a longer adpressed seta; intervals with an irregular row of small punctures, each bearing an adpressed seta of the same length; ninth interval with four indistinct setiferous pores; all intervals slightly convex and lustrous. All femora, at least in females, without teeth or other armatures. No specifically sexual attributes on tibiae of females. No males available, so aedeagus unknown.

**Etymology.** Named in honour of Dr. Oleg N. Kabakov (St. Petersburg), a well-known specialist in Asian carabids, who collected the three new species of *Laena* in Afghanistan.

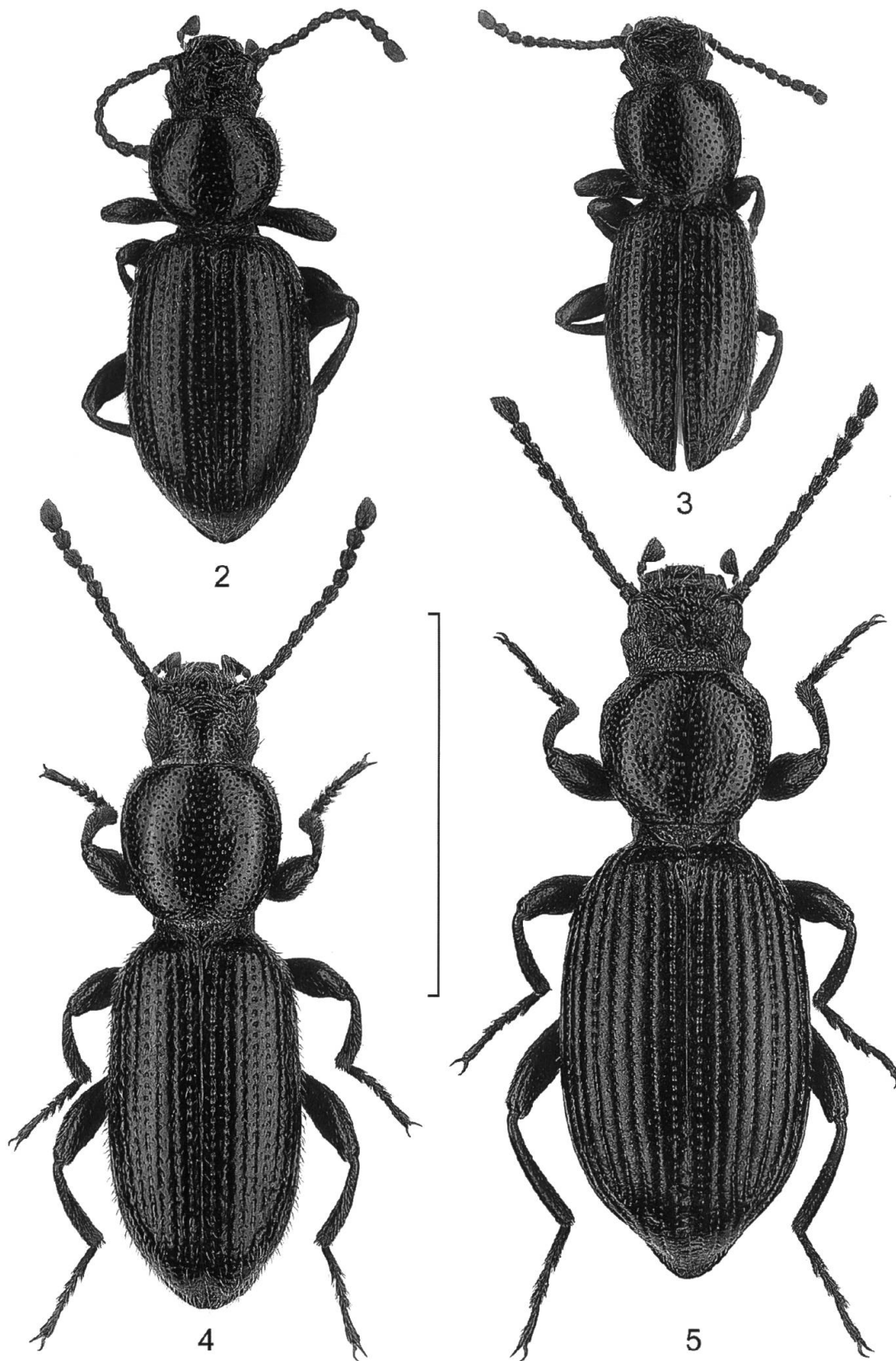
**Differential diagnosis.** May be distinguished from its congeners from Afghanistan by eyes not prominent, pronotum cordiform, at its widest shortly before the middle, by the unbordered lateral margins of the pronotum, by distinctly adpressed setation in the elytral rows as well as in the elytral intervals, and by unarmed femora and unmodified tibiae; aedeagus unknown. See also species key below.

***Laena kunarica* sp.nov.**

(Figs 5, 6)

**Type material.** Holotype ♂: Afghanistan, Nuristan, N Waygal (35°13'N, 70°59'W), 2700 m, 7.VII.1972, leg. O. N. Kabakov, SMNS. – Paratypes: Same data as holotype, 2 ex. SMNS. Afghanistan, Kunar Prov., Pashinkanda, Darah-i-Nur, 2800 m, 1.VII.2009, leg. C. Reuter, 1 ♀ SMNS.

**Description.** Body length 7.0–7.5 mm. Eyes not prominent. Pronotum (Fig. 5) with small punctures, set 0.5–4 diameters apart, most punctures with short adpressed setae; surface flat and lustrous; lateral margin unbordered; propleura with similar punctuation and setation as on disc. Elytra (Fig. 5) with rows of punctures without striae, punctures of rows somewhat larger than punctures on pronotum, punctures without seta; intervals with an irregular row of indistinct small punctures, each bearing a very short microseta; ninth interval with two indistinct setiferous pores; all intervals slightly convex and lustrous. All femora in both sexes without teeth or other armatures. Tibiae exhibit no sexual dimorphism. Aedeagus see Fig. 6.



**Figs 2–5.** Dorsal view of *Laena* species from Afghanistan: 2, *Laena kabakovi* sp.nov., ♀ holotype SMNS; 3, *Laena waygalica* sp.nov., ♂ holotype SMNS; 4, *Laena badakschanica*, non-type SMNS; 5 *Laena kunarica* sp.nov., ♀ paratype SMNS. Scale line: 4.0 mm.

**Etymology.** Named after Kunar Province, where the type series was collected.

**Differential diagnosis.** To be distinguished from its congeners in Afghanistan by eyes not prominent, by pronotum cordiform, at its widest shortly before mid-section, by the unbordered lateral margins of the pronotum, by the absence of setation in the elytral rows and indistinct microsetae in the elytral intervals, by the unarmed femora and unmodified tibiae, and by the shape of the aedeagus (Fig. 6). See also species key below.

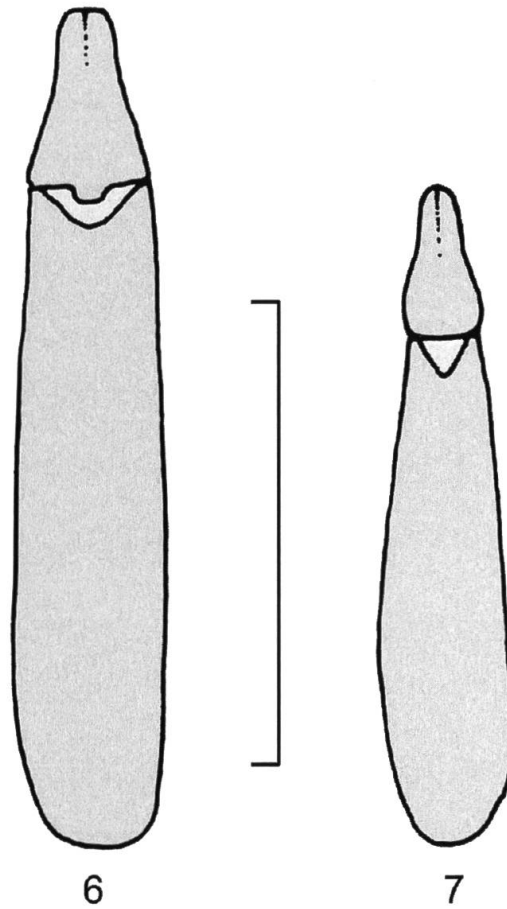
***Laena waygalica* sp.nov.**  
(Figs 3, 7)

**Type material.** Holotype ♂: Afghanistan, Nuristan, N Waygal (35°13'N, 70°59'W), 2700 m, 7.VII.1972, leg. O. N. Kabakov, SMNS.

**Description.** Body length 4.5 mm. Eyes slightly prominent. Pronotum (Fig. 3) with large punctures, set 2–4 diameters apart, most punctures with longer adpressed setae; surface flat and lustrous; lateral margin distinctly bordered; propleura with similar punctation and setation as on disc. Elytra (Fig. 3) with rows of punctures without striae, punctures of rows similar to punctures on pronotum, most punctures with a longer adpressed seta; intervals with an irregular row of small punctures, each bearing an adpressed seta of same length; ninth interval with two indistinct setiferous pores; all intervals slightly convex and lustrous. All femora, at least in males, without teeth or other armatures. Tibiae without sex-specific peculiarities in males. Aedeagus see Fig. 7.

**Etymology.** Named after the village of Waygal, in the vicinity of which the holotype was collected.

**Differential diagnosis.** To be distinguished from its congeners in Afghanistan by eyes slightly prominent, pronotum cordiform, widest shortly before mid-section, distinctly bordered lateral margins of the pronotum, distinct adpressed setation in the elytral rows as well as in the elytral intervals, unarmed femora and unmodified tibiae, and by the shape of the aedeagus (Fig. 7). See also species key below.



**Figs 6–7.** Aedeagus of *Laena* species from Afghanistan: 6, *Laena kunarica* sp.nov., ♂ holotype SMNS; 7, *Laena waygalica* sp.nov., ♂ holotype SMNS. Scale line: 1.0 mm.

### Species key to the genus *Laena* in Afghanistan

- 1 Small species, body length 3.0–4.0 mm, pronotum distinctly longer than wide with convergent but straight lateral margins, elytra elongate and parallel, pronotum and elytra with long and erect setation, all femora in both sexes with sharp angles, anterior tibiae in males with excavation medially. .... *L. dilutella* Solsky
- Larger species, body length 4.5–7.5 mm, pronotum cordiform or subquadrate with rounded lateral margins, elytra oval, pronotum and elytra with or without adpressed setation, femora without sharp angles or teeth, anterior tibiae without modifications. .... 2.
- 2 Pronotum with distinctly bordered lateral margins, eyes slightly prominent. .... *L. waygalica* sp.nov.
- Pronotum with unbordered lateral margins, eyes not prominent. .... 3.
- 3 Pronotum subquadrate, widest in the middle. ....  
..... *L. badakschanica* Kaszab
- Pronotum cordiform, widest shortly before the middle. .... 4.
- 4 Elytral punctural rows and elytral intervals with similar long adpressed setae, body length 5.0 mm. .... *L. kabakovi* sp.nov.
- Elytral punctural rows without setae, elytral intervals with microsetae indistinct at most, body length 7.0–7.5 mm. .... *L. kunarica* sp.nov.

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