

# A new species of the genus *Elodes* Latreille from Pakistan (Coleoptera: Scirtidae)<sup>1</sup>

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## Abstract

A new species of the genus *Elodes* Latreille, 1796 from Pakistan is described. *Elodes tegminis* n. sp. is compared with other species of *Elodes* which have the hind margin of tergite 8 not indented (*Elodes sericea* group and a few other species). The new species has an isolated position within the genus because of the structure of the tegmen.

**Key words:** Coleoptera, Scirtidae, *Elodes sericea* group, *Elodes*, new species, Pakistan.

## Zusammenfassung

Es wird eine neue Art der Gattung *Elodes* Latreille, 1796 aus Pakistan beschrieben. *Elodes tegminis* n. sp. wird mit anderen Arten von *Elodes* verglichen, deren achtes Tergit einen nicht eingebuchteten Hinterrand hat (*Elodes sericea*-Gruppe und wenige andere Arten). Durch den Bau des Tegmen nimmt die neue Art eine isolierte Stellung ein.

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## 1 Introduction

Only a single species of the family Scirtidae, *Hydrocyphon interrogationis* Klausnitzer, 1980, was known before from Pakistan (see KLAUSNITZER 1980). The herein described new species of the genus *Elodes* thus constitutes the second record of this family from this large country. The new species shows peculiar morphological characters. Concerning the entire margin of tergite 8 it is similar to the *Elodes sericea* group and some other species of the genus *Elodes*.

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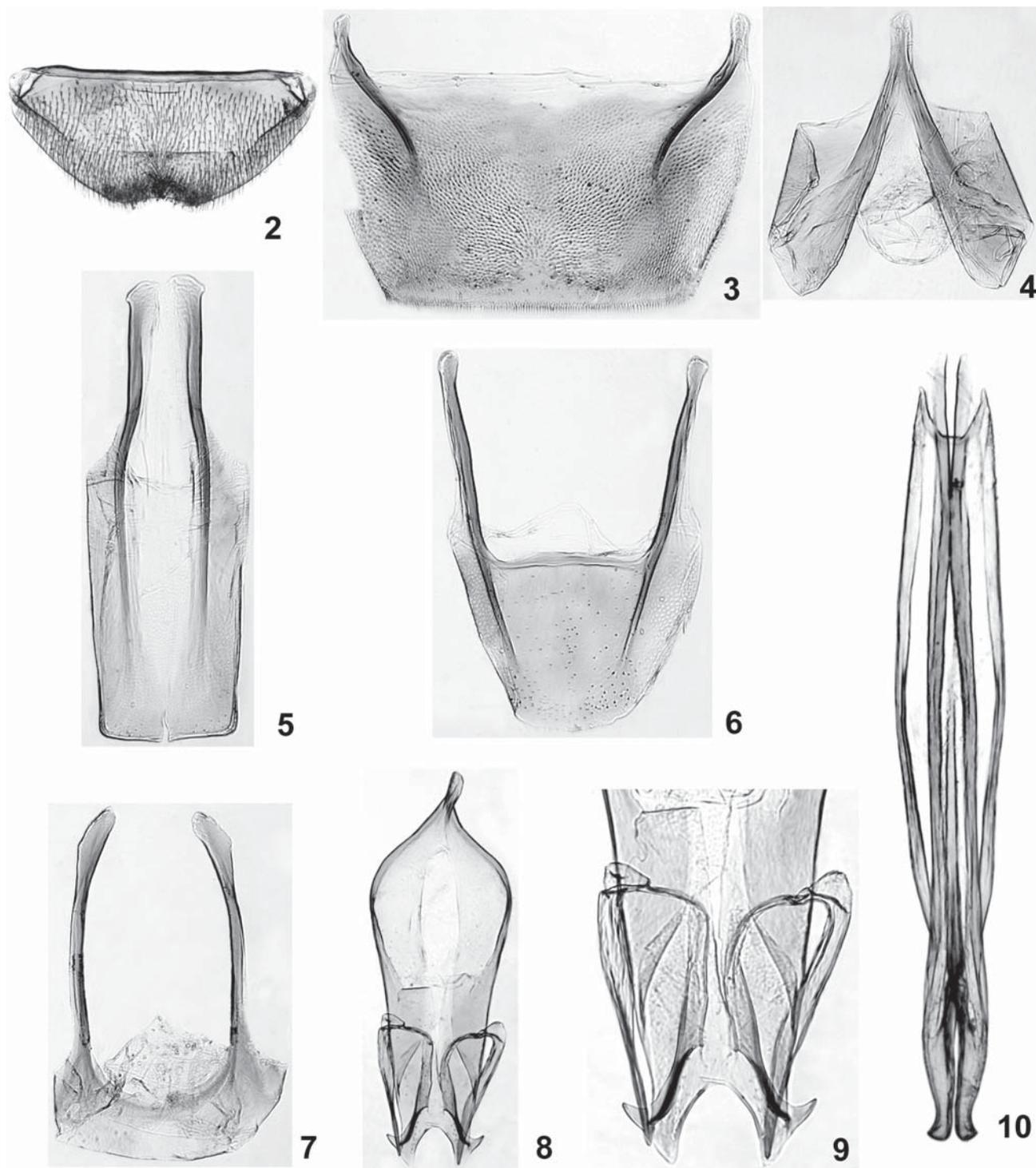
## 2 Description of *Elodes tegminis* n. sp.

**Holotype:** ♂, Pakistan (Chītral), Madaglasht [35° 47' N 72° 00' E], 2500–3700 m, 5.–7.VII.1982, ERBER & HEINZ leg. – In coll. Staatliches Museum für Naturkunde, Stuttgart.



**Fig. 1.** *Elodes tegminis* n. sp., holotype, habitus dorsal. – Scale: 1 mm.

<sup>1</sup> 158<sup>th</sup> contribution to the knowledge of Scirtidae.



**Figs. 2–8.** *Elodes tegminis* n. sp., holotype. – 2. Sternite 7. 3. Tergite 7. 4. Sternite 8. 5. Sternite 9. 6. Tergite 8. 7. Tergite 9. 8. Tegmen. 9. Tegmen, Parameres. 10. Penis.

**Derivatio nominis:** The species name ‘teginis’ is derived from ‘tegmen’ (Latin, neuter) and refers to the morphological term ‘tegmen’. The tegmen of *E. tegminis* n. sp. has a particular structure.

Body length (= length of pronotum in the middle + length of elytra between shoulder and apex along longitudinal axis of body) 3.94 mm. Body extended, approxi-

**Tab. 1.** Localities of species of the *Elodes sericea* group.

Species	Localities
<i>eberti</i> Klausnitzer, 1970	Ukraine (Carpathians), Caucasus Region, Iran
<i>gerdmuelleri</i> Klausnitzer, 2009	Kazakhstan
<i>jelineki</i> Klausnitzer, 2009	Uzbekistan
<i>orientalis</i> Iablokoff-Khnzorian, 1973	Tadzhikistan
<i>persicus</i> Klausnitzer, 1975	Iran: Prov. Golestan (Southeast coast of Caspian Sea)
<i>sericea</i> Kiesenwetter, 1859	Greece (Hellenistic West Balkan and Western Greek Islands)

mately parallel sided (Fig. 1). Index body length/width of elytra = 1.9.

Head brown, more light brown in front, vertex darker; densely punctured with light coloured hairs, hairs directed forwards. Maxillar palps and labial palps yellowish brown.

Antennal segments 1–3 yellowish brown, other antennal segments dark brown. Length of 1<sup>st</sup> antennal segment 0.21 mm, 2<sup>nd</sup> segment 0.10 mm, 3<sup>rd</sup> segment 0.05 mm, and 4<sup>th</sup> segment 0.42 mm.

Pronotum yellowish brown, slightly darker in the middle (Fig. 1); strongly punctured; light hairy, hairs directed backwards; hind edges clearly separated, front margin weakly rounded, almost straight; length along median line 0.82 mm; maximum width 1.24 mm. Scutellum yellowish brown.

Elytra dark brown with a yellowish brown longitudinal stigma beginning at the shoulders and running diagonally inwards; posterior half along the lateral margin with a narrow light longitudinal band (Fig. 1); densely light hairy; densely punctured; width of one elytron in the middle 1.05 mm; length of one elytron between shoulder and apex along longitudinal axis of the body 3.12 mm.

Legs light brown. Sternites 3–5 brown, dark brown in the middle; sternite 6 dark brown only at the anterior margin lateral to the middle, otherwise yellowish brown.

Sternite 7 weakly indented posteriorly (Fig. 2), depth of indentation 0.06 mm; length along the middle 0.52 mm; maximum width 1.20 mm.

Tergite 7 forming a trapezoid-like plate with slightly bent bacilla lateralia (Fig. 3); hind margin with a dense seam of pointed setae; length of plate in the middle 0.43 mm, maximum width 0.85 mm; bacilla lateralia (without taking into account the curvature) 0.37 mm long.

Sternite 8 (Fig. 4) with large pterygia posteriorly rounded; stem short, divided already at the beginning, projecting like a fork into the basis of the pterygia; total length 0.55 mm; maximum width 0.57 mm.

Sternite 9 forming a sclerotized plate, straight-cut posteriorly and small rounded (Fig. 5), with single short setae; bacilla lateralia strongly sclerotized; total length 0.88 mm; maximum width of plate 0.32 mm; posterior width of plate 0.24 mm; length of bacilla lateralia 0.65 mm.

Tergite 8 with entirely margined plate, posteriorly bent and almost straight bacilla lateralia linked together at the

base of the plate (Fig. 6); plate covered with single pointed setae, hind margin with short pointed hairs; total length 0.75 mm; width of plate 0.48 mm; length of plate in the middle 0.34 mm; length of bacilla lateralia 0.65 mm.

Tergite 9 with sclerotized bacilla lateralia, weakly linked together at the base of the plate; plate small, barely sclerotized (Fig. 7); total length 0.67 mm; width of plate 0.44 mm; length of bacilla lateralia (without taking into account the curvature) 0.50 mm.

Tegmen (Fig. 8) with a broad rounded base. Parameres little sclerotized, ending in hooked, outwardly directed pointed apices, covered with single short setae. Linked with the parameres is an eyelet-like structure on every side, ending posteriorly in two pointed apices (Fig. 9). Total length of tegmen 1.13 mm; maximum width 0.40 mm.

Penis slim, parameroids posteriorly with hardly separated lateral tooth, covered with sensorial pores and short setae (Fig. 10). Total length of penis 1.40 mm; maximum width 0.18 mm.

### 3 Discussion

*Elodes tegminis* n.sp. is clearly distinguished from all other known species of the genus by the structure of the tegmen, so it cannot be mistaken for any other species of *Elodes*. *E. tegminis* n.sp. can be compared with the *E. sericea* group and some other species which have tergite 8 similar because of the evenly curved hind margin of the plate of this sclerite. However, the probably apomorphic structure of the parameres makes a true relationship to the *E. sericea* group questionable. Also the structure of sternite 8 differs from the type of the species group.

Six species are currently known of the *Elodes sericea* group, which was introduced in detail by KLAUSNITZER (2009a) (Tab. 1). Characters of the males of this group are: Parameres single-pointed posteriorly; tergite 8 with entire margin posteriorly or at most very weakly indented; stem of sternite 8 forked,  $\pm$  sclerotized in between the base of the indentation. A character of the females is the bursal sclerite which is  $\pm$  compact, formed by two longitudinal parts (sclerites). The monophyly of the *Elodes sericea* group is still a matter of discussion because some of the mentioned characters are plesiomorphic. For that reason this group should be understood as a 'working tool' only.

*Elodes improvisa* Klausnitzer, 1990 has posteriorly pointed parameres and an entire margin of the male tergite 8, like the species of the *Elodes sericea* group, but it is characterized by a derived structure of sternite 8 and the parameroids (KLAUSNITZER 2009b) and is thus different. The plates of tergite 8 of *Elodes lohsei* Klausnitzer, 2000, *E. spinidens* Klausnitzer, 2001 and *E. venustula* Klausnitzer, 2002 are likewise entirely margined, but they were not assigned to the *Elodes sericea* group since the pointed apices of the parameres are modified and further differences of the tegmen exist (KLAUSNITZER 2009b).

The plate of tergite 8 is  $\pm$  deeply indented in all other species of the genus *Elodes* of the Palaearctic and the Oriental Region.

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