

New Species and Additional Records of the Genus *Leptobium* Casey (Coleoptera: Staphylinidae: Paederinae) from Central Anatolia

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ABSTRACT

In this paper, *Leptobium angoranum* from Ankara (Beypazarı) province in central northern Anatolia is described. Its diagnostic characters are illustrated and distinguished from related congeners. Additional records of three species of *Leptobium* from Turkey are reported. The genus is now represented in Turkey by 18 species, 13 of them are endemic.

Key words: Coleoptera, Staphylinidae, Paederinae, *Leptobium*, new species, Turkey.

INTRODUCTION

In the Palaearctic region, the genus *Leptobium* Casey is represented by 70 species, 17 of which occur in Turkey (Schülke & Smetana, 2015; Assing, 2017; Anlaş, 2017), and that represents nearly 25% of *Leptobium* of the Palaearctic fauna. Most species of the genus in Turkey are brachypterous and more or less endemic. 12 of 17 species are restricted to Anatolia and represent 70% of the Turkish *Leptobium* fauna (Anlaş, 2017).

The fauna of the subfamily Paederinae is known to be rich in the central Anatolia region, but is poorly studied. To overcome this information deficiency, a research project on the diversity and biogeography of the Paederinae of the central Anatolia was carried out. This paper continues the series of descriptions of new *Leptobium* species collected in central Anatolia within this project. A new species are described here: *Leptobium angoranum* sp. n. A total of 18 *Leptobium* species is now known from Turkey with 13 of them found only in Turkey.

MATERIAL AND METHODS

The morphological studies were conducted using a Stemi 508 microscope (ZeissGermany). Photographs of the habitus, forebody and aedeagus of the new species were taken with a digital camera (Zeiss Axiocam ERC5s). All photographs were edited with the Helicon Focus v. 6, and Corel Draw v. X5 software. The map was made using the software Google Earth Pro (2019).

Nomenclature of the terminalia and the style of the description follow Assing (2005). Head length was measured from the anterior margin of the frons to the posterior margin of the head, length of the pronotum was measured along the median line, elytral length was measured at the suture from the apex of the scutellum to the posterior margin of the elytra. The length of the median lobe of the aedeagus was measured from the apex of the ventral process to the base of the capsule.

The material referred to in this study is stored in Alaşehir Zoological Museum, Manisa, Turkey (AZMM).

RESULTS

Faunistic records

Leptobium ilgazicum Assing, 2010 (Fig. 1)

Material examined: Çankırı: 5♂♂, 4♀♀, 19.05.2018, Atkaracalar, Ilıpınar 5 km SE, 1750 m, 40°46'10"N, 33°09'32"E, leg. Örgel & Yaman (AZMM, NHMO). 3♂♂, 3♀♀, 19.05.2018, Kurşunlu 15 km N, Bayramören 3 km E, 1648 m, 40°55'42"N, 33°15'50"E, leg. Örgel & Yaman (AZMM). 2♂♂, 1♀, 20.05.2018, Kurşunlu 5 km E, Taşkaracalar, 1647 m, 40°42'11"N, 33°19'43"E, leg. Örgel & Yaman (AZMM). 5♂♂, 4♀♀, 21.V.2018, Ilgaz, Kuyupınar 2 km E, 1414 m, 40°51'06"N, 33°37'37"E, leg. Örgel & Yaman (AZMM). 6♂♂, 4♀♀, 21.05.2018, Ilgaz, Ilgaz Dağları, 1926 m, 41°02'49"N, 33°42'46"E, leg. Örgel & Yaman (AZMM).

Distribution: This species is only known from the surroundings of Ilgaz Mountains in Çankırı province of central northern Anatolia (Assing, 2010; Anlaş, 2017).

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***Leptobium yagmuri* Anlaş, 2017 (Fig. 1)**

Material examined: Ankara: 4♂♂, 3♀♀, 10.03.2018, Mamak, Kutludüğüň Plateau, 39°52'11"N, 33°06'04"E, 1436 m, leg. Örgel & Yaman (AZMM).

Distribution: The recently described species was only known from Ankara province (Anlaş, 2017).

***Leptobium ponticum* Assing, 2005 (Fig. 1)**

Material examined: Sinop: 1♂, Hamsiler village, 42°03'44"N, 35°01'55"E, leg. Koç (AZMM).

Distribution: This species endemic to Sinop province of central northern Anatolia (Assing, 2005).

Description of new species

***Leptobium angoranum* Anlaş, Örgel, 2020 sp. n. (Figs. 1-7)**

Type material. Holotype: TURKEY: ♂, "TR. Ankara, Beypazarı, Üreğil, 40°17'07"N, 32°04'11"E, 1375 m, 11.04.2017, leg. Örgel & Yaman. / Holotypus ♂, *Leptobium angoranum* sp. n. det. S. Anlaş & S. Örgel 2019" (AZMM). Paratypes: 11♂♂, 4♀♀, same data as holotype (AZMM); 6♂♂, 3♀♀, same data as holotype but 23.09.2017, leg. Örgel & Yaman. (AZMM).

Description: Habitus as in Fig. 1. Species of small size, 4.7-5.1 mm long. Coloration: head and abdominal segments III-VI black to blackish brown, pronotum reddish to reddish brown, elytra reddish, with the anterior margin infuscate, abdominal segments VII-X reddish, antennae and legs reddish yellow.

Head oblong approximately 1.15-1.20 times as long as wide (Figs. 2-3); eyes average size (Fig. 3), projecting from lateral outline of head, slightly more than half the length of postocular region in dorsal view; puncturation coarse and sparse, irregularly spaced, larger in median dorsal area; interstices on dorsal surface on average about 2.5 times as wide as punctures, microsculpture absent; pubescence black and sparse. Antennae approximately 1.3-1.4 mm long; antennomere III slightly longer than II; antennomeres IV-VI longer than the width, antennomeres VII-X about as wide as long; antennomere XI almost twice as long as wide (Fig. 2).

Pronotum distinctly oblong, approximately 1.3 times as long as wide and as wide as head (Figs. 2-3), lateral margins subparallel in dorsal view; puncturation similar to that of head, but sparser; microsculpture absent; pubescence yellowish and sparse.

Elytra slightly wider than pronotum, approximately 1.05-1.10 times as wide as pronotum (Figs. 2-3) and shorter than pronotum, at suture about 0.70 times as long as pronotum; punctation weakly granulate, finer and denser than that of pronotum and head; microsculpture absent; pubescence yellowish or reddish yellow, more distinct than that of head and pronotum. Hind wings reduced. Tarsi relatively long (Fig. 2).

Abdomen wider than elytra (Fig. 2); approximately 1.10 times as wide as elytra; puncturation fine and moderately dense; microsculpture visible, composed of dense and fine transverse meshes and striae; pubescence brown and moderately dense; posterior margin of tergite VII without palisade fringe.

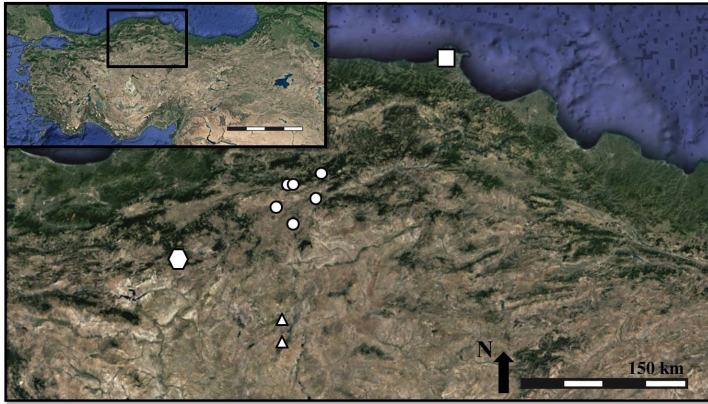


Fig 1. Distribution of endemic *Leptobium* species in central northern Anatolia: *L. ilgazicum* Assing (circles); *L. ponticum* Assing (square); *L. yagmuri* Anlaş (triangles), *L. angoranum* sp. n. (hexagon).

♂: sternite VII with concave posterior margin, but without modified pubescence and median impression (Fig. 4); sternite 8 with posterior incision not reaching middle of the sternite, little more than 1/3 the length of the sternite (Fig. 5); aedeagus small and slender, with ventral process of highly distinctive shape, 1.0-1.1 mm long (Figs. 5-6).

Comparative notes. The species is distinguished from all its congeners by the different morphology of the aedeagus. From other species occurring in central and northern Anatolia, *L. ilgazicum* Assing (Çankırı, Ankara), *L. ponticum* Assing (Sinop), *L. yagmuri* Anlaş (Ankara) and in southern Anatolia, *L. assingi* Bordon (Antalya, Gaziantep, Hatay, Kahramanmaraş, Osmaniye) it is additionally separated as follows:

From *L. ilgazicum* and *L. ponticum* by the different coloration of forebody (*L. ilgazicum* and *L. ponticum*: head and pronotum blackish; elytra uniformly reddish), the more oblong head and pronotum; by the male sternite VII without modified setae (*L. ilgazicum* and *L. ponticum*: male sternite VII with extensive cluster of longer and stouter black setae) and by the somewhat different shape of the dorsal plate, and by the differently shaped ventral process of the aedeagus.

From *L. yagmuri* by the different coloration of forebody (*L. yagmuri*: head and pronotum blackish; elytra reddish), by the male sternite VII without modified setae (*L. yagmuri*: sternite VII with weakly modified pubescence) and by the different morphology of the aedeagus, especially the differently shaped ventral process.

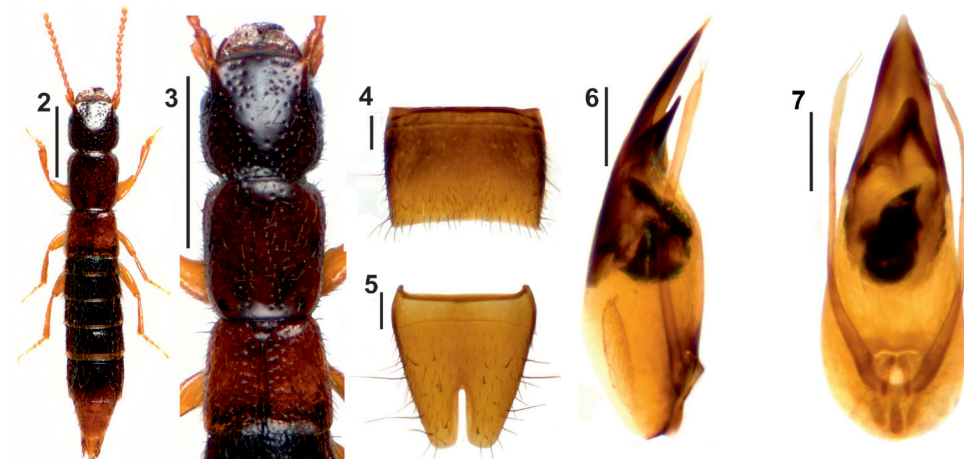
From *L. assingi* by the different coloration of forebody (*L. assingi*: pronotum blackish; elytra uniformly reddish), by smaller eyes, by the male sternite VII without modified setae (*L. assingi*: sternite VII with weakly modified pubescence, in posterior median area with two more or less distinct clusters of rather sparse, slightly darker and stouter setae), and by the differently shaped ventral process of the aedeagus.

For more illustrations of *L. ponticum*, *L. ilgazicum*, *L. yagmuri* and *L. assingi* see Assing (2005, 2010), Anlaş (2017).

Etymology. The name is derived from ancient name of Ankara (=Angora) where the type locality is situated.

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Distribution and bionomics. The species was collected only one locality in Ankara province of central northern Anatolia. The type specimens were collected under stones in grassland and sifted from leaf litter in a small lakeside at altitudes of 1375 m.



Figs. 2-7. *Leptobium angoranum* sp. n. 2-habitus; 3-forebody; 4-Male sternite 7; 5-Male sternite 8; 6-Aedeagus in lateral view; 7-Aedeagus in ventral view. Scale bars: 1.0 mm (Figs. 2-3); 0.2 mm (Fig. 4-7).

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