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## **A revision of *Leptobium* CASEY. VII. Two new species from Turkey and Spain, and additional records (Coleoptera: Staphylinidae: Paederinae)**

V. ASSING

**A b s t r a c t :** *Leptobium shavrini* nov.sp. (Spain: Andalucía) and *L. ilgazicum* nov.sp. (Turkey: Çankırı) are described, illustrated, and compared with similar and geographically close congeners. Additional records of two species are reported. The genus now includes 67 species and two subspecies.

**K e y w o r d s :** Coleoptera, Staphylinidae, Paederinae, *Leptobium*, Palearctic region, Spain, Turkey, taxonomy, new species, new records.

### **Introduction**

According to the latest supplement to a recent revision, the Palearctic genus *Leptobium* CASEY 1905 includes a total of 65 valid species, with one species from Morocco and the Canary Islands represented by three subspecies (ASSING 2005, 2010). The vast majority of species is distributed in the Mediterranean region.

Staphylinidae material from southern Spain made available to me by Alexey Shavrin contained two specimens of an undescribed species from the Sierra Magina near Jaén (Andalucía). Another new species was discovered in the Ilgaz Dağları during a field trip to northern Turkey conducted by the author in spring 2010. In the present contribution the two new species are described and additional records of two species, one of them described only a year ago, are reported. Including the new taxa described below, the genus now comprises 67 species and two subspecies.

### **Material, methods, and measurements**

The material referred to in this study is deposited in the following public institutions and private collections:

MNHUB.....Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)

cAss.....author's private collection

cFel .....private collection Benedikt Feldmann, Münster

cLen .....private collection José Luis Lencina, Jumilla

cSha.....private collection Alexey Shavrin, Irkutsk

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used for the photographs.

In the species descriptions, the measurements are abbreviated as follows:

EL	length of elytra at suture, from apex of scutellum to posterior margin
HL	head length from anterior margin of frons to neck
HW	maximal head width
ML	length of aedeagus from base to apex of dorsal plate
PL	length of pronotum along midline
PW	maximal width of pronotum
TaL	length of metatarsus
TiL	length of metatibia
TL	body length from mandibles to posterior margin of abdominal tergite VIII.

### Additional records

#### *Leptobium gracile* (GRAVENHORST 1802)

**Material examined:** Albania: 74 exs., Kolonjë, 3 km ENE Leskovik, 40°10'N, 20°37'E, 990 m, flooded calcareous pasture with stones, under stones, 28.V.2010, leg. Assing & Schülke (cAss, cSch). Turkey: 79 exs., Kastamonu, 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, calcareous slope and flooded field, under stones, 22.III.2010, leg. Assing (MNHUB, cAss, cFel); 48 exs., Kastamonu, ca. 65 km W Kastamonu, 20 km W Eflani, 41°28'N, 33°13'E, 1090 m, calcareous arable land, under stones, 25.III.2010, leg. Assing (cAss); 13 exs., Ankara, 57.5 km SE Bolu, ca. 20 km N Beypazarı, 40°18'N, 31°59'E, 1540 m, wet fallow near shallow pond, under stones, 28.III.2010, leg. Assing (cAss). Ukraine: 1 ex., Odessa, Majaki, Dnestr river, at light, 18.-19.VIII.2005, leg. Cibul'kis (cSha).

**Comment:** *Leptobium gracile* is the most widespread and common species of the genus. For a map illustrating its distribution see ASSING (2005).

#### *Leptobium castroi* ASSING 2009

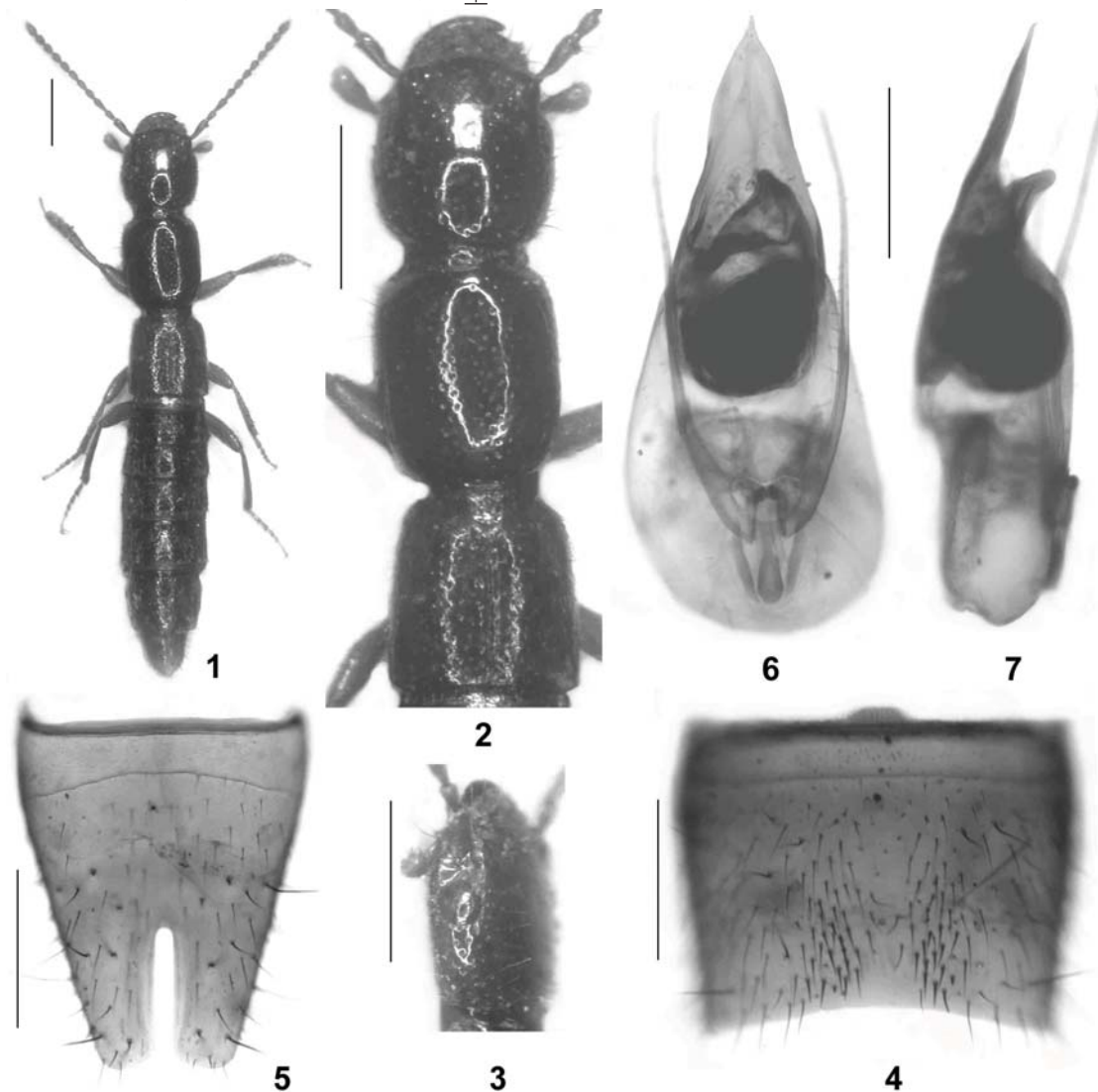
**Material examined:** Spain: 24 exs., Andalucía, Sierra Mágina, Cerro Mágina, 2000-2100 m, 26.-28.III.2010, leg. Shavrin & Anishchenko (cSha, cAss); 4 exs., Andalucía, Sierra Mágina, 1800 m, 25.-28.III.2010, leg. Shavrin & Anishchenko (cSha, cAss); 1 ♀, Sierra Mágina, Pico El Almadén, 2030 m, 1.V.2006, leg. Lencina (cLen); 1 ♂, 2 ♀ [probably mislabelled], Andalucía, Sierra de las Nieves, Los Quejigales, 6.-8.IV.2010, leg. Shavrin & Anishchenko (cSha, cAss).

**Comment:** The original description of this recently described species is based on two specimens from La Pandera, very close to the locality where the above specimens were collected (ASSING 2009). The record from the Sierra de las Nieves should be considered highly doubtful; it may be based on a confusion of labels.

## Descriptions of new species

### *Leptobium shavrini* nov.sp. (Figs 1-7)

Type material: Holotype ♂: "Spain (Andalucia) Sierra Magina, near Cortijo de los Prados, 1500 m, 25-28.03.2010, Shavrin & Anishchenko leg / Holotypus ♂ *Leptobium shavrini* sp. n. det. V. Assing 2010" (cAss). Paratype ♀: same data as holotype (cSha).



**Figs 1-7:** *Leptobium shavrini* nov.sp.: (1) habitus; (2) forebody; (3) head in lateral view; (4) male sternite VII; (5) male sternite VIII; (6-7) aedeagus in ventral and in lateral view. Scale bars: 1-3: 1.0 mm; 4-7: 0.5 mm.

**Description:** Measurements (in mm) and ratios (holotype, paratype): HL: 1.19, 1.13; HW: 1.13, 1.07; PW: 1.15, 1.03; PL: 1.32, 1.19; EL: 0.93, 0.84; TiL: 1.01, 1.01; TaL: 0.93, 0.82; ML: 1.75, -; TL: 8.3, 7.9; HL/HW: 1.05, 1.06; PW/HW: 1.02, 0.96; PL/PW: 1.14, 1.16; EL/PL: 0.70, 0.71; TiL/TaL: 1.09, 1.23.

Habitus as in Fig. 1. Coloration of the *L. illyricum* type: head, pronotum, and abdomen, except for the apex blackish; elytra and abdominal apex (segments VII-X) dark reddish; legs and antennae rufous.

Head moderately oblong (see ratio HL/HW), with sparse and relatively fine punctation; microsculpture absent (Fig. 2); eyes approximately half as long as postocular region (Fig. 3).

Pronotum approximately as wide as head (see ratio PW/HW); punctation similar to that of head, but somewhat less sparse (Fig. 2).

Elytra approximately as wide as, and at suture distinctly shorter than pronotum (see ratio EL/PL); punctation similar to that of pronotum (Fig. 2); microsculpture absent. Hind wings reduced.

Abdomen subparallel, at segment VI 1.05-1.10 times as wide as elytra; punctation dense on anterior tergites, sparse on posterior tergites; integument with shallow transverse microsculpture; posterior margin of tergite VII with very narrow rudiment of a palisade fringe.

Male: sternite VIII posteriorly with cluster of dark setae on either side of middle, posterior margin broadly concave (Fig. 4); sternite VIII with the usual deep and narrow posterior incision, its depth approximately 0.4 times the length of sternite (Fig. 5); aedeagus 1.8 mm long, shaped as in Figs 6-7, dorsal plate slender and with median carina.

**Comparative notes:** The new species is distinguished from the similar sympatric *L. castroi* by larger size, longer elytra, posteriorly more strongly concave male sternite VII, the more slender male sternite VIII, and by the morphology of the aedeagus (larger size, dorsal plate longer and more slender, ventral process of different shape). For measurements and illustrations of *L. castroi* see ASSING (2009).

**Etymology:** The species is dedicated to Alexey Shavrin, Irkutsk, one of the collectors of the type specimens.

**Distribution and bionomics:** The type locality is situated in the Sierra Magina (Jaén, Andalucía, southern Spain) at an altitude of 1500 m, not far from the localities where *L. castroi* was collected.

### ***Leptobium ilgazicum* nov.sp.** (Figs 8-14)

**Type material:** Holotype ♂: "TR [7a] - Çankırı, 67 km SW Kastamonu, 10 km NNW Kurşunlu, 1560 m, 40°55'40"N, 33°15'30"E, 24.III.2010, V. Assing / Holotypus ♂ *Leptobium ilgazicum* sp. n. det. V. Assing 2010" (cAss). Paratypes: 1 ♂, 1 ♀: same data as holotype (cAss).

**Description:** Measurements (in mm) and ratios (range; n=3): HL: 0.84-0.89; HW: 0.80-0.84; PW: 0.80-0.85; PL: 0.93-0.98; EL: 0.58-0.65; TiL: 0.68-0.70; TaL: 0.62-0.70; ML: 1.05-1.13; TL: 6.6-7.0; HL/HW: 1.05; PW/HW: 1.00-1.01; PL/PW: 1.12-1.15; EL/PL: 0.62-0.66; TiL/TaL: 1.00-1.10.

Habitus as in Fig. 8. Coloration of the *L. illyricum* type: head, pronotum, and abdomen, except for the apex blackish; elytra and abdominal apex (broad posterior margin of segment VII; segments VIII-X) reddish; legs and antennae reddish.

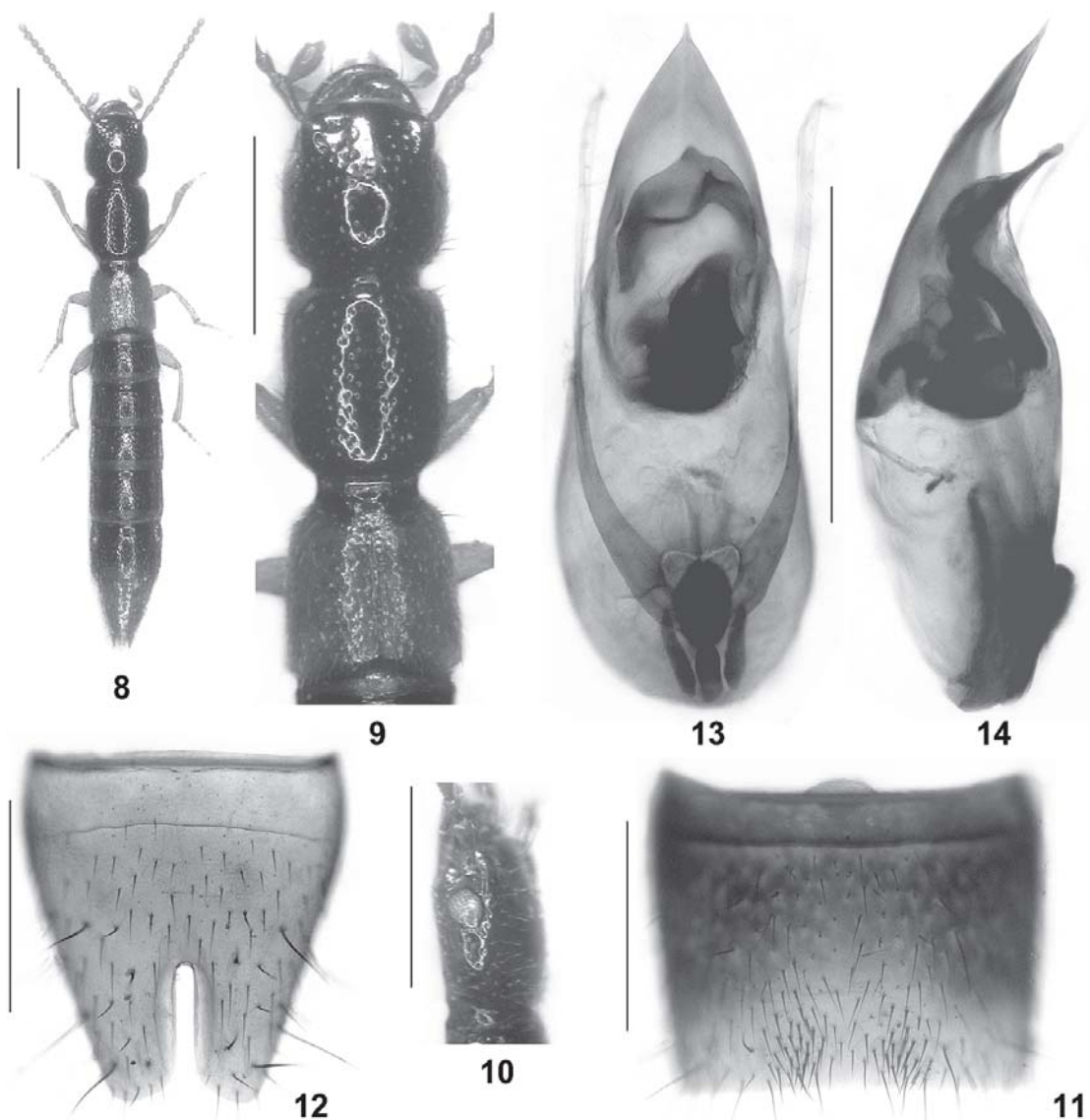
Head weakly oblong (see ratio HL/HW), with sparse and relatively fine punctation; microsculpture absent (Fig. 9); eyes approximately half as long as postocular region (Fig. 10).

Pronotum approximately as wide as head (see ratio PW/HW); punctation similar to that of head, but somewhat denser (Fig. 9).

Elytra slightly wider and at suture distinctly shorter than pronotum (see ratio EL/PL and Fig. 9); punctuation similar to that of pronotum, but less defined; microsculpture absent. Hind wings reduced.

Abdomen subparallel, at segment VI approximately 1.05 times as wide as elytra; punctuation relatively dense on tergites III-VI; interstices with shallow microsculpture; posterior margin of tergite VII without palisade fringe.

Male: sternite VIII posteriorly with cluster of darker setae on either side of middle (Fig. 11), posterior margin indistinctly concave in the middle; sternite VIII with narrow posterior incision, its depth approximately 0.4 times the length of sternite (Fig. 12); aedeagus approximately 1.1 mm long, shaped as in Figs 13-14, dorsal plate with weakly pronounced median carina.



**Figs 8-14:** *Leptobium ilgazicum* nov.sp.: (8) habitus; (9) forebody; (10) head in lateral view; (11) male sternite VII; (12) male sternite VIII; (13-14) aedeagus in ventral and in lateral view. Scale bars: 8-10: 1.0 mm; 11-14: 0.5 mm.



**Comparative notes:** Among the Turkish *Leptobium* species of similar size and coloration, *L. ilgazicum* is most similar to *L. anlasi* ASSING from Manisa. It is distinguished from this species by the following external and sexual characters: elytra slightly shorter, more slender, less convex in cross-section, and with coarser and more defined punctuation; male sternite VII posteriorly with clusters of finer and shorter setae; aedeagus with dorsal plate less straight in lateral view, apically more abruptly narrowed and with fine tip; ventral process more slender in lateral view and differently shaped in ventral view. From other Turkish congeners of similar size and coloration (*L. assingi* BORDONI, *L. tauricum* GUSAROV, *L. ponticum* ASSING), it is distinguished as follows:

from *L. assingi* (southern Anatolia) by the more slender elytra, the broader and shorter dorsal plate of the aedeagus, as well as by the more asymmetric and apically more acute ventral process of the aedeagus;

from *L. tauricum* (western and northwestern Anatolia) by smaller body size, less dense punctuation of the forebody, more slender elytra, the shape and chaetotaxy of the male sternite VII (*L. tauricum*: posterior margin distinctly concave, posterior clusters with darker, longer, and stouter setae), and by the completely different shapes of the ventral process and the dorsal plate of the aedeagus;

from the geographically close *L. ponticum* (Sinop) by the chaetotaxy of the male sternite VII and by the completely different morphology of the aedeagus (*L. ponticum*: ventral process of very distinctive shape, strongly asymmetric).

For illustrations and measurements of the compared species see ASSING (2005, 2009).

**Etymology:** The specific epithet is derived from the name of the mountain range where the species was discovered.

**Distribution and bionomics:** The type locality is situated in the western parts of the Ilgaz Dağları (northern Anatolia: Çankırı, near the border with Kastamonu). The type specimens were found under stones below a snow field at an altitude of 1560 m.

### Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material. In particular, I am grateful to Alexey Shavrin for the generous gift of the holotype of *L. shavrini*. Benedikt Feldmann proof-read the manuscript.

### Zusammenfassung

*Leptobium shavrini* nov.sp. (Spanien: Andalusien) und *L. ilgazicum* nov.sp. (Türkei: Çankırı) werden beschrieben, abgebildet und mit ähnlichen, in Spanien bzw. der Türkei verbreiteten Arten verglichen. Von zwei Arten werden weitere Nachweise gemeldet. Die Gattung umfasst nunmehr insgesamt 67 Arten und zwei Unterarten.

## References

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