

A revision of *Leptobium* Casey. IV. Three new species and additional records (Coleoptera: Staphylinidae: Paederinae)

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Abstract

Three species of *Leptobium* Casey, 1905 are described and illustrated: *L. castroi* **n. sp.** (Spain: Andalucía: Jaén), *L. anlasi* **n. sp.** (Turkey: Manisa), and *L. vitalityi* **n. sp.** (southern Kazakhstan). The Palearctic genus now includes 62 species and three subspecies. Additional records of 22 species and subspecies are reported. The distributions of seven species are mapped.

Key words: Staphylinidae, Paederinae, *Leptobium*, Palearctic region, taxonomy, new species, distribution, new records.

Zusammenfassung

Drei Arten der Gattung *Leptobium* Casey, 1905 werden beschrieben und abgebildet: *L. castroi* **n. sp.** (Spanien: Andalusien: Jaén), *L. anlasi* **n. sp.** (Türkei: Manisa) und *L. vitalityi* **n. sp.** (südliches Kasachstan). Die paläarktisch verbreitete Gattung umfasst damit derzeit 62 Arten und drei Unterarten. Weitere Nachweise von 22 Arten und Unterarten werden gemeldet. Für sieben Arten werden Verbreitungskarten erstellt.

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1 Introduction

According to a recent revision of *Leptobium* Casey, 1905, the genus has a Palearctic distribution and includes a total of 59 valid species, with one species from Morocco and the Canary Islands represented by four subspecies (ASSING 1999, 2005, 2006). The vast majority of species are distributed in the Mediterranean region. With few exceptions, *Leptobium* species are brachypterous; consequently their dispersal power is low and their distributions are usually more or less restricted. Some species have been recorded only from their respective type localities. In many cases the limits of the distributions are unclear, primarily because of a lack of data, which, at least partly, explains the patchy distribution patterns of some of the more widespread representatives of the genus. However, the available evidence for some better-studied species, e. g., *L. illyricum* (Erichson, 1840), suggests that such disjunct ranges may in fact be interpreted as relict distributions resulting from a history of local extinctions on the one hand and favoured by low dispersal power, and a consequently low potential for recolonisation, on the other (ASSING 2005). In any case, more data are needed to better understand the zoogeography of the genus.

Since the latest instalment to the revision, additional

material has become available from various museum collections and private collectors. This material not only yielded numerous additional records of zoogeographic interest, but also three undescribed species from the Mediterranean region and Middle Asia, so that the genus now comprises 62 species and three subspecies.

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2 Material, methods, and depositories

A total of 267 specimens of *Leptobium* deposited in the following public institutions and private collections were examined:

BMNH	The Natural History Museum, London, U.K. (R. BOOTH)
cAnl	private collection S. ANLAŞ, Turgutlu, Turkey
cApf	private collection W. APFEL, Eisenach, Germany

cAss	author's private collection
cFel	private collection B. FELDMANN, Münster, Germany
cKas	private collection V. KASTCHEEV, Almaty, Kazakhstan
cOro	private collection P. OROMÍ, La Laguna, Spain
cSch	private collection M. SCHÜLKE, Berlin, Germany
cSta	private collection W. STARKE, Warendorf, Germany
cVai	private collection D. VAILATI, Brescia, Italy
cVav	private collection J. VÁVRA, Ostrava-Krásné Pole, Czech Republic
HNHM	Hungarian Natural History Museum, Budapest, Hungary (GY. MAKRANCZY, O. MERKL)
MNCN	Museo Nacional de Ciencias Naturales, Madrid, Spain (I. IZQUIERDO)
NHMW	Naturhistorisches Museum, Wien, Austria (H. SCHILLHAMMER)
SMF	Senckenberg-Museum, Frankfurt/Main, Germany (A. HASTENPFLUG-VESMANIS)
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany (W. SCHAWALLER, K. WOLF-SCHWENNINGER)

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). For the photographs a digital camera (Nikon Coolpix 995) was used. The maps were generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.ifm-geomar.de/omc.

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

Labels of type material are cited in their original spelling and language, except for the following adaptations according to the general format requirements of the journal: names of persons (except authors of species) in small capitals, scientific names of genera and species in italics, dates with the months always in Roman numbers.

In the results section, the species are ordered according to species groups.

3 Results

3.1 Additional records

Leptobium gracile (Gravenhorst, 1802)

Additional material examined (total: 39 exs.)

Spain: **Andalucía:** 10 exs., Sierra de Segura, ca. 10 km SW Santiago de la Espada, 38°03'N, 2°38'W, 1430 m, pasture and field margin, under stones, 16.III.2008, leg. ANDÚJAR & ASSING (cAss).

Austria: **Niederösterreich:** 2 exs., Mödling (NHMW). – **Burgenland:** 2 exs., Neusiedlersee (NHMW).

Italy: **Sardinia:** 1 ex., locality not specified (HNHM).

Bosnia-Herzegovina: 1 ex., Mostar, leg. CZERNY (NHMW). **Bulgaria:** 4 exs., Chirpan ["Tschirpan"], 4.–31.III.1941, leg. SCHUBERT (NHMW).

Greece: 1 ex., Pelopónnisos, S Tripoli, Kandalos, 37°26'N, 22°22'E, 670 m, 5. and 9.V.2007, leg. SCHNITTER (cApf); 1 ex., "Attica" (NHMW); 1 ex., "Graecia" (NHMW); 1 ex., Crete, locality not specified, V.1965, leg. KRITSCHER (NHMW).

Turkey: **Ankara:** 1 ex., SE Ankara, N-Elma Dağı, 1300 m, hollow *Salix* trunk, 31.X.1995, leg. VIT (cAss). – **Nigde:** 1 ex., Çamardı env., Orhaniye, Ala Dağlar, 1800–2200 m, 19.V.2005, leg. VÁVRA (cVav). – **Gaziantep:** 1 ex., 11 km W Araban, 2.VII.2006, leg. ANLAŞ (cAnl). – **Diyarbakır:** 1 ex., Ergani, road 1 km NE Salihli, 38°14'N, 39°40'E, 12.IV.2008, leg. YAĞMUR (cAnl); 1 ex., Eğil, 1 km SW Kalkan, 38°09'N, 40°04'E, 13.IV.2008, leg. YAĞMUR (cAnl).

Israel: 1 ex., Golan Heights, Bental Reservoir, W Merom Golan, ca. 1000 m, stony wetland, 30.IV.2006, leg. WRASE (cSch); 1 ex., same data, but stony pasture, 25.III.2008, leg. WRASE (cSch); 1 ex., S Hadera, Dreikhat Ya'ar, 32°25'N, 34°54'E, 10 m, ponds and wet meadows, IV.2007, leg. ASSMANN (cFel).

Iran: 1 ex., Ardabil, Sabalan Mts., 40 km SW Ardabil, Nir, 14.IV.1999, leg. REJSEK (SMNS).

Kazakhstan: 1 ex., Irtysh river, Lebyazh'e, 21.V.1979, leg. KASTCHEEV (cKas); 4 exs., Kurgaldzhino, Sultan-Keldy, 10.IV.1982, leg. KASTCHEEV (cAss); 1 ex., S-Kazakhstan, Syrdaria river, Chardara, 18.VI.1983, leg. KASTCHEEV (cAss).

Comment

Leptobium gracile is wing-dimorphic and the most widespread species of the genus, its distribution ranging from the Canary Islands to Middle Asia (ASSING 2005).

Leptobium turcmenicum (Coiffait, 1967)

Additional material examined (total: 4 exs.)

Kazakhstan: 4 exs., Aral Sea region, Barsakel'mes island, 10.V.1979, leg. KASTCHEEV (cAss, cKas).

Comment

The distribution of this species is confined to Middle Asia (Turkmenistan, Uzbekistan, Kazakhstan) (ASSING 2005).

Leptobium illyricum (Erichson, 1840)

Additional material examined (total: 41 exs.)

Croatia: 1 ex., Split (HNHM); 1 ex., Krivosije, leg. PAGANETTI (HNHM); 1 ex., Mljet island ["Meleda"], 1907, leg. MOZARSKI (NHMW); 2 exs., "Dalmatia", 1883, leg. MERKL (HNHM).

Bosnia-Herzegovina: 1 ex., Cemerno, leg. GRABOWSKI (HNHM); 12 exs., Mostar, leg. GRABOWSKI, MATZENAUER, ZOUFAL (HNHM, cAss); 1 ex., Pluzine, leg. GRABOWSKI (HNHM); 4 exs., locality not specified (HNHM).

Yugoslavia: 2 exs., Topla, leg. PAGANETTI (HNHM).

Greece: **Greek mainland:** 1 ex., Thesprotia, Igoumenitsa env., Plataria, VI.1994, leg. FRANK (cAss). – **Pelopónnisos:** 1 ex., Korinthía, Chelmos, 1400 m, 22.IV.2005, leg. ARNDT (cSch); 1 ex., Taygetos, 36°57'N, 22°22'E, 1500 m, 15.V.2007, leg. LOMPE (cAss); 1 ex., Taygetos, 36°57'N, 22°21'E, 2250 m, 16.V.2007, leg.

LOMPE (cAss); 1 ex., Taygetos, W Mystras, Langada pass, 37°08'N, 22°18'E, 1520 m, *Abies cephalonica* forest, 21.IV.–7.V.2007, leg. SCHNITTER, ARNDT & NEUMANN (cApf); 1 ex., Erimanthos, above Kalentzi, 1550 m, 30.V.1995, leg. GIACHINO & VAILATI (cVai); 1 ex., Erimanthos, Lamba, NE Kalivia Astra, 37°55'N, 21°49'E, 1700 m, 4.V.2007, leg. APFEL (cApf). – **Corfu**: 3 exs., locality not specified, leg. PAGANETTI (HNHM); 1 ex., Corfu (BMNH). – **Kefallinia**: 2 exs., locality not specified (BMNH). – **Kyklades**: 1 ex., Ándros, Moni Panandrantou monastery, 5.IV.1991, leg. IGLESIAS (SMNS); 1 ex., Ándros, SW Ándros town, 4.IV.1991, leg. IGLESIAS (cAss).

Turkey: Amasya: 1 ex., 10 km N Mezitözü, 1000 m, 4.V.1987, leg. GIACHINO (cAss).

Comment

Leptobium illyricum is one of the most widespread brachypterous species of the genus, its distribution ranging from Slovenia to Iran. For a map see ASSING (2005).

Leptobium syriacum (Saulcy, 1864)

Additional material examined (total: 27 exs.)

Turkey: Kahramanmaraş: 1 ex., Türkoğlu, 3 km S Yeşilyöre, 37°25'N, 36°46'E, 9.III.2008, leg. YAĞMUR (cAnl); 1 ex., Türkoğlu, 3 km SW Kızıleniş, 37°22'N, 36°49'E, 9.III.2008, leg. YAĞMUR (cAnl); 1 ex., 5 km N Narlı, 37°28'N, 37°06'E, 7.III.2008, leg. YAĞMUR (cAnl). – **Antakya**: 1 ex., Altınöz, Narlica, 14.IV.2007 (cAnl); 1 ex., Hassa, Küreci, Zeytinoba road, 15.IV.2007, leg. YAĞMUR (cAnl); 1 ex., Hassa, road Çardak Yaylası, 36°51'N, 36°29'E, 25.IV.2008, leg. YAĞMUR (cAnl); 1 ex., Iskenderun, 1.V.2007 (cAnl). – **Gaziantep**: 1 ex., Islahiye, Hanağzi, 25.V.2007, leg. YAĞMUR & KOÇ (cAnl); 1 ex., Islahiye, Fevzipaşa, 37°06'N, 36°39'E, 530 m, 2.III.2008, leg. YAĞMUR (cAnl); 1 ex., Şehitkamil, Kartalyücesi Dağı, Bakırcan, 37°04'N, 36°55'E, 1100 m, 28.III.2008, leg. YAĞMUR (cAnl); 1 ex., Şehitkamil, Sof Dağı, Sofalıci, 37°09'N, 37°08'E, 1260 m, 28.III.2008, leg. YAĞMUR (cAnl); 2 exs., Şehitkamil, 2 km SW Kartal vill., 37°05'N, 36°57'E, 1100 m, 28.III.2008, leg. YAĞMUR (cAnl); 1 ex., Islahiye, Kabaklar, 37°02'N, 36°34'E, 835 m, 22.III.2008, leg. YAĞMUR (cAss).

Israel: 2 exs., Khhermon Mts., Khhermon Ridge, Har Khavushit, below lift station, 33°18'N, 35°48'E, 2500 m, stony subalpine slopes, 23.IV.2006, leg. WRASE (cSch, cAss); 2 exs., same data, but ca. 2000 m, leg. ASSMANN (cFel); 5 exs., Khhermon Mts., Khhermon Ridge, Har Khavushit, 1800 m, small *Quercus libani* forest, leaf litter sifted, 10.III.2008, leg. WRASE (cSch, cAss); 1 ex., Khhermon Mts., 1800 m, 10.III.2008, leg. BUSE (cFel); 1 ex., North district, Upper Galilee, Alma plateau, S Alma village, Alma cave environs, 33°02'N, 35°31'E, 630 m, stony pasture, under stone, 9.III.2008, leg. WRASE (cSch); 2 exs., Sea of Galilee, Capernaum, 32°53'N, 35°35'E, 3.II.2007, leg. FELDMANN (cFel).

Comment

The distribution of this species is confined to the Middle East, including Cyprus and central southern Anatolia. For a distribution map see ASSING (2005).

Leptobium densiventre (Fauvel, 1875)

Additional material examined (total: 4 exs.)

Algeria: 3 exs., Algier, 1861, leg. GRAY (HNHM, cAss).

Tunisia: 1 ex., Zaghuan, leg. UJHELYI (HNHM).

Comment

The distribution of *L. densiventre* includes North Africa from Libya to Algeria and Sicily (ASSING 2005).

Leptobium juani Coiffait, 1969

(Fig. 11)

Additional material examined (total: 1 ex.)

Spain: 1 ex., Valencia, Alicante, Sierra d'Aitana, ca. 8 km N Sella, 38°39'N, 0°16'W, 1390 m, N-slope, sifted from grass roots and moss, 28.III.2007, leg. ASSING (cAss).

Comment

Leptobium juani is a local endemic in Alicante, southeastern Spain (Fig. 11).

Leptobium colasi (Coiffait, 1954)

(Fig. 11)

Additional material examined (total: 4 exs.)

Spain: 3 exs., “Malpica” (MNCN, cAss); 1 ♀, Estremadura, Cáceres, Castillo de Monfragüe, 39°49'N, 6°03'W, 300–380 m, 30.III.2007, leg. FRENZEL (cApf).

Comment

The distribution of *Leptobium colasi* is confined to the south of the Iberian Peninsula; its exact limits are unknown. All the records from Spanish provinces other than Andalucía (Estremadura, Castilla-León, Aragón) are based on females (Fig. 11) and consequently require verification. The locality “Malpica” is ambiguous.

Leptobium paivae (Wollaston, 1865)

Additional material examined (total: 49 exs.)

Portugal: Selvagens: 49 exs., Selvagem Grande (SW), Levada do Cemitério, under stones (phonolith) on moist soil, 16.XI.–2.XII.2006, leg. PUTZER (cAss).

Comment

Leptobium paivae is one of the two endemic species of Staphylinidae of the Selvagens islands (ASSING & SCHÜLKE

2006). The above specimens represent the first record after approximately 80 years (ASSING 2005). They were collected in considerable numbers immediately after heavy rainfall. When the locality was re-visited several days later, no additional specimens were found (PUTZER, pers. comm.).

Leptobium nigricolle nigricolle (Wollaston, 1862)

Additional material examined (total: 5 exs.)

Spain: Canary Islands: 1 ex., Lanzarote, Tegüise, under stone, IV.2007 (cAss); 1 ex., Fuerteventura, NE Pájara, Vega de Rio Palmas, 23.XI.1993, leg. GRIMM (SMNS); 1 ex., Fuerteventura, Península de Jandia, Risco del Paso, 25.XI.1993, leg. GRIMM (cAss); 2 exs., La Graciosa, Mña Mojón (Caldera), 3.XII.2004, leg. GIET (cOro, cAss).

Comment

The distribution of this subspecies is confined to Lanzarote, Fuerteventura, and some smaller adjacent islands of the Canarian archipelago (ASSING 1999, 2005).

Leptobium nigricolle canariense (Fauvel, 1898)

Additional material examined (total: 2 exs.)

Spain: Canary Islands: 2 exs., Gran Canaria, Bco. de Las Palmas, Aldea Blanca, 29.XII.2007, leg. LÓPEZ (cOro).

Comment

This subspecies is endemic to – and rather common in – Gran Canaria, Canary Islands (ASSING 1999, 2005).

Leptobium nigricolle continentale Jarrige, 1952

Additional material examined (total: 1 ex.)

Morocco: 1 ex., locality not specified (HNHM).

Comment

This is the only subspecies of *L. nigricolle* distributed outside the Canary Islands; its distribution is confined to northwestern Morocco (ASSING 2005).

Leptobium debilipenne (Wollaston, 1865)

Additional material examined (total: 2 exs.)

Spain: Canary Islands: 1 ex., La Gomera, Los Acebiños, MSS trap, 3.I.2003, leg. OROMÍ & CONTRERAS (cOro); 1 ex., locality not specified (HNHM).

Comment

Leptobium debilipenne is endemic to La Gomera, Canary Islands (ASSING 1999, 2005).

Leptobium korbi (Eppelsheim, 1891)

Additional material examined (total: 1 ex.)

Spain: Andalucía: 1 ex., Algeciras, IV.1906 (SMF).

Comment

The known distribution of this species is confined to the province of Cádiz in southern Andalucía, Spain (ASSING 2005).

Leptobium artum (Karsch, 1881)

Additional material examined (total: 3 exs.)

Morocco: 2 exs., Taza, ca. 30 km SE Tissa, 34°14'N, 4°27'W, 450 m, 23.II.2004, leg. ASSMANN (cAss, cSta); 1 ex., Tanger, road to Melloussa, 35°48'N, 5°42'W, 60 m, 27.III.2008, leg. ANDÚJAR et al. (cAss).

Comment

The above specimens from Taza are at the lower end of the size range and of uniformly dark brown to blackish brown coloration, but this is apparently an artefact resulting from post-mortem storage treatment. The species is distributed in North Africa, from Morocco to Libya. In Morocco, it is confined to the northern portion of the country (ASSING 2005).

Leptobium creticum Coiffait, 1973

Additional material examined (total: 8 exs.)

Greece: Crete: 1 ex., Rethimni, beach near Dramia, 35°21'N, 24°20'E, 22.X.2006, leg. SCHÜLKE (cSch); 2 exs. [1 teneral], Rethimni, Ida range, 7.5 km S Anogia, 35°15'N, 24°53'E, 1200 m, 21.X.2006, leg. SCHÜLKE (cSch, cAss); 1 ex., Rethimni, ca. 1.5 km S Kanevos, Kotsifos cleft, 35°14'N, 24°24'E, 440 m, 20.X.2006, leg. SCHÜLKE (cSch); 1 ex., Rethimni, Lavris, under stone, 14.IV.2006, leg. AUSMEIER (cAss); 1 ex., locality not specified, V.1965, leg. KRITSCHER (NHMW); 1 ex., Chora Sfakion, 21.IV.1971, leg. WEWALKA (BMNH); 1 ex., Psiloritis plain, Analipsis, under stone, 15.IV.2006, leg. AUSMEIER (cAss).

Comment

Leptobium creticum is endemic to Crete (ASSING 2005). One specimen collected in October is teneral.

Leptobium tauricum Gusarov, 1988
(Fig. 12)

Additional material examined (total: 29 exs.)

Ukraine: 4 exs., Crimea, Alushta distr., Izobilnoye, 600 m, under stones, 6.V.2006, leg. GONTARENKO (cAss).

Turkey: Izmir: 15 exs., ca. 80 km NW Izmir, W Karaburun, 38°38'N, 26°29'E, 440 m, pasture with stones on limestone, under stones, 4.IV.2006, leg. ASSING (cAss). – **Çanakkale:** 10 exs., “Port Baklar” [ca. 40°33'N, 26°44'E], leg. WALKER (BMNH, cAss).

Comment

The known distribution of *L. tauricum* is remarkably patchy. The species is now known from the Crimean peninsula (Ukraine) and from three localities in western Anatolia (Bursa, Izmir, Çanakkale) (Fig. 12). It is herein recorded from Çanakkale for the first time.

Leptobium assingi Bordoni, 1994
(Fig. 12)

Additional material examined (total: 3 exs.)

Turkey: Osmaniye: 1 ex., N Bahçe, Bekdemir, 37°16'N, 36°36'E, 1200 m, 21.IV.2007, leg. BRACHAT & MEYBOHM (cAss). – **Kahramanmaraş:** 2 exs., Başkonuş Yaylası, 37°33'N, 36°35'E, 1550 m, 24.IV.2007, leg. BRACHAT & MEYBOHM (cAss).

Comment

The known distribution of *L. assingi* is confined to southern Anatolia, ranging discontinuously from eastern Antalya to Gaziantep and Antakya (Fig. 12).

Leptobium wunderlei Bordoni, 1994

Additional material examined (total: 2 exs.)

Turkey: Antalya: 2 ♀♀, Köprü valley, Çaltepe, 37°18'N, 31°11'E, 540 m, 13.IV.2008, leg. BRACHAT & MEYBOHM (cAss).

Comment

The known distribution of the species is confined to Antalya (ASSING 2005).

Leptobium bicarinatum Assing, 2005

Additional material examined (total: 13 exs.)

Turkey: Gaziantep: 1 ex. [with reddish pronotum], Karataş, 37°01'N, 37°23'E, 700 m, 13.V.2007, leg. YAĞMUR (cAnl); 1 ex., 1 km N Şahinbey, 12.XI.2006, leg. ANLAŞ (cAnl); 1 ex., 2 km S Şahinbey, 17.III.2007, leg. ANLAŞ (cAnl); 2 exs., Şahinbey, Ozanlı, 17.III.2007, leg. ANLAŞ (cAnl). – **Kilis:** 2 exs. [with reddish pronotum], Çörten, 29.IV.2006, leg. YAĞMUR (cAnl); 2 exs. [with reddish pronotum], 1 km W Çanak, Elbeyli, 17.III.2007 (cAnl, cAss); 1 ex., Oruçlu, 23.IV.2007, leg. YAĞMUR (cAnl). –

Antakya: 1 ex., Belen Geçidi, 2.5 km N Kıcı, 36°30'N, 36°14'E, 950 m, 9.V.2008, leg. YAĞMUR (cAnl); 1 ex., Yayladağı, 3 km N Leylekli, 35°59'N, 36°03'E, 670 m, 17.V.2008, leg. YAĞMUR (cAnl); 1 ex., Kavalcık, Reyhanlı, 26.IV.2007, leg. ANLAŞ (cAnl).

Comment

Leptobium bicarinatum was previously known only from Antakya province, central southern Anatolia, and Syria (ASSING 2005). It is herein reported from Gaziantep and Kilis provinces for the first time.

Leptobium mutabile Assing, 2005

Additional material examined (total: 1 ex.)

Turkey: Antalya: 1 ♀, Alanya env., Sapadera, leg. FRANZ (NHMW).

Comment

The known distribution of this species is confined to Antalya province, southwestern Turkey (ASSING 2005).

Leptobium bozdagense Assing, 2006

Additional material examined (total: 8 exs.)

Turkey: Manisa: 1 ex., Turgutlu, Baktırlı, 11.III.2007, leg. ANLAŞ (cAnl); 1 ex., 8 km E Turgutlu, Çıkrıkçı, 38°28'N, 27°49'E, 300 m, 22.II.2007, leg. ANLAŞ (cAnl); 1 ex., same data, but 15.II.2006 (cAss); 1 ex., Turgutlu, Bozkır, 2.II.2007, leg. ANLAŞ (cAss); 1 ex., Turgutlu, Ovacık, Dağmarmara, 11.III.2007, leg. ANLAŞ (cAss); 1 ex., Bozdağ, Subatan Y., 1.IV.2006, leg. ANLAŞ (cAss). – **Izmir:** 2 exs. [det. ANLAŞ], Boz Dağlar, Ödemiş, 5 km SE Horzum, Subatan river bank, 21.V.2006, leg. ANLAŞ (cAnl).

Comment

The above specimens represent the first records since the original description, which is based on a single male. The known distribution is confined to the Boz Dağlar in Manisa and Izmir provinces, western Turkey.

Leptobium drusiicum Coiffait, 1969

Additional material examined (total: 3 exs.)

Israel: 3 exs., Khermon Ridge, Har Khavushit, N Majdal e-Shams, 33°17'N, 35°46'E, 1500 m, 25.II.2005, leg. STARKE (cAss, cFel, cSta).

Comment

The species was previously known only from the Djebel Cheik (Mount Hermon) at the border between Lebanon and Syria (ASSING 2005). It is herein reported from Israel for the first time.

Leptobium obesum (Fauvel, 1875)

Additional material examined (total: 2 exs.)

Lebanon: 1 ex., prov. N-Lebanon, Bcharre, Jabal et Mekmel, 34°13'N, 36°04'E, 2500–2800 m, near snowfields, 27.V.2006, leg. FRENZEL (cApf); 1 ex., locality not specified, leg. PIOCHARD (BMNH).

Comment

The known distribution of *L. obesum* is confined to Lebanon and Israel (ASSING 2005).

3.2 Descriptions of new species

Leptobium castroi n. sp.

(Figs. 1–4, 11)

Type material

Holotype ♂: “E – Jaén, Valdepeñas, La Pandera, 2.V.2007, leg. A. CASTRO / Holotypus ♂ *Leptobium castroi* sp. n. det. V. ASSING 2008” (cAss).

Paratype ♀: same data as holotype (cAss).

Etymology

The species is dedicated to ALEJANDRO CASTRO TOVAR, Jaén, who collected the type specimens.

Description

Measurements (in mm) and ratios (holotype, paratype): HL: 1.00, 0.99; HW: 0.91, 0.87; PW: 0.91, 0.90; PL: 1.09, 1.04; EL: 0.74, 0.69; TiL: 0.84, 0.82; TaL: –, 0.72; ML: 1.36, –; TL: 7.2, 7.3; HL/HW: 1.10, 1.14; PW/HW: 1.00, 1.04; PL/PW: 1.20, 1.16; EL/PL: 0.68, 0.66; TiL/TaL: –, 1.14.

Habitus as in Fig. 1. Coloration: head, pronotum, and abdomen, except for the apex, blackish-brown; elytra and abdominal apex (posterior half of segment VII, segments VIII–X) dark reddish; legs and antennae rufous.

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

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

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

Abdomen subparallel, at segment VI 1.05–1.10 times as wide as elytra; punctation dense, rather fine, and shallow; integument with shallow transverse microsculpture; posterior margin of tergite VII with narrow rudiment of a palisade fringe.

♂: sternite VIII with the usual deep and narrow posterior incision; aedeagus as in Figs. 3–4, dorsal plate with pronounced median carina.

Comparative notes

The geographically closest congeners of similar size and coloration are *L. juani* (Alicante) and *L. colasi* (south of Iberian peninsula, with some tentative, female-based records also from Castilla-León and Extremadura). From both species, *L. castroi* is distinguished by the more extensively darkened abdominal segment VII and additionally as follows:

from *L. juani* by the smaller and more slender aedeagus with a ventral process of different shape and a more slender dorsal plate;

from *L. colasi* by the longer and more slender dorsal plate of the aedeagus, the presence of only one median carina on the dorsal plate (in *L. colasi* the carina is doubled), and the completely different shape of the ventral process.

From *L. densiventris* (North Africa, Sicily), the new species is separated by the sparser punctation of the forebody, the less extensively darkened abdominal segment VII, as well as by the slightly smaller and somewhat more slender aedeagus with a ventral process of slightly different shape.

Distribution and bionomics

The type locality is situated in the Sierra de la Pandera, to the south of the town of Jaén, Andalucía, Spain (Fig. 11). Bionomic data are not available.

Leptobium anlasi n. sp.

(Figs. 5–10, 12)

Type material

Holotype ♂: “16.XII.2006, Korubaşı [38°47'N, 28°14'E], Gordes, Manisa / Holotypus ♂ *Leptobium anlasi* sp. n. det. V. ASSING 2008” (cAss).

Paratypes: 2 ♂♂: same data as holotype (cAnl, cAss); 1 ♂: “18.XI.2006, Beyler [ca. 38°40'N, 28°00'E], Gölarmara, S. ANLAŞ” (cAss).

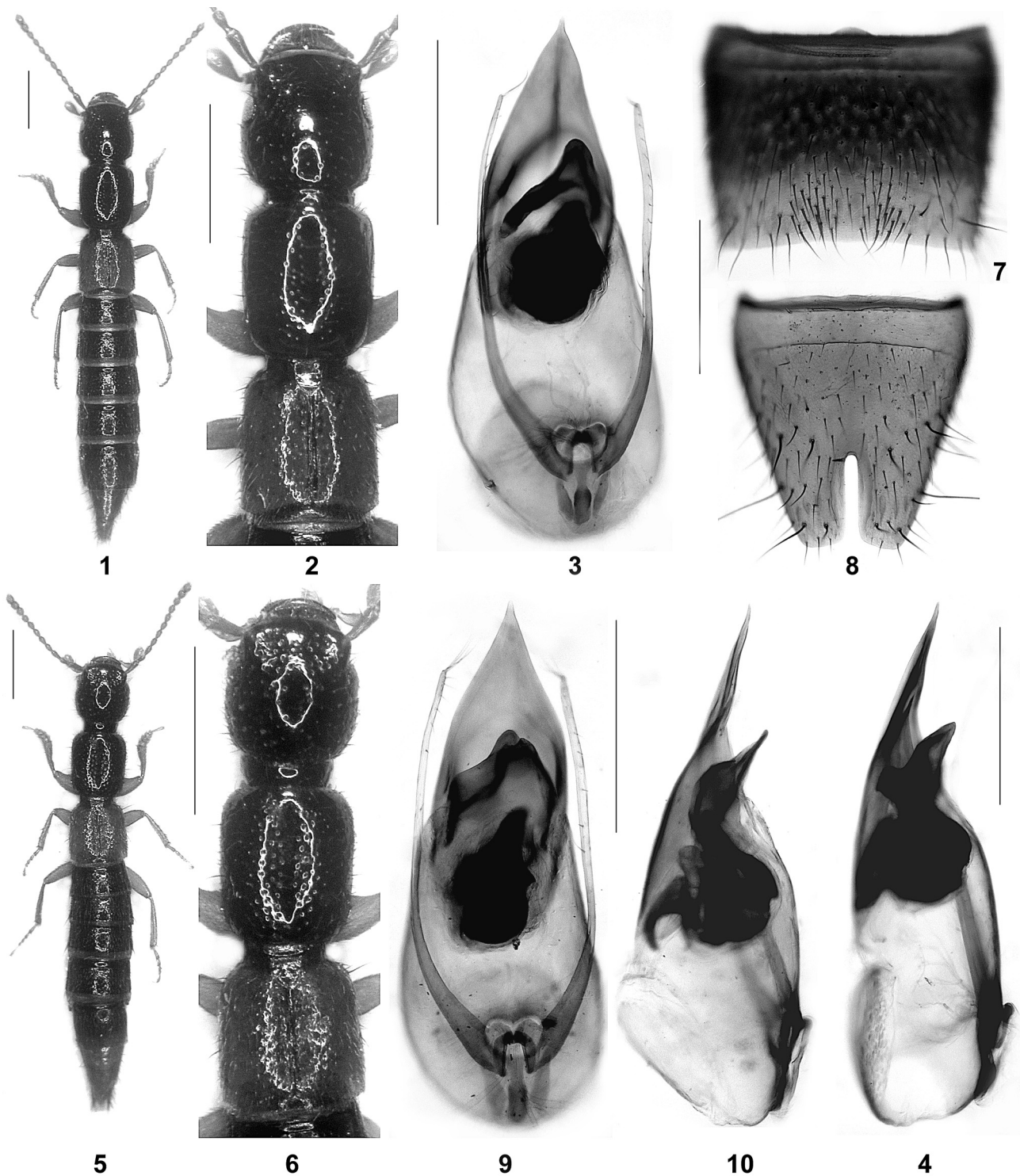
Etymology

The species is dedicated to SINAN ANLAŞ, Turgutlu, who collected the type series.

Description

Measurements (in mm) and ratios (range; n=4): HL: 0.82–0.87; HW: 0.76–0.84; PW: 0.76–0.84; PL: 0.91–0.97; EL: 0.62–0.64; TiL: 0.70–0.74; TaL: 0.64–0.66; ML: 1.09–1.19; TL: 6.1–7.0; HL/HW: 1.02–1.08; PW/HW: 0.98–1.03; PL/PW: 1.12–1.19; EL/PL: 0.66–0.68; TiL/TaL: 1.09–1.10.

Habitus as in Fig. 5. Coloration: head and pronotum black; elytra reddish; abdomen black, with the apex (posterior 1/4–1/3 of segment VII and segments VIII–X) rufous; legs and antennae yellowish-brown to reddish-yellow.



Figs. 1–10. *Leptobium castroi* n. sp. (1–4) and *L. anlasi* n. sp. (5–10), holotypes. – 1, 5. Habitus. 2, 6. Forebody. 3, 9. Aedeagus in ventral view. 4, 10. Aedeagus in lateral view. 7. Male sternite VII. 8. Male sternite VIII. – Scale bars: 1.0 mm (1–2, 5–6), 0.5 mm (3–4, 7–10).

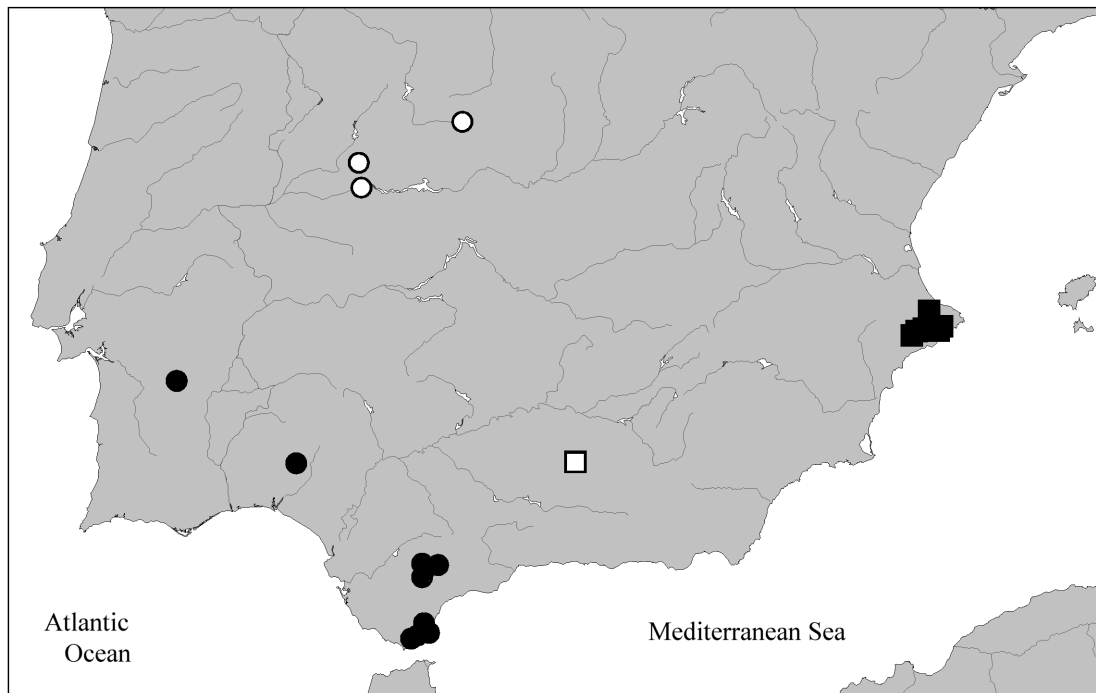


Fig. 11. Distributions of *Leptobium colasi* (Coiffait) (● = male-based records, ○ = female-based records), *L. juani* Coiffait (■), and *L. castroi* n. sp. (□) in Spain.

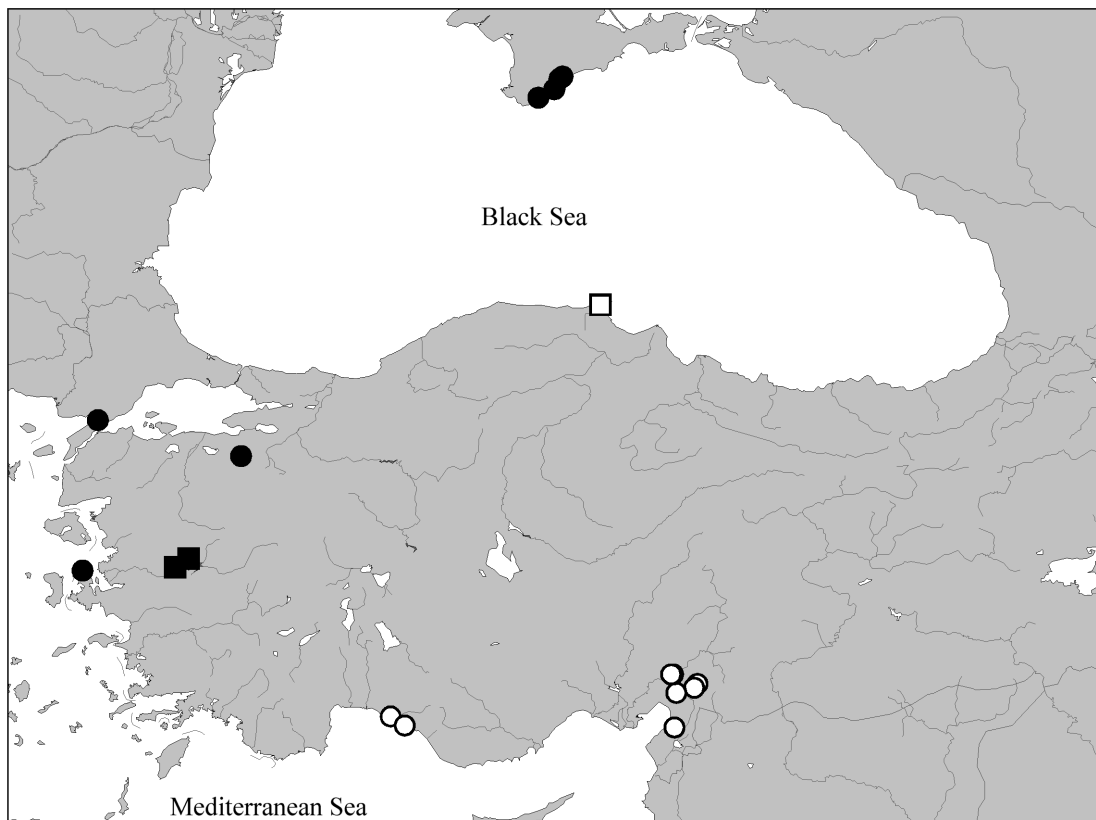


Fig. 12. Distributions of *Leptobium tauricum* Gusarov (●), *L. assingi* Bordoni (○), *L. ponticum* Assing (□), and *L. anlasi* n. sp. (■) in Turkey and Ukraine.

Head weakly oblong (see ratio HL/HW); dorsal surface with coarse, moderately dense punctation and with interspersed micropunctures; microsculpture absent; eyes approximately 0.5–0.7 times as long as postocular region in dorsal view (Fig. 6).

Pronotum approximately as wide as head (see ratio PW/HW); punctation similar to that of head or slightly finer (Fig. 6).

Elytra (Fig. 6) slightly wider and at suture distinctly shorter than pronotum (see ratio EL/PL); punctation of similar density as that of pronotum, but shallower and less defined; microsculpture absent. Hind wings reduced.

Abdomen subparallel, at segments VI and VII approximately 1.1 times as wide as elytra; punctation shallow and moderately fine; integument with microsculpture composed of predominantly isodiametric (posterior tergites) and transverse meshes (anterior tergites); posterior margin of tergite VII without palisade fringe.

♂: sternite VII with weakly concave posterior margin, posteriorly with cluster of dark setae on either side of middle (Fig. 7); sternite VIII with posterior incision almost $\frac{1}{3}$ the length of sternite (Fig. 8); aedeagus as in Figs. 9–10, dorsal plate apically very acute.

Comparative notes

From other congeners of similar size and coloration recorded from Turkey (*L. tauricum*, *L. ponticum*, *L. assingi*), the new species is distinguished as follows:

from *L. tauricum* (western and northwestern Anatolia; Fig. 12) by the smaller and more slender body, by the less extensively infusate segment VII, and by the completely different shape of the ventral process and the dorsal plate of the aedeagus;

from *L. ponticum* Assing (known only from Sinop; Fig. 12) by the different shape of the ventral process and the dorsal plate of the aedeagus (both in ventral and in lateral view);

from *L. assingi* Bordoni (southern Anatolia; Fig. 12) by the less deep posterior incision of the male sternite VIII and by the differently shaped (more asymmetric) ventral process of the aedeagus.

For illustrations of the above species see ASSING (2005).

Distribution and bionomics

The species is currently known only from two localities in Manisa province, western Anatolia, Turkey (Fig. 12). The type specimens were collected in November and December.

Leptobium vitalyi n. sp.

(Figs. 13–18)

Type material

H o l o t y p e ♂: “Kazakhstan, Aral sea region, Barsakel’mes isl., 6.V.1979, V. KASTCHEEV / Holotypus ♂ *Leptobium vitalyi* sp. n. det. V. ASSING 2008” (cAss).

Paratypes: 2 ♀♀: same data as holotype (cAss); 1 ♂: “S Kazakhstan, Syrdaria riv., Akkum, 11.VI.1985, V. KASTCHEEV” (cAss); 1 ♂, 1 ♀: “Kazakhstan, Ile riv., Karagach, 6.VII.1981, V. KASTCHEEV” (cAss, cKas); 2 ♀♀: “Kazakhstan, Ile river, splav, 1x4, 31.VII.1982, V. KASTCHEEV” (cAss, cKas); 1 ♀: “Kazakhstan, Ile river, Bakanas, 2.VI.1989, V. KASTCHEEV” (cKas); 1 ♀: “Kazakhstan, Ile river, Buryndysu, 10.VI.1982, V. KASTCHEEV” (cAss).

Etymology

The species is dedicated to VITALY KASTCHEEV, Almaty, who collected the type series.

Description

Measurements (in mm) and ratios (range; n=8): HL: 0.68–0.74; HW: 0.52–0.68; PW: 0.66–0.74; PL: 0.78–0.87; EL: 0.70–0.84; TiL: 0.58–0.66; TaL: 0.49–0.56; ML: 0.87–0.91; TL: 4.4–5.4; HL/HW: 1.06–1.17; PW/HW: 1.03–1.13; PL/PW: 1.15–1.24; EL/PL: 0.87–1.00; TiL/TaL: 1.11–1.28.

Habitus as in Fig. 13. Coloration: forebody yellowish-red to dark reddish, rarely with the anterior margin of the elytra weakly infusate; abdomen dark brown to blackish, with the apex (posterior margin of segment VII, segments VIII–X) reddish-brown; legs and antennae dark yellowish to reddish.

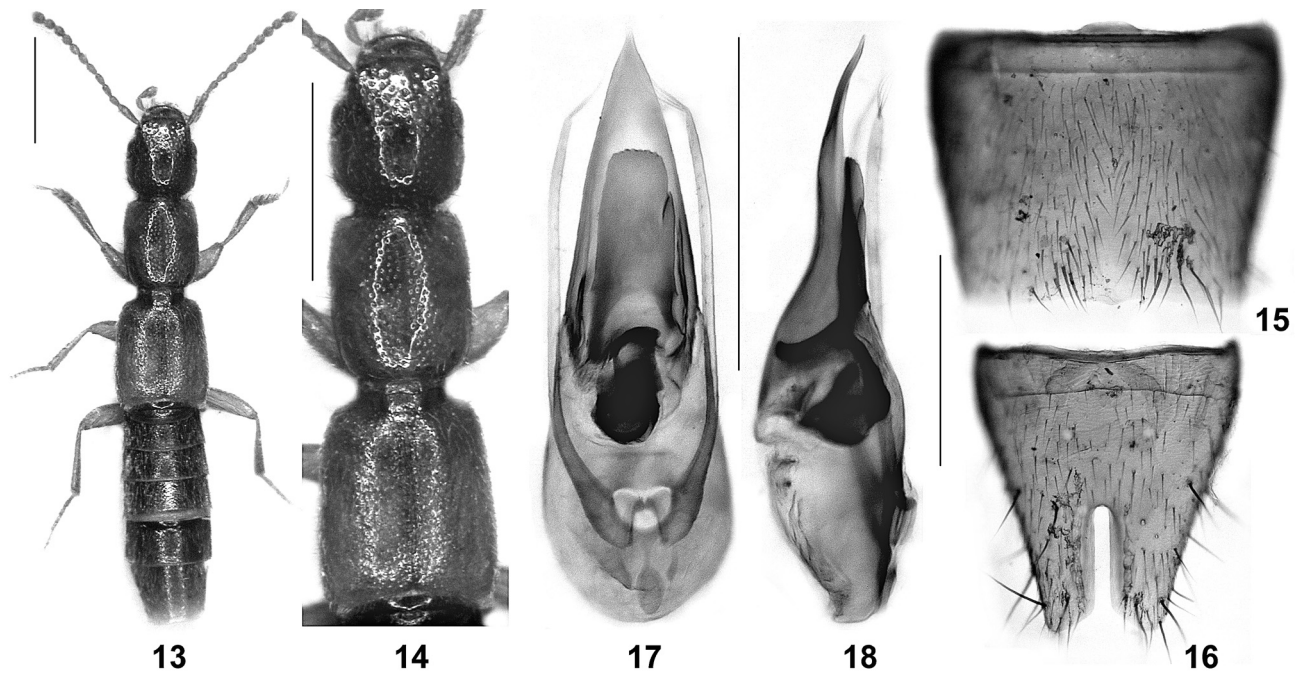
Head moderately oblong (see ratio HL/HW); dorsal surface with coarse, moderately dense punctation and with interspersed micropunctures; microsculpture absent; eyes slightly more than half as long as postocular region in dorsal view (Fig. 14).

Pronotum slightly wider than head (see ratio PW/HW); punctation similar to that of head (Fig. 14).

Elytra distinctly wider than pronotum, at suture as long as pronotum or nearly so (see ratio EL/PL); punctation denser, shallower, finer, and less defined than that of pronotum; microsculpture absent (Fig. 14). Hind wings present.

Abdomen subparallel, noticeably narrower than elytra; punctation fine and moderately dense; integument with very shallow microsculpture and somewhat glossy; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with small triangular median impression posteriorly, on either side of this depression with cluster of few dark and long setae (Fig. 15); sternite VIII



Figs. 13–18. *Leptobium vitalyi* n. sp., holotype. – 13. Habitus. 14. Forebody. 15. Male sternite VII. 16. Male sternite VIII. 17–18. Aedeagus in ventral and lateral view. – Scale bars: 1.0 mm (13–14), 0.5 mm (15–18).

with posterior incision almost reaching middle of sternite (Fig. 16); aedeagus as in Figs. 17–18.

Comparative notes

The only species with a similar aedeagus is *L. dimidiatum* (Gridelli, 1926) (Romania, Georgia, Turkmenistan) of the *L. gracile* group. From this species, *L. vitalyi* is readily distinguished by smaller size (no overlap), different coloration (*L. dimidiatum*: head, pronotum, and abdomen black; elytra bicoloured, with the anterior $\frac{1}{3}$ black and the posterior area reddish), a different shape and chaetotaxy of the male sternite VII (*L. dimidiatum*: more pronounced clusters of setae at posterior margin, posterior margin in the middle more broadly and strongly produced), as well as a much smaller and more slender aedeagus (*L. dimidiatum*: 1.13–1.26 mm long) with a relatively longer and more slender ventral process. For illustrations of the aedeagi of *L. dimidiatum* and of other species of the *L. gracile* group see ASSING (2005).

Distribution and bionomics

The known distribution is confined to southern Kazakhstan, from the Aral Sea in the west, to the region northeast of Almaty in the east. The type specimens were collected during the period from May through July.

4 References

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Digitale Literatur/Digital Literature

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