

On the Staphylinidae (Coleoptera) of Iran.

II. New species and additional records, with special reference to the Paederinae, Xantholinini, and Aleocharinae

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Abstract

Seventeen species are (re-)described and illustrated, fourteen of them are new to science: *Rugilus penicillatus* **n. sp.** (N-Iran), *R. frischi* **n. sp.** (Gilan), *R. armeniacus* (Coiffait, 1970), *Leptacinus mirus* **n. sp.** (N-Iran), *Pronomaea denigrata* **n. sp.** (Azarbayjan-e Gharbi), *Silusa (Stenus) brevipes* **n. sp.** (North Tehran), *Acrotona ochricollis* (Scheerpeltz, 1963), *Drusilla puetzi* **n. sp.** (Mazandaran), *D. subsplendens* **n. sp.** (Gilan), *Tetralaucopora syriaca* (Saulcy, 1865), *Cousya planicollis* **n. sp.** (Esfahan), *C. mirabilis* **n. sp.** (Semnan), *Oxypoda (Podoxya?) cuneiceps* **n. sp.** (Kerman), *O. (P.?) longiuter* **n. sp.** (Azarbayjan-e Gharbi), *O. (Sphenoma) complicata* **n. sp.** (Iran: Azarbayjan-e Gharbi; Turkey: Erzurum), *O. (Bessopora) frischi* **n. sp.** (N-Iran), and *Aleochara (Xenochara) serrulata* **n. sp.** (Mazandaran). Two names are revalidated: *Rugilus tauricus* (Rougemont, 1988), previously a synonym of *R. rossii* (Zanetti, 1977), and *Xantholinus martensi* Bordon, 1983, previously a synonym of *X. crassicornis* Hochhuth, 1851. The sexual characters of *Rugilus tauricus*, *R. rossii*, *R. iranicus* (Coiffait, 1981), *R. longicollis* (Fauvel, 1900), *Xantholinus martensi*, *Gyrophaena korbi* Strand, 1939, *G. strictula* Erichson, 1839, and *Oxypoda (Baeoglena) caucasica* Bernhauer, 1902 are illustrated. *Oxypoda vicina* Kraatz, 1858, previously attributed to the subgenus *Podoxya* Mulsant & Rey, 1875, is moved to the subgenus *Sphenoma* Mannerheim, 1830. Numerous species are reported, among them 39 first records from Iran and one each from Iraq, Georgia, and Uzbekistan. The presence of some doubtfully recorded species in Iran is confirmed. The distributions of twelve species are mapped.

Key words: Staphylinidae, Iran, Turkey, Uzbekistan, Iraq, taxonomy, descriptions, new species, new records, revalidations, new subgeneric placement, distribution.

Zusammenfassung

Siebzehn Arten werden beschrieben bzw. redeskribiert und abgebildet: *Rugilus penicillatus* **n. sp.** (N-Iran), *R. frischi* **n. sp.** (Gilan), *R. armeniacus* (Coiffait, 1970), *Leptacinus mirus* **n. sp.** (N-Iran), *Pronomaea denigrata* **n. sp.** (Azarbayjan-e Gharbi), *Silusa (Stenus) brevipes* **n. sp.** (North Tehran), *Acrotona ochricollis* (Scheerpeltz, 1963), *Drusilla puetzi* **n. sp.** (Mazandaran), *D. subsplendens* **n. sp.** (Gilan), *Tetralaucopora syriaca* (Saulcy, 1865), *Cousya planicollis* **n. sp.** (Esfahan), *C. mirabilis* **n. sp.** (Semnan), *Oxypoda (Podoxya?) cuneiceps* **n. sp.** (Kerman), *O. (P.?) longiuter* **n. sp.** (Azarbayjan-e Gharbi), *O. (Sphenoma) complicata* **n. sp.** (Iran: Azarbayjan-e Gharbi; Türkei: Erzurum), *O. (Bessopora) frischi* **n. sp.** (N-Iran) und *Aleochara (Xenochara) serrulata* **n. sp.** (Mazandaran). Zwei Namen werden revalidiert: *Rugilus tauricus* (Rougemont, 1988), bisher Synonym von *R. rossii* (Zanetti, 1977) und *Xantholinus martensi* Bordon, 1983, vorher Synonym von *X. crassicornis* Hochhuth, 1851. Die Sexualmerkmale von *Rugilus tauricus*, *R. rossii*, *R. iranicus* (Coiffait, 1981), *R. longicollis* (Fauvel, 1900), *Xantholinus martensi*, *Gyrophaena korbi* Strand, 1939, *G. strictula* Erichson, 1839 und *Oxypoda (Baeoglena) caucasica* Bernhauer, 1902 werden abgebildet. *Oxypoda vicina* Kraatz, 1858, bisher in der Untergattung *Podoxya* Mulsant & Rey, 1875, wird in die Untergattung *Sphenoma* Mannerheim, 1830 gestellt. Zahlreiche Nachweise werden gemeldet, darunter 39 Erstnachweise für den Iran und jeweils einer für den Irak, Georgien und Usbekistan. Das Vorkommen einiger bislang noch nicht sicher nachgewiesener Arten im Iran wird bestätigt. Die Verbreitung von zwölf Arten wird anhand von Karten illustriert.

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1 Introduction

At present, very little is known about the staphylinid fauna of Iran. Disregarding the Scydmaeninae, which had been considered a distinct family until they were recently attributed to the Staphylinidae as a subfamily (GREBENNIKOV & NEWTON 2009), only approximately 500 species have been recorded from Iran so far (ASSING 2007a). Based on the zoogeographic, topographic, and ecological diversity of this country, however, its fauna can be expected to comprise several thousand species of Staphylinidae. The much better studied staphylinid fauna of Italy, for example, includes some 2,700 species and subspecies (ASSING 2009h).

Most of the previous records were reported in the context of – at least primarily – taxonomic papers, particularly revisions and more or less additive species descriptions (see references in ASSING 2007a); articles with a faunistic focus are rare. Very recently, however, several papers were published dealing with staphylinid faunas of particular regions and habitats (GHAHARI et al. 2009a–b, SAKENIN et al. 2008a–d). Generally speaking, such a trend would be highly appreciated. Unfortunately, however, there are considerable doubts regarding the status of the records. The authors do not mention who identified the species, although many of them can be diagnosed only by few specialists or based on type studies. Also, numerous records are undoubtedly erroneous, since they are far outside the range of the respective species. In consequence, until they have been revised, the records listed in these papers should be disregarded for the time being.

The present paper is primarily based on material recently collected in several field trips conducted by JOHANNES FRISCH (Berlin) and SAYEH SERRI (Tehran) in 2006–2009, as well as one by ANDREAS PÜTZ (Eisenhüttenstadt) in 2008. Unsurprisingly, an examination of this material not only yielded numerous new country records, but also several undescribed species and additional records of zoogeographic interest. Records and species descriptions of Othiini, some paederine genera (e. g., *Lobrathium* Mulsant & Rey, 1878, *Medon* Stephens, 1833, *Pseudomedon* Mulsant & Rey, 1878, *Sunius* Stephens, 1829, *Leptobium* Casey, 1905, *Achenium* Leach, 1819) and some aleocharine genera (e. g., *Geostiba* Thomson, 1858, *Leptusa* Kraatz, 1856) have been – or will be – dealt with in the context of generic revisions (ASSING 2009c–g, 2010, in prep.).

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2 Material and methods

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

cAss	author's private collection
cFel	private collection B. FELDMANN, Münster
cPüt	private collection A. PÜTZ, Eisenhüttenstadt
cSch	private collection M. SCHÜLKE, Berlin
cSha	private collection A. SHAVRIN, Irkutsk
HMIM	Hayk Mirzayans Insect Museum, Tehran (S. SERRI)
IRSNB	Institut royal des Sciences naturelles de Belgique, Bruxelles (Y. GÉRARD)
MNHNP	Muséum national d'Histoire naturelle, Paris (A. TAGHAVIAN)
MNHUB	Museum für Naturkunde der Humboldt-Universität, Berlin (J. FRISCH, J. WILLERS)
NMP	National Museum of Natural History, Praha (J. HAJEK)
TAU	National Museum of Natural History, Tel Aviv University (A. FREIDBERG, via B. FELDMANN)

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena) with a drawing tube. For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the frons to the posterior margin of the head (Paederinae, Xantholinini) or from the anterior margin of the clypeus to the posterior margin of the head (Aleocharinae), elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra. The following abbreviations are used for the measurements, which are given in mm: EL = length of elytra; HL = head length; HW = head width; ML = length of aedeagus; PL = length of pronotum; PW = width of pronotum; TaL = length of metatarsus; TiL = length of metatibia; TL = body length from apex of mandibles to apex of abdomen.

The terminology of the anatomy of the spermatheca is based on DE MARZO (2007).

The maps were generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.ifm-geomar.de/omc.

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.

3 Results

3.1 Micropeplinae

Micropeplus tesserula Curtis, 1828

Material examined

Iran: Mazandaran: 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt).

Comment

This widespread Palaearctic species has been reported also from North America and the neotropics (HERMAN 2001). The above specimen represents the first record from Iran.

Micropeplus caspius Reitter, 1885

Material examined

Iran: Mazandaran: 4 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt).

Comment

This species was previously known only from Azerbaijan (HERMAN 2001, REITTER 1885). The above material represents the first records from Iran.

3.2 Pseudopsinae

Pseudopsis sulcata Newman, 1834

Material examined

Iran: Mazandaran: 1 ex., Nur county, W Baladeh, 36°15'N, 51°27'E, 2950 m, stream, sifted, 1.VI.2008, leg. PÜTZ (cPüt).

Comment

The previously known distribution of *P. sulcata* extended from the Western Mediterranean (Iberian Peninsula, Northwest Africa) eastwards to Turkey, Cyprus, and Lebanon (HERMAN 2001). The above specimen represents a new country record.

3.3 Omaliinae

Phloeostiba plana (Paykull, 1792)

Material examined

Iran: Mazandaran: 1 ex., Sari county, Mohammadabad, 1 km W Afra Chal, 36°14'N, 53°14'E, 520 m, leaf litter sifted, 30.V.2008, leg. PÜTZ (cPüt); 2 exs., Sari county, Mohammadabad, 2.2 km NE Bendela, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt).

Comment

Phloeostiba plana has a trans-Palaearctic distribution (HERMAN 2001, SMETANA 2004), but was previously unknown from Iran.

Acidota crenata (Fabricius, 1793)

Material examined

Iran: Mazandaran: 1 ex., Nur county, W Baladeh, 36°15'N, 51°27'E, 2950 m, stream, sifted, 1.VI.2008, leg. PÜTZ (cPüt).

Comment

According to HERMAN (2001) and SMETANA (2004), *A. crenata* has a trans-Palaearctic distribution. The above specimen represents the first record from Iran.

3.4 Oxytelinae

Deleaster dichrous (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cPüt).

Comment

The species is widespread in the Holarctic region. It was recorded from Iran by FAUVEL (1871).

3.5 Paederinae

Domene stilicina (Erichson, 1840)

Material examined

Iran: Lorestan: 3 exs., Mahmudvand env., Khorram Abad, 30.IV.2007, leg. ANISTSCHENKO (cSha); 1 ex., 20 km N Pol-e-Dokhtar prov., Babo-Zeyd, 1.–2.V.2007, leg. ANISTSCHENKO (cAss).

Comment

Domene stilicina is widespread in the Eastern Mediterranean eastwards to Iran, from where it was recently reported for the first time (ASSING 2007a).

Platydomene stoeckleini (Koch, 1937)

Material examined

Iran: Lorestan: 1 ex., 55 km N Andimeshk, Sar-Takht, 3.–4.V.2007, leg. ANISTSCHENKO (cSha). – **Kerman:** 2 exs., 3 km E pass Mahan-Sirch, 30°12'N, 57°26'E, 2430 m, 26.IV.2007, leg. FRISCH & SERRI (MNHUB); 1 ex., road Baft–Rabor, 10 km N Bezenjan, 29°20'N, 56°39'E, 2510 m, 4.V.2007, leg. FRISCH & SERRI (cAss).

Comment

The distribution of *P. stoeckleini*, which is confined to Iraq and Iran, was recently mapped by ASSING (2007a).

Tetartopeus stylifer (Reitter, 1909)

Material examined

Iran: Azarbaijan-e Gharbi: 1 ex., N Takab, 8 km E Takht-e-Soleyman, 36°36'N, 47°18'E, 2210 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., 10 km S Ziveh, 37°11'N, 44°53'E, 1810 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex. [teneral], pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 2 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB).

Comment

This species was first reported from Iran by ASSING (2004); for additional records see ASSING (2007a).

Lobrathium lederi (Eppelsheim, 1884)

Material examined

Iran: Gilan: 3 exs., Rasht county, Elburz mts., 29 km S Rasht, 37°01'N, 49°36'E, 140 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt, cAss). – **Mazandaran:** 2 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cAss); 1 ex., Chalus county, Elburz mts., 10 km SE Abbasabad, 36°39'N, 51°11'E, 280 m, leaf litter sifted, 4.VI.2008, leg. PÜTZ (cPüt).

Comment

This species was previously known only from Azerbaijan and the Russian South European territory (SMETANA 2004). The above specimens represent the first records from Iran.

Lobrathium farsicum Assing, 2007

Material examined

Iran: Lorestan: 2 exs. [1 teneral], 55 km N Andimeshk, Sar-Takht, 3.–4.V.2007, leg. ANISTSCHENKO (cSha); 4 exs. [1 teneral], 20 km N Pol-e-Dokhtar prov., Babo-Zeyd, 1.–2.V.2007, leg. ANISTSCHENKO (cSha, cAss). – **Kohgiluyeh & Boyerahmad:** 1 ex., 20 km SW Yasuj, 10 km SE Sepidor, 5.–6.V.2007, leg. ANISTSCHENKO (cAss). – **Kerman:** 1 ex., road Baft–Rabor, 10 km N Bezenjan, 29°20'N, 56°39'E, 2510 m, 4.V.2007, leg. FRISCH & SERRI (MNHUB).

Comment

The known distribution of this recently described species is confined to southwestern Iran; for a map see ASSING (2007d).

Lobrathium pravum Assing & Schülke, 2002

Material examined

Iran: Kordestan: 4 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This species was originally described from Turkey and later also reported from Iraq (ASSING 2007d, ASSING & SCHÜLKE 2002). The above specimens represent the first record from Iran.

Micrillus testaceus (Erichson, 1840)

Material examined

Iran: Razavi Khorasan: 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB).

Comment

According to a recent revision (ASSING 2008b), *Micrillus testaceus* is the most widespread species of the genus and distributed in the south of the Western Palaearctic region, but was unknown from Iran.

Pseudobium iranicum Boháč 1988

Material examined

Iran: North Khorasan: 1 ex., Bojnurd, Hesar Garmkhan, Surak, 37°40'N, 57°25'E, 1010 m, 3.VI.2006, leg. SERRI & FRISCH (HMIM); 1 ex., road Ghouchan to Shiravan, 24 km S Faruoji, Garmab, 37°03'N, 58°07'E, 1680 m, 1.VI.2006, leg. SERRI & FRISCH (cAss); 1 ex., road Qarlooq–Raz, 33 km NNW Qarlooq, Yekehshakh, 37°40'N, 57°25'E, 3.VI.2006, leg. FRISCH & SERRI (MNHUB).

Comment

The known distribution of this species is confined to Iran. A distribution map is provided by ASSING (2007e). For additional records from Iran see ASSING (2007a).

Pseudobium cypriacum Jarrige, 1949

Material examined

Iran: Chaharmahal & Bakhtiari: 1 ex., road Meymand–Semirom, NE Meymand, 31°14'N, 51°18'E, 1840 m, 10.V.2007, leg. FRISCH & SERRI (MNHUB). – **Esfahan:** 4 exs., 20 km SW Semirom, 31°19'N, 51°26'E, 2190 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., 40 km SW Semirom, 31°15'N, 51°24'E, 2080 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 2 exs., Qohrud mts., W Korin, Kuh-e-Lalehzar,

2800 m, 11.–12.V.2007, leg. ANISTSCHENKO (cSha, cAss); 4 exs., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°28'N, 56°43'E, 2760 m, 6.V.2007, leg. FRISCH & SERRI (MNHUB); 38 exs., road Bardsir–Baft, Qal'eh Askar, 29°30'N, 56°38'E, 2750 m, 3.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., road Bardsir–Sirjan, 45 km SW Bardsir, 29°51'N, 56°06'E, 2540 m, 2.V.2007, leg. FRISCH & SERRI (MNHUB); 2 exs., 30 km E Rabor, 2 km to Bagkoyeh, 29°19'N, 57°10'E, 2660 m, 5.V.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The known distribution of this species is confined to Turkey, Cyprus, and Iran, from where it was recently reported for the first time (ASSING 2007e).

Pseudobium richteri (Scheerpeltz, 1961)

Material examined

Iran: Kerman: 1 ex., Kuhpaye, 30°29'N, 57°19'E, 1800 m, 29.IV.2007, leg. FRISCH & SERRI (MNHUB).

Comment

Pseudobium richteri has become known only from Iran and Afghanistan; for a map see ASSING (2007e).

Astenus immaculatus Stephens, 1833

Material examined

Iran: Gilan: 1 ex., Rudbar county, 7 km NW Bararu, 36°49'N, 49°38'E, 850 m, 7.VI.2008, leg. A. PÜTZ (cPüt).

Comment

This species is widespread in the Western Palaearctic region. Its previously known distribution extended eastwards to Azerbaijan and Turkey (SMETANA 2004). The above male represents the first record from Iran.

Rugilus rossii (Zanetti, 1977) and *R. tauricus* (Rougemont, 1988) (Figs. 1–11)

Comment

Rugilus rossii was originally described as a distinct species, based on material from central and southern Italy (ZANETTI 1977), and subsequently treated as a subspecies of *R. rufipes* (Germar, 1836) by COIFFAIT (1984). Several years later, GUSAROV (1991) placed *R. tauricus* (Rougemont, 1988), which had been described from southern Turkey, in synonymy with *R. rossii* stating that the aedeagus was identical, regarded the latter as a distinct species again, and reported it also from northern Iran. Thus, *R. rossii* was previously recorded from central and southern Italy, southern Turkey, and northern Iran (see also

SMETANA 2004), a remarkably discontinuous and somewhat implausible distribution. *Rugilus tauricus* was subsequently treated as a valid name by ASSING (2005a), but the name has never been formally revalidated.

A comparative study of material from southern Italy (*R. rossii*), southern Anatolia (*R. tauricus*), and northern Iran (see following sections) revealed that, indeed, the morphology of the aedeagus is highly similar. However, the shape of the ventral process and other morphological features are slightly and constantly different. Additional differences were found in the shape and chaetotaxy of the male sternites VII and VIII, suggesting that they all represent different, albeit very closely related species. Similarly slight differences have been observed also between the widespread *R. rufipes* and *R. lesbius* Assing, 2005 from Lesbos and western Anatolia.

Rugilus tauricus is distinguished from *R. rossii* by the following characters: body of slightly larger size; posterior margin of male sternite VII broadly concave (*R. rossii*: almost truncate); sternite VIII with deep and broad, almost V-shaped posterior excision (*R. rossii*: excision smaller and U-shaped); aedeagus larger, approximately 1.15 mm (*R. rossii*: approximately 1.0 mm); ventral process of aedeagus less strongly bent in lateral view, apically shorter, differently shaped, and with much shorter filiform ventral appendix; subapical dorsal tooth-like projections of ventral process more slender and more acute. For illustrations of the primary and secondary sexual characters of *R. tauricus* and *R. rossii* see Figs. 1–11.

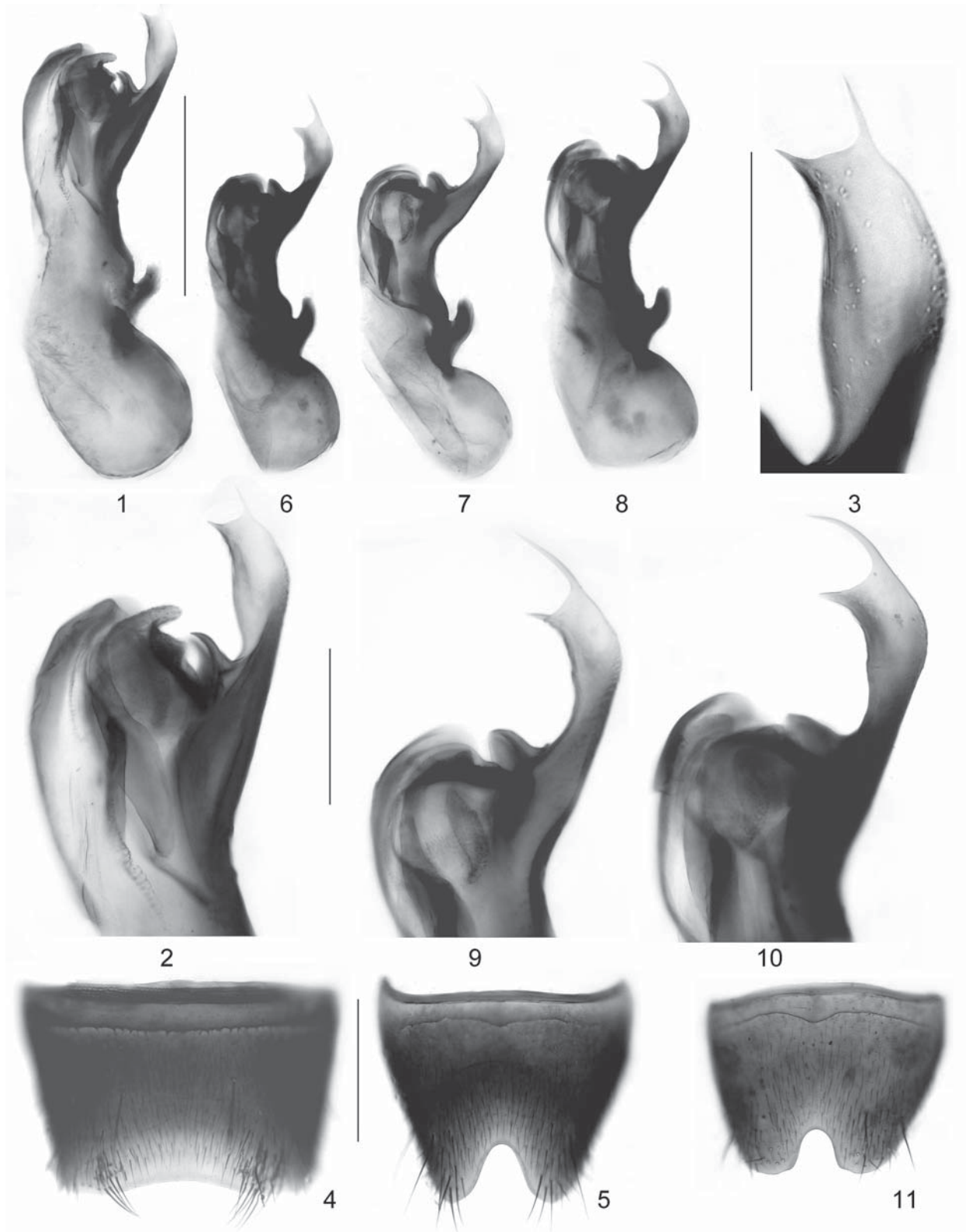
In conclusion, *R. tauricus* is regarded as a distinct species and formally revalidated; its confirmed distribution is confined to southern Anatolia. *Rugilus rossii* is endemic to central and southern Italy, and consequently absent from the Iranian fauna. The material from northern Iran is represented by two distinct species (see the descriptions below).

Rugilus penicillatus n. sp. (Figs. 12–22, 36)

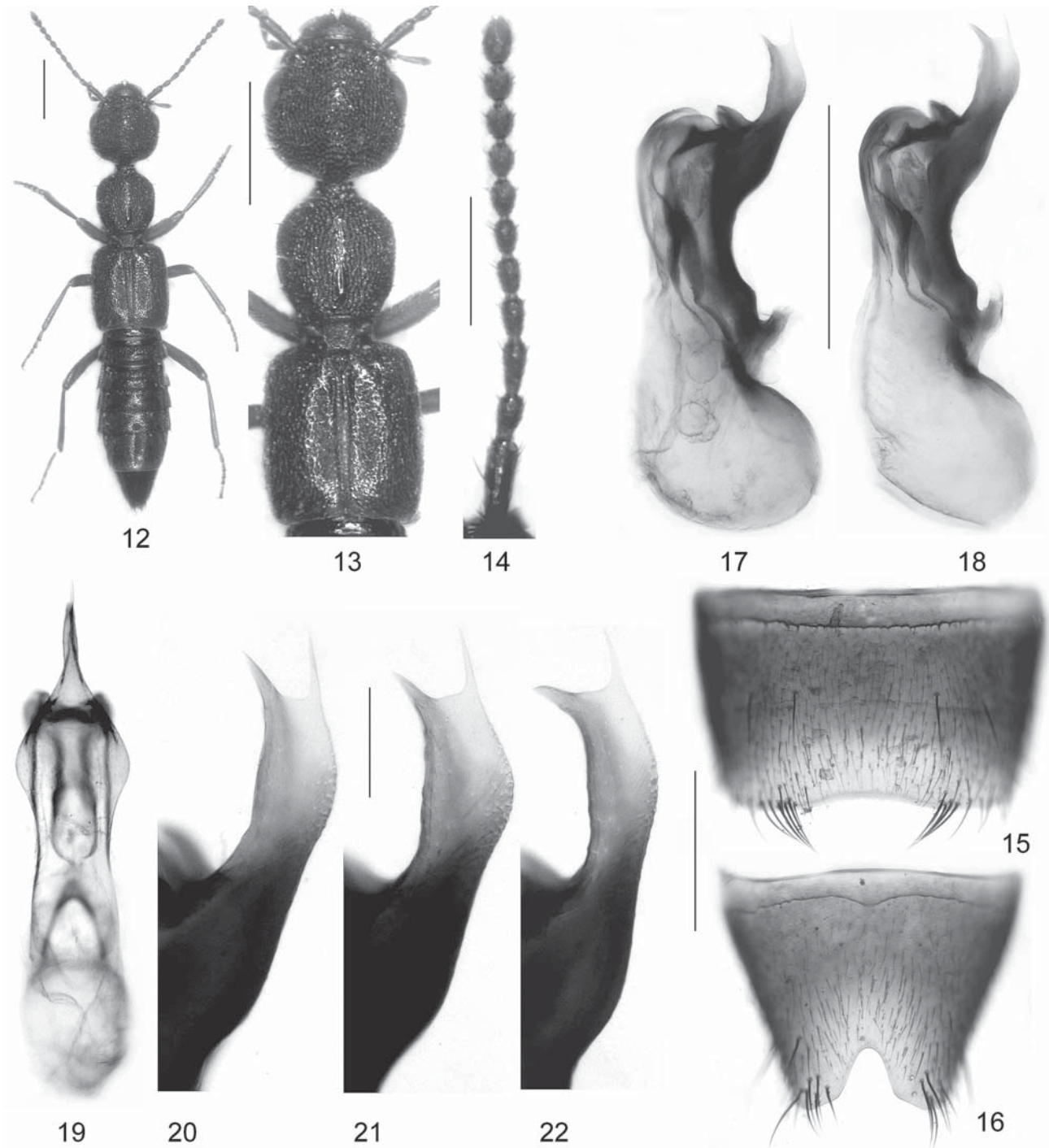
Type material

Holotype ♂ [slightly teneral]: “Iran, Razavi Khorasan Prov., 27 km SW Chanaran: SW Frizi, 1690 m (Binalud Mts), N36°27'38" E058°56'45", 29.V.2006, lg. FRISCH & SERRI / Holotypus ♂ *Rugilus penicillatus* sp. n. det. V. ASSING 2008” (MNHUB).

Paratypes: 5 exs. [all slightly teneral]: same data as holotype (MNHUB, cAss); 17 exs.: “Iran, Prov. Mazandaran [IR08-23], Ramsar County, Mohammadabad, Elburz Mts., N-Slope, Eshkatechal, small stream, 36°50'53.0"N, 50°34'64.4"E [recte: 36°50.53'N, 50°34.644'E], 1458 m, 06.VI.2008, leg. A. PÜTZ” (cPüt, cAss); 2 exs.: “Iran, Prov. Mazandaran [IR08-24], Ramsar County, Mohammadabad, Elburz Mts., N-Slope, Eshkatechal, small stream, sifted, 1055 m, 36°51'14.2"N, 50°33'22.0"E [recte: 36°51.142'N, 50°33.22'E], 06.VI.2008, leg.



Figs. 1–11. *Rugilus rossii* (Zanetti) (1–5) and *R. tauricus* (Rougemont) (6–11). – **1, 6–8.** Aedeagus in lateral view. **2, 9, 10.** Apical portion of aedeagus in lateral view. **3.** Apical portion of ventral process of aedeagus in lateral view. **4.** Male sternite VII. **5, 11.** Male sternite VIII. – Scale bars: 0.5 mm (1, 4–8, 11), 0.2 mm (2, 9, 10), 0.1 mm (3).



Figs. 12–22. *Rugilus penicillatus* n. sp. – 12. Habitus. 13. Forebody. 14. Antenna. 15. Male sternite VII. 16. Male sternite VIII. 17, 18. Aedeagus in lateral view. 19. Aedeagus in ventral view. 20–22. Ventral process of aedeagus in lateral view. – Scale bars: 1.0 mm (12, 13), 0.5 mm (14–19), 0.1 mm (20–22).

A. PÜTZ" (cPüt, cAss); 3 exs.: "Iran, Prov. Mazandaran [IR08-22], Tonekabon County, Elburz Mts., N-Slope, 4.5 km SW Khanian, Sehezar forest, leaves debris, sifted, small stream, 942 m, 05.VI.2008, 36°32'61.7"N, 50°49'89.2"E [recte: 36°32.617'N, 50°49.892'E], leg. A. PÜTZ" (cPüt, cAss); 5 exs.: "Iran, Prov. Mazandaran [IR08-09], Babol County, Elburz Mts., N-Slope, 2 km SW Firuz Jah, 839 m, small stream, 36°10'66.0"N, 52°38'90.1"E [recte: 36°10.66'N, 52°38.901'E], 31.V.2008, leg. A. PÜTZ" (cPüt, cAss); 3 exs., "Iran, Prov. Mazandaran [IR08-17], Chalus County, Elburz Mts., N-slope, 7 km N Makarud, small stream, *Fagus* forest, 1245 m, 36°35'64.9"N, 51°09'55.4"E [recte: 36°35.649'N, 51°09.554'E], 03.VI.2008, leg. A. PÜTZ" (cPüt, cAss); 1 ♀: "Iran, Prov. Mazandaran [IR08-21], Chalus County, Elburz Mts., N-slope, 10 km SE Abbasabad, leaves debris, sifted, 36°38'82.4"N, 51°10'44.1"E [recte: 36°38.824'N, 51°10.441'E], 282 m, 04.VI.2008, leg. A. PÜTZ" (cPüt); 1 ♀: "Iran, Prov. Mazandaran [IR08-01A], Sari County, Mohammadabad, Elburz Mts., N-Slope, 2.2 km NE Bendela, 1533 m, 36°04'06.6"N, 53°09'57.8"E [recte: 36°04.066'N, 53°09.578'E], *Fagus* forest, leaves debris, sifted, 30.V.2008, leg. A. PÜTZ" (cPüt); 1 ♀: "Iran, Prov. Mazandaran [IR08-04A], Sari County, Mohammadabad, Elburz Mts., N-Slope, 1 km W Afra Chal, 36°14'11.9"N, 53°13'61.0"E [recte: 36°14.119'N, 53°13.61'E], 520 m, small stream, leaves sifted, 30.V.2008, leg. A. PÜTZ" (cPüt); 1 ♀: "Iran, Mazandaran Province, 20 km SW Pol-e Sefid: 2 km NE Allahband, 920 m, N 36°03'04" E 052°57'03", 08.VI.2006, lg. FRISCH & SERRI" (MNHUB); 3 ♀♀: "Iran, Mazandaran Province, 6 km E Kiyasar: Jalaledinkola, 1350 m, N 36°12'03" E 053°35'06", 09.VI.2006, lg. FRISCH & SERRI" (MNHUB, cAss); 2 ♀♀: "Iran, Golestan Province, 28 km S Ramiyan, 1530 m, N 36°51'43" E 055°14'15", 06.VI.2006, lg. FRISCH & SERRI" (MNHUB, cAss).

Etymology

The specific epithet (Latin, adjective: with brushes) refers to the presence of pronounced clusters of long black and stout setae on the male sternites VII and VIII.

Description

Habitus as in Fig. 12. Measurements (in mm) and ratios (range, arithmetic mean; n = 16): HL: 1.03–1.21, 1.11; HW: 1.10–1.28, 1.18; PW: 0.88–1.03, 0.95; PL: 0.95–1.15, 1.04; EL: 0.93–1.13, 1.05; TiL: 1.06–1.19, 1.09; TaL: 0.80–0.95, 0.87; ML: 0.97–1.04, 1.00; TL: 6.1–8.0, 7.1; HW/HL: 1.04–1.12, 1.06; PW/HW: 0.76–0.84, 0.80; PL/PW: 1.06–1.15, 1.10; EL/PL: 0.90–1.07, 1.01; TiL/TaL: 1.16–1.36, 1.26.

Coloration: head, pronotum, and abdomen blackish-brown to blackish; pronotum brown to dark-brown; legs yellowish-brown to brown; antennae reddish to reddish-brown.

Head (Fig. 13) moderately transverse (see ratio HW/HL); punctuation coarse, very dense, areolate, sometimes partly confluent; interstices reduced to narrow ridges; eyes large and bulging, of somewhat variable size, usually approximately as long as postocular region and approximately half as long as distance between posterior margin of eyes and neck (or slightly longer) in dorsal view. Antenna as in Fig. 14.

Pronotum distinctly narrower than head (see ratio PW/HW) and weakly oblong (see ratio PL/PW); punctuation coarse, dense, areolate, and partly confluent; midline impunctate in posterior half (Fig. 13).

Elytra approximately 1.20–1.25 times as wide as pronotum and of rather variable length, on average approximately as long as pronotum (see ratio EL/PL); punctuation moderately dense, rather shallow, and often somewhat ill-defined; interstices glossy (Fig. 13). Hind wings fully developed. Legs rather slender (see measurements and ratio TiL/TaL).

Abdomen approximately 0.85–0.90 times as wide as elytra; tergites III–VI near anterior margins with coarse punctuation, remainder of dorsal surface with fine and dense punctuation.

♂: sternite VI unmodified; posterior margin of sternite VII weakly concave, on either side with cluster of several long black and stout setae (Fig. 15); sternite VIII posteriorly with almost V-shaped and moderately large excision, on either side of the excision with several long black and stout setae (Fig. 16); aedeagus approximately 1.05 mm long, ventral process of distinctive shape (Figs. 17–22).

Comparative notes

Based on the external morphology and the male sexual characters, the new species undoubtedly refers to the *R. rufipes* group. Among the species of this group, it is most similar to *R. tauricus*, from which it is separated by smaller average size, the smaller and less deep posterior excision of the male sternite VIII, the stouter setae on either side of this excision, the smaller aedeagus (*R. tauricus*: approximately 1.15 mm), and by the shape of the ventral process of the aedeagus (distinctly bisinuate, apex differently shaped, subapical dorsal projections broader), and by the apical internal structures of the aedeagus. The new species is separated from *R. rossii* from Italy by the broadly concave posterior margin of the male sternite VII, the larger and differently shaped posterior excision of the male sternite VIII, as well as by the morphology of the aedeagus (shape of ventral process and of apical internal structures). For illustrations of the aedeagus of *R. tauricus* and *R. rossii* see Figs. 1–11. For illustrations of the male genitalia of other Western Palearctic congeners see COIFFAIT (1984), ROUGEMONT (1988), and ASSING (2005a).

Distribution and bionomics

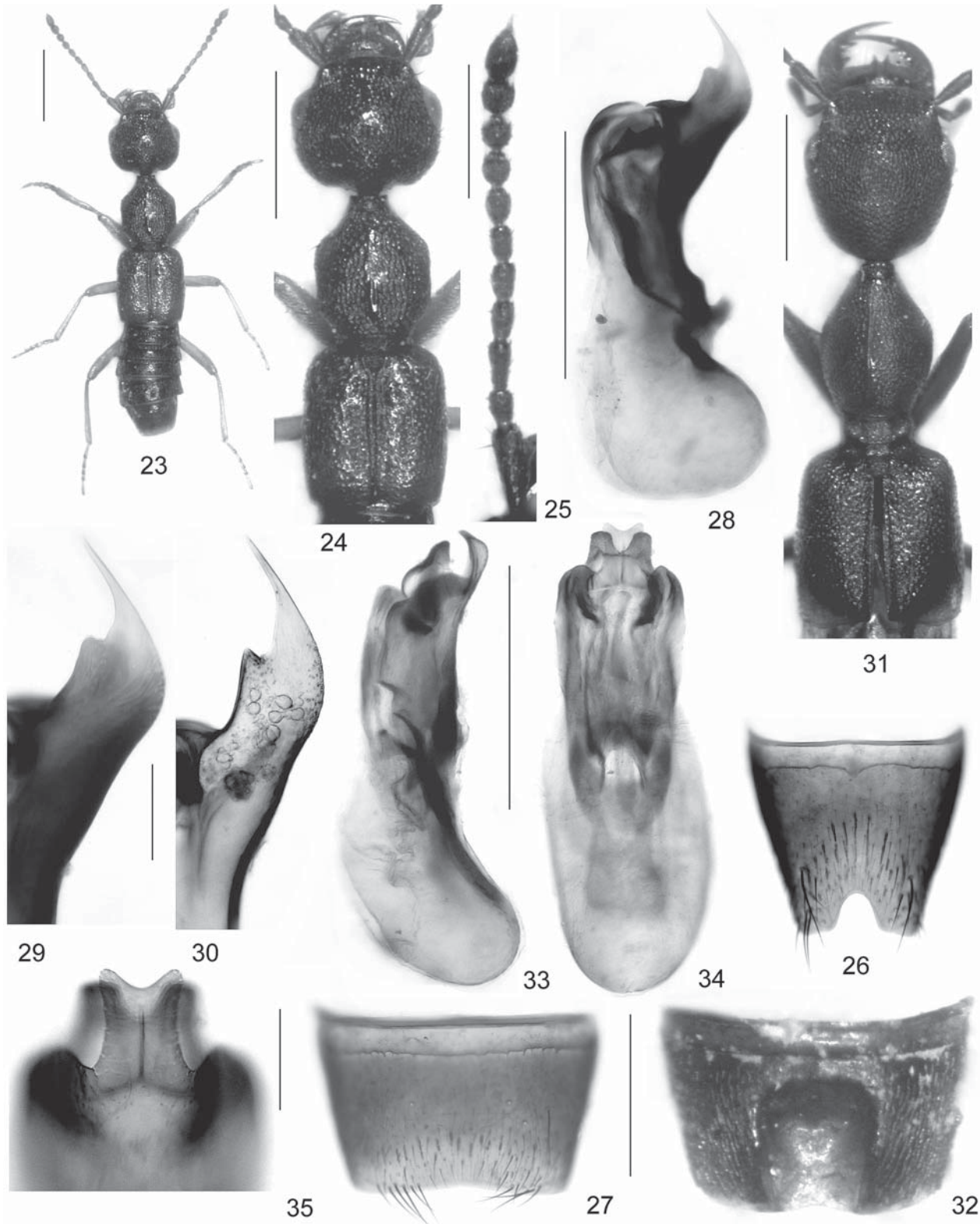
This species is apparently widespread in northern Iran, from western Mazandaran to Razavi Khorasan province (Fig. 36). The material was collected on banks of rivers and streams and sifted from forest leaf litter at altitudes of 520–1690 m. Several specimens collected at the end of May are teneral.

Rugilus frischi n. sp.

(Figs. 23–30, 36)

Type material

Holotype ♂ [slightly teneral]: "Iran, Gilan province, Rudbar: Barrehsar, 1080 m, N36°47'03" E049°45'48",



Figs. 23–35. *Rugilus frischeri* n. sp. (23–30) and *R. iranicus* (Coiffait) (31: female from Iran; 32–35: male from Georgia). – 23. Habitus. 24, 31. Forebody. 25. Antenna. 26. Male sternite VIII. 27, 32. Male sternite VIII. 28, 33, 34. Aedeagus in lateral and ventral view. 29, 30. Ventral process of aedeagus in lateral view. 35. Apical portion of ventral process of aedeagus in ventral view. – Scale bars: 1.0 mm (23, 24, 31), 0.5 mm (25–28, 32–34), 0.1 mm (29, 30, 35).

30.VII.2005, leg. FRISCH & SERRI / Holotypus ♂ *Rugilus frischii* sp. n. det. V. ASSING 2008" (MNHUB).

Paratypes: 3 exs.: "Iran, Gilan [IR08-29], Fuman County, Tales Mts., N-Slope, Masuleh–Khalkhal road, 4 km NW Masuleh, leaves debris, sifted, 1404 m, 37°10'34.8"N, 48°58'76.6"E [recte: 37°10.348'N, 48°58.766'E], 08.VI.2008, leg. A. PÜTZ" (cPüt, cAss); 1 ex.: "Iran, Prov. Gilan [IR08-28], Fuman County, Tales Mts., N-Slope, below Masuleh, sifted, small stream, pools, 688 m, 37°09'69.0"N, 49°01'60.8"E [recte: 37°09.69'N, 49°01.608'E], 8.VI.2008, leg. A. PÜTZ" (cPüt); 8 exs. [partly teneral]: "Iran, Prov. Gilan [IR08-27], Rasht County, Elburz Mts., N-Slope, 29 km S Rasht, sifted, 37°00'49.4"N, 49°36'30.9"E [recte: 37°00.494'N, 49°36.309'E], 140 m, 7.VI.2008, leg. A. PÜTZ" (cPüt, cAss); 5 exs.: "Iran, Prov. Gilan [IR08-26], Rudbar County, Elburz Mts., N-Slope, 7 km NW Bararu, sifted, 851 m, 36°48'82.5"N, 49°37'60.9"E [recte: 36°48.825'N, 49°37.609'E], 7.VI.2008, leg. A. PÜTZ" (cPüt, cAss).

Etymology

The species is dedicated to JOHANNES FRISCH (MNHUB), who collected not only the holotype of this species, but also numerous additional staphylinids treated in the present paper.

Description

Habitus as in Fig. 23. Measurements (in mm) and ratios (range, arithmetic mean; n = 17): HL: 1.03–1.18, 1.10; HW: 1.09–1.27, 1.18; PW: 0.86–1.00, 0.95; PL: 0.97–1.10, 1.04; EL: 0.91–1.07, 0.99; TiL: 1.04–1.18, 1.13; TaL: 0.79–0.98, 0.90; ML: 1.06–1.12, 1.09; TL: 6.0–8.0, 7.7; HW/HL: 1.05–1.10, 1.08; PW/HW: 0.78–0.82, 0.80; PL/PW: 1.05–1.12, 1.09; EL/PL: 0.88–1.00, 0.95; TiL/TaL: 1.19–1.36, 1.27.

Coloration: head blackish; pronotum and abdomen blackish-brown; elytra brown; legs dark yellowish; antennae reddish.

Head (Fig. 24) moderately transverse (see ratio HW/HL); punctuation coarse, very dense, and areolate; inter-

stices reduced to narrow ridges, in anterior median area slightly wider; eyes large and bulging, longer than post-ocular region and almost as long as distance between posterior margin of eyes and neck in dorsal view. Antenna as in Fig. 25.

Pronotum distinctly narrower than head (see ratio PW/HW) and weakly oblong (see ratio PL/PW); punctuation coarse, dense, areolate, and partly confluent; midline impunctate only in posterior half, small relic of impunctate area present also near anterior margin (Fig. 24).

Elytra approximately 1.25 times as wide, and at suture on average slightly shorter than pronotum (see ratio EL/PL); punctuation moderately dense, rather shallow, and rather fine; interstices on average approximately as wide as diameter of punctures and glossy (Fig. 24). Hind wings apparently fully developed. Legs rather slender (see measurements and ratio TiL/TaL).

Abdomen slightly narrower than elytra; tergites III–VI near anterior margins with coarse punctuation, remainder of dorsal surface with fine and dense punctuation.

♂: sternite VI unmodified; posterior margin of sternite VII weakly concave, on either side with cluster of several long black setae (Fig. 27); sternite VIII posteriorly with almost U-shaped excision, on either side of the excision with several long black setae (Fig. 26); aedeagus with ventral process of distinctive shape (Figs. 28–30).

Comparative notes

Based on the external morphology and the male sexual characters, the new species is closely related to *Rugilus rufipes* and allied species (*R. tauricus*, *R. rossii*, *R. lesbicus*). It is distinguished from other species of this group

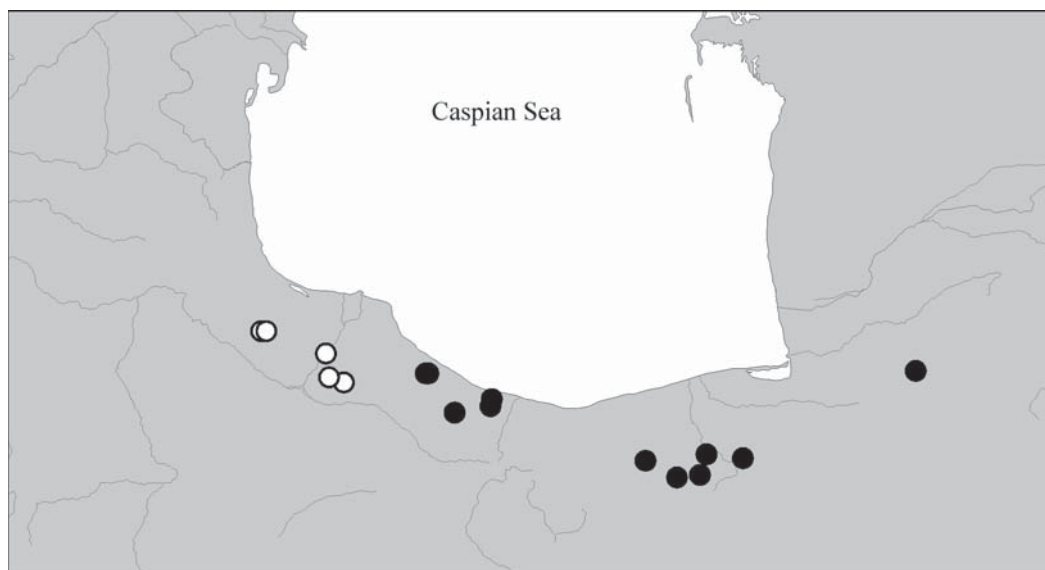


Fig. 36. Distribution of *Rugilus frischii* n. sp. (○) and *R. penicillatus* n. sp. (●) in northern Iran.

by less pronounced posterior angles of the head, relatively larger eyes, a more transverse head, and by the male sexual characters, above all by the distinctive shape of the ventral process of the aedeagus. For illustrations of the aedeagi of the Western Palaearctic representatives of the *R. rufipes* group see COIFFAIT (1984), ROUGEMONT (1988), and ASSING (2005a). *Rugilus frischi* is reliably distinguished from *R. penicillatus* only based on the morphology of the aedeagus, particularly the distinctive shape of the ventral process in lateral view.

Distribution and bionomics

The species was found in several localities in Gilan province, northwestern Iran (Fig. 36). The type specimens were mostly collected from moist leaf litter, usually on or near banks of streams and pools at a wide range of altitudes (140–1400 m). Some of the beetles collected in June and July are somewhat teneral.

Rugilus iranicus (Coiffait, 1981) (Figs. 31–35)

Material examined

Iran: Mazandaran: 1 ♀, Elburz mts., Nur County, 3 km E Baladeh, 36°14'N, 51°51'E, 2030 m, litter near stream, sifted, 1.VI.2008, leg. PÜTZ (cAss).

Georgia: 1 ♂, Tbilisi env., Zehneti, 800 m, 22.VI.1986, leg. SCHÜLKE & WRASE (cSch).

Comment

The original description is based on a single female from “Now Schahr sur la mer Caspienne” (COIFFAIT 1981). The male from Georgia, which is identical in external characters to the female from Iran (Fig. 31), represents the first record since the original description and a new record from Georgia. The previously unknown male sexual characters are as follows: sternite VI at posterior margin with smooth median elevation, this elevation enclosed by dense, long, black setae; sternite VII with very deep and extensive impression, on either side of this impression posteriorly with pronounced carinae, each furnished with fringe of stout black setae (Fig. 32); sternite VIII with small V-shaped excision posteriorly; aedeagus shaped as in Figs. 33–35.

Rugilus armeniacus (Coiffait, 1970) (Figs. 37–39)

Stilicus armeniacus COIFFAIT, 1970: 154 f.

Type material examined

Holotype ♂: “[locality in Cyrillic] 9-VI-50 / Holotype / *Stilicus armeniacus* Coiff., H. COIFFAIT det. 1970 / Muséum Paris / *Rugilus armeniacus* (Coiffait), det. V. ASSING 2009” (MNHN).

Comment

The original description is based on a male holotype and a female paratype from “Gorus, R. S. S. d’Arménie” (COIFFAIT 1970). The holotype was examined to ensure that none of the species described above is conspecific with *R. armeniacus*. The species is highly distinctive and separated from its congeners particularly by the coloration, as well as the male primary and secondary sexual characters. It is currently known from Armenia and Azerbaijan (SMETANA 2004). The similarities in external characters (coloration, head shape, slender pronotum, long appendages) and especially the similar male primary and secondary sexual characters suggest that the species is closely related to *R. iranicus*.

Redescription

Body length approximately 6.5 mm.

Coloration: forebody and appendages reddish, head between eyes transversely and weakly infusate, elytra in posterior half with transversely and weakly infusate area; abdomen dark-reddish, with segments VI–VII and anterior portion of segment VIII infusate.

Head approximately 1.1 times as long as wide and of ovoid shape, behind eyes tapering towards posterior constriction in smooth curve (dorsal view), posterior angles obsolete; postocular region (between posterior margin of eye to posterior constriction) approximately 3 times as long as eyes in dorsal view; punctation dense and areolate. Antenna slender; antennomere III approximately 3 times as long as wide, IV twice as long as wide, V–IX of gradually decreasing length and decreasingly oblong, and X approximately as long as wide.

Pronotum 1.3 times as long as wide and 0.75 times as wide as head; impunctate mid-line narrow, obsolete near anterior and posterior margins.

Elytra with pronounced humeral angles, 1.4 times as wide, and at suture approximately 0.9 times as long as pronotum; suture impressed in anterior third. Legs long and slender; metatibia almost 1.5 mm long; metatarsomere I approximately as long as the combined length of II–IV; metatarsomere IV distinctly oblong.

♂: sternite VI posteriorly with rather extensive semi-circular area with conspicuously long, dense, and blackish setae; sternite VII with pronounced smooth median impression, posterior lateral margins of this impression furnished with long dark setae; posterior excision of sternite VIII small and V-shaped; aedeagus 0.83 mm long, of distinctive morphology (Figs. 37–39).

Rugilus orbiculatus (Paykull, 1789)

Material examined

Iran: Azarbayjan-e Sharqi: 1 ex., Komar Oliah, Kiyamaki Dagh, 38°44'N, 46°00'E, 1230 m, 11.VIII.2005, leg. FRISCH



Figs. 37–44. *Rugilus armeniacus* (Coiffait), holotype (37–39), and *R. longicollis* (Fauvel), lectotype (40–44). – **37, 38, 42, 43.** Aedeagus in lateral and ventral view. **39, 44.** Apical portion of aedeagus in ventral view. **40.** Forebody. **41.** Male sternite VIII. – Scale bars: 1.0 mm (40), 0.2 mm (37, 38, 41–43), 0.1 mm (39, 44).

& SERRI (MNHUB). – **Razavi Khorasan:** 3 exs., 27 km SW Chanaran, SW Frizi, 36°28'N, 58°57'E, 1690 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Uzbekistan: 6 exs., E Tashkent, Chatkalskiy range, Shikaftar, 26.VII.2001 (cSch, cAss).

Comment

The above records from Uzbekistan represent a new country record of this widespread species.

Rugilus korbi (Fauvel, 1900)
(Fig. 45)

Stilicus korbi FAUVEL, 1900: 226.

Type material examined

Syntypes: 5 ♀♀: “Kasp. Meer Geb, Lenkoran, 1897, KORB / Korbi Fvl. / Ex-Typis / Coll. et det. A. FAUVEL, *Stilicus korbi* Fauv., R. I. Sc. N. B. 17.479 / *Rugilus korbi* (Fauvel), det. V. ASSING 2009” (IRSNB).

Additional material examined

Iran: Gilan: 7 exs., Rudbar county, 7 km NW Bararu, 36°49'N, 49°38'E, 850 m, 7.VI.2008, leg. A. PÜTZ (cPüt, cAss); 5 exs. [partly teneral], Rudbar, Barrehsar, 36°47'N, 49°45'E, 1080 m, 30.VII.2005, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., Rudbar, Barrehsar, Damash road, Sebostaneh, 36°47'N, 49°48'E, 1400 m, 31.VII.2005, leg. SERRI & FRISCH (MNHUB); 3 exs., Fuman county, Masuleh–Khalkhal road, 4 km NW Masuleh, 37°10'N, 48°59'E, 1400 m, leaf litter sifted, 8.VI.2008, leg. PÜTZ (cPüt, cAss). – **Mazandaran:** 2 exs., Tonekabon county,

4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss); 2 exs., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt, cAss); 3 exs., Babol county, 2 km SW Firuz Jah, 36°11'N, 52°39'E, 840 m, small stream, 31.V.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, 1 km W Afra Chal, 36°14'N, 53°14'E, 520 m, leaf litter sifted, 30.V.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.V.2008, leg. PÜTZ (cPüt); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cPüt); 1 ex., 12 km E Kiyasar, Alikolar, 36°13'N, 53°39'E, 1590 m, 9.VI.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Ramsar, Eshkatechal, 36°54'N, 50°35'E, 300 m, 28.VII.2005, leg. FRISCH & SERRI (MNHUB).

Comment

The original description is based on several syntypes (“Une série d'exemplaires”) from “Lenkoran (Korb)” (FAUVEL 1900). Unfortunately, all five syntypes in the FAUVEL collection are females. A comparison of the above material from Iran with the type specimens revealed no significant differences. The elytra are on average somewhat longer and broader in the material from Iran, but elytral length appears to be subject to considerable intraspecific variation in this species. The known distribution of *R. korbi* is confined to Azerbaijan and Iran, where it has been recorded only from the north (Fig. 45).

Rugilus longicollis (Fauvel, 1900) (Figs. 40–45)

Stilicus longicollis FAUVEL, 1900: 226.

Type material examined

Lectotype ♂: “Persia settent.e, 1862–63, Coll. G DORIA / Ex-Typis / Lectotypus / Coll. et det. A. FAUVEL, *Stilicus longicollis* Fauv., R. I. Sc. N. B. 17.479 / *Rugilus longicollis* (Fauvel) ♂, V. GUSAROV det. 1989” (IRSNB). – Paralectotypes: 4 ♀♀: same data as lectotype (IRSNB); 2 ♀♀: “Kaukas Leder / Ex-Typis / Coll. et det. A. FAUVEL, *Stilicus longicollis* Fauv., R. I. Sc. N. B. 17.479 / *Rugilus longicollis* (Fauvel) ♀, V. GUSAROV det. 1989” (IRSNB).

Additional material examined

Iran: Azarbayjan-e Sharqi: 25 exs. [partly teneral], Kalaybar, 38°51'N, 47°01'E, 1420 m, 9.VIII.2005, leg. FRISCH & SERRI (HMIM, MNHUB, cAss); 1 ex., S Tabriz, Kandovan, 37°47'N, 46°15'E, 2250 m, 8.VIII.2005, leg. FRISCH & SERRI (MNHUB); 1 ex., Kuh-e Narmigh, Someezarrin, 38°06'N, 47°18'E, 1800 m, 7.VIII.2005, leg. FRISCH & SERRI (MNHUB); 1 ex., Osku, Amghan (Kuh-e Sahand), 37°50'N, 46°16'E, 2100 m, 8.VIII.2005, leg. FRISCH & SERRI (MNHUB); 1 ex., Zijenab (Kuh-e Sahand), 37°52'N, 46°18'E, 2100 m, 8.VIII.2005, leg. FRISCH & SERRI (cAss). – **Azarbayjan-e Gharbi:** 1 ex., pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., road Tabriz-Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI

(MNHUB, cAss); 1 ex., road Khoy–Qotur, 2 km W Qotur, 38°29'N, 44°29'E, 1950 m, 29.VIII.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., 10 km S Ziveh, 37°11'N, 44°53'E, 1810 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Ardabil:** 4 exs., Khalkhal, Aznav spring, 37°35'N, 48°34'E, 1870 m, 3.VIII.2005, leg. FRISCH & SERRI (MNHUB, cAss); 6 exs., S Khalkhal, Asbu, 37°27'N, 48°40'E, 1700 m, 3.VIII.2005, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 7 exs., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 4 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., road Sanandaj–Divandarreh, 21 km S Divandarreh, 35°46'N, 47°05'E, 1890 m, 6.IX.2008, leg. FRISCH & SERRI (MNHUB); 5 exs., 5 km S Qorveh, Veihaj, 35°07'N, 47°46'E, 2060 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Zanjan:** 3 exs., Gilvan road, Khanchal, 36°42'N, 48°44'E, 2335 m, 11.VII.2006, leg. SERRI (HMIM, cAss); 2 exs., 15 km SE Zanjan, 18 km NE Bonab, 36°42'N, 48°45'E, 2050 m, 25.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Mazandaran:** 10 exs., Elburz mts., Nur County, 3 km E Baladeh, 36°14'N, 51°51'E, 2030 m, litter near stream, sifted, 1.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Nur county, W Baladeh, 36°14'N, 51°27'E, 3160 m, sifted, 1.VI.2008, leg. PÜTZ (cPüt); 1 ex., 35 km SW Pol-e Sefid, Sheshrudbar, 36°00'N, 52°52'E, 1540 m, 8.VI.2006, leg. FRISCH & SERRI (MNHUB); 5 exs., Kuh-e Damavand, Nandel, 36°01'N, 52°13'E, 1660 m, 16.VIII.2005, leg. FRISCH & SERRI (MNHUB); 2 exs., Kalardasht, Rudbarak, 36°27'N, 51°04'E, 1790–1950 m, 26.VII.2005, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., Kalardasht, Rudbarak, 36°28'N, 51°06'E, 1540–1640 m, 26.VII.2005, leg. FRISCH & SERRI (MNHUB). – **Tehran:** 5 exs., Damavand–Firuzkuh road, 30 km SW Firuzkuh, 35°41'N, 52°28'E, 2010 m, 21.V.2006, leg. FRISCH & SERRI (HMIM, MNHUB). – **Lorestan:** 1 ex., SE Dorud, Saravand, 33°23'N, 49°10'E, 2000 m, 26.VI.2004, leg. FRISCH (cAss). – **Semnan:** 6 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Kerman:** 15 exs., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°28'N, 56°43'E, 2750 m, 6.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°30'N, 56°38'E, 2750 m, 3.V.2007, leg. FRISCH & SERRI (MNHUB); 3 exs., pass Mahan–Sirch, east side, 30°12'N, 57°24'E, 2870 m, 30.IV.2007, leg. FRISCH & SERRI (MNHUB); 1 ex., 6 km N Rabor, 29°20'N, 56°52'E, 2590 m, 4.V.2007, leg. FRISCH & SERRI (MNHUB).

Georgia: 1 ex., Trialetskiy Khrebet, Bakuriani, 1500–1600 m, 8.VII.1986, leg. SCHÜLKE & WRASE (cSch); 6 exs., Tbilisi env., Manglisi, 1350 m, 23.VII.1985, leg. WRASE (cSch, cAss); 4 exs., Tbilisi, Lisi ozero, VI.–VII.1988, leg. WRASE (cSch); 2 exs., Tbilisi env., Kumisi, VI.1987, leg. SCHÜLKE & WRASE (cSch); 2 exs., Kumisi, 29.VI. and 1.VII.1986, leg. SCHÜLKE & WRASE (cSch); 1 ex., Tbilisi env., Mzcheta, VI.1986, leg. SCHÜLKE & WRASE (cSch); 1 ex., Mzcheta, 16.VII.1985, leg. WRASE (cAss); 1 ex., Tbilisi env., Tbiliskoye ozero, 19.VII.1985, leg. WRASE (cAss).

Comment

The original description is based on several syntypes (“Une série d'exemplaires”) from “Perse septentrionale (G. Doria); Caucase (Leder)” (FAUVEL 1900). The lectotype was designated by GUSAROV (1991). The additional material listed above is distinguished from the lectotype by the

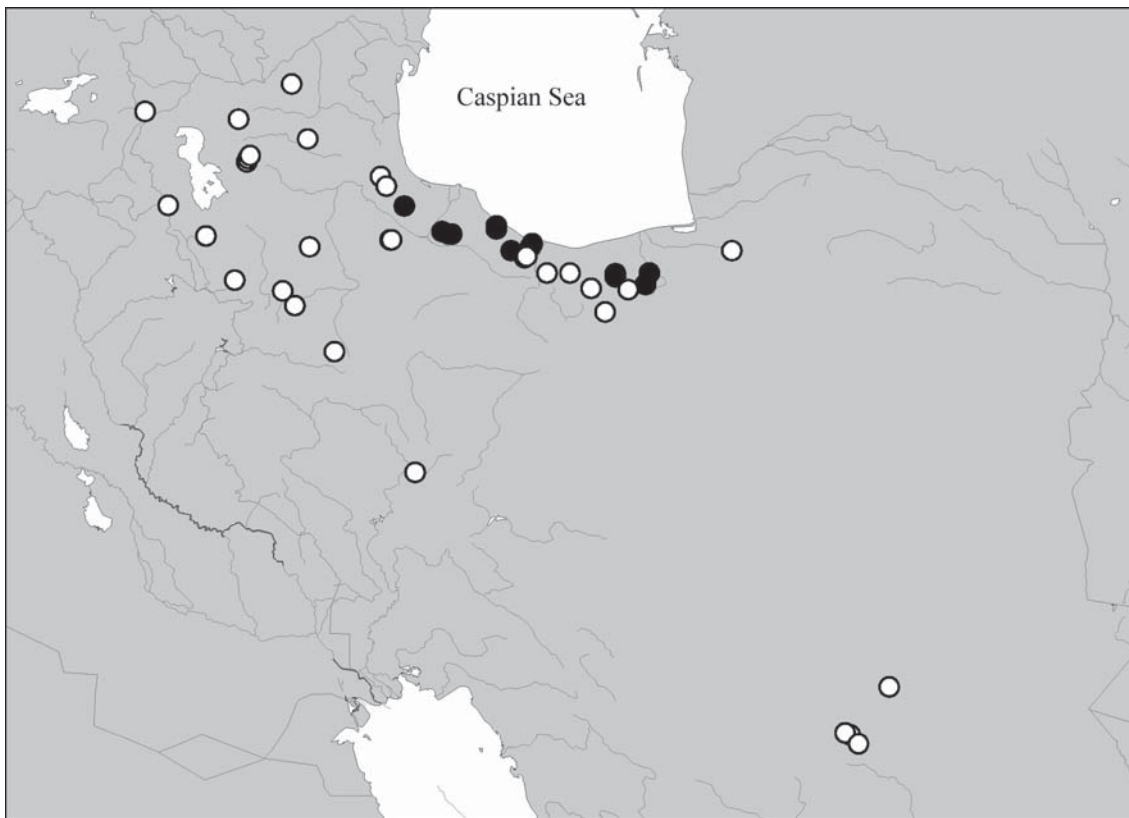


Fig. 45. Distribution of *Rugilus korbi* (Fauvel) (●) and *R. longicollis* (Fauvel) (○) in Iran.

somewhat shallower posterior excision of the male sternite VIII, but no significant differences in the morphology of the aedeagus were observed.

The species is apparently subject to considerable intraspecific variation of head shape, as well as the length and width of the elytra. Also, the apex of the ventral process of the aedeagus (ventral view) and the apical margin of the dorsal plate of the aedeagus may be more or less distinctly concave (dorsal view). For illustrations of the forebody and the male sexual characters of the lectotype see Figs. 40–44.

The known distribution includes Georgia, Azerbaijan, and Iran, where *R. longicollis* is apparently widespread and present also in the south (Fig. 45).

Ochthephilum turkestanicum (Korge 1968)

Material examined

Iran: Kordestan: 6 exs., Sanandaj–Divandarreh road, 33 km S Divandarreh, 35°40'N, 47°07'E, 2090 m, 6.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

According to a recent revision, the distribution of this widespread species ranges from southern Italy in the west to Middle Asia (ASSING 2009i). For additional records from Iran see ASSING (2007a, 2009i).

Ochthephilum besucheti (Bordoni, 1980)

Material examined

Iran: Azarbayjan-e Gharbi: 3 exs., N Takab, 8 km E Takht-e-Soleyman, 36°36'N, 47°18'E, 2210 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., N Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., N Takab, 16 km E Takht-e-Soleyman, 36°36'N, 47°21'E, 2270 m, 7.IX.2008, leg. FRISCH & SERRI (cAss); 3 exs. [1 teneral], pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., 20 km W Salmas, 10 km W Kuzeh Rash, 38°11'N, 44°31'E, 2100 m, 31.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Kordestan:** 1 ♀, pass 10 km NE Baneh, 36°04'N, 45°59'E, 1920 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ♀, pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Zanjan:** 1 ♀ [teneral], 15 km SE Zanjan,

18 km NE Bonab, 36°42'N, 48°45'E, 2050 m, 25.VIII.2008, leg. FRISCH & SERRI (MNHUB).

Comment

The distribution of *O. besucheti* ranges from northern Anatolia to northern Iran, from where it was previously recorded only once. For a map and additional records see ASSING (2009i).

Homaeotarsus iranoturcestanicus (Scheerpeltz, 1956)

Material examined

Iran: Golestan: 1 ex., 5 km W Sari Qamish, 37°52'N, 55°45'E, 155 m, river valley, at light, 27.V.2006, leg. HÁJEK & CHVOJKA (NMP).

Comment

The distribution of this species is confined to Middle Asia, including northern Iran and Afghanistan (COIFFAIT 1984, JARRIGE 1971, SMETANA 2004).

3.6 Staphylininae: Xantholinini

Leptacinus batychrus (Gyllenhal, 1827)

Material examined

Iran: Azarbayjan-e Gharbi: 2 exs., NW Piranshahr, 7 km road to Hashkan, 36°48'N, 45°05'E, 1600 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., road Khoy–Qotur, 2 km W Qotur, 38°29'N, 44°29'E, 1950 m, 29.VIII.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., Khoy–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (cAss). – **Kordestan:** 1 ex., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. FRISCH & SERRI (cAss). – **Razavi Khorasan:** 1 ex., road Quchan–Bajgir, 14 km NW Imam Qoli, 37°26'N, 58°30'E, 1640 m, 31.V.2006, leg. FRISCH & SERRI (MNHUB). – **Fars:** 1 ex., road Semirom–Abadeh, 22 km NE Khosrow-Shirin, 30°59'N, 52°07'E, 2480 m, 13.V.2007, leg. FRISCH & SERRI (cAss). – **Kerman:** 2 exs., 3 km E pass Mahan-Sirch, 30°12'N, 57°26'E, 2430 m, 26.IV.2007, leg. FRISCH & SERRI (MNHUB); 1 ex., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°28'N, 56°43'E, 2750 m, 6.V.2007, leg. FRISCH & SERRI (MNHUB); 1 ex., 30 km E Rabor, 2 km to Bagkoyeh, 29°19'N, 57°10'E, 2660 m, 5.V.2007, leg. FRISCH & SERRI (MNHUB).

Comment

According to HERMAN (2001) and SMETANA (2004), *L. batychrus* has a cosmopolitan distribution and was previously known also from Iran.

Leptacinus othioides Baudi di Selve, 1870

Material examined

Iran: Azarbayjan-e Gharbi: 2 exs., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., N Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 1 ex., pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (cAss); 7 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This species is widespread in the Western Palaearctic region, its previously known distribution extending eastwards to the Middle East (HERMAN 2001, SMETANA 2004). The above specimens represent the first records from Iran.

Leptacinus mirus n. sp.

(Figs. 46–57)

Type material

Holotype ♂: “Iran, Prov. Mazandaran [IR08-18], Chalus County, Elburz Mts., N-Slope, N Keldardasht, small stream, Fagus forest, 1245 m, 36°35'64.9"N, 51°09'55.4"E [recte: 36°35.649'N, 51°09.554'E], 03.VI.2008, leg. A. PÜTZ / Holotypus ♂ *Leptacinus mirus* sp. n. det. V. ASSING 2009” (cPüt).

Paratypes: 1 ex.: same data as holotype (cAss); 1 ex.: “Iran, Prov. Mazandaran [IR08-12], Nur County, Elburz Mts., S-Slope, 3 km E Baladeh, 36°14'24.9"N, 51°50'58.0"E [recte: 36°14.249'N, 51°50.580'E], 2034 m, stream, sifted, 01.VI.2008, leg. A. PÜTZ” (cPüt); 3 exs.: “Iran, Prov. Mazandaran [IR08-22], Tonekabon County, Elburz Mts., N-Slope, 4.5 km SW Khanian, Sehezar forest, leaves debris, sifted, small stream, 942 m, 05.VI.2008, 36°32'61.7"N, 50°49'89.2"E [recte: 36°32.617'N, 50°49.892'E], leg. A. PÜTZ” (cPüt, cAss); 2 exs.: “Iran, Prov. Gilan [IR08-27], Rasht County, Elburz Mts., N-Slope, 29 km S Rasht, sifted, 37°00'49.4"N, 49°36'30.9"E [recte: 37°00.494'N, 49°36.309'E], 140 m, 07.VI.2008, leg. A. PÜTZ” (cPüt); 1 ex.: “Iran, Prov. Gilan [IR08-28], Fuman County, Tales Mts., N-Slope, below Masuleh, sifted, small stream, pools, 688 m, 37°09'69.0"N, 49°01'60.8"E [recte: 37°09.69'N, 49°01.608'E], 8.VI.2008, leg. A. PÜTZ” (cAss).

Etymology

The specific epithet (Latin, adjective: extraordinary) refers to the remarkably distinctive morphology of the aedeagus.

Description

Habitus as in Fig. 46. Body length 4.5–6.5 mm.

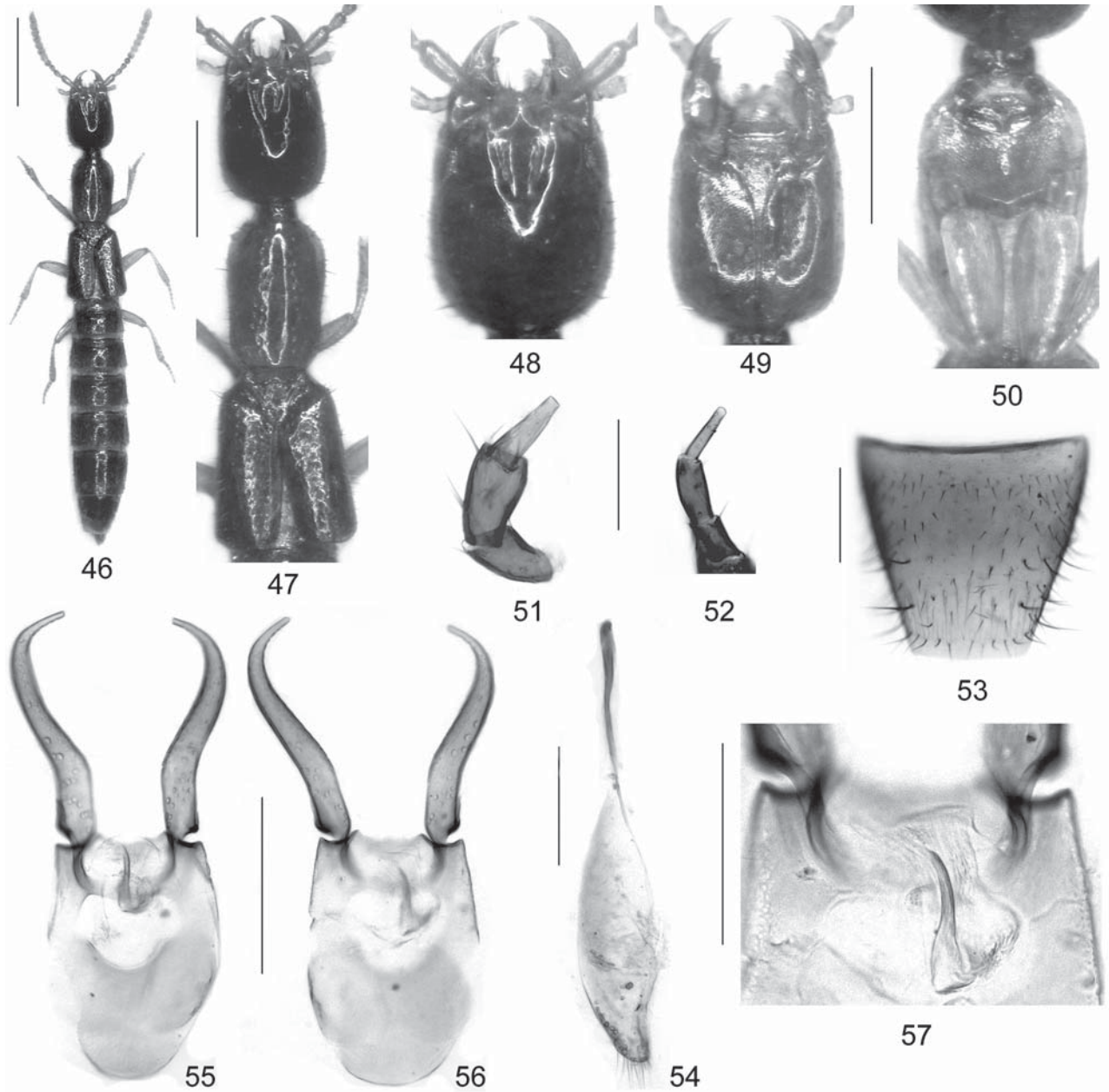
Coloration: body reddish-brown with black head, occasionally pronotum bright reddish and elytra yellowish; legs yellowish-red; antennae reddish.

Head (Fig. 48) of somewhat variable shape, distinctly oblong, 1.2–1.3 times as long as wide, dilated posteriad or with subparallel lateral margins; punctation distinct and

sparse, with interstices on average much wider than diameter of punctures, but density subject to considerable variation; interstices without microsculpture and glossy; ventral aspect as in Fig. 49; eyes approximately $\frac{1}{3}$ the length of postocular region in dorsal view. Antenna moderately incrassate apically; antennomere III approximately as long as wide; IV distinctly transverse; X approximately 1.5 times as wide as long. Maxillary and labial palpi as in Figs. 51–52.

Pronotum approximately 0.9 times as wide as head and 1.6–1.7 times as long as wide; dorsal series somewhat irregular, composed of numerous (15–20) densely set coarse punctures; surface without microsculpture (Fig. 47); ventral aspect as in Fig. 50.

Elytra at suture approximately 0.75 times as long as pronotum; punctuation variable, usually rather sparse and shallow, much shallower than that of pronotum (Fig. 47). Hind wings present.



Figs. 46–57. *Leptacinus mirus* n. sp. – 46. Habitus. 47. Forebody. 48. Head in dorsal view. 49. Head in ventral view. 50. Prosternum. 51. Maxillary palpus. 52. Labial palpus. 53. Male sternite VIII. 54. Male sternite IX. 55, 56. Aedeagus. 57. Internal structure of aedeagus. – Scale bars: 1.0 mm (46), 0.5 mm (47–50), 0.2 mm (53, 55, 56), 0.1 mm (51, 52, 54, 57).

Abdomen with fine and sparse punctation and with distinct transverse microsculpture; posterior margin of tergite VIII with narrow (reduced?) palisade fringe.

♂: tergite VIII unmodified, with weakly convex posterior margin (Fig. 53); sternite IX as in Fig. 54; aedeagus highly distinctive and of conspicuous morphology: median lobe small, of suboval shape, and with weakly sclerotised internal spine; parameres remarkably long, stout, and apically strongly bent (Figs. 55–57).

Comparative notes

The genus *Leptacinus* Erichson, 1839 is represented in the Western Palaearctic region by 17 species, some of them of doubtful status. The new species is distinguished from all of them particularly by the conspicuous morphology of the aedeagus, above all by the much longer and stouter parameres; it is separated from most of them also by the more numerous and densely set dorsal punctures of the pronotum, as well as by the usually distinctly bicoloured body. The morphology of the aedeagus is, in fact, so different from that of other Palaearctic *Leptacinus* species, somewhat resembling that of the genus *Erymus* Bordoni, 2002, that *L. mirus* was first believed to represent a distinct genus. However, since no additional differences in the mouthparts (Figs. 51–52), the ventral aspect of the body (Figs. 49–50), etc. were found and, above all, since the occurrence of a distinct monotypical genus in northern Iran would seem somewhat unlikely, the new species is attributed to *Leptacinus*.

Distribution and bionomics

The species was discovered in several localities in the Elburz and southern Tales mountains. The type specimens were collected by sifting leaf litter, mostly near streams, at a wide range of altitudes (140–2030 m).

Gyrophynus angustatus Stephens, 1833

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., 20 km W Salmas, 10 km W Kuzeh Rash, 38°11'N, 44°31'E, 2100 m, 31.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 1 ex., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 6 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Mazandaran:** 1 ex., Amol county, 10 km S Amol, 36°23'N, 52°21'E, 2040 m, leaf litter, sifted, 2.VI.2008, leg. PÜTZ (cPüt); 1 ex., Nur county, W Baladeh, 36°15'N, 51°27'E, 2950 m, sifted, 1.VI.2008, leg. PÜTZ (cPüt); 1 ex., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt). – **Tehran:** 1 ex., Damavand–Firuzkuh road, 30 km SW Firuzkuh, 35°41'N, 52°28'E, 2010 m, 21.V.2006, leg. FRISCH & SERRI (cAss). – **Semnan:** 2 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH &

SERRI (MNHUB, cAss). – **Razavi Khorasan:** 5 exs., SW Shandiz, Zoshg, 36°17'N, 59°07'E, 2150 m, 27.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This widespread Western Palaearctic species was only recently reported from Iran for the first time (ASSING 2007b).

Gyrophynus fracticornis (Müller, 1776)

Material examined

Iran: Kohgiluyeh & Boyerahmad: 1 ex., 15 km W Yasuj, 30°42'N, 51°41'E, 2450 m, 9.VII.2004, leg. ZIEGLER et al. (HMIM).

Comment

Gyrophynus fracticornis is widespread in the Palaearctic region and adventive also in the Neotropical, Nearctic, and Australian regions (ASSING 2003b, HERMAN 2001, SMETANA 2004).

Gyrophynus punctulatus (Paykull, 1789)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB).

Comment

According to HERMAN (2001) and SMETANA (2004), this widespread Western Palaearctic species was previously known also from Iran.

Gauropterus fulgidus (Fabricius, 1787)

Material examined

Iran: Golestan: 2 exs., Tang Rah, Golestan National Park, 37°24'N, 55°47'E, 490 m, 4.VI.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Razavi Khorasan:** 2 exs., 20 km NW Torbat-e Heydariyeh, Senobar, 35°26'N, 49°06'E, 1730 m, 28.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Quchan–Bajgiran road, 6 km E Emam Qoli, Inche, 37°22'N, 58°34'E, 1750 m, 30.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Emam Qoli–Kapkan road, 17 km E Emam Qoli, Aghmazar, 37°19'N, 58°41'E, 1850 m, 31.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., 27 km SW Chanaran, Abghad, 36°31'N, 59°04'E, 1380 m, 29.V.2006, leg. FRISCH & SERRI (cAss); 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., SW Shandiz, Zoshg, 36°20'N, 59°11'E, 1750 m, 27.V.2006, leg. FRISCH & SERRI (cAss). – **Esfahan:** 1 ex., 10 km E Zefreh, 32°56'N, 52°22'E, 2490 m, 16.V.2007, leg. FRISCH & SERRI (MNHUB). – **Yasd:** 1 ex., 10 km NW Nir, Sakhvid, 31°31'N, 54°03'E, 2550 m, 14.V.2007, leg. FRISCH & SERRI (cAss). – **Kerman:** 7 exs., 3 km E pass Mahan–Sirch, 30°12'N, 57°26'E, 2430 m, 26.IV.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

Gauropterus fulgidus is apparently rather common in Iran; for additional records see ASSING (2007b).

Gauropterus sanguinipennis (Kolenati, 1846)

Material examined

Iran: Azarbaijan-e Sharqi: 1 ex., 10 km N Kaleybar, Sharqi, 17.–18.V.2007, leg. ANISTSCHENKO (cSha). – **Azarbaijan-e Gharbi:** 5 exs., Khoi–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., N Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., 25 km N Oshnaviyeh, Sangar, 37°13'N, 45°07'E, 1650 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., NW Piranshahr, 7 km road to Hashkan, 36°48'N, 45°05'E, 1600 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Kordestan:** 3 exs., pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 5 exs., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Mazandaran:** 2 exs., Shahmirzad-Astaneh, 60 km NE Shahmirzad, Golim, 36°00'N, 53°29'E, 1880 m, 23.V.2006, leg. FRISCH & SERRI (MNHUB); 2 exs., Nur county, E Baladeh, 36°11'N, 52°04'E, 1580 m, 2.VI.2008, leg. PÜTZ (cPüt, cAss). – **Tehran:** 9 exs., Damavand–Firuzkuh road, 30 km SW Firuzkuh, 35°41'N, 52°28'E, 2010 m, 21.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **North Khorasan:** 3 exs., Shirvan–Esfarayen road, Sarchesmeh, 37°08'N, 57°46'E, 1730 m, 2.VI.2006, leg. FRISCH & SERRI (MNHUB); 5 exs., Shirvan–Quchan road, 24 km SSW Faruj, Garmab, 37°03'N, 58°07'E, 1710 m, 1.VI.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Semnan:** 2 exs., Shahrud–Mojen road, 5 km SE Tash, 36°31'N, 54°42'E, 2040 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., E Formumand, Aliabad, 36°30'N, 56°54'E, 1650 m, 25.V.2006, leg. FRISCH & SERRI (MNHUB). – **Razavi Khorasan:** 6 exs., Quchan–Bajgiran road, 6 km E Emam Qoli, Inche, 37°22'N, 58°34'E, 1750 m, 30.V.2006, leg. FRISCH & SERRI (MNHUB, cAss); 14 exs., road Quchan–Bajgiran, 14 km NW Emam Qoli, 37°26'N, 58°30'E, 1640 m, 31.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Chaharmahal & Bakhtiari:** 8 exs., road Meymand–Semrom, NE Meymand, 31°14'N, 51°18'E, 1840 m, 10.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Esfahan:** 1 ex., 10 km E Zefreh, 32°56'N, 52°22'E, 2490 m, 16.V.2007, leg. FRISCH & SERRI (MNHUB); 2 exs., 15 km E Zefreh, 32°55'N, 52°23'E, 2660 m, 16.V.2007, leg. FRISCH & SERRI (MNHUB); 9 exs., road Meymeh–Qamsar, pass 3 km W Qohrud, 33°39'N, 51°24'E, 2480 m, 17.V.2007, leg. FRISCH & SERRI (HMIM, MNHUB, cAss); 1 ex., road Semrom–Shahreza, Koruyeh, 31°42'N, 51°46'E, 2350 m, 12.V.2007, leg. FRISCH & SERRI (MNHUB); 4 exs., 15 km NNE Semrom, 31°32'N, 51°37'E, 2650 m, 12.V.2007, leg. FRISCH & SERRI (HMIM, cAss). – **Yasd:** 5 exs., road Taft–Nir, SE Sanich, 31°36'N, 54°00'E, 2480 m, 14.V.2007, leg. FRISCH & SERRI (MNHUB). – **Fars:** 1 ex., SE Sepidan, pass Sarbast–Dalkhon, 30°16'N, 52°04'E, 2290 m, 9.V.2007, leg. FRISCH & SERRI (cAss).

Comment

Like *G. fulgidus*, this species is common in Iran. For additional records see ASSING (2007b) and JARRIGE (1971).

Gauropterus bucharicus Bernhauer, 1905

Material examined

Iran: Azarbaijan-e Gharbi: 4 exs., Khoi–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., N Takab, 16 km E Takht-e-Soleyman, 36°36'N, 47°21'E, 2270 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB). – **North Khorasan:** 1 ex., Shirvan–Quchan road, 24 km SSW Faruj, Garmab, 37°03'N, 58°07'E, 1710 m, 1.VI.2006, leg. FRISCH & SERRI (cAss). – **Lorestan:** 2 exs., 55 km N Andimeshk, Sar-Takht, 3.–4.V.2007, leg. ANISTSCHENKO (cAss, cSha). – **Razavi Khorasan:** 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., SW Shandiz, Zoshg, 36°20'N, 59°11'E, 1750 m, 27.V.2006, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 1 ex., Khabr, 28°49'N, 56°20'E, 2060 m, 21.IV.2006, leg. FRISCH & SERRI (MNHUB); 2 exs., 100 km E Hajiabad, 4 km W Sorkhan, 28°20'N, 56°51'E, 1430 m, 20.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Orzu'ijeh–Baft road, 28°50'N, 56°39'E, 2150 m, 21.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., 3 km E pass Mahan–Sirch, 30°12'N, 57°26'E, 2430 m, 26.IV.2007, leg. FRISCH & SERRI (MNHUB). – **Hormozgan:** 2 exs., Tall-e Gerdu, Homag road, 27°51'N, 56°28'E, 1050 m, 19.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Tall-e Gerdu, 27°49'N, 56°25'E, 820 m, 19.IV.2006, leg. FRISCH & SERRI (cAss); 2 exs., 9 km SW Hajiabad, 28°15'N, 55°51'E, 840 m, 22.IV.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The known distribution of *G. bucharicus* is confined to Uzbekistan, Afghanistan, and Iran, from where it was only recently reported for the first time (ASSING 2007b).

Stenistoderus versicolor (Solsky, 1871)

Material examined

Iran: Yasd: 1 ex., 10 km NW Nir, Sakhvid, 31°31'N, 54°03'E, 2550 m, 14.V.2007, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 2 exs., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°30'N, 56°38'E, 2750 m, 3.V.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This species was previously known from Ukraine, the Caucasus region (Georgia, Russia), and Tajikistan (HERMAN 2001, SMETANA 2004). The above specimens represent the first records from Iran.

Xantholinus fortepunctatus Motschulsky, 1860

Material examined

Iran: Semnan: 6 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Razavi Khorasan:** 2 exs., Emam Qoli–Kapkan road, 17 km E Emam Qoli, Aghmazar, 37°19'N, 58°41'E, 1850 m, 31.V.2006, leg. FRISCH & SERRI (MNHUB, cAss); 8 exs., SW Shandiz, Zoshg, 36°20'N, 59°11'E, 1750 m, 27.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

There has been considerable confusion regarding the identity of this species; for a detailed discussion see ASSING (2007b). The above specimens confirm its presence in Iran.

Xantholinus reitteri Coiffait, 1966

Material examined

Iran: Mazandaran: 1 ex., Kalardasht, Rudbarak, 36°27'N, 51°04'E, 1790–1950 m, 26.VII.2005, leg. FRISCH & SERRI (MNHUB); 1 ex., 12 km E Kiyasar, Alikolar, 36°13'N, 53°39'E, 1590 m, 9.VI.2006, leg. FRISCH & SERRI (cAss); 2 exs., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt); 1 ex., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt).

Comment

Xantholinus reitteri has had a history of confusion with *X. fortepunctatus*; its confirmed distribution includes Georgia, Turkey, and Iran, from where it was only recently reported for the first time (ASSING 2007b).

Xantholinus audrasi Coiffait, 1956

Material examined

Iran: Azarbayjan-e Gharbi: 2 exs., N Takab, 11 km E Takht-e-Soleyman, 36°37'N, 47°19'E, 2300 m, 7.IX.2008, leg.

FRISCH & SERRI (MNHUB, cAss); 1 ex., N Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., road Maku–Bazargan, 3 km NW Avajiq, 39°21'N, 44°07'E, 2170 m, 27.VIII.2008, leg. FRISCH & SERRI (MNHUB).

Comment

Xantholinus audrasi has a distribution of the Ponto-Mediterranean type. For additional records from Iran see ASSING (2007b).

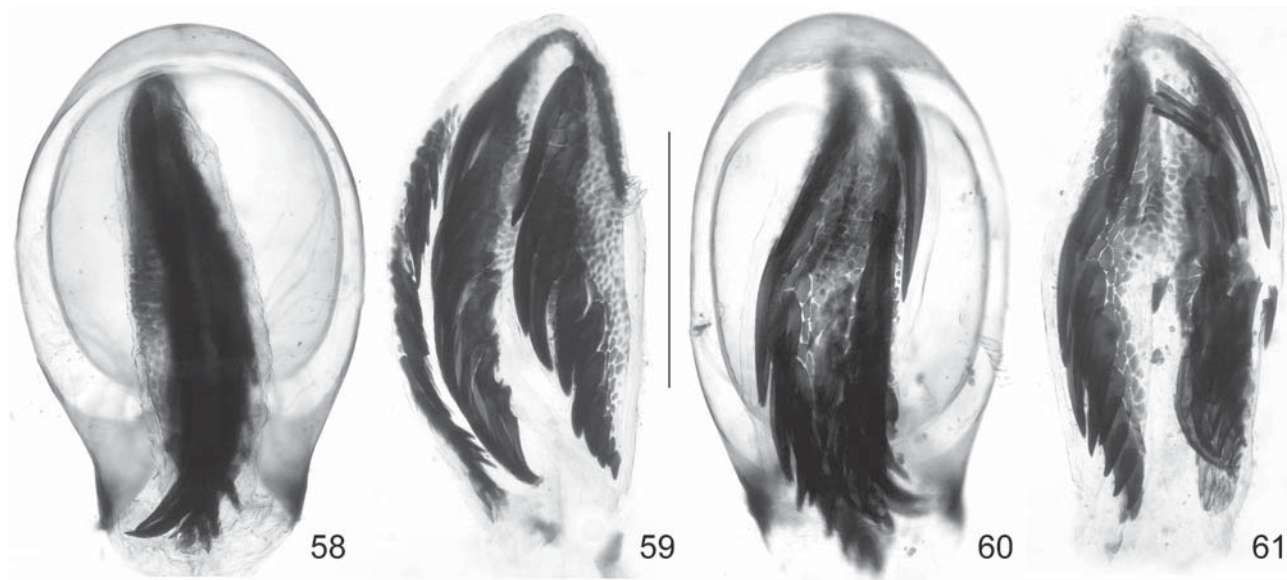
Xantholinus martensi Bordoni, 1983; **revalidated**
(Figs. 58–61)

Material examined

Iran: Mazandaran: 6 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt, cAss); 3 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cAss); 2 exs., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt, cAss).

Comment

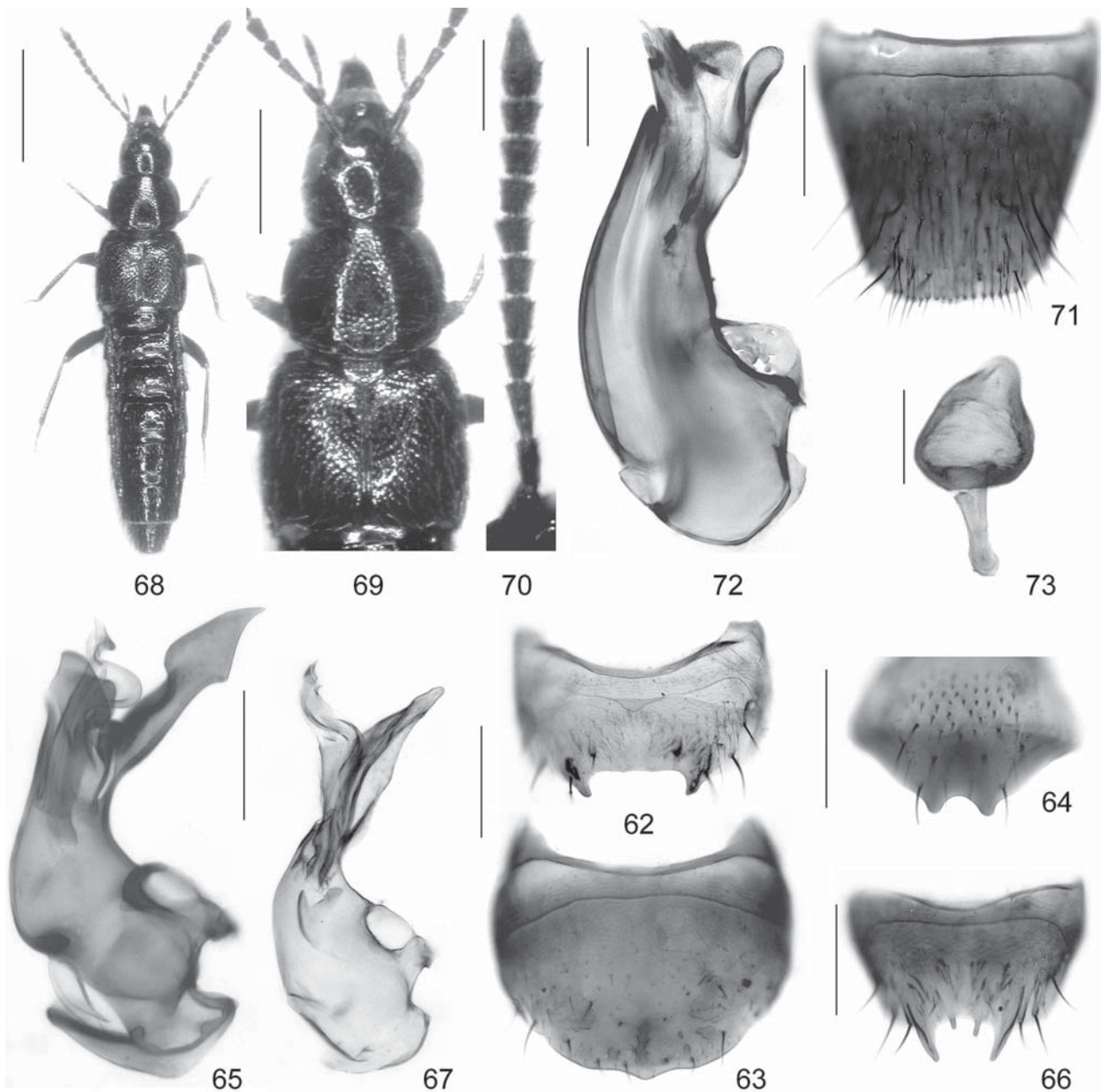
Based on an examination of the type material of *X. martensi* from Mazandaran, the name was placed in synonymy with *X. crassicornis* Hochhuth, 1851 by ASSING (2007b). A comparison of the above material with specimens of *X. crassicornis* from northeastern Anatolia and



Figs. 58–61. *Xantholinus martensi* Bordoni from Iran (58, 59) and Azerbaijan (60, 61). – **58, 60.** Aedeagus in dorsal view. **59.** Aedeagus in lateral view. **61.** Internal structures of aedeagus in squeeze preparation. – Scale bar: 0.5 mm.

Georgia, however, revealed that *X. martensi* is in fact distinct from *X. crassicornis*. True, the aedeagus of both species is characterised by two series of long, massive, and strongly sclerotised spines, but the aedeagus of *X. martensi* is significantly larger and the aedeagal spines are much more massive. Moreover, a re-examination of a male previously recorded as *X. crassicornis* from Azerbaijan revealed

that it, too, apparently refers to *X. martensi*, if it does not represent yet another species. The additional series of short spines, which is clearly visible in the material from Mazandaran, was not found in the aedeagus of the male from Azerbaijan, but in other respects the internal structures are similar. For illustrations of the aedeagi of males from Iran (Mazandaran) and Azerbaijan see Figs. 58–61.



Figs. 62–73. *Gyrophaena korbi* Strand (62–65), *G. strictula* Erichson from Iran (66, 67), and *Pronomaea denigrata* n. sp. (68–73). – 62, 66. Male tergite VIII. 63, 71. Male sternite VIII. 64. Male tergite X. 65, 67, 72. Median lobe of aedeagus in lateral view. 68. Habitus. 69. Forebody. 70. Antenna. 73. Spermatheca. – Scale bars: 1.0 mm (68), 0.2 mm (62, 63, 66, 69–71), 0.1 mm (64, 65, 67, 72), 0.05 mm (73).

3.7 Trichophyinae

Trichophya pilicornis (Gyllenhal, 1810)

Material examined

Iran: Mazandaran: 2 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt, cAss).

Comment

This species is widespread in the Palaearctic region, but was previously unknown from Iran.

3.8 Aleocharinae

Gyrophaena korbi Strand, 1939
(Figs. 62–65)

Material examined

Iran: Gilan: 29 exs., Rasht county, Elburz mts., 29 km S Rasht, 37°01'N, 49°36'E, 140 m, sifted, 7.VI.2008, leg. PÜTZ (cPüt, cAss). – **Mazandaran:** 6 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt); 1 ex., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, 1 km W Afra Chal, 36°14'N, 53°14'E, 520 m, leaf litter sifted, 30.V.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cPüt).

Comment

The original description of *G. korbi* is based on approximately 50 specimens from Lenkoran (STRAND 1939). The similarly derived male secondary sexual characters (modifications of tergite VIII, apically bifid tergite X, shape of sternite VIII), as well as the similar morphology of the aedeagus suggest that this species is the adelphotaxon of *G. joioides* Wüsthoff, 1937. Since the only illustration available in the literature is the rough sketch of the apical portion of the aedeagus in STRAND (1939), the male primary and secondary sexual characters are illustrated in Figs. 62–65.

To my knowledge, *G. korbi* has not been reported again since the original description. The above specimens represent the first records from Iran.

Gyrophaena affinis Mannerheim, 1830

Material examined

Iran: Gilan: 1 ex., Rasht county, Elburz mts., 29 km S Rasht, 37°01'N, 49°36'E, 140 m, sifted, 7.VI.2008, leg. PÜTZ (cPüt). – **Mazandaran:** 1 ex., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.V.2008, leg. PÜTZ (cAss).

Comment

The above specimens represent the first records of this widespread Holarctic species from Iran.

Gyrophaena joi Wendeler, 1924

Material examined

Iran: Gilan: 1 ex., Rasht county, Elburz mts., 29 km S Rasht, 37°01'N, 49°36'E, 140 m, sifted, 7.VI.2008, leg. PÜTZ (cPüt). – **Mazandaran:** 11 exs., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt, cAss); 4 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Sari County, Mohammadabad, 2 km SW Majid, 36°09'N, 53°13'E, 870 m, small stream, 30.V.2008, leg. PÜTZ (cPüt).

Comment

This species is widespread in the Western Palaearctic region, but was previously unknown from Iran (SMETANA 2004).

Gyrophaena strictula Erichson, 1839
(Figs. 66, 67)

Material examined

Iran: Mazandaran: 1 ex., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt).

Comment

This species is widespread in the Western Palaearctic region and has been reported also from West Siberia, but was previously unknown from Iran. The aedeagus of the above male is somewhat smaller and of slightly different shape than that of material seen from Central Europe. Also, the pronotum is slightly smaller and less transverse. However, the specimen is slightly teneral, which would account for these differences. In any case, more material is required to assess if they are constant.

Pronomaea araxicola Reitter, 1898
(Fig. 74)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., road Tabriz–Marand, 4 km S Ivand, 38°18'N, 46°08'E, 1560 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., 18 km SE Qaran Ziya'oddin, 38°51'N, 45°14'E, 960 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The distribution of *P. araxicola* ranges from Cyprus, Georgia, and the Middle East to northwestern Iran (Fig. 74), from where it was recently reported for the first time (ASSING 2007c).

Pronomaea procerula Assing, 2007

(Fig. 74)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., NW Piranshahr, 7 km road to Hashkan, 36°48'N, 45°05'E, 1600 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., 10 km S Ziveh, 37°11'N, 44°53'E, 1810 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., 14 km S Ziveh, 37°01'N, 44°53'E, 2320 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Chaharmahal & Bakhtiari:** 1 ex., Lordegan, Atashgah, 31.28°N, 50.97°E, 1500 m, 5.VII.2004, leg. ZIEGLER et al. (HMIM). – **Fars:** 1 ex., Margoon, 30°32'N, 51°55'E, 2040 m, 19.VII.2004, leg. FRISCH & SERRI (MNHUB).

Comment

This species is currently known only from Iran. The above specimens represent the first records since the original description, which is based on material from Fars and Kohgiluyeh & Boyerahmad provinces (ASSING 2007a). The currently known distribution is illustrated in Fig. 74.

Pronomaea khnzoriani Semenov, 2003

(Fig. 74)

Material examined

Iran: Azarbayjan-e Sharqi: 1 ex., Kharvana, Komar, 38°43'N, 48°00'E, 1320 m, 7.VIII.2005, leg. SERRI & FRISCH

(HMIM). – **Azarbayjan-e Gharbi:** 5 exs., road Maku–Bazargan, 7 km road to Avajiq, 39°21'N, 44°19'E, 1520 m, 27.VIII.2008, leg. FRISCH & SERRI (MNHUB); 11 exs., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., 14 km S Ziveh, 37°01'N, 44°53'E, 2320 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB); 24 exs., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., NW Piranshahr, 7 km road to Hashkan, 36°48'N, 45°05'E, 1600 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., Khoy–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB); 9 exs., Khoy–Siyah Chesmeh road, 21 km W Zar Abad, 38°44'N, 44°28'E, 2350 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., Khoy–Siyah Chesmeh road, 17 km W Zar Abad, 38°46'N, 44°29'E, 2640 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., road Tabriz–Marand, 4 km S Ivand, 38°18'N, 46°08'E, 1560 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 1 ex., Sanandaj–Divandarreh road, 33 km S Divandarreh, 35°40'N, 47°07'E, 2090 m, 6.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., 15 km NW Divandarreh, 5 km NE Ebrahim Abad, 35°59'N, 46°52'E, 1980 m, 4.IX.2008, leg. FRISCH & SERRI (MNHUB); 7 exs., 5 km S Qorveh, Vei haj, 35°07'N, 47°46'E, 2060 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Mazandaran:** 2 exs., Nur county, W Baladeh, 36°14'N, 51°27'E, 3160 m, sifted, 1.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Nur county, W Baladeh, 36°15'N, 51°27'E, 2950 m, stream, sifted, 1.VI.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, 2.2 km NE Bendela, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cPüt). – **Golestan:** 22 exs., Golestan National Park, Tang Rah, 37°24'N, 55°47'E, 490 m, 4.VI.2006, leg.

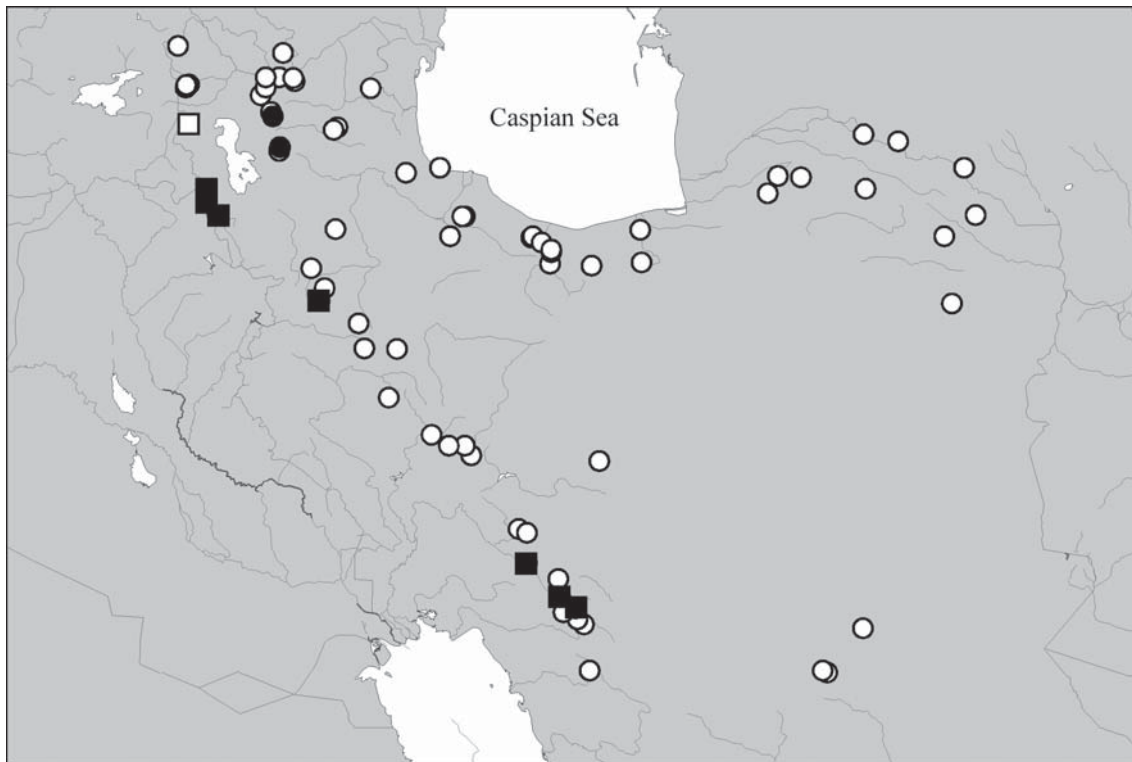


Fig. 74. Distribution of the genus *Pronomaea* in Iran: *P. khnzoriani* Semenov (○), *P. araxicola* Reitter (●), *P. procerula* Assing (■), and *P. denigrata* n. sp. (□).

FRISCH & SERRI (MNHUB, cAss); 1 ex., 28 km SE Minu Dasht, Dozeyn, 37°08'N, 55°35'E, 950 m, 4.VI.2006, leg. FRISCH & SERRI (MNHUB). – **Lorestan**: 1 ex., Aligudarz, Chaghagorg, 33.19°N, 49.50°E, 2400 m, 29.VI.2004, leg. ZIEGLER et al. (HMIM). – **Razavi Khorasan**: 4 exs., 27 km SW Chanaran, SW Frizi, 36°28'N, 58°57'E, 1690 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB); 12 exs., 20 km NW Torbat-e Heydariyeh, Senobar, 35°26'N, 59°06'E, 1730 m, 28.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Chaharmahal & Bakhtiari**: 3 exs., Ardal, Chartagh, 31.84°N, 50.83°E, 2185 m, 5.VII.2004, leg. ZIEGLER et al. (HMIM); 1 ex., Ardal, Chartagh, Sabzkuh, 31.77°N, 50.98°E, 2250 m, 5.VII.2004, leg. ZIEGLER et al. (HMIM). – **Kohgiluyeh & Boyer-Ahmad**: 10 exs., road Yasuj–Sepidan, 20 km S Yasuj, 30.47°N, 51.69°E, 2230 m, 10.VII.2004, leg. ZIEGLER et al. (HMIM). – **Esfahan**: 5 exs., S Semifom, Komeh, 31°01'N, 51°35'E, 2810 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., 10 km E Zefreh, 32°56'N, 52°22'E, 2490 m, 16.V.2007, leg. FRISCH & SERRI (MNHUB). – **Fars**: 1 ex., SE Sepidan, pass Sarbast-Dalkhon, 30°16'N, 52°04'E, 2290 m, 9.V.2007, leg. FRISCH & SERRI (MNHUB); 2 exs., road Sepidan–Komehr, 3 km NW Sepidan, 30°21'N, 51°57'E, 2850 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Kerman**: 2 exs., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°28'N, 56°43'E, 2750 m, 6.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 4 exs., road Bardsir–Baft, Qal'eh Askar, 29°30'N, 56°38'E, 2750 m, 3.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., pass Mahan-Sirch, east side, 30°12'N, 57°24'E, 2870 m, 30.IV.2007, leg. FRISCH & SERRI (MNHUB).

Comment

Pronomaea khnzoriani is apparently the most common species of the genus in Iran (Fig. 74). For additional records and distribution maps showing the total range of the species see ASSING (2007a, c).

Pronomaea denigrata n. sp.

(Figs. 68–74)

Type material

Holotype ♂: “Iran, Azarbaijan-e Gharbi, 20 km W Salmas, 10 km W Kuzeh Rash, 2100 m, N 38°11'17", E 44°31'24", 31.VIII.2008, lg. FRISCH & SERRI / Holotypus ♂ *Pronomaea denigrata* sp. n. det. V. ASSING 2010” (MNHUB).

Paratypes: 1 ♂, 2 ♀♀: same data as holotype (MNHUB, cAss).

Etymology

The specific epithet (Latin, adjective: blackened) refers to the almost uniformly blackish coloration of the species.

Description

Habitus as in Fig. 68. Body length 3.3–4.3 mm.

Coloration: body blackish; legs dark-brown to blackish-brown with reddish tarsi; antennae blackish-brown.

Head with moderately fine and moderately sparse punctation; interstices in lateral dorsal portion approxi-

mately as wide as, in median dorsal portion wider than diameter of punctures; microsculpture absent or indistinct; eyes large, longer than postocular region in dorsal view (Fig. 69). Antenna moderately slender, preapical antennomeres weakly transverse (Fig. 70).

Pronotum 1.20–1.25 times as wide as long and 1.3–1.4 times as wide as head, widest in or slightly before middle; posterior angles obtusely marked; lateral margins in posterior half not distinctly sinuate in dorsal view; punctation somewhat denser and coarser than that of head; microsculpture absent (Fig. 69).

Elytra approximately as long as pronotum; punctation slightly coarser than that of pronotum; interstices without microsculpture (Fig. 69). Hind wings present.

Abdomen slightly narrower than elytra; tergites III–V anteriorly with deep transverse impressions; punctation moderately fine and sparse, anterior half of tergite VI with denser punctation; tergites VI–VII with shallow traces of microsculpture; tergites III–V without, or with very indistinct traces of microsculpture; dorsal surface shiny; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII truncate to indistinctly pointed in the middle.

♂: posterior margin of sternite VIII very weakly convex (Fig. 71); median lobe of aedeagus of distinctive morphology, without projection at base of ventral process in lateral view (Fig. 72).

♀: posterior margin of sternite VIII produced in the middle; spermathecal capsule with very short and thin proximal portion (Fig. 73).

Comparative notes

In general appearance (size, shape, coloration), *P. denigrata* somewhat resembles *P. rostrata* Erichson, 1837. However, based on the morphology of the aedeagus and particularly that of the spermatheca, it is undoubtedly closely allied to *P. anatolica* Fagel, 1969, *P. khnzoriani*, and *P. flavirostris* Semenov, 2003, together with which it would key out at couplets 5–6 in the key in ASSING (2007c). It is distinguished from these species by the almost uniformly black coloration, the more glossy appearance, and above all by the shape of the aedeagus. It is additionally separated from *P. khnzoriani*, the only representative of this species group recorded from Iran, by larger average body size. For illustrations of the sexual characters of the Western Palaearctic *Pronomaea* species see ASSING (2007a, c).

Distribution and bionomics

The type locality is situated in northwestern Iran, very close to the border with Turkey (Fig. 74), at an altitude of 2100 m.

Silusa (Stenus) brevipipes n. sp.

(Figs. 75–80)

Type material

Holotype ♂: “Iran, North Teheran [IR08-32], Shemshak–Dizin road, 7 km E Dizin, small stream, 36°01'84.6"N, 51°28'90.3"E [recte: 36°01.846'N, 51°28.903'E], 2813 m, 10.VI.2008, leg. A. PÜTZ / Holotypus ♂ *Silusa brevipipes* sp. n. det. V. ASSING 2009” (cPüt).

Etymology

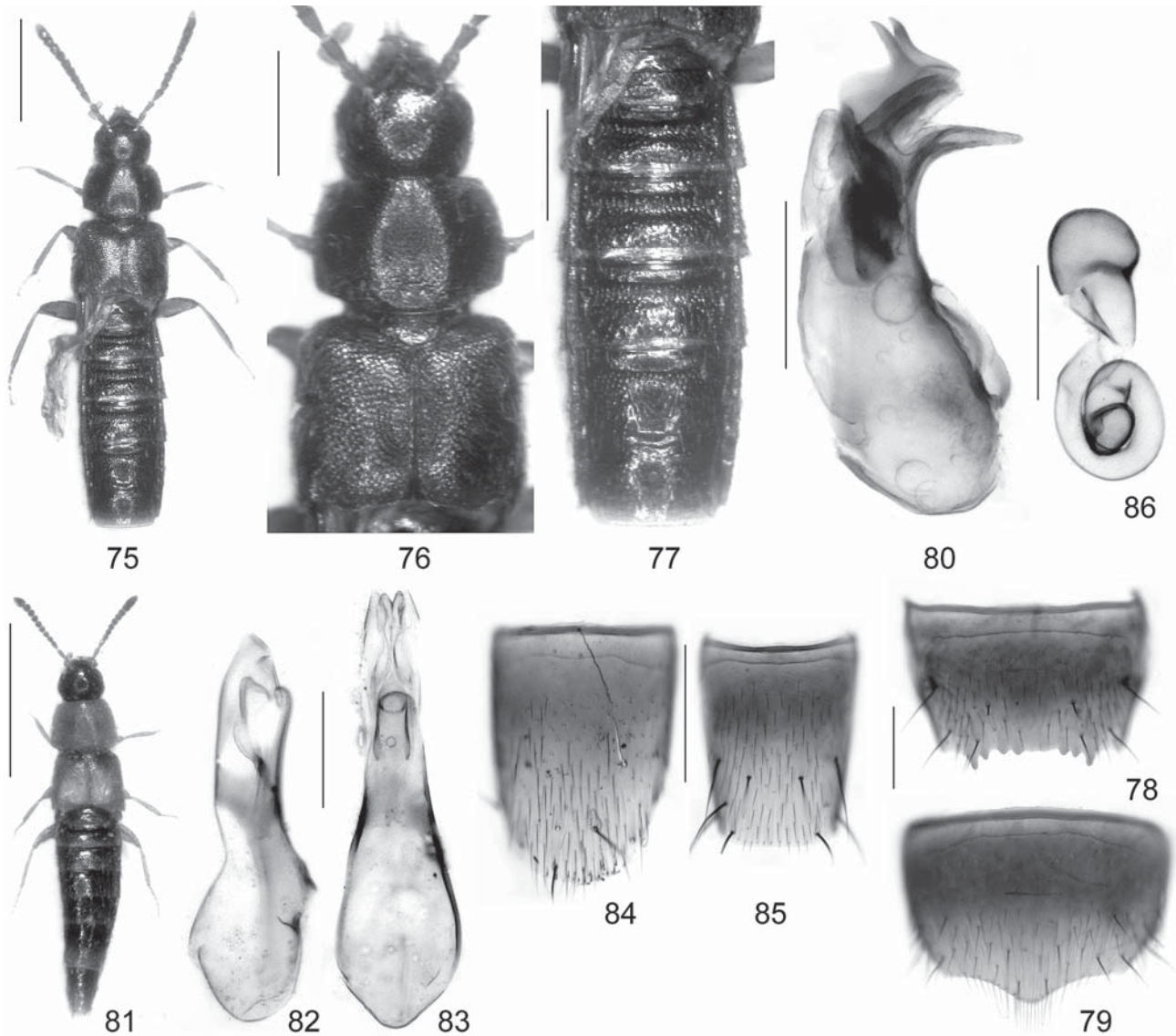
The specific epithet refers to the short tarsi, one of the characters distinguishing this species from similar congeners.

Description

Habitus as in Fig. 75. Body length 4.3 mm.

Coloration: head and abdomen blackish-brown; pronotum and elytra dark-brown with slightly paler margins; legs and antennae reddish.

Head with dense, shallow, and moderately fine punctation; microsculpture distinct, particularly in posterior dorsal area; eyes rather large and distinctly convex, slightly longer than postocular region in dorsal view (Fig. 76). Antenna weakly incrassate apically; antennomere IV approximately as wide as long, X weakly transverse.



Figs. 75–86. *Silusa brevipipes* n. sp. (75–80) and *Acrotone ochricollis* (Scheerpeltz) (81–86). – **75, 81.** Habitus. **76.** Forebody. **77.** Abdomen. **78.** Male tergite VIII. **79, 84.** Male sternite VIII. **80, 82, 83.** Median lobe of aedeagus in lateral and ventral view. **85.** Female tergite VIII. **86.** Spermatheca. – Scale bars: 1.0 mm (75, 81), 0.5 mm (76, 77), 0.2 mm (78–80, 84, 85), 0.1 mm (82, 83, 86).

Pronotum almost 1.4 times as wide as long and 1.4 times as wide as head; posterior angles marked; punctation dense and fine, much finer than that of head, barely noticeable in the pronounced microreticulation (Fig. 76).

Elytra approximately 1.2 times as wide, and at suture approximately 1.1 times as long as pronotum; punctation dense and fine, but much more distinct than that of head and pronotum; interstices glossy (Fig. 76). Hind wings fully developed. Legs relatively short (metatibia 0.53 mm, metatarsus 0.36 mm); metatarsomere I less than twice as long as broad, barely longer than II.

Abdomen approximately 0.9 times as wide as elytra, widest at segment V; tergites III–V with pronounced anterior impressions, these impressions with conspicuously dense and coarse punctation; punctation of remainder of tergal surfaces moderately dense and distinct on anterior tergites and fine and very sparse on posterior tergites; tergites III–V without appreciable microsculpture; tergites VI–VI with very shallow transverse microsculpture; posterior margin of tergite VII with palisade fringe (Fig. 77).

♂: tergite VII without median tubercle; posterior margin of tergite VIII moderately dentate (Fig. 78); sternite VIII shaped as in Fig. 79; median lobe of aedeagus as in Fig. 80, ventral process sharply bent in lateral view.

Comparative notes

Only two species of the subgenus *Stenus* Kraatz, 1856 were known from the Western Palaearctic region: the widespread *S. rubra* Erichson, 1839 and the Caucasian *S. areolata* Reitter, 1888 (northeastern Turkey, western Caucasus region). The new species is distinguished from both of them by the finer punctation of the forebody, particularly of the elytra, shorter legs with shorter tarsi (*S. rubra* and *S. areolata*: metatarsomere I approximately 3 times as long as broad and distinctly longer than II), much more densely punctate anterior impressions of the abdominal tergites III–V, the unmodified male tergite VII, the less strongly dentate posterior margin of the male tergite VIII, and the morphology of the aedeagus (ventral process more sharply bent in lateral view; internal structures of different shape). For illustrations of *S. areolata* see ASSING (2002).

Distribution and bionomics

The type locality is situated in the Elburz mountain range, northern Iran, some 40 km to the north of Tehran. The holotype was sifted from leaf litter near a stream at an altitude of approximately 2800 m.

Autalia longicornis Scheerpeltz, 1947

Material examined

Iran: Mazandaran: 1 ex., Sari county, Mohammadabad, 2.2 km NE Bendela, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cPüt); 1 ex., Ramsar county, Elburz mts.,

Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt); 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cAss).

Comment

The previously known distribution of *A. longicornis* extended eastwards to Turkey, Cyprus, and Syria (ASSING 1997, 2001). The above specimens represent the first records from Iran.

Outachyusa raptorica (Wollaston, 1854)

Material examined

Iran: Lorestan: 1 ex., SE Dorud, Saravand, 33°23'N, 49°10'E, 2000 m, 26.VI.2004, leg. FRISCH (MNHUB); 1 ex., same locality, 2050 m, 27.VI.2004, leg. FRISCH (MNHUB). – **Fars:** 1 ex., Shiraz-Kazerun, 8 km S Qa'emiyeh, Tangeh Chogan, 29°48'N, 51°37'E, 880 m, 8.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., Sarvestan–Estahban road, Runiz, 29°10'N, 53°46'E, 1770 m, 25.IV.2006, leg. FRISCH & SERRI (cAss); 1 ex., road Sepidan–Komehr, 3 km NW Sepidan, 30°21'N, 51°57'E, 2850 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 1 ex., 100 km E Hajiabad, 4 km W Sorkhan, 28°20'N, 56°51'E, 1430 m, 20.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., 30 km E Rabor, 2 km to Bagkoyeh, 29°19'N, 57°10'E, 2660 m, 5.V.2007, leg. FRISCH & SERRI (cAss).

Comment

The distribution of this rather rare species ranges from the Canary Islands to Hong Kong, and it has been reported also from the Afrotropical region (SMETANA 2004). The above specimens are the first records from Iran.

Brachyusa concolor (Erichson, 1839)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., N Takab, 11 km E Takht-e-Soleyman, 36°37'N, 47°19'E, 2300 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB).

Comment

Brachyusa concolor has a trans-Palaearctic distribution, but was previously unknown from Iran (SMETANA 2004).

Thinonoma atra (Gravenhorst, 1806)

Material examined

Iran: Azarbayjan-e Gharbi: 2 exs., road Maku–Bazargan, 6 km NW Avajiq, 39°21'N, 44°05'E, 2390 m, 27.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This species is widespread in the Western Palaearctic region eastwards to Kazakhstan (SMETANA 2004). The above specimens represent the first record from Iran.

Falagrioma thoracica (Stephens, 1832)

Material examined

Iran: Gilan: 2 exs., Fuman county, Masuleh–Khalkhal road, 4 km NW Masuleh, 37°10'N, 48°59'E, 1400 m, leaf litter sifted, 8.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Fuman county, below Masuleh, 37°10'N, 49°02'E, 670 m, sifted, 8.VI.2008, leg. PÜTZ (cAss). – **Mazandaran:** 4 exs., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt, cAss); 2 exs., Chalus county, Elburz mts., 10 km SE Abbasabad, 36°39'N, 51°11'E, 280 m, leaf litter sifted, 4.VI.2008, leg. PÜTZ (cPüt); 5 exs., Babol county, 2 km SW Firuz Jah, 36°11'N, 52°39'E, 840 m, small stream, 31.V.2008, leg. PÜTZ (cPüt, cAss). – **Golestan:** 3 exs., 28 km SE Minu Dasht, Dozeyn, 37°08'N, 55°35'E, 950 m, 4.VI.2006, leg. FRISCH & SERRI (MNHUB); 3 exs., S Gorgan, 12 km S Nahar Khoran, Ziarat, 36°41'N, 54°28'E, 1200 m, 5.VI.2006, leg. FRISCH & SERRI (MNHUB).

Comment

This species is apparently rather common in Iran, from where it was only recently reported for the first time (ASSING 2007a).

Cordalia obscura (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 1 ex., 20 km SW Pol-e Sefid, 2 km NE Allahband, 36°03'N, 52°57'E, 920 m, 8.VI.2006, leg. FRISCH & SERRI (MNHUB); 3 exs., Sari county, Mohammadabad, 1 km W Afra Chal, 36°14'N, 53°14'E, 520 m, leaf litter sifted, 30.V.2008, leg. PÜTZ (cPüt, cAss); 7 exs., Babol county, 2 km SW Firuz Jah, 36°11'N, 52°39'E, 840 m, small stream, 31.V.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Sari county, Mohammadabad, 2.2 km NE Bendela, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cAss); 4 exs., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.V.2008, leg. PÜTZ (cPüt, cAss); 5 exs., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss). – **Tehran:** 1 ex., Ahar, 2220 m, 18.VI.2004, leg. SERRI (HMIM). – **Semnan:** 3 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

Like the preceding species, *C. obscura* is evidently common in Iran, but was only recently reported from there for the first time (ASSING 2007a).

Cordalia fortepunctata Assing, 2006

Material examined

Iran: Mazandaran: 1 ex., Nur county, W Baladeh, 36°14'N, 51°27'E, 3160 m, sifted, 1.VI.2008, leg. PÜTZ (cPüt). – **Esfahan:** 14 exs., S Semirom, Komeh, 31°01'N, 51°35'E, 2810 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Fars:** 3 exs., road Semirom–Abadeh, 22 km NE Khosrow-Shirin, 30°59'N, 52°07'E, 2480 m, 13.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., SE Sepidan, pass Sarbast-Dalkhon, 30°16'N, 52°04'E, 2290 m, 9.V.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The known distribution of *C. fortepunctata* is confined to Turkey and Iran; for a map see ASSING (2007a).

Tropimelytron mirabile (Eppelsheim, 1884)

Material examined

Iran: Mazandaran: 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt); 1 ex., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.V.2008, leg. PÜTZ (cPüt); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°35'E, 1460 m, small stream, 6.VI.2008, leg. PÜTZ (cAss).

Comment

This species had been attributed to the genus *Alevonota* Thomson, 1858, until it was recently moved to *Tropimelytron* Pace, 1983. It was previously known only from Azerbaijan (ASSING & WUNDERLE 2008).

Tropimelytron tuberiventre (Eppelsheim, 1880)

Material examined

Iran: Mazandaran: 4 exs., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.–30.V.2008, leg. PÜTZ (cPüt, cAss); 2 exs., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt); 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt, cAss).

Comment

Tropimelytron tuberiventre is apparently subject to a pronounced eye and wing polymorphism. In some specimens from Iran, the eyes are remarkably large and bulging, distinctly more so than in material seen from elsewhere (Italy, northeastern Turkey, western Caucasus region), and the elytra are broader and longer. However, no differences were observed in the primary and secondary sexual characters. The species has a remarkably discontinuous distribution, which previously included Italy and the Caucasus region (northeastern Anatolia, Georgia, southwestern Russia, and Armenia) (ASSING 2005d). The above specimens represent the first records from Iran.

Aloconota gregaria (Erichson, 1839)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., NW Piranshahr, 7 km road to Hashkan, 36°48'N, 45°05'E, 1600 m, 2.IX.2008, leg. FRISCH & SERRI

(MNHUB). – **Kordestan**: 1 ex., 5 km S Qorveh, Veihaaj, 35°07'N, 47°46'E, 2060 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Golestan**: 3 exs., 28 km SE Minu Dasht, Dozeyn, 37°08'N, 55°35'E, 950 m, 4.VI.2006, leg. FRISCH & SERRI (MNHUB). – **Razavi Khorasan**: 1 ex., Emam Qoli–Kapkan road, 17 km E Emam Qoli, Aghmazar, 37°19'N, 58°41'E, 1850 m, 31.V.2006, leg. FRISCH & SERRI (MNHUB); 2 exs., Quchan–Bajgiran road, 6 km E Emam Qoli, Inche, 37°22'N, 58°34'E, 1750 m, 30.V.2006, leg. FRISCH & SERRI (MNHUB).

Comment

This species is widespread and common in the Western Palaearctic region eastwards to Middle Asia. It is not listed for Iran by SMETANA (2004), but was reported from Ispahan and Fars by JARRIGE (1971). I have seen hundreds of specimens from numerous Iranian localities in material from the collections of the MNHUB; the above specimens represent a small sample found only in the latest shipment of material.

Taxicera deplanata (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 2 exs., Ramsar, road to Jannatrudbar, 36°49'N, 50°39'E, 1050 m, 29.VII.2005, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., Tonekabon, Dohezar, 36°40'N, 50°50'E, 400 m, 27.VII.2005, leg. FRISCH & SERRI (MNHUB).

Comment

The previously known distribution of *T. deplanata*, apparently a ponto-Mediterranean species, extended eastwards to Georgia and Turkey (ASSING 2007f, KAPP 2005). The above specimens represent new country records.

Nehemitropia lividipennis (Mannerheim, 1830)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., road Khoy–Qotur, 2 km W Qotur, 38°29'N, 44°29'E, 1950 m, 29.VIII.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., road Shot–Siyah Chesmeh, pass SW Shot, 39°08'N, 44°38'E, 1760 m, 28.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan**: 1 ex., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (cAss). – **Zanjan**: 1 ex., 15 km SE Zanjan, 18 km NE Bonab, 36°42'N, 48°45'E, 2050 m, 25.VIII.2008, leg. FRISCH & SERRI (MNHUB).

Comment

This common cosmopolitan species was previously reported from Iran only once (BOHÁČ 1981) (as *N. sordida*).

Acrotona obfuscata (Gravenhorst, 1802)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., road Khoy–Qotur, 32 km W Khoy, 38°28'N, 44°29'E, 1540 m, 29.VIII.2008, leg. FRISCH &

SERRI (MNHUB); 1 ex., N Takab, 16 km E Takht-e-Soleyman, 36°36'N, 47°21'E, 2270 m, 7.IX.2008, leg. FRISCH & SERRI (cAss).

Comment

Acrotona obfuscata is widespread, but not common, in the Western Palaearctic region and has been reported also from West Siberia (SMETANA 2004). The above specimens represent the first records from Iran.

Acrotona ochricollis (Scheerpeltz, 1963) (Figs. 81–86)

Material examined

Iran: North Khorasan: 5 exs., road Shirvan–Esfarayen, 31 km NE Esfarayen, Sarchesmeh, 37°08'N, 57°46'E, 1730 m, 2.VI.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The original description of this species is based on three type specimens in poor condition, a male holotype and two female paratypes (SCHEERPELTZ 1963). The types were not examined, but, based on the conspicuous coloration, there is little doubt that the present interpretation is correct. The species is a true *Acrotona* and belongs to the group of species allied to *A. pygmaea* (Gravenhorst, 1802), as is suggested by the oxypodoid body shape, the chaetotaxy (absence of long black setae on the tibiae and on the abdomen), the elongated metatarsomere I, and the morphology of the aedeagus. Note that *Acrotona* sensu SMETANA (2004) is a mixture of various, partly only distantly related lineages.

Redescription

Habitus as in Fig. 81. Body length 2.0–2.7 mm.

Coloration distinctive: head dark-brown to blackish; pronotum bright reddish; elytra yellowish, sometimes weakly infusate anteriorly; abdomen dark-brown, with the posterior margins of segments III–VI, the posterior ½ of segment VII, and the posterior half of segment VIII reddish-yellow; legs yellowish; antennae dark-brown, with the basal 2–3 antennomeres yellowish.

Head transversely wedge-shaped, i.e., distinctly dilated behind eyes; punctation very fine; microsculpture barely noticeable or absent; eyes approximately as long as postocular region in dorsal view. Antenna with antennomere III distinctly oblong and slightly shorter than II; IV approximately as long as broad; V–X of gradually increasing width and increasingly transverse; XI approximately as long as the combined length of IX and X.

Pronotum 1.30–1.35 times as wide as long and 1.35–1.40 times as wide as head, widest in posterior half; posterior angles weakly marked; punctation fine and very dense.

Elytra approximately 0.9 times as long as pronotum; punctation fine and very dense. Hind wings fully devel-

oped. Tibiae with very inconspicuous mid-setae. Metatarsomere I approximately as long as the combined length of II and III.

Abdomen narrower than elytra, widest at base, and distinctly tapering posteriorly; punctation fine and rather dense on anterior tergites, fine and very sparse on posterior tergites; microsculpture indistinct or absent; lateral margins without conspicuous long dark setae.

♂: sternite VIII oblong, its posterior margin convex (Fig. 84); median lobe of aedeagus as in Figs. 82–83.

♀: tergite VIII posteriorly truncate in the middle (Fig. 85); sternite VIII weakly oblong, its posterior margin truncate; spermatheca as in Fig. 86.

Comparative notes

Acrotona ochricollis is distinguished from all its Western Palaearctic congeners by the conspicuous coloration alone. In addition, it is characterised by the primary and secondary sexual characters.

Distribution and bionomics

The species was previously known only from the type locality in Afghanistan: “Grotte Pialéh (Nouristan)” (SCHEERPELTZ 1963). The specimens listed above were collected in North Khorasan province, northeastern Iran, at an altitude of 1730 m.

Atheta longicornis (Gravenhorst, 1802)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., 20 km W Salmas, 10 km W Kuzeh Rash, 38°11'N, 44°31'E, 2100 m, 31.VIII.2008, leg. FRISCH & SERRI (cAss). – **Kordestan:** 1 ex., pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB); 5 exs., 5 km S Qorveh, Veihaj, 35°07'N, 47°46'E, 2060 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Mazandaran:** 1 ex., Kuh-e Damavand, Nandel, 36°01'N, 52°13'E, 1660 m, 25.VII.2005, leg. FRISCH & SERRI (MNHUB).

Comment

This common and widespread species is not listed for Iran by SMETANA (2004), although it was recorded from there (Novshar) by JARRIGE (1971). It was also reported by GHAHARI et al. (2009a), but this record should be considered doubtful; for details see the introduction.

Atheta triangulum (Kraatz, 1856)

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., pass 25 km W Mahabad, 36°45'N, 45°32'E, 2080 m, 2.IX.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., N Takab, 8 km E Takht-e-Soleyman, 36°36'N, 47°18'E, 2210 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Kordestan:** 1 ex., pass 10 km NE Baneh, 36°04'N, 45°59'E, 1920 m, 3.IX.2008, leg. FRISCH & SERRI

(MNHUB). – **Semnan:** 11 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The distribution of *A. triangulum* ranges from the Canary Islands eastwards to Middle Asia, but the species was previously unknown from Iran (SMETANA 2004).

Platyola balcanica (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 1 ex., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt).

Comment

The previously known distribution of this ponto-Mediterranean species extended from Turkey northwestwards to southeastern Central Europe, with a doubtful record also from Kazakhstan (ASSING 2009j). The above specimen represents the first record from Iran.

Zyras haworthi (Stephens, 1832)

Material examined

Iran: Mazandaran: 1 ex., Sari county, Mohammadabad, E Qolqol, 36°10'N, 53°16'E, 920 m, sifted, 30.V.2008, leg. PÜTZ (cPüt).

Comment

According to SMETANA (2004), *Z. haworthi* has been reported from various parts of Europe and North Africa, but was unknown from Iran.

Zyras collaris (Paykull, 1800)

Material examined

Iran: Mazandaran: 1 ex., Chalus county, N Keldardasht, 36°36'N, 51°10'E, 1250 m, beech forest, 3.VI.2008, leg. PÜTZ (cPüt).

Comment

This widespread, but rather rare species was previously known from Europe and North Africa, but had not been recorded from Iran (SMETANA 2004).

Pella lugens (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 1 ex., Sari county, Mohammadabad, 2.2 km NE Bendela, 36°04'N, 53°10'E, 1530 m, beech forest, 30.V.2008, leg. PÜTZ (cPüt).

Comment

The distribution of *P. lugens* includes most of the Western Palaearctic region and Middle Asia (SMETANA 2004). The above specimen represents the first record from Iran.

Drusilla canaliculata (Fabricius, 1787)

Material examined

Iran: Azarbaijan-e Gharbi: 2 exs., 25 km SE Siyah Ches-meh, Kord Kandi, 38°55'N, 44°28'E, 1880 m, 28.VIII.2008, leg. FRISCH & SERRI (MNHUB); 2 exs., road Maku–Bazargan, 3 km NW Avajiq, 39°21'N, 44°07'E, 2170 m, 27.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., road Tabriz–Marand, 4 km S Ivand, 38°18'N, 46°08'E, 1560 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Mazandaran:** 2 exs., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss).

Comment

This widespread and common trans-Palaearctic species was first reported from Iran by ASSING (2005c); for additional records see ASSING (2008a).

Drusilla alutacea Reitter, 1901

Material examined

Iran: Mazandaran: 1 ex., Babol county, 2 km SW Firuz Jah, 36°11'N, 52°39'E, 840 m, small stream, 31.V.2008, leg. PÜTZ (cPüt). – **Razavi Khorasan:** 1 ex., 27 km SW Chanaran, SW Fizi, 36°28'N, 58°57'E, 1690 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB).

Comment

The distribution of *D. alutacea* is confined to Middle Asia. It was only recently reported from Iran (Mazandaran province) for the first time (ASSING 2008a).

Drusilla heydeni (Eppelsheim, 1887)

Material examined

Iran: Razavi Khorasan: 2 exs., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This Middle Asian species was recently reported from Iran (Mazandaran and North Khorasan provinces) for the first time (ASSING 2008a).

Drusilla bulbata Assing, 2008
(Fig. 105)

Material examined

Iran: Mazandaran: 7 exs., Chalus county, 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, small stream, 4.VI.2008, leg. PÜTZ (cPüt, cAss); 4 exs., Chalus county, N Keldardasht, 36°36'N, 51°10'E, 1250 m, beech forest, 3.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Chalus county, Elburz mts., 10 km SE Abbasabad, 36°39'N, 51°11'E, 280 m, leaf litter sifted, 4.VI.2008, leg. PÜTZ (cPüt).

Comment

This recently described species was previously known only from the environs of Alamdeh in Mazandaran province (ASSING 2008a).

Drusilla puetzi n. sp.
(Figs. 87–95, 105)

Type material

H o l o t y p e ♀: “Iran, Prov. Mazandaran [IR08-04A], Sari County, Mohammadabad, Elburz Mts., N-Slope, 1 km W Afra Chal, 36°14'11.9"N, 53°13'61.0"E [recte: 36°14.119'N, 53°13.61'E], 520 m, small stream, leaves sifted, 30.V.2008, leg. A. PÜTZ / Holotypus ♀ *Drusilla puetzi* sp. n. det. V. ASSING 2009” (cAss).

P a r a t y p e ♂: “Iran, Prov. Mazandaran [IR08-01], Sari County, Mohammadabad, Elburz Mts., N-Slope, NE Sangdeh, 1533 m, 36°04'06.6"N, 53°09'57.8"E [recte: 36°04.066'N, 53°09.578'E], *Fagus* forest, leaves debris, sifted, 29.V.2008, leg. A. PÜTZ” (cPüt).

Etymology

The species is dedicated to ANDREAS PÜTZ, who collected excellent material containing numerous new species of Staphylinidae, among them *D. puetzi*, in northern Iran during a field trip of only two weeks.

Description

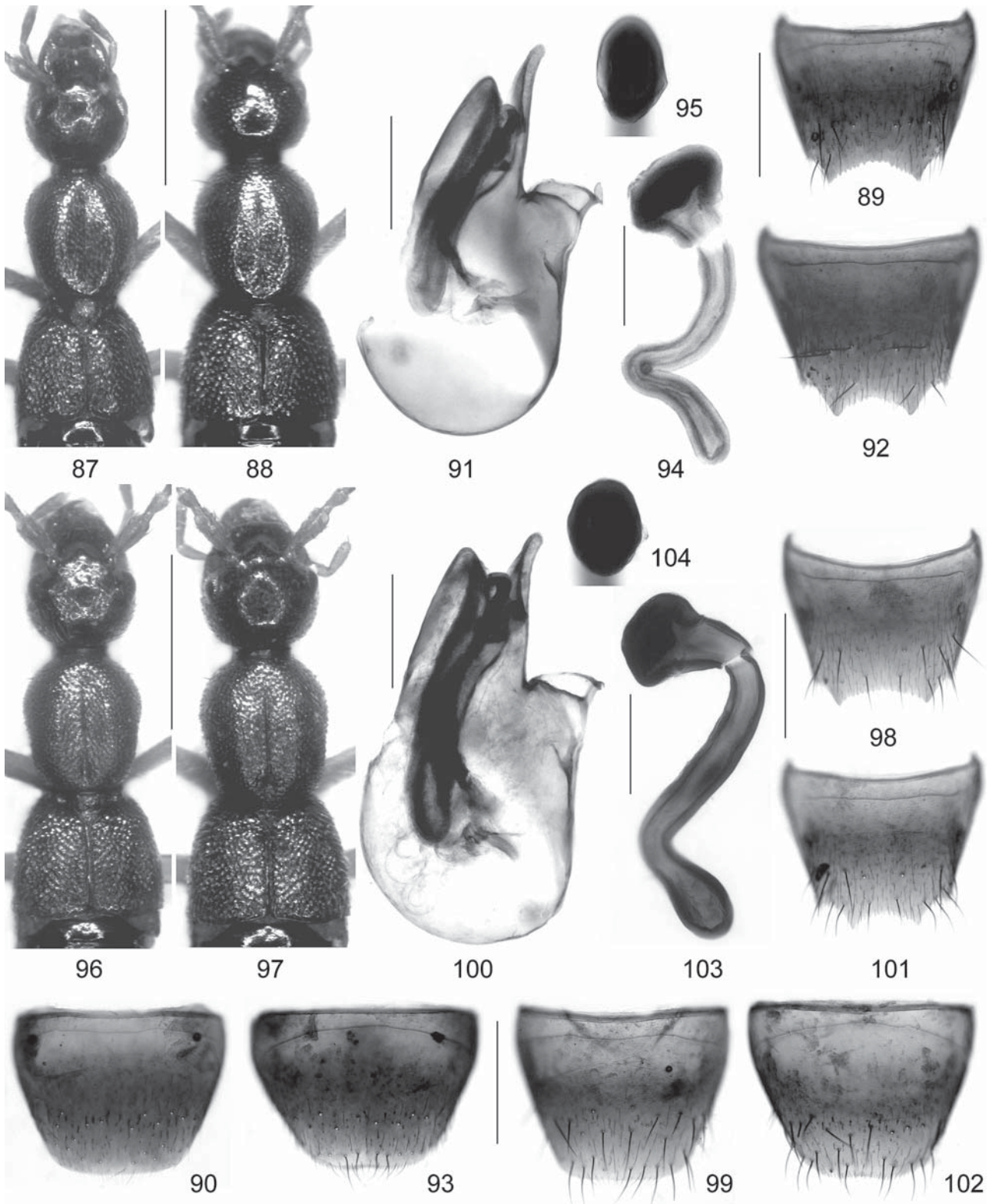
Body length 5.3–5.7 mm.

Coloration: head and abdomen blackish-brown; pronotum and elytra brown; legs dark-yellowish; antennae blackish-brown, with antennomeres I–II and apex of XI reddish.

Head at most with shallow traces of microsculpture, glossy (Figs. 87–88).

Pronotum with the usual sexual dimorphism (Figs. 87–88); punctation dense, moderately coarse, and well-defined; interstices distinctly glossy, without microsculpture.

Elytra approximately 0.65 times as long as pronotum; punctation slightly coarser and denser than that of pronotum; interstices without microsculpture (Figs. 87–88). Hind wings completely reduced.



Figs. 87–104. *Drusilla puetzi* n. sp. (87–95) and *D. subsplendens* n. sp. (96–104). – **87, 96.** Male forebody. **88, 97.** Female forebody. **89, 98.** Male tergite VIII. **90, 99.** Male sternite VIII. **91, 100.** Median lobe of aedeagus in lateral view. **92, 101.** Female tergite VIII. **93, 102.** Female sternite VIII. **94, 103.** Spermatheca. **95, 104.** Distal portion of spermathecal capsule (cross-section). – Scale bars: 1.0 mm (87, 88, 96, 97), 0.5 mm (89, 90, 92, 93, 98, 99, 101, 102), 0.2 mm (91, 100), 0.1 mm (94, 95, 103, 104).

Abdomen approximately 1.2 times as wide as elytra, widest at segment V; punctation of tergites III–V defined, sparse, and with interspersed micropunctation; tergites VI–VII with scattered macro- and interspersed micropunctation; surface without, at most with traces of very shallow microsculpture and very glossy; posterior margin of tergite VII with or without fine rudiment of a palisade fringe; tergite VIII with the usual sexual dimorphism.

♂: pronotum with deep and broad median impression (Fig. 87); tergite VIII and sternite VIII as in Figs. 89–90; median lobe of aedeagus as in Fig. 91.

♀: pronotum shallowly impressed and with fine median sulcus (Fig. 88); tergite VIII and sternite VIII as in Figs. 92–93; capsule of spermatheca with laterally compressed distal portion and with long and conspicuously slender proximal portion (Figs. 94–95).

Comparative notes

The geographically closest congeners with a similar external morphology are *D. gracilis* (Hochhuth, 1849) from the Talysh mountains in Azerbaijan, *D. persica* Assing, 2005 (Iran: Mazandaran; Fig. 105), and *D. bulbata* Assing, 2008 (Iran: Mazandaran). The new species is readily distinguished from all these species particularly by the shape of the spermathecal capsule (proximal portion laterally compressed; long and slender distal portion). From the Middle Asian *D. ganglbaueri* (Bernhauer, 1906) and *D. heydeni* (Eppelsheim, 1887) it is easily distinguished by the much shorter elytra and the completely reduced hind wings alone. For illustrations of these species see ASSING (2005b, 2005c, 2008a).

Distribution and bionomics

The two localities are situated in the Elburz mountain range, some 50–60 km to the south of Sari, northern Iran (Fig. 105). The type specimens were sifted from leaf litter in a beech forest and near a small stream at altitudes of 520 and approximately 1530 m.

Drusilla subsplendens n. sp. (Figs. 96–105)

Type material

H o l o t y p e ♀: “Iran, Prov. Gilan [IR08-27], Rasht County, Elburz Mts., N-Slope, 29 km S Rasht, sifted, 37°00'49.4"N, 49°36'30.9"E [recte: 37°00.494'N, 49°36.309'E], 140 m, 7.VI.2008, leg. A. PÜTZ / Holotypus ♀ *Drusilla subsplendens* sp. n. det. V. ASSING 2009” (cAss).

Paratypes: 4 ♂♂ [1 teneral]: same data as holotype (cPüt, cAss); 1 ♂: “Iran, Prov. Gilan [IR08-28], Fuman County, Tales Mts., N-Slope, below Masuleh, sifted, small stream, pools, 688 m, 37°09'69.0"N, 49°01'60.8"E [recte: 37°09.69'N, 49°01.608'E], 8.VI.2008, leg. A. PÜTZ” (cPüt).

Etymology

The specific epithet (Latin, adjective: slightly glossy) alludes to the weak shine of the body, one of the characters distinguishing this species from similar congeners.

Description

Body length 4.8–6.0 mm.

Coloration: head and abdomen blackish-brown; pronotum and elytra brown; legs dark-yellowish; antennae blackish-brown, with antennomeres I–II, base of III, and apex of XI reddish.

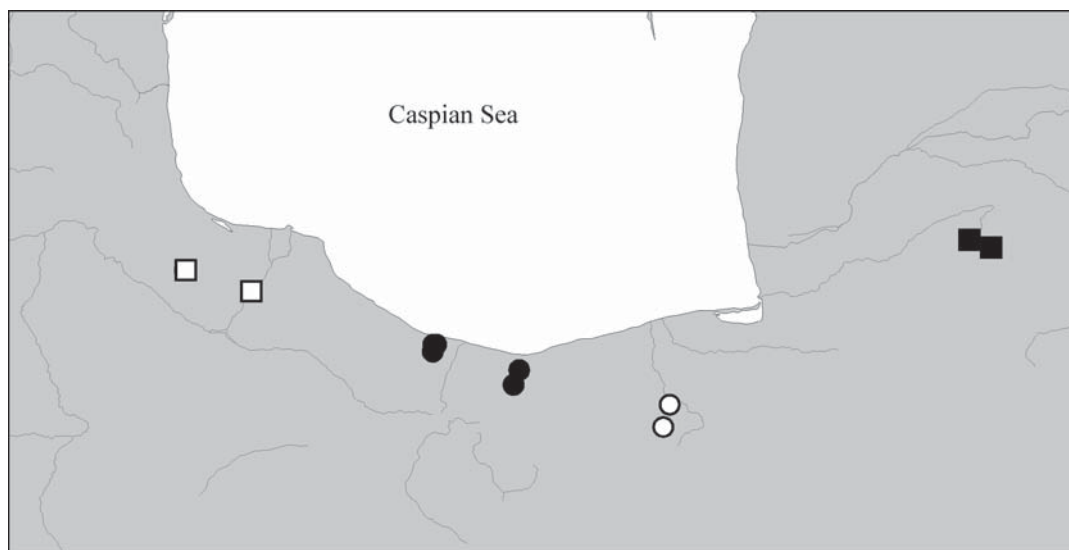


Fig. 105. Distribution of micropterous *Drusilla* species in Iran: *D. subsplendens* n. sp. (□), *D. bulbata* Assing (●), *D. puetzi* n. sp. (○), and *D. persica* Assing (■).

Head with distinct microsculpture, but somewhat glossy (Figs. 96–97).

Pronotum with the usual sexual dimorphism (Figs. 96–97); punctation dense, rather coarse, somewhat granulose, and moderately defined; interstices with distinct microsculpture and subdued shine, particularly in posterior $\frac{3}{4}$.

Elytra approximately 0.6 times as long as pronotum; punctation coarser and denser than that of pronotum; interstices more shiny than those of pronotum (Figs. 96–97). Hind wings completely reduced.

Abdomen approximately 1.2 times as wide as elytra, widest at segment V; punctation of tergites III–V defined, fine, and moderately sparse, that of tergite VI sparse, and that of tergite VII very sparse; whole surface with distinct transverse microsculpture; posterior margin of tergite VII with or without fine rudiment of a palisade fringe; tergite VIII with the usual sexual dimorphism.

♂: pronotum with deep and broad median impression, in posterior $\frac{3}{4}$ matt or nearly so (Fig. 96); tergite VIII and sternite VIII as in Figs. 98–99; median lobe of aedeagus as in Fig. 100.

♀: pronotum shallowly impressed and with fine median sulcus, in posterior $\frac{3}{4}$ with subdued shine (Fig. 97); tergite VIII and sternite VIII as in Figs. 101–102; distal portion of spermathecal capsule oval in cross-section, proximal portion moderately long and moderately slender (Figs. 103–104).

Comparative notes

From all other geographically close and externally similar congeners from Iran and Azerbaijan (*D. gracilis*, *D. persica*, *D. bulbata*, *D. puetzi*), *D. subsplendens* is distinguished by more pronounced microsculpture of the whole body, especially the less shiny pronotum, and by the shape of the spermathecal capsule. For illustrations of the compared species see ASSING (2005b, 2005c, 2008a) and the figures of *D. puetzi*.

Distribution and bionomics

The two localities are situated in the valley separating the Elburz from the Tales mountain range and the adjacent southern Tales range, northwestern Iran (Fig. 105). The type specimens were sifted from leaf litter at altitudes of 140 and approximately 690 m.

Tetralaucopora longitarsis (Erichson, 1839)

Material examined

Iran: Tehran: 1 ex., Firuzkuh–Semnan, 10 km SE Firuzkuh, Saranza, 35°46'N, 52°52'E, 2060 m, 21.V.2006, leg. FRISCH & SERRI (cAss). – **Chaharmahal & Bakhtiari:** 12 exs., road Meymand–Semrom, NE Meymand, 31°14'N, 51°18'E, 1840 m, 10.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Esfahan:** 1 ex., S Semrom, Komeh, 31°01'N, 51°35'E, 2810 m, 11.V.2007,

leg. FRISCH & SERRI (MNHUB). – **Fars:** 1 ex., road Farrashband–Firuzabad, Kherghe, 28°55'N, 52°22'E, 1620 m, 13.IV.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Kerman:** 3 exs., Khabr, 28°49'N, 56°20'E, 2060 m, 21.IV.2006, leg. FRISCH & SERRI (MNHUB, cAss); 4 exs., Orzu'ijeh–Baft road, 28°50'N, 56°39'E, 2150 m, 21.IV.2006, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., 22 km E Rabor, 29°17'N, 57°06'E, 2330 m, 5.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., 17 km E Rabor, 29°17'N, 57°05'E, 2180 m, 5.V.2007, leg. FRISCH & SERRI (MNHUB).

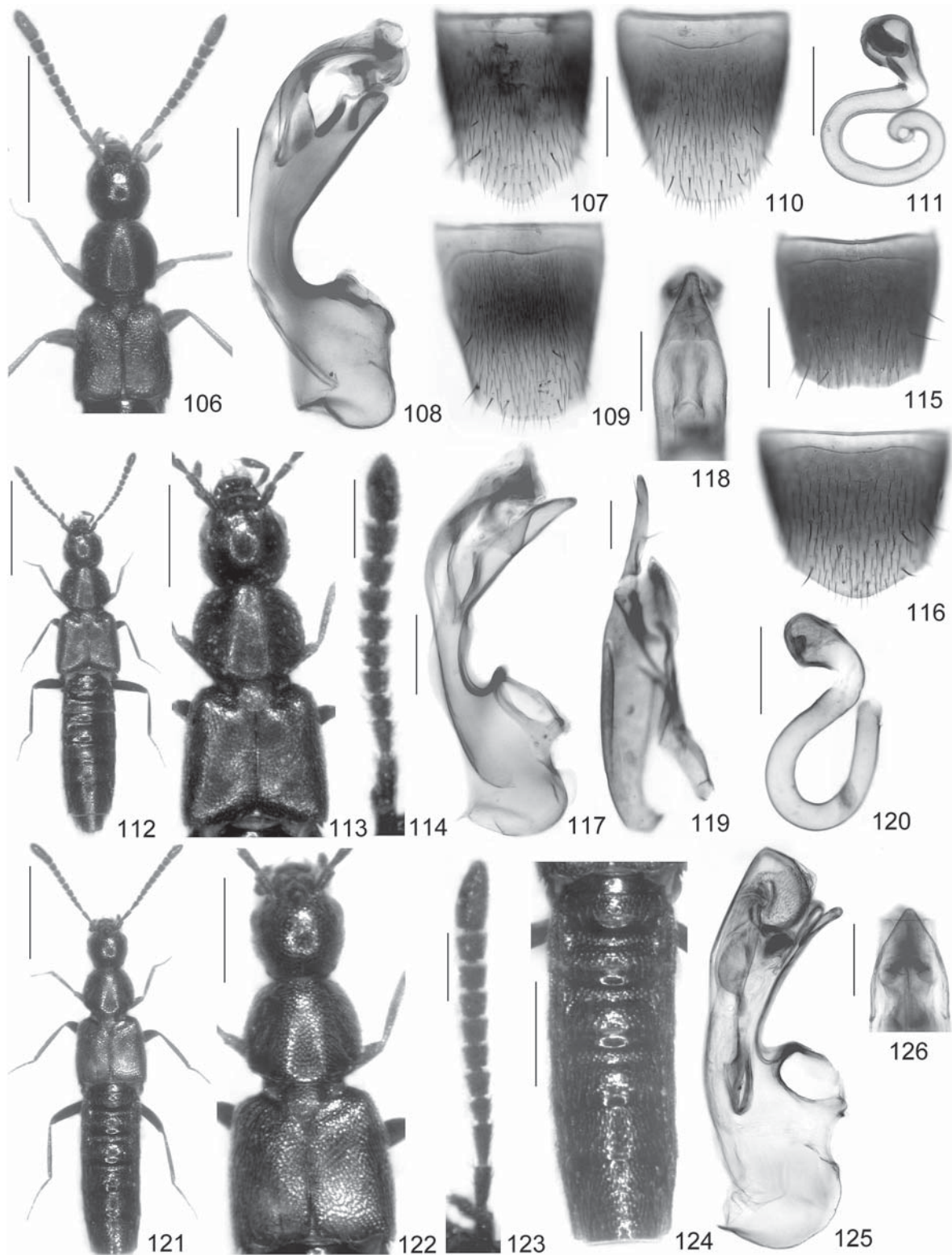
Comment

This widespread species is apparently common in Iran; for additional records and a map see ASSING (2007a).

Tetralaucopora rubicunda (Erichson, 1837)

Material examined

Iran: Azarbayjan-e Gharbi: 10 exs., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., 25 km SE Siyah Chesmeh, Kord Kandi, 38°55'N, 44°28'E, 1880 m, 28.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 5 exs., road Khoy–Qotur, 2 km W Qotur, 38°29'N, 44°29'E, 1950 m, 29.VIII.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., N Takab, 3 km NE Takht-e-Soleyman, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 10 exs., N Takab, 16 km E Takht-e-Soleyman, 36°36'N, 47°21'E, 2270 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., N Takab, 11 km E Takht-e-Soleyman, 36°37'N, 47°19'E, 2300 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 5 exs., N Takab, 8 km E Takht-e-Soleyman, 36°36'N, 47°18'E, 2210 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 3 exs., road Shot–Siyah Chesmeh, pass SW Shot, 39°08'N, 44°38'E, 1760 m, 28.VIII.2008, leg. FRISCH & SERRI (MNHUB); 10 exs., road Shot–Siyah Chesmeh, Qarah Kelisa, 39°06'N, 44°33'E, 1860 m, 28.VIII.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., Khoy–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 12 exs., road Maku–Bazargan, 3 km NW Avajiq, 39°21'N, 44°07'E, 2170 m, 27.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 8 exs., 20 km W Salmas, 10 km W Kuzeh Rash, 38°11'N, 44°31'E, 2100 m, 31.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., 35 km W Salmas, 3 km W Kuzeh Rash, 38°08'N, 44°27'E, 2350 m, 31.VIII.2008, leg. FRISCH & SERRI (MNHUB); 3 exs., 10 km S Ziveh, 37°11'N, 44°53'E, 1810 m, 1.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Zanjan:** 6 exs., 15 km SE Zanjan, 18 km NE Bonab, 36°42'N, 48°45'E, 2050 m, 25.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss). – **Mazandaran:** 1 ex., Kalardasht, Rudbarak, 36°27'N, 51°04'E, 1790–1950 m, 26.VII.2005, leg. FRISCH & SERRI (MNHUB). – **Tehran:** 3 exs., Damavand–Firuzkuh road, 30 km SW Firuzkuh, 35°41'N, 52°28'E, 2010 m, 21.V.2006, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., Firuzkuh–Semnan, 10 km SE Firuzkuh, Saranza, 35°46'N, 52°52'E, 2060 m, 21.V.2006, leg. FRISCH & SERRI (MNHUB). – **North Khorasan:** 2 exs., Shirvan–Quchan road, 24 km SSW Faruj, Garmab, 37°03'N, 58°07'E, 1710 m, 1.VI.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Semnan:** 72 exs., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB, cAss); 7 exs., 17 km N Shahmirzad, 5 km S Chashm, 35°51'N, 53°18'E, 2040 m, 22.V.2004, leg. FRISCH & SERRI (MNHUB, cAss). – **Razavi Khorasan:** 1 ex., 27 km SW Chanaran, SW Frizi, 36°28'N,



Figs. 106–126. *Tetralaucopora syriaca* (Saulcy) (106–111), *Cousya planicollis* n. sp. (112–120), and *C. mirabilis* n. sp. (121–126). – **106, 113, 122.** Forebody. **107, 116.** Male sternite VIII. **108, 117, 125.** Median lobe of aedeagus in lateral view. **109.** Female tergite VIII. **110.** Female sternite VIII. **111, 120.** Spermatheca. **112, 121.** Habitus. **114, 123.** Antenna. **115.** Male tergite VIII. **118, 126.** Ventral process of aedeagus in ventral view. **119.** Paramere. **124.** Abdomen. – Scale bars: 1.0 mm (108, 112, 121), 0.5 mm (113, 122, 124), 0.2 mm (107, 109, 110, 114–116, 123), 0.1 mm (108, 111, 117–120, 125, 126).

58°57'E, 1690 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., 27 km SW Chanaran, Abghad, 36°31'N, 59°04'E, 1380 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB); 2 exs., SW Shandiz, Zoshg, 36°20'N, 59°11'E, 1750 m, 27.V.2006, leg. FRISCH & SERRI (MNHUB, cAss). – **Kerman**: 1 ex., Khabr, 28°49'N, 56°20'E, 2060 m, 21.IV.2006, leg. FRISCH & SERRI (MNHUB).

Comment

Tetralaucopora rubicunda was recently reported from Iran for the first time; for additional records and a map see ASSING (2007a).

Tetralaucopora bicolorata Assing, 2007

Material examined

Iran: Yasd: 1 ex., SW Taft, Dehbala, 31°34'N, 54°07'E, 2770 m, 15.V.2007, leg. FRISCH & SERRI (MNHUB). – **Fars**: 1 ex., SE Sepidan, Dalkhon, 30°15'N, 52°06'E, 2100 m, 9.V.2007, leg. FRISCH & SERRI (MNHUB). – **Kerman**: 1 ex., 100 km E Hajjiabad, 4 km W Sorkhan, 28°20'N, 56°51'E, 1430 m, 20.IV.2006, leg. FRISCH & SERRI (MNHUB); 1 ex., road Bardsir–Baft, 10 km SE Qal'eh Askar, 29°28'N, 56°43'E, 2750 m, 6.V.2007, leg. FRISCH & SERRI (cAss).

Comment

The above specimens are the first records since the original description, which is based on material from several localities in Fars province (ASSING 2007a).

Tetralaucopora syriaca (Saulcy, 1865) (Figs. 106–111)

Material examined

Iran: Azarbayjan-e Gharbi: 3 exs., Khoy–Siyah Chesmeh road, 9 km W Zar Abad, 38°47'N, 44°32'E, 1970 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., Khoy–Siyah Chesmeh road, 21 km W Zar Abad, 38°44'N, 44°28'E, 2350 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB); 5 exs., Khoy–Siyah Chesmeh road, 17 km W Zar Abad, 38°46'N, 44°29'E, 2640 m, 30.VIII.2008, leg. FRISCH & SERRI (MNHUB, cAss).

Redescription

Body length 3.3–4.2 mm.

Coloration: head blackish; pronotum dark-brown to blackish-brown; elytra reddish, in posterior $\frac{2}{3}$ of lateral portion with more or less extensive, ill-delimited blackish spot, vicinity of scutellum often weakly infuscate; abdomen blackish-brown to blackish, with the posterior margins of segments III–VI, and the posterior $\frac{1}{4}$ of segments VII–VIII reddish, segments III–V occasionally brownish; legs reddish; antennae dark-brown, with the basal 2–3 antennomeres reddish.

Head approximately as wide as long; punctation fine and rather dense; microsculpture shallow, barely noticeable; eyes as long as, or slightly longer than postocular

region in dorsal view. Antenna moderately slender, preapical antennomeres weakly transverse; antennomere XI with sexual dimorphism (Fig. 106).

Pronotum approximately as wide as long and 1.15 times as wide as head, widest in anterior half, weakly tapering posteriad (Fig. 106); punctation fine and very dense; microsculpture indistinct.

Elytra approximately as long as pronotum; posterior margins strongly sinuate near postero-lateral angles (Fig. 106); punctation very dense, less fine than that of pronotum. Hind wings fully developed. Metatarsomere I approximately as long as the combined length of II–IV.

Abdomen somewhat narrower than elytra; tergites III–V with pronounced anterior impressions, tergite VI without such impression; punctation extremely fine and dense; microsculpture shallow, but noticeable; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex in both sexes (Fig. 109).

♂: antennomere XI slightly constricted in the middle and approximately as long as the combined length of VIII–X; sternite VIII obtusely pointed (Fig. 107); median lobe of aedeagus as in Fig. 108.

♀: antennomere XI not constricted and approximately as long as the combined length of IX–X; posterior margin of sternite VIII broadly convex (Fig. 110); spermatheca as in Fig. 111.

Comment

The type material of *T. syriaca* was not examined, but the material listed above is in good agreement with the original description, particularly regarding the conspicuous coloration of the elytra.

Distribution and bionomics

Tetralaucopora syriaca was previously known only from the two type localities in Lebanon. The above specimens were collected in two localities in northwestern Iran at altitudes of 1970–2640 m.

Cousya planicollis n. sp. (Figs. 112–120)

Type material

Holotype ♂: “Iran, Esfahan province, S Semirom: Komeh, 2810 m, N31°00'47" E051°35'28", 11.V.2007, leg. FRISCH & SERRI / Holotypus ♂ *Cousya planicollis* sp. n. det. V. ASSING 2008” (MNHUB).

Paratypes [partly slightly teneral]: 8 exs.: same data as holotype (MNHUB, cAss).

Etymology

The name (Latin, adjective) refers to the conspicuously weakly convex pronotum of the species.

Description

Habitus as in Fig. 112. Body length 2.8–3.6 mm.

Coloration: body, including appendages, uniformly blackish.

Head of subcircular shape, approximately as wide as long; punctuation dense and very fine, barely noticeable; integument with shallow microsculpture; eyes almost as long as postocular region in dorsal view (Fig. 113). Antenna rather slender (Fig. 114).

Pronotum approximately 1.15–1.20 times as wide as long and 1.20–1.25 times as wide as head, weakly convex in cross-section; maximal width in, or slightly anterior to middle (Fig. 113); punctuation dense and very fine; interstices with shallow microsculpture; pubescence of midline directed posteriad, that of lateral areas directed more or less transversely laterad.

Elytra approximately 1.30–1.35 times as wide, and at suture approximately 1.05 times as long as pronotum, slightly widened posteriad (Fig. 113); punctuation dense, somewhat coarser than that of head and pronotum; interstices with distinct microsculpture. Hind wings fully developed. Metatarsomere I approximately as long as the combined length of II–IV or nearly so.

Abdomen approximately 0.80–0.85 times as wide as elytra; segments III–VI of subequal width; tergites III–V with moderately deep anterior impressions; tergite VI with very shallow anterior impression; punctuation fine and dense, but less so than that of forebody; microsculpture variable, very shallow to distinct; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII moderately convex, in the middle shallowly concave (Fig. 115).

♂: posterior margin of sternite VIII moderately produced, obtusely angled in the middle, and with fine sparse marginal setae (Fig. 116); median lobe of aedeagus as in Figs. 117–118, at base of ventral process with a pair of carinae; apical lobe of paramere long and slender (Fig. 119).

♀: posterior margin of sternite VIII weakly convex and with dense, dark, stout marginal setae; spermatheca as in Fig. 120.

Comparative notes

In the Palaearctic region, the genus *Cousya* Mulsant & Rey, 1875 is currently represented by approximately 35 species. Most of them have not been revised and their generic affiliations require confirmation. Among the few geographically close congeners with a uniformly blackish body, the new species is characterised particularly by the weakly convex pronotum and the distinctive shape of the median lobe of the aedeagus.

Distribution and bionomics

The type locality is situated in the Zagros range, some 180 km to the south of Esfahan, southwestern Iran. The

type specimens, some of which are slightly teneral, were collected at an altitude of 2810 m.

Cousya mirabilis n. sp.
(Figs. 121–129)

Type material

Holotype ♂: “Iran, Semnan province, Firuzkuh-Semnan: 27 km NW Semnan: Aftar, 1580 m, N35°34'00" E053°08'43", 21.V.2006, lg. FRISCH & SERRI / Holotypus ♂ *Cousya mirabilis* sp. n. det. V. ASSING 2008” (MNHUB).

Etymology

The name (Latin, adjective) refers to the aesthetically remarkable and distinctive appearance of this species.

Description

Habitus as in Fig. 121. Body length 3.8 mm.

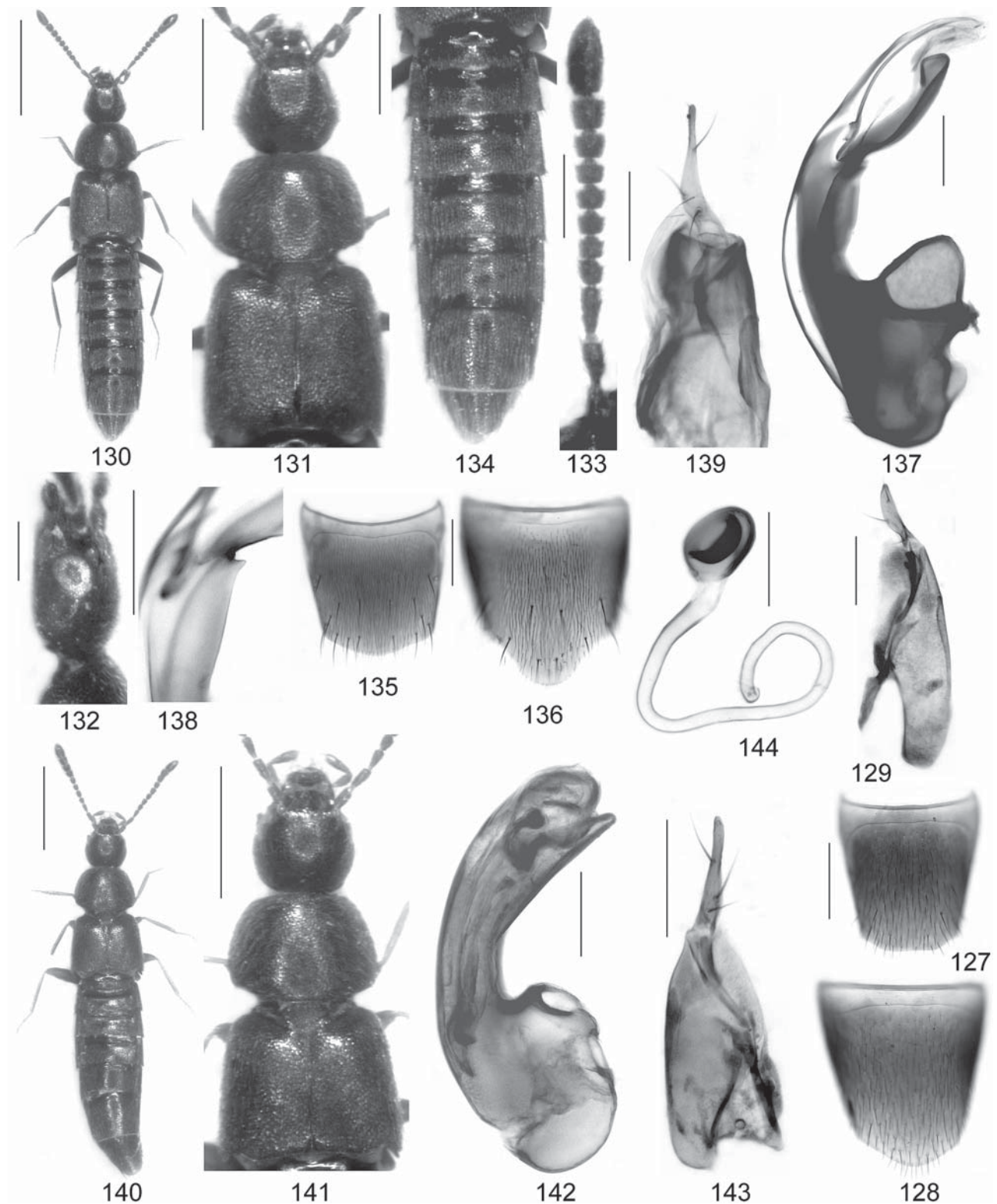
Coloration: head, pronotum, abdomen, and antennae black; elytral disc reddish-yellow, with the lateral and anterior margins extensively blackish; legs blackish-brown, with slightly paler tarsi.

Head weakly oblong, approximately 1.05 times as long as wide; punctuation dense and fine, but distinct and well-defined; interstices on average slightly narrower than diameter of punctures, glossy, without distinct microsculpture; eyes large and convex, slightly longer than postocular region in dorsal view (Fig. 122). Antenna slender (Fig. 123); preapical antennomeres weakly transverse; antennomere XI longer than the combined length of IX and X.

Pronotum 1.25 times as wide as head and weakly transverse, 1.08 times as wide as long, widest approximately in the middle (Fig. 122); punctuation dense, moderately fine, and well-defined, slightly more distinct than that of head; interstices distinctly narrower than diameter of punctures, without apparent microsculpture; pubescence depressed and short, directed posteriad along midline and predominantly diagonally postero-laterad in lateral areas.

Elytra approximately 1.40 times as wide, and at suture approximately 1.05 times as long as pronotum (Fig. 122); punctuation dense, slightly coarser and less defined than that of pronotum; posterior margins distinctly sinuate near posterior angles. Hind wings fully developed. Legs rather long and slender; metatarsus long, approximately 0.9 times as long as metatibia; metatarsomere I elongated, longer than the combined length of the slender metatarsomeres II and III.

Abdomen (Fig. 124) approximately 0.8 times as wide as elytra and conspicuously glossy; segments III–VII of subequal width; tergites III–V with deep anterior impressions, tergite VI without anterior impression; punctuation moderately dense, well-defined, and distinctly coarser than that of forebody; interstices on tergites III–VI without, on tergite VII with barely noticeable microsculpture; posterior margin of tergite VII with palisade fringe.



Figs. 127–144. *Cousya mirabilis* n. sp. (127–129), *Oxyroda cuneiceps* n. sp. (130–139), and *O. longiuter* n. sp. (140–144). – 127, 135. Male tergite VIII. 128, 136. Male sternite VIII. 129, 139, 143. Paramere. 130, 140. Habitus. 131, 141. Forebody. 132. Head in lateral view. 133. Antenna. 134. Abdomen. 137, 142. Median lobe of aedeagus in lateral view. 138. Basal portion of ventral process of median lobe in lateral view. 144. Spermatheca. – Scale bars: 1.0 mm (130, 140), 0.5 mm (131, 134, 141), 0.2 mm (127–129, 132, 133, 135, 136, 139, 143), 0.1 mm (137, 138, 142, 144).

♂: posterior margin of tergite VIII convex, in the middle truncate (Fig. 127); posterior margin of sternite VIII obtusely pointed (Fig. 128); median lobe of aedeagus of distinctive shape and with characteristic internal structures (Figs. 125–126); paramere as in Fig. 129.

♀: unknown.

Comparative notes

Cousya mirabilis is distinguished from its congeners by the coloration, combined with a narrow pronotum, the characteristic punctation, and the glossy appearance, as well as by the distinctive morphology of the aedeagus. Other Western Palaearctic congeners with reddish elytra, e. g., *C. picta* (Mulsant & Rey, 1875), *C. bicolor* (Bernhauer, 1900), and *C. araxis* (Bernhauer, 1902), have a pale-coloured and/or distinctly broader pronotum, and a less defined punctation of the head, pronotum, and abdomen.

Distribution and bionomics

The type locality is situated in the southern outliers of the Elburs range, Semnan province, northern Iran. The holotype was collected at an altitude of 1580 m.

Rhomphocallus bernhaueri (Sainte-Claire Deville, 1907)

Material examined

Iran: Mazandaran: 2 exs., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.–30.V.2008, leg. PÜTZ (cPüt, cAss).

Comment

This species is known only from a few localities in the Palaearctic region; for a distribution map see ASSING (2003a). The above specimens represent the first record from Iran.

Oxypoda (Oxypoda) opaca (Gravenhorst, 1802)

Material examined

Iran: Mazandaran: 4 exs., Sari County, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, leaf litter sifted, 29.–30.V.2008, leg. PÜTZ (cPüt, cAss). – **Semnan:** 1 ex., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (cAss). – **Razavi Khorasan:** 2 exs., 27 km SW Chanaran, SW Frizi, 36°28'N, 58°57'E, 1690 m, 29.V.2006, leg. FRISCH & SERRI (MNHUB).

Comment

This species is widespread and common in the Palaearctic region eastwards to East Siberia and the Russian Far East (SMETANA 2004), and has been reported also from North America (KLIMASZEWSKI et al. 2006). The above specimens represent the first records from Iran.

Oxypoda (Oxypoda) wankai Bernhauer, 1936

Material examined

Iran: Esfahan: 1 ex., 40 km SW Semirom, 31°15'N, 51°24'E, 2080 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 4 exs., 12 km N road Kerman–Kuhpaye, Darbasiab, 30°31'N, 57°10'E, 2490 m, 1.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., 17 km E Rabor, 29°17'N, 57°05'E, 2180 m, 5.V.2007, leg. FRISCH & SERRI (MNHUB); 2 exs., road Baft–Rabor, 10 km N Bezenjan, 29°20'N, 56°39'E, 2510 m, 4.V.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

The known distribution of this species ranges from Greece to Iran. The only previous confirmed record from Iran is from Fars province (ASSING 2007a).

Oxypoda (Oxypoda) longipes Mulsant & Rey, 1861

Material examined

Iran: Esfahan: 67 exs., S Semirom, Komeh, 31°01'N, 51°35'E, 2810 m, 11.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Fars:** 2 exs., SE Sepidan, Dalkhon, 30°15'N, 52°06'E, 2100 m, 9.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., road Sepidan–Komeh, 3 km NW Sepidan, 30°21'N, 51°57'E, 2850 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB, cAss).

Comment

This species is widespread in the Western Palaearctic region and, according to SMETANA (2004), has even been reported from the Eastern Palaearctic. In the Middle East, it was previously known only from Turkey, Israel, and Lebanon (ASSING 2006a). The above specimens represent the first records from Iran.

Oxypoda (Oxypoda) collaris Saulcy, 1865

Material examined

Iran: Fars: 1 ex., road Sepidan–Komeh, 3 km NW Sepidan, 30°21'N, 51°57'E, 2850 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB). **Iraq:** 1 ex. [det. FELDMANN], Rawandoz env., 36°30'N, 44°36'E, 1400 m, 14.–22.XI.2007, leg. REUTER (cFel).

Comment

This species was previously known only from central southern Anatolia and the environs of Jerusalem (ASSING 2006a). The above specimens represent the first records from Iran and Iraq.

Oxypoda (Podoxya) brevicornis (Stephens, 1832)

Material examined

Iran: Mazandaran: 4 exs., Tonekabon county, 4.5 km SW Khanian, Sehezar forest, 36°33'N, 50°50'E, 940 m, leaf litter

sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Sari County, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, leaf litter sifted, 30.V.2008, leg. PÜTZ (cPüt); 1 ex., Nur county, W Baladeh, 36°15'N, 51°27'E, 2950 m, stream, sifted, 1.VI.2008, leg. PÜTZ (cPüt); 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt). – **North Tehran:** 1 ex., Shemshak–Dizin road, 7 km E Dizin, 36°02'N, 51°29'E, 2810 m, small stream, 10.VI.2008, leg. PÜTZ (cPüt). – **Golestan:** 1 ex., 28 km SE Minu Dasht, Dozeyn, 37°08'N, 55°35'E, 950 m, 4.VI.2006, leg. FRISCH & SERRI (MNHUB).

Comment

This widespread Palaearctic species was recently reported from Iran (Mazandaran) for the first time (ASSING 2007a).

Oxypoda (Podoxya?) cuneiceps n. sp. (Figs. 130–139)

Type material

H o l o t y p e ♂: “Iran, Kerman province, Bardsir–Baft road: 10 km SE Qual’eh Askar (Mt Lalehzar), 2750 m, N29°27'30" E056°42'48", 06.V.2007, lg. FRISCH & SERRI / Holotypus ♂ *Oxypoda cuneiceps* sp. n. det. V. ASSING 2008” (MNHUB).

P a r a t y p e ♂ [slightly teneral]: same data as holotype (cAss).

Etymology

The name (Latin) is a noun composed of *cuneus* (wedge) and *ceps* (head), and refers to the conspicuous shape of the head.

Description

H a b i t u s as in Fig. 130. Body length 3.6–4.0 mm.

C o l o r a t i o n: body, except for the slightly paler abdominal apex, blackish; legs dark-brown, with slightly paler tarsi; antennae blackish.

Head of distinctive shape, somewhat wedge-shaped, dilated posteriad, at posterior margin approximately as wide as long; posterior angles rather marked (Fig. 131); punctuation dense and fine; interstices without distinct microsculpture and shiny; postgenae with conspicuously dense, stout, erect, brownish pubescence (well visible in dorsal view); eyes (Fig. 132) rather large, but weakly convex, almost as long as postocular region in dorsal view; ventral and posterior margin of postgenae meeting at distinct angle. Antenna with antennomeres I and II of subequal length; III slender and slightly longer than II; IV approximately as long as wide; V–IX approximately 1.5 times as wide as long and gradually increasing in width; X distinctly longer and less transverse than IX; XI almost as long as the combined length of VIII–X (Fig. 133). Maxillary palpus with palpomere III approximately 2.5 times as long as wide.

Pronotum approximately 1.35 times as wide as long and almost 1.5 times as wide as head; lateral margins converging in anterior half and almost parallel in posterior

half (dorsal view), i. e., posterior margin broader than anterior margin (Fig. 131); punctuation fine, very dense, and rather ill-defined; interstices without distinct microsculpture; pubescence fine, short, brownish, and depressed; pronotal hypomera not visible in lateral view.

Elytra approximately 1.2 times as wide, and at suture approximately 1.15 times as long as pronotum; posterior margin strongly sinuate near posterior angles (Fig. 131); punctuation similar to that of pronotum, but slightly less fine and slightly more defined. Hind wings apparently fully developed. Legs slender; metatarsus almost as long as metatibia; metatarsomere I conspicuously long, distinctly longer than the combined length of II–IV.

Abdomen with segments III–VI of subequal width, segments VII–VIII weakly tapering; tergites III–V anteriorly with very shallow impressions, tergite VI without impression (Fig. 134); punctuation fine, very dense, and well-defined, not noticeably sparser on tergite VII than on tergite III; interstices without apparent microsculpture; posterior margin of tergite VII with pronounced palisade fringe.

♂: posterior margin of tergite VIII distinctly convex (Fig. 135); sternite VIII distinctly produced posteriorly, much longer than tergite VIII (Fig. 136); median lobe of aedeagus of highly distinctive and derived morphology, ventral process strongly curved and with basal tooth in lateral view, crista apicalis conspicuously large (Figs. 137–138); paramere, too, of derived morphology (Fig. 139).

♀: unknown.

Comparative notes

This distinctive species is readily separated from all its Western Palaearctic congeners particularly by the conspicuous shape and pubescence of the head, the shape of the male sternite VIII, and the remarkable morphology of the median lobe and of the paramere of the aedeagus. Neither the external nor the male sexual characters suggest closer relationships to any of the species known to me.

Distribution and bionomics

The type locality is situated in Kerman province, approximately 90 km south of Kerman, southern Iran. The type specimens, one of which is somewhat teneral, were collected at an altitude of 2750 m.

Oxypoda (Podoxya?) longiuter n. sp. (Figs. 140–144)

Type material

H o l o t y p e ♂: “Iran, Azarbayjan-e Gharbi, 18 km S Ziveh (Ulugh Dagh), 3120 m, N 37°07'14", E 044°52'26", 01.IX.2008, lg. FRISCH & SERRI / Holotypus ♂ *Oxypoda longiuter* sp. n. det. V. ASSING 2010” (MNHUB).

P a r a t y p e s: 1 ♂, 1 ♀: same data as holotype (MNHUB, cAss).

Etymology

The name (Latin, noun: long tube) alludes to the distinctive morphology of the spermatheca.

Description

Habitus as in Fig. 140. Body length 3.3–3.9 mm.

Coloration: body blackish; legs brown to dark-brown; antennae blackish-brown, basal antennomeres at most only indistinctly paler.

Head weakly transverse and of suborbicular shape, widest behind eyes (Fig. 141); punctuation fine, shallow, barely noticeable in the pronounced microsculpture; eyes weakly convex, approximately 0.7–0.8 times as long as postocular region in dorsal view. Antenna of moderate length, relatively slender, and weakly incrassate apically; antennomere III approximately twice as long as broad; antennomere IV weakly oblong; V approximately as wide as long or weakly transverse; VI–X gradually increasing in width and increasingly transverse; X less than 1.5 times as wide as long; XI approximately as long as the combined length of IX and X. Maxillary palpus slender, preapical palpomere approximately 3.5 times as long as wide.

Pronotum approximately 1.35 times as wide as long and about 1.45 times as wide as head, maximal width in posterior half; posterior angles weakly marked (Fig. 141); punctuation dense, fine and shallow, barely noticeable in the pronounced microsculpture.

Elytra approximately as long as pronotum; punctuation dense, less fine than that of head of pronotum. Hind wings fully developed. Metatarsus almost 0.9 times as long as metatibia; metatarsomere I approximately as long as the combined length of II–IV, or nearly so.

Abdomen widest at segments III–V, gradually tapering posteriad; anterior impressions of tergites III–V shallow; punctuation extremely fine and extremely dense; posterior margin of tergite VII with palisade fringe.

♂: posterior margin of sternite VIII strongly produced in the middle; median lobe of aedeagus as in Fig. 142; apical lobe of paramere long and slender (Fig. 143).

♀: posterior margin of sternite VIII convex; spermathecal capsule with conspicuously long and thin proximal portion (Fig. 144).

Comparative notes

Among its congeners, this species is particularly characterised by the dark coloration and by the morphology of the primary sexual characters, especially by the conspicuously long and slender proximal portion of the spermathecal capsule.

Distribution and bionomics

The type locality is situated in northwestern Iran, very close to the borders with Turkey and Iraq. The specimens were collected at an altitude of 3120 m.

Oxygoda (Sphenoma) vicina Kraatz, 1858

Material examined

Iran: Azarbayjan-e Gharbi: 2 exs., N Takab, 16 km E Takht-e-Soleyman, 36°36'N, 47°21'E, 2270 m, 7.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (cAss). – **Semnan:** 3 exs., 17 km N Shahmirzad, 5 km S Chashm, 35°51'N, 53°18'E, 2040 m, 22.V.2004, leg. FRISCH & SERRI (MNHUB, cAss). – **Esfahan:** 1 ex., road Semirom–Shahreza, Koruyeh, 31°42'N, 51°46'E, 2350 m, 12.V.2007, leg. FRISCH & SERRI (MNHUB).

Comment

Oxygoda vicina was previously attributed to the subgenus *Podoxya* Mulsant & Rey, 1875 (type species: *O. lentula* Erichson, 1837). However, based on external characters (body shape, punctuation, microsculpture, length of legs, morphology of the antennae) and particularly the primary and secondary sexual characters (shape of sternite VIII, shape and internal structures of median lobe of aedeagus, morphology of the paramere, shape of the spermatheca), the species is undoubtedly a close relative of *O. abdominalis* (Mannerheim, 1830), the type species of the subgenus *Sphenoma* Mannerheim, 1830. Consequently, *O. vicina* is moved from *Podoxya* to *Sphenoma*.

The species is not listed for Iran by SMETANA (2004), although it was reported from there (Azarbayjan) by JARRIGE (1971).

Oxygoda (Sphenoma) complicata n. sp.
(Figs. 145–151)

Type material

Holotype ♂: “Iran, Azarbayjan-e Gharbi, Khoy–Siyah Chesmeh road: 17 km W Zar Abad, 2640 m, N 38°45'39", E 044°28'35", 30.VIII.2008, lg. FRISCH & SERRI / Holotypus ♂ *Oxygoda complicata* sp. n. det. V. ASSING 2010” (MNHUB).

Paratypes: 1 ♀: same data as holotype (MNHUB); 3 ♀♀: “Iran, Azarbayjan-e Gharbi, 20 km W Salmas: 10 km W Kuzeh Rash, 2100 m, N 38°11'17", E 044°31'24", 30.VIII.2008, lg. FRISCH & SERRI” (MNHUB, cAss); 1 ♂ [teneral]: “TR – Erzurum, 50 km NW Tortum, 800 m, Çoruh river valley, ca. 40°40'N, 41°15'E, 21.VI.1998, SOLODOVNIKOV” (cAss); 1 ♀: “TR – Erzurum, 40 km NW Tortum, 1800 m, Mescit Dağları, pine forest, ca. 40°36'N, 41°23'E, 21.VI.1998, SOLODOVNIKOV” (cAss).

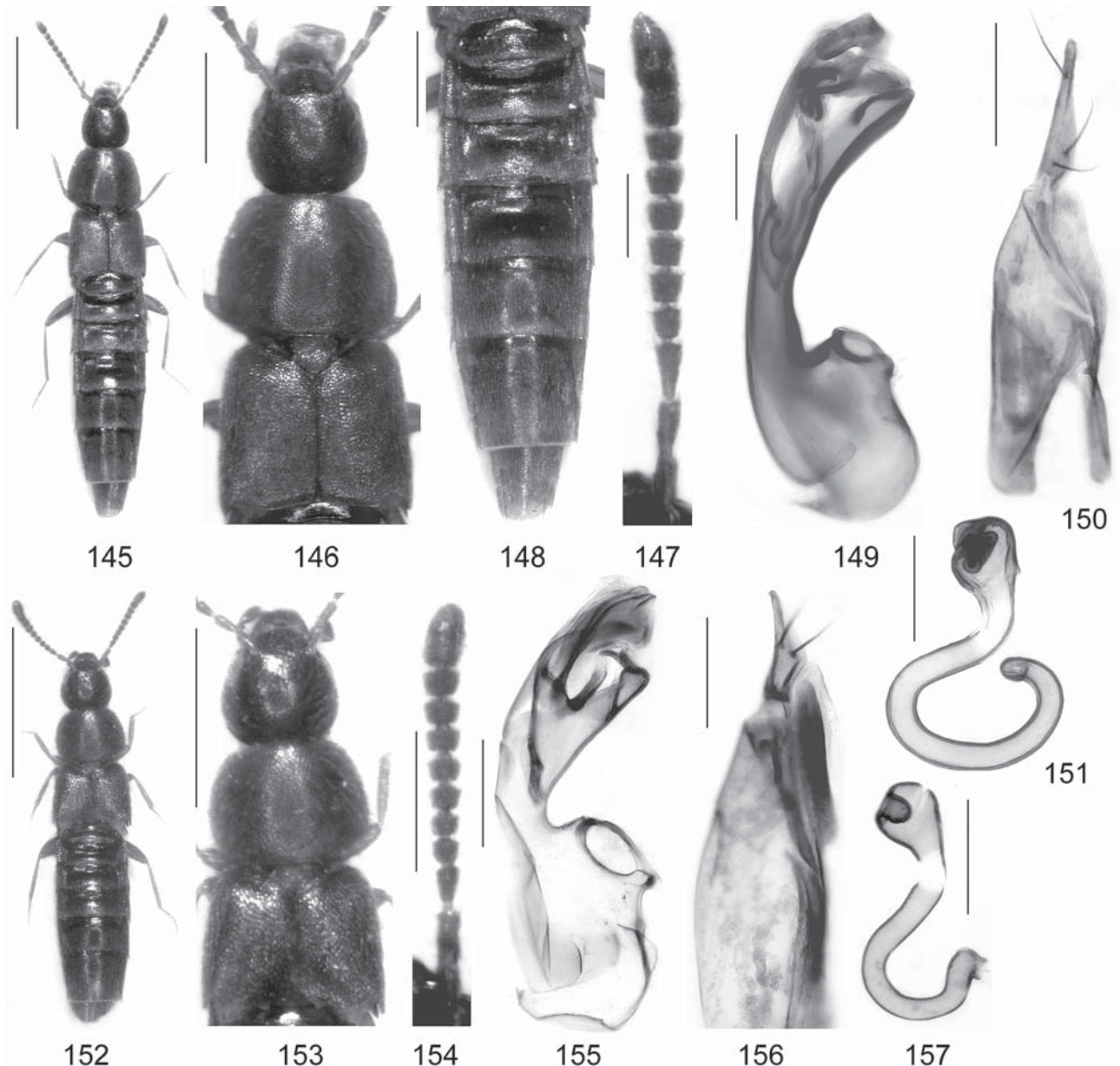
Etymology

The name (Latin, adjective: folded) alludes to the long lateral carinae of the apical half of the aedeagus.

Description

Habitus as in Fig. 145. Body length 4.0–4.9 mm.

Coloration: head brown to dark-brown; pronotum and elytra reddish to reddish-brown; abdomen dark-brown



Figs. 145–157. *Oxyroda complicata* n. sp. (145–151) and *O. frischii* n. sp. (152–157). – **145, 152.** Habitus. **146, 153.** Forebody. **147, 154.** Antenna. **148.** Abdomen. **149, 155.** Median lobe of aedeagus in lateral view. **150, 156.** Paramere. **151, 157.** Spermatheca. – Scale bars: 1.0 mm (145, 152), 0.5 mm (146, 148, 153), 0.2 mm (147, 150, 154), 0.1 mm (149, 151, 155–157).

with the posterior margins of segments III–VI broadly, and the apex (posterior half of segment VII, segments VIII–X) completely reddish; legs reddish; antennae dark-brown, with the basal 2–3 antennomeres reddish.

Head weakly oblong and of ovoid shape; punctation fine and very dense; microsculpture present, but shallow; eyes weakly convex, approximately 0.7–0.8 times as long as postocular region in dorsal view (Fig. 146). Antenna of moderate length, relatively slender, and weakly incrassate apically; antennomere III approximately twice as long as

broad; antennomere IV weakly oblong; V approximately as wide as long or weakly oblong; VI–IX gradually increasing in width and weakly transverse; X less than 1.5 times as wide as long; XI slightly longer than combined length of IX and X (Fig. 147). Maxillary palpus slender, preapical palpomere approximately 4 times as long as wide.

Pronotum approximately 1.3 times as wide as long and about 1.5 times as wide as head, maximal width in posterior half; posterior angles obtusely marked (Fig. 146); punctation and microsculpture similar to those of head.

Elytra approximately 1.05 times as wide, and 0.9 times as long as pronotum (Fig. 146); punctation dense, somewhat less fine than that of head and pronotum. Hind wings present. Legs long and slender; metatarsus approximately 0.9 times as long as metatibia; metatarsomere I elongated, longer than the combined length of II–IV.

Abdomen widest at base, gradually tapering posteriorly; anterior impressions of tergites III–V shallow; punctation extremely fine and extremely dense; posterior margin of tergite VII with palisade fringe (Fig. 148).

♂: posterior margin of sternite VIII acutely produced in the middle; median lobe of aedeagus as in Fig. 149, ventral process in apical half with pronounced lateral carinae; apical lobe of paramere long and slender (Fig. 150).

♀: posterior margin of sternite VIII broadly convex, in the middle more or less truncate; spermatheca as in Fig. 151.

Comparative notes

Based on the similar external morphology (body shape, punctation, long legs, apically weakly incrassate antennae) and the similar sexual characters (shape and internal structures of the median lobe of the aedeagus; shape of the spermatheca), *O. complicata* is most probably closely related to *O. abdominalis* and its allies. It is distinguished from all of them by the shape and internal structures of the aedeagus, particularly the shape of the apex of the ventral process. In external appearance and the sexual characters, *O. complicata* much resembles *O. ziyaretica* Assing, 2006, but is readily separated from this species by the much smaller crista apicalis and the external structures of the aedeagus. For illustrations of *O. ziyaretica*, *O. abdominalis*, and allied species see ASSING (2006a, 2009b).

Distribution and bionomics

The type specimens were collected in four localities in the extreme northwest of Iran and in eastern Turkey at altitudes of 800–2640 m. One of the two Turkish specimens was collected in a pine forest, the other is teneral.

Oxypoda (Bessopora) frischi n. sp. (Figs. 152–157)

Type material

Holotype ♂: “Iran, Azarbayjan-e Gharbi, N Takab: 16 km E Takht-e-Soleyman, 2270 m, N 36°36'24", E 047°21'18", 07.IX.2008, lg. FRISCH & SERRI / Holotypus ♂ *Oxypoda frischi* sp. n. det. V. ASSING 2010” (MNHUB).

Paratypes: 1 ♀: same data as holotype (MNHUB); 2 ♀♀: “Iran, Azarbayjan-e Gharbi, N Takab: 3 km NE Takht-e-Soleyman, 2270 m, N 36°38'08", E 047°14'07", 08.IX.2008, lg. FRISCH & SERRI” (MNHUB, cAss); 1 ♀: “Iran, North Khorasan Prov., Shirvan–Quchan road: 24 km SSW Faruj: Garmab, 1710 m (Barjovein Mts), N 37°03'01", E 058°06'30", 01.VI.2006, lg. FRISCH & SERRI” (MNHUB).

Etymology

The species is dedicated to JOHANNES FRISCH, Berlin, who collected the type specimens, as well as a considerable portion of the remaining material which this paper is based on.

Description

Habitus as in Fig. 152. Body length 2.0–2.6 mm.

Coloration: head dark-brown; pronotum and elytra brown; abdomen brown, with segment VI and anterior half of segment VII dark-brown; legs pale-brown; antennae dark-brown, with the apical 2–3 antennomeres pale-brown.

Head suborbicular, approximately as wide as long or weakly transverse, widest behind eyes; punctation extremely fine, barely noticeable in the pronounced microsculpture; eyes weakly convex and rather large, approximately as long as postocular region in dorsal view (Fig. 153). Antenna rather short and distinctly incrassate apically; antennomere III somewhat shorter than II; IV approximately as long as broad; V–X of increasing width and increasingly transverse; XI slightly longer than combined length of IX and X (Fig. 154). Maxillary palpus with preapical palpomere approximately 2.5 times as long as wide.

Pronotum approximately 1.3 times as wide as long and about 1.35 times as wide as head, maximal width in, or slightly behind middle; posterior angles weakly marked (Fig. 153); punctation and microsculpture similar to those of head.

Elytra at posterior margin approximately 1.1 times as wide, and 0.85 times as long as pronotum (Fig. 153); punctation dense and fine, but more distinct than that of head and pronotum. Hind wings of reduced length (less than twice as long as suture when unfolded). Legs relatively short; metatarsus approximately 0.85 times as long as metatibia; metatarsomere I longer than the combined length of II and III, but shorter than the combined length of II–IV.

Abdomen with segments III–V of subequal width, weakly tapering posteriorly from segment VI; anterior impressions of tergites III–V shallow; punctation extremely fine and dense; microsculpture pronounced; posterior margin of tergite VII with palisade fringe.

♂: posterior margin of sternite VIII obtusely angled in the middle; median lobe of aedeagus as in Fig. 155, apex of ventral process not bifid in ventral view; apical lobe of paramere rather short (Fig. 156).

♀: posterior margin of sternite VIII broadly convex, with row of dense dark marginal setae; spermatheca as in Fig. 157.

Comparative notes

Based on the similar external morphology (body shape, punctation, microsculpture, apically weakly incrassate

antennae, short elytra) and the similar sexual characters (shape of sternite VIII, shape and internal structures of the median lobe of the aedeagus; morphology of paramere, shape of the spermatheca), *O. frischi* is probably closely related to the wing-dimorphic *O. biformis* Assing, 2006 from central southern Anatolia. It is distinguished from this species by somewhat larger size, larger eyes, and the male primary sexual characters (ventral process of the aedeagus relatively shorter, different shape of apical internal structures). For illustrations of *O. biformis* see ASSING (2006b).

Distribution and bionomics

The type specimens were collected in three localities in northwestern and northeastern Iran, suggesting that the species is much more widespread than currently known. However, since the paratype from North Khorasan is a female, the possibility that it refers to a different species cannot be ruled out with certainty. The specimens were collected at altitudes of 1710 and 2270 m.

Oxygoda (Baeoglena) caucasica Bernhauer, 1902 (Figs. 158–161)

Material examined

Iran: Gilan: 3 exs. [1 teneral], Rudbar county, 7 km NW Bararu, 36°49'N, 49°38'E, 850 m, 7.VI.2008, leg. A. PÜTZ (cPüt); 1 ex., Rasht county, Elburz mts., 29 km S Rasht, 37°01'N, 49°36'E, 140 m, sifted, 7.VI.2008, leg. PÜTZ (cAss). – **Mazandaran:** 2 exs., Babol County, 2 km SW Firuz Jah, 36°11'N, 52°39'E, 840 m, 31.V.2008, leg. PÜTZ (cPüt, cAss); 13 exs., Sari County, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, leaf litter sifted, 29–30.V.2008, leg. PÜTZ (cPüt, cAss); 3 exs. [2 teneral], Sari county, Mohammadabad, 1 km W Afra Chal, 36°14'N, 53°14'E, 520 m, leaf litter sifted, 29–30.V.2008, leg. PÜTZ (cPüt); 2 exs., Sari county, Mohammadabad, E Qolqol, 36°10'N, 53°16'E, 920 m, sifted, 30.V.2008, leg. PÜTZ (cPüt, cAss); 7 exs., Tonekabon county, 4.5 km SW Khanian, Sehezdar forest, 36°33'N, 50°50'E, 940 m, leaf litter sifted, 5.VI.2008, leg. PÜTZ (cPüt, cAss); 2 exs., Ramsar county, Elburz mts., Eshkatechal, 36°51'N, 50°33'E, 1050 m, sifted, 6.VI.2008, leg. PÜTZ (cPüt, cAss); 1 ex., Chalus county, Elburz mts., 10 km SE Abbasabad, 36°39'N, 51°12'E, 150 m, leaf litter sifted, 4.VI.2008, leg. PÜTZ (cPüt); 2 exs., Chalus county, Elburz mts., 10 km SE Abbasabad, 36°39'N, 51°11'E, 280 m, leaf litter sifted, 4.VI.2008, leg. PÜTZ (cPüt); 4 exs. [1 teneral], Chalus county, N Keldardasht, 36°36'N, 51°10'E, 1250 m, beech forest, 3.VI.2008, leg. PÜTZ (cPüt); 1 ex., Chalus County, 7 km N Makarud, 36°36'N, 51°10'E, beech forest, 1250 m, 3.VI.2008, leg. PÜTZ (cPüt); 2 exs., Amol county, 10 km S Amol, 36°23'N, 52°21'E, 2040 m, leaf litter, sifted, 2.VI.2008, leg. PÜTZ (cPüt).

Comment

The original description of *O. caucasica* is based on an unspecified number of syntypes from “Caucasus: Helenendorf, Martkopi, Meschisches Gebirge, Daghestan, Lenkoran” (BERNHAEUER 1902), suggesting that the species is widespread in the Caucasus and Caspian Sea region.

The type material was not examined, but the details indicated in the description are in good agreement with the material above. The primary sexual characters of specimens from Iran are illustrated in Figs. 158–161. The species was previously unknown from Iran.

Oxygoda caucasica is subject to remarkable variation in the length of the hind wings and the elytra. The vast majority of the above specimens are micropterous; only three specimens have fully developed hind wings. Several specimens are teneral, suggesting that pre-imaginal development takes place in the cold season or in early spring.

Aleochara (Heterochara) clavicornis Redtenbacher, 1849

Material examined

Iran: Razavi Khorasan: 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. FRISCH & SERRI (MNHUB).

Comment

Aleochara clavicornis was very recently reported from Iran (Azarbayjan) for the first time (TRONQUET 2009).

Aleochara (Baryodma) intricata Mannerheim, 1830

Material examined

Iran: Kermanshah: 6 exs., Harsin, Nosratabad, 34°12'N, 47°46'E, 1700 m, 24.VI.2004, leg. FRISCH & SERRI (MNHUB, cAss).

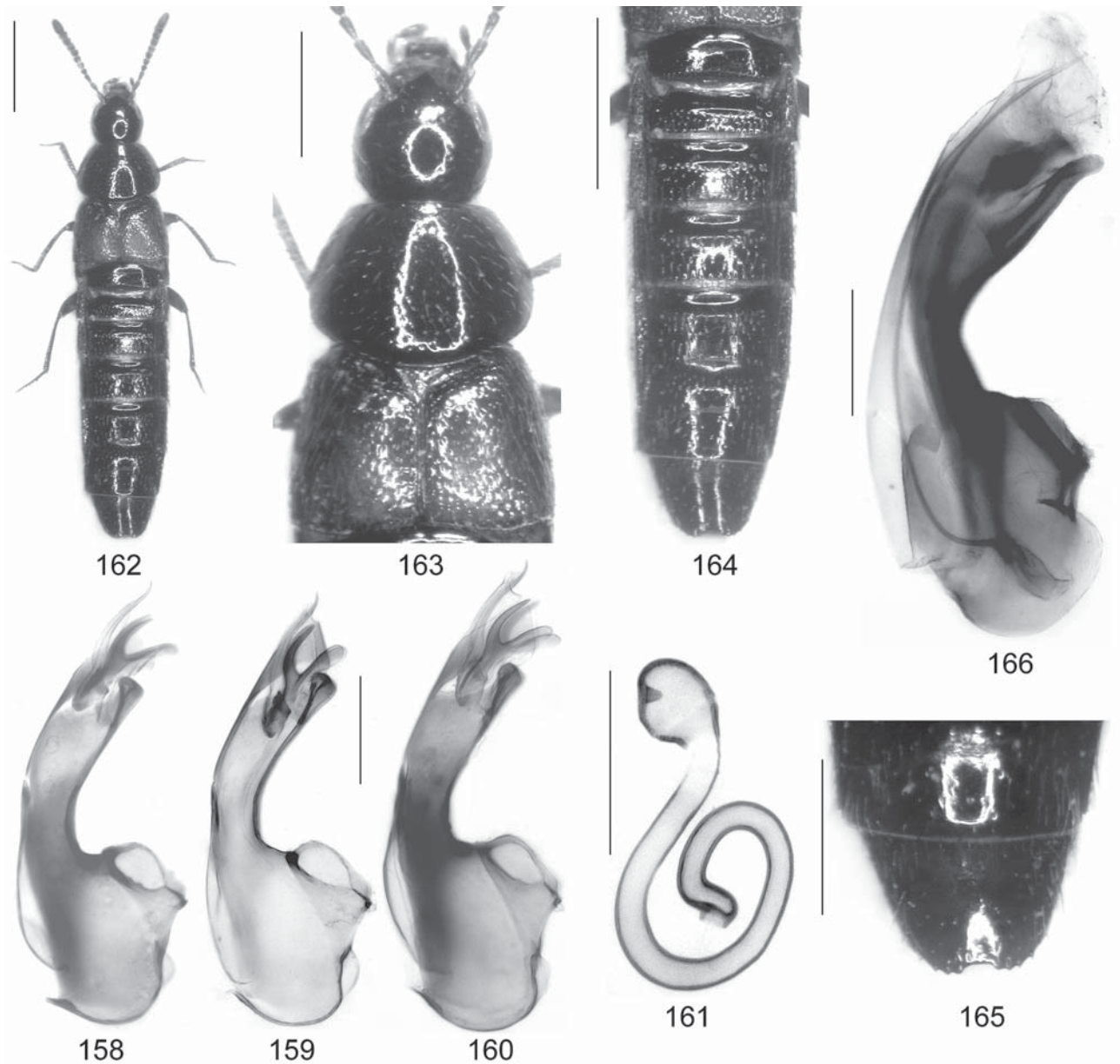
Comment

LIKOVSKÝ (1981) reported this species from several localities in northern Iran; JARRIGE (1971) recorded it from “Kalardacht”.

Aleochara (Xenochara) haematoptera Kraatz, 1858

Material examined

Iran: Azarbayjan-e Sharqi: 1 ex., Kalaybar, 38°51'N, 47°01'E, 1420 m, 9.VIII.2005, leg. FRISCH & SERRI (MNHUB). – **Azarbayjan-e Gharbi:** 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., N Takab, 11 km E Takht-e-Soleyman, 36°37'N, 47°19'E, 2300 m, 7.IX.2008, leg. FRISCH & SERRI (cAss); 1 ex., road Tabriz–Marand, 3 km N Ivand, 38°22'N, 46°06'E, 1700 m, 26.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Ardabil:** 1 ex., N Nir, Alvares, 38°12'N, 47°53'E, 2960 m, 6.VIII.2005, leg. FRISCH (MNHUB). – **Gilan:** 2 exs., road Fuman–Masuleh, Gilvande Rud, 37°10'N, 49°04'E, 440 m, 1.VIII.2005, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 2 exs., 27 km NW Divandarreh, 9 km NW Zarrineh, 36°04'N, 46°50'E, 2380 m, 4.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Zanjan:** 1 ex., 15 km SE Zanjan, 18 km NE Bonab, 36°42'N, 48°45'E, 2050 m, 25.VIII.2008, leg. FRISCH & SERRI (MNHUB). – **Golestan:** 1 ex., Tang Rah, Golestan National Park, 37°24'N, 55°47'E, 490 m, 4.VI.2006,



Figs. 158–166. *Oxypoda caucasica* Bernhauer from Iran (158–161) and *Aleochara serrulata* n. sp. (162–166). – **158–160, 166.** Median lobe of aedeagus in lateral view. **161.** Spermatheca. **162.** Habitus. **163.** Forebody. **164.** Abdomen. **165.** Male abdominal tergites VII–VIII. – Scale bars: 1.0 mm (162, 164), 0.5 mm (163, 165), 0.2 mm (166), 0.1 mm (158–161).

leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., S Gorgan, 12 km S Nahar Khoran, Ziarat, 36°41'N, 54°28'E, 1200 m, 5.VI.2006, leg. FRISCH & SERRI (MNHUB). – **Kermanshah:** 1 ex., Harsin, Nosratabad, 34°12'N, 47°46'E, 1700 m, 24.VI.2004, leg. FRISCH & SERRI (cAss). – **Lorestan:** 2 exs., SE Dorud, Saravand, 33°23'N, 49°10'E, 2050 m, 27.VI.2004, leg. FRISCH & SERRI (MNHUB). – **Semnan:** 1 ex., Shahrud–Mojen road, 2 km SE Tash, 36°33'N, 54°40'E, 2190 m, 24.V.2006, leg. FRISCH & SERRI (MNHUB). – **Esfahan:** 2 exs., 10 km E Zefreh, 32°56'N, 52°22'E, 2490 m, 16.V.2007, leg. FRISCH & SERRI (MNHUB, cAss); 1 ex., 15 km E Zefreh, 32°55'N, 52°23'E, 2660 m, 16.V.2007, leg. FRISCH & SERRI (cAss); 3 exs., S Fereydun Shahr, Fareydan, 32°47'N,

50°07'E, 2570 m, 30.VI.2004, leg. FRISCH & SERRI (MNHUB). – **Yasd:** 1 ex., road Taft–Nir, SE Sanich, 31°36'N, 54°00'E, 2480 m, 14.V.2007, leg. FRISCH & SERRI (MNHUB); 5 exs., pass 18 km NW Nir, 31°34'N, 54°02'E, 2740 m, 14.V.2007, leg. FRISCH & SERRI (MNHUB, cAss). – **Fars:** 1 ex., road Sepidan–Komehr, 9 km NW Sepidan, 30°22'N, 51°56'E, 2790 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB); 2 exs., road Sepidan–Komehr, 3 km NW Sepidan, 30°18'N, 51°58'E, 2510 m, 8.V.2007, leg. FRISCH & SERRI (MNHUB); 1 ex., S Kakan, Dasht-e Khoshk, 30°29'N, 51°51'E, 2400 m, 7.VII.2004, leg. FRISCH & SERRI (MNHUB). – **Kerman:** 2 exs., 3 km E pass Mahan–Sirch, 30°12'N, 57°26'E, 2430 m, 26.IV.2007, leg. FRISCH & SERRI (MNHUB).

Israel: 3 exs., Golan Heights, W Merom Golan, Bental reservoir, 33°08'N, 35°47'E, 940 m, 25.III.2008, leg. ASSMANN (TAU, cFel); 2 exs., same locality, but ca. 1000 m, 25.III.2008, leg. WRASE (cSch).

Comment

Aleochara haematoptera is apparently common on river banks in Iran. For additional records from northern Iran see LIKOVSKÝ (1981).

Aleochara (Xenochara) inconspicua Aubé, 1850

Material examined

Iran: Azarbayjan-e Sharqi: 3 exs., S Tabriz, Kandovan, 37°47'N, 46°15'E, 2250 m, 8.VIII.2005, leg. FRISCH (MNHUB, cAss). – **Qazvin:** 1 ex., Ab Gam, 35°48'N, 49°23'E, 1500 m, 21.VI.2004, leg. FRISCH (MNHUB). – **North Khorasan:** 1 ex., Shirvan–Quchan road, 24 km SSW Faruj, Garmab, 37°03'N, 58°07'E, 1710 m, 1.VI.2006, leg. FRISCH & SERRI (MNHUB). – **Lorestan:** 1 ex., NE Alashtar, Kahman, 33°57'N, 48°21'E, 2000 m, 25.VI.2004, leg. FRISCH (MNHUB).

Comment

LIKOVSKÝ (1981) reported this species from one locality in the Elburz range in northern Iran.

Aleochara (Xenochara) sparsa Heer, 1839

Material examined

Iran: Mazandaran: 6 exs., Sari county, Mohammadabad, NE Sangdeh, 36°04'N, 53°10'E, 1530 m, beech forest, 29.–30.V.2008, leg. PÜTZ (cPüt, cAss).

Comment

The above specimens represent the first record of this widespread species from Iran.

Aleochara (Xenochara) falsa Likovský, 1981

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB).

Comment

This species has become known only from Iran (ASSING 2009a).

Aleochara (Xenochara) laevigata Gyllenhal, 1810

Material examined

Iran: Azarbayjan-e Gharbi: 1 ex., Takab, 13 km E Takht-e-Soleyman, 36°36'N, 47°20'E, 2450 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., N Takab, 3 km NE Takht-e-Soley-

man, 36°38'N, 47°14'E, 2270 m, 8.IX.2008, leg. FRISCH & SERRI (MNHUB). – **Kordestan:** 2 exs., 27 km SW Saqqez, 2 km SW Mir Deh, 36°08'N, 46°02'E, 1600 m, 3.IX.2008, leg. FRISCH & SERRI (MNHUB, cAss); 2 exs., pass 21 km E Sanandaj, 35°20'N, 47°09'E, 2100 m, 5.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., road Sanandaj–Divandarreh, 21 km S Divandarreh, 35°46'N, 47°05'E, 1890 m, 6.IX.2008, leg. FRISCH & SERRI (MNHUB); 1 ex., 5 km S Qorveh, Veihaj, 35°07'N, 47°46'E, 2060 m, 5.IX.2008, leg. FRISCH & SERRI (cAss).

Comment

This species was reported from several localities in northern and western Iran by LIKOVSKÝ (1981). However, owing to considerable taxonomic confusion in the *A. laevigata* species group, these records were doubtful (ASSING 2009a). The presence of *A. laevigata* in Iran is now confirmed.

Aleochara (Xenochara) serrulata n. sp. (Figs. 162–166)

Type material

Holotype ♂: “Iran, Prov. Mazandaran [IR08-10], Nur County, Elburz Mts., S-Slope, W Baladeh, 36°14'14.3"N, 51°26'76.5"E [recte: 36°14.143'N, 51°26.765'E], 3160 m, sifted, 01.VI.2008, leg. A. PÜTZ/Holotypus ♂ *Aleochara serrulata* sp. n. det. V. ASSING 2009” (cAss).

Etymology

The specific epithet is an adjective derived from the Latin noun *serrula* (small saw) and refers to the shape of the posterior margin of the male tergite VIII.

Description

Habitus as in Fig. 162. Body length 5.3 mm.

Coloration: head, pronotum, and abdomen blackish; elytra reddish, with the anterior and lateral margins diffusely infuscate; legs and antennae dark brown.

Head with very sparse punctation and without microsculpture, glossy; eyes large, somewhat longer than postocular region in dorsal view (Fig. 163). Antenna relatively short, 1.1 mm long, and moderately incrassate apically; antennomere IV weakly transverse; X approximately 1.5 times as wide as long.

Pronotum 1.35 times as wide as long and 1.55 times as wide as head, widest in posterior half; punctation sparse, well-defined, and rather fine; interstices shiny and without microsculpture, on average approximately twice as wide as diameter of punctures (Fig. 163).

Elytra 0.73 times as long as pronotum; punctation somewhat coarser and denser than that of pronotum; interstices without microsculpture, glossy (Fig. 163). Legs slender; metatarsus 0.83 times as long as metatarsus I elongated, approximately as long as the combined length of II–IV.

Abdomen subparallel, narrower than elytra; punctation relatively coarse and well-defined; anterior impressions of tergites III–V very shallow and with rather coarse, moderately dense punctation; punctation of tergite III rather dense, that of tergites IV–VII of decreasing density, denser in anterior than in posterior portions of tergal surfaces, that of tergite VIII extremely sparse; all tergites without microsculpture and glossy (Fig. 164).

♂: posterior margin of tergite VIII in the middle distinctly concave, on either side of this excision with four setiferous dents (Fig. 165); posterior margin of sternite VIII strongly and convexly produced and with fringe of long dense marginal setae; median lobe of aedeagus shaped as in Fig. 166, internal sac with long flagellum and with apical sclerotised structures of distinctive shape.

♀: unknown.

Comparative notes

Based on the morphology of the aedeagus (long flagellum, shapes of the ventral process and the apical internal structures), as well as on external characters (absence of microsculpture, sparsely punctate head and pronotum, sparsely punctate posterior portions of tergites IV–VIII, long tarsi, elongated metatarsomere I), this species refers to the *A. laevigata* group (see ASSING 2009a). From all the species of this group, *A. serrulata* is distinguished by the extensively reddish coloration of the elytra, the modified posterior margin of the male tergite VIII, and the morphology of the aedeagus (shape in lateral view, shape of apical internal structures). For illustrations of the Palaearctic representatives of this group see ASSING (2009a).

Distribution and bionomics

The type locality is situated in the Elburz range in northern Iran. The holotype was collected by sifting leaf litter at an altitude of 3160 m.

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